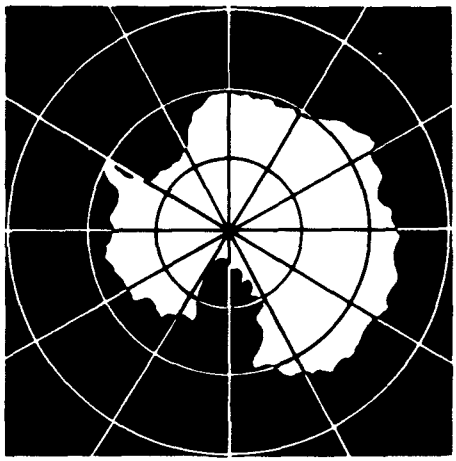

ANTARCTIC TREATY

Final Report of the Fourteenth Antarctic Treaty Consultative Meeting

Rio de Janeiro

5 – 16 October 1987

FEDERATIVE REPUBLIC OF BRAZIL

MINISTRY OF EXTERNAL RELATIONS

FINAL REPORT OF THE

FOURTEENTH ANTARCTIC TREATY CONSULTATIVE MEETING

RIO DE JANEIRO, 5 - 16 OCTOBER 1987

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FINAL REPORT OF THE FOURTEENTH ANTARCTIC TREATY CONSULTATIVE MEETING

In accordance with Article IX of the Antarctic Treaty, Representatives of the Consultative Parties (Argentina, Australia, Belgium, Brazil, Chile, China, France, German Democratic Republic, Germany, Federal Republic of, India, Italy, Japan, New Zealand, Norway, Poland, South Africa, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, the United States of America and Uruguay) met in Rio de Janeiro from 5 to 16 October 1987, for the purpose of exchanging information, consulting together, and considering and recommending to their governments measures in furtherance of the principles and objectives of the Treaty. On the invitation of the Consultative Parties the meeting was also attended by Delegations from the following Contracting Parties to the Antarctic Treaty which are not Consultative Parties: Austria, Bulgaria, Czechoslovakia, Denmark, Ecuador, Finland, Greece, Netherlands, Peru, Republic of Korea, Romania, Spain and Sweden. The President of the Scientific Committee on Antarctic Research (SCAR) and the Chairman of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) were also invited to present reports. The Consultative Parties extended invitations to the following organizations to appoint experts to assist the Meeting in the consideration of specific items of the Agenda: the World Meteorological Organization (WMO), SCAR and the International Union for

the Conservation of Nature and Natural Resources (IUCN).

2. The Meeting was formally opened by Mr. Roberto de Abreu Sodré, Minister of State for External Relations of Brazil.

3. Mr. Mauro Mendes de Azeredo, Representative of Brazil, was elected Chairman of the Meeting. Mr. Sergio Eduardo Moreira Lima of the Brazilian Ministry of External Relations, was appointed Executive Secretary. The opening session was held in public. Opening statements were delivered by Heads of Delegations (these, including that made by Mr. Roberto de Abreu Sodré, are attached at Annex A).

4. Heads of Delegations warmly welcomed the two new Consultative Parties, namely Italy and the German Democratic Republic, as well as the accession of new Parties to the Treaty, namely Austria, the Democratic People's Republic of Korea, Ecuador, Greece, and the Republic of Korea.

5. The following agenda was adopted:

1 - Opening of the Meeting.
2 - Election of Officers.
3 - Opening Addresses.
4 - Adoption of the Agenda.
5 - Amendments to the Rules of Procedure as provisionally accepted in the Preparatory Meeting to the XIVth ATCM.
6 - The operation of the Antarctic Treaty System.

7 - The Operation of the Antartic Treaty System: reports.
8 - Public availability of the documents of Consultative Meetings.
9 - Human impact on the Antarctic environment.
10 - Sites of Special Scientific Interest (SSSIs) and Specially Protected Areas (SPAs).
11 - Effects of tourism and non-governmental expeditions in the Antarctic Treaty Area.
12 - Antartic meteorology and telecommunications.
13 - Historic sites and monuments.
14 - Air safety in Antarctica.
15 - International system of marine hydrometeorological services to navigation in the Southern Ocean.
16 - Inspections under Article VII of the Treaty: exchange of information.
17 - Date and place of the next Consultative Meeting.
18 - Any other business.
19 - Adoption of the Final Report.
20 - Closing of the Meeting.

6. The Meeting considered in Plenary Session all the items on the Agenda and appointed two working groups. A working group under the chairmanship of Mr. Rolf Trolle Andersen of Norway dealt with the following agenda items:

6 - The operation of the Antarctic Treaty System.
8 - Public availability of the documents of Consultative Meetings.
16 - Inspections under Article VII of the Treaty: Exchange of information.

A working group under the chairmanship of Mr. Ricardo Galarza of Uruguay dealt with the following agenda items:

9 - Human impact on the Antarctic environment.

10 - Sites of Special Scientific Interest (SSSIs) and Specially Protected Areas (SPAs).

11 - Effects of tourism and non-governmental expeditions in the Antarctic Treaty Area.

13 - Historic sites and monuments.

The following items were dealt with in Plenary Session, and in informal working groups:

12 - Antarctic meteorology and telecommunications.

14 - Air safety in Antarctica.

15 - International system of marine hydrometeorological services in the Southern Ocean.

7. The Meeting adopted the following Recommendations which are set forth in Part II of this Report:

XIV-1: Operation of the Antarctic Treaty System: public availability of the documents of Consultative Meetings.

XIV-2: Human impact on the Antarctic environment: Environmental impact assessment.

XIV-3: Human impact on the Antarctic environment: Safeguards for scientific drilling.

XIV-4: Facilitation of Scientific Research: Sites of Special Scientific Interest: Interim Guidelines: Extension of Designation.

XIV-5: Facilitation of Scientific Research: Sites of Special Scientific Interest: Interim Guidelines: Additional Sites.

XIV-6: Marine sites of special scientific interest.

XIV-7: Antarctic meteorology and telecommunications.

XIV-8: Historic sites and monuments.

XIV-9: Air safety in Antarctica.

XIV-10: Marine meteorological and sea ice information services for navigation in the Treaty Area of the Southern Ocean.

AMENDMENTS TO THE RULES OF PROCEDURE AS PROVISIONALLY ACCEPTED IN THE PREPARATORY MEETING TO THE XIVth ATCM

(Agenda item 5)

8. This Agenda item was discussed in Plenary. The Meeting adopted amendments to the Rules of Procedure as provisionally accepted in the Preparatory Meeting.

9. According to these Rules and to a decision taken at the Preparatory Meeting to the XIVth ATCM, the Brazilian Government, acting in its capacity as the host Government of the XIVth ATCM, extended an invitation to the following organizations to appoint experts to assist the Meeting in the consideration of some items of the Provisional Agenda:

- WMO, in connection with item 12 - "Antarctic meteorology and telecommunications" and item 15 - "International system of marine hydrometeorological services to navigation in the Southern Ocean";

- SCAR, in connection with item 14 - "Air safety in Antarctica"; and

- IUCN, in connection with item 9 - "Human impact on the Antartic environment".

10. In response to the invitations extended by the Host Government, WMO designated Dr. Neil Streten to assist the Meeting in consideration of items 12 and 15, SCAR designated Mr. J. Bleasel to assist the Meeting in consideration of item 14, and IUCN designated Dr. Wolfgang Burhenne to assist the Meeting in the consideration of item 9.

11. The attendance of the above-mentioned experts was regulated by paragraphs 35, 36, 37 and 38 of the Rules of Procedure. It was the understanding of the Meeting that these Rules applied to the Plenary and to the working groups in which the consideration of the items for which the experts had been invited took place.

THE OPERATION OF THE ANTARCTIC TREATY SYSTEM

(Agenda item 6)

12. This Agenda item was discussed in the working group chaired by Mr. Rolf Trolle Andersen of Norway. It was agreed that the discussion would be assisted by looking successively at a number of individual questions that arise under the general heading of "Operation of the Antarctic Treaty

System". The draft annotated Agenda, contained in document ANT/XIV/8 and circulated at the outset of the XIVth Meeting was used as a point of reference for the discussion.

"White Book"

13. The question of elaborating a "White Book" on the history and achievements of the Antarctic Treaty System (see paragraphs 12 and 13 of the Final Report of the XIIIth Consultative Meeting) was further discussed.

14. While delegations agreed that there was a need for information about the Treaty System, there were differing views concerning how best to achieve this. Some delegations felt there was a clear need for some form of collective publication by the Parties to the Antarctic Treaty, and that it was important to take the first steps towards this goal at the XIVth Meeting. It was suggested that the publication would need to have broad appeal, be informative, and be available in the first instance in all four Treaty languages. Considerable interest was expressed in the idea, particularly as a means of marking the 30th anniversary of the entry into force of the Antarctic Treaty in 1991, and as a way of publicizing the achievements of the Treaty System to the wider international community. A concrete proposal was made by Argentina to entrust a rapporteur - with the assistance of a small working group - with the task of drafting two short leaflets before the XVth

Meeting. The leaflet would address the general achievements and the scientific aspects of the Antarctic Treaty, respectively. The drafts should be ready six months before the XVth Meeting in order that decisions could be taken at the XVth Meeting as to possible finalization, distribution of cost, etc. Several delegations expressed support for this proposal.

15. Other delegations pointed out that much had changed since the question of a "White Book" had first been discussed at the XIIth Meeting, that much more information was now available through the Final Report and the Handbook, as well as national publications, and that the development of the system of national contact points would further increase the spread of information. A number of reservations were expressed about the feasibility of preparing a collective publication on the Treaty System. While it was recognized that a series of pamphlets would give a greater degree of precision to the proposed project, it would be difficult to produce a text that would enjoy the support of all Contracting Parties and would be attractive to the many different audiences that sought information about the Antarctic Treaty. Reference was made to the agreement of the XIIIth Meeting that the project should be self-financing. The view was expressed that the project should not be a charge on the budget of individual Consultative Parties. It was suggested that an alternative method of publicizing the merits of the Treaty System would be for individual Contracting Parties to prepare appropriate publicity materials at the national level to mark the 30th anniversary of the entry into force of the Treaty.

16. The Meeting suggested that, while noting existing national information publications about activities of individual Consultative Parties, each Contracting Party to the Treaty should consider preparing appropriate publications to highlight the benefits and achievements of the Antarctic Treaty. In response to the desire to reach a wider international audience, it was also suggested that there should be further consideration at the XVth Meeting of the question of preparing a collective publication on the Antarctic Treaty System. To this end, the delegation of Chile offered to prepare a comprehensive draft of the elements that might be included in a "White Book" for consideration at that Meeting.

Information about the System

17. The Meeting reviewed the implementation of Recommendation XIII-1 and Recommendation XII-6, paragraphs 2(a) and (b). It was noted with satisfaction that the main provisions of Recommendation XIII-1 were in practice already being implemented, although the Recommendation as such was not yet formally in force.

18. In accordance with paragraph 1 of Recommendation XII-1, efforts were being continued to ensure that Final Reports of Consultative Meetings provide full and accurate records of the Meeting. In this connection the importance of ensuring prompt publication of the Final Report in all four Treaty languages

was stressed. It was noted with appreciation that Dr. John Heap (United Kingdom), with financial support from the United Kingdom Government, had provided an updated, fifth edition of the Handbook of the Antarctic Treaty System (cfr. paragraph 2 of Recommendation XIII-1). Some delegations reiterated their interest in preparing versions of the Handbook in other Treaty languages (see paragraph 10 of the Report of the XIIIth Meeting). It was agreed that the availability of the Handbook in other languages would greatly assist in disseminating information about the Antarctic Treaty System more widely.

19. It was noted with satisfaction that a large number of Contracting Parties had designated national Contact Points in accordance with paragraph 6 of Recommendation XIII-1, and that several more delegations had announced their intention of doing so in the near future. It was agreed that a list of these Contact Points should be annexed to the Final Report of the Meeting (Annex B), and be included in the next revision of the Handbook, in accordance with Recommendation XIII-1, paragraph 7. It was suggested that the designated Contact Points might exchange information among themselves, particularly as regards the information referred to in paragraph 5 of Recommendation XIII-1.

20. As regards the implementation of Recommendation XII-6, paragraph 2(a), the delegation of Belgium, speaking on behalf of the Government of Belgium in its capacity as host Government to the XIIIth Consultative Meeting, reported that, in

accordance with operative paragraph 1 and 2 (a) of Recommendation XII-6, it had:

(a) provided copies of the Final Report of the XIIIth Meeting, together with the documents of the Meeting, to the Consultative Parties and other Contracting Parties which had been invited to attend the Meeting;

(b) sent a copy of the Final Report and Recommendations of the Meeting to the Secretary-General of the United Nations.

21. The Meeting agreed to request Brazil, in its capacity as host Government to the XIVth Meeting, to send a copy of the provisional version of the Final Report of the Meeting in all four Treaty languages to the Secretary-General of the United Nations as soon as possible after the conclusion of the XIVth Meeting.

22. In accordance with Recommendation XII-6, paragraph 2 (b), the Meeting considered drawing the attention of Specialized Agencies of the United Nations and other international organizations having a scientific or technical interest in Antarctica, to those parts of the Report of the Meeting, as well as to information documents submitted to the Meeting and made available to the public, relevant to the scientific or technical interest which such agencies and organizations have in Antarctica.

23. Specifically, the Meeting decided that Brazil, as host Government for the XIVth ATCM should forward a copy of the Final Report to the following organizations, drawing their attention to the paragraphs in the Final Report, Recommendations and publicly available information documents relating to the agenda items also noted below:

- The Scientific Committee on Antarctic Research (SCAR) in relation to agenda items 9,10,11, 12, 13, 14 and 15;

- The International Union for Conservation of Nature and Natural Resources (IUCN) in relation to agenda items 9, 10, 11 and 13 ;

- The World Meteorological Organization (WMO) in relation to agenda items 9, 12, 14 and 15;

- The United Nations Environment Program (UNEP) in relation to agenda item 9;

- The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) in relation to agenda items 9 and 10;

- The International Council of Scientific Unions (ICSU) in relation to agenda item 9;

- The Intergovernmental Oceanographic Commission (IOC) in relation to agenda items 9 and 15;

- The International Maritime Organization (IMO) in relation to agenda items 10 and 15;

- The International Telecommunications Union (ITU) in relation to agenda item 14; and

- The International Civil Aviation Organization (ICAO) in relation to agenda item 14.

Organizational Aspects

24. The meeting undertook discussion of this item starting from paragraphs 23 - 27 of the Report of the XIIIth Meeting and, on that basis, examined the possible need for some more permanent infrastructure, the possibility of sharing the costs of Consultative Meetings, and the possibility of holding regular Consultative Meetings with greater frequency. Working papers were submitted by Argentina, Australia, China, the United Kingdom and the United States. In discussion, emphasis was placed upon the question of a possible permanent infrastructure, with a diversity of views expressed as to the need for such infrastructure.

25. The meeting considered the administrative and institutional functions necessary to support the consultative mechanism. It examined how these functions are currently being performed in order to determine whether action was required to improve efficiency.

26. In the discussion a number of administrative and support functions required for the effective operation of the Consultative mechanism were enumerated. These included:

- Preparations for Consultative Meetings, including preparatory and special Consultative Meetings, primarily drawing up and distributing the provisional agenda, and circulating other relevant documents in advance of the Meeting;

- Communications among parties to the Antarctic Treaty, including facilitation of communication necessary for the operation of the Consultative mechanism among parties, irrespective of the status of their diplomatic relations;

- Administrative, secretarial and support services during the Meeting, including meeting facilities and translation and interpretation;

- Preparation and timely publication of the Final Reports of Consultative Meetings, updating the Antarctic Treaty Handbook and distribution of these documents in accordance with Consultative Meeting decisions;

- Maintenance of the archives of the documents of the Consultative Meetings;

- Provision of accurate and up-to-date information about activities in Antarctica and the Antarctic Treaty System;

- Preparation of information for public dissemination on the Antarctic Treaty System;

- Attendance at meetings, of, and communication with, relevant international organizations;

- Coordination among the components of the Antarctic Treaty System;

- Meeting the costs of the operation of the Consultative mechanism.

27. During the discussions some delegations - referring to the functions mentioned - took the view that those functions necessary for the effective operation of the Consultative Meetings are being carried out adequately within the existing practice of rotating hostship of Consultative Meetings and other activities carried out directly by Consultative Parties, and that any improvements required should take place within that framework.

28. The role of host Governments in the preparation and follow-up of Consultative Meetings (including preparation and publication of the Final Report), the role of the Depositary Government of the Antarctic Treaty, the national contact points established pursuant to Recommendation XIII-1, and the provision for reports by the other components of the Antarctic Treaty System at each Consultative Meeting pursuant to Recommendation XIII-2, were all cited as examples of how the Consultative mechanism has evolved and could continue to evolve in the future in an effective fashion to meet the growing needs. These delegations emphasized that the establishment of a permanent infrastructure to carry out some or all of the functions mentioned

was not necessary and expressed doubts about what effective contribution such infrastructure could make.

29. Most delegations took the view that while many of the functions enumerated had been carried out adequately to date, growth in the number of Parties to the Antarctic Treaty, in activities in Antarctica and in interest in Antarctica, as well as in the variety and complexity of issues on the agenda required that some of these enumerated functions be undertaken on a more effective basis. In addition to emphasis upon the functions relating to information, a small permanent infrastructure could ensure continuity between Consultative Meetings and timely circulation to all Contracting Parties of relevant documents and information in the inter-sessional periods. Some delegations stressed that the establishment of some more permanent infrastructure would underline the vitality of the Treaty and enhance its open character. Some delegations stressed the urgency of the question and the suggestion was made that, if possible, inter-sessional dialogue should take place, arranged through diplomatic channels, in preparation for the next Consultative Meeting.

30. It was emphasized that an infrastructure should be small and cost-effective with its activities limited to those expressly authorized by its terms of reference and the Consultative Meetings and subject to the budgetary limitations adopted by such meetings. There was no disagreement that any infrastructure should only carry out functions at the direction of the Consultative Meeting, which would require a consensus of the

Consultative Parties. Some delegations, on the other hand, pointed to the inherent tendency of such bodies to expand and argued that growth would be inevitable in view of the range of functions mentioned in the debate. Alternatively, other delegations pointed to the examples of SCAR and CCAMLR, where the size of the infrastructure had been strictly controlled.

31. Several delegations stressed that an infrastructure should not be assigned any representational functions in other international organizations. It was also noted that an infrastructure must not alter the productive and effective direct communications, including informal consultations, characteristic of the unique relations among parties to the Antarctic Treaty, and that an infrastructure must not assume any intermediary role or powers of decision-making reserved for the Consultative Parties.

32. One delegation suggested that the host of the previous Consultative Meeting, the host of the current Consultative Meeting and the host of the next Consultative Meeting should co-operate and share responsibilities in order to improve continuity between meetings. Another referred to reinforcing the role of the depository government on an interim basis to help provide such continuity. Another presented a paper in which it was suggested that some sort of common servicing arrangements with CCAMLR might be explored. On the other hand, some delegations stressed the need to carefully avoid any solution which could lead to centralization of the Antarctic Treaty System.

33. Further discussion dealt with the question of possible cost-sharing. It was noted that it has been possible until today for host governments to cover the costs of meetings. It was pointed out, however, by some delegations, that the costs of the Consultative mechanism were increasing and that the burden of financing the Consultative Meetings falls unequally upon the Consultative Parties since a significant number of these are not currently able to host Consultative Meetings. One delegation remarked that whenever Antarctic Consultative Meetings were not held on the regular rotational basis a weakness in the system seemed to emerge, but argued that such occasional lack of rotation should not be invoked to justify the establishment of an infrastructure or the adoption of a cost-sharing mechanism.

34. There was much interest expressed in exploring the possibility of sharing costs, particularly those related to interpretation and translation at meetings and document and report publication. It was noted that if each Consultative Party not able to host Consultative Meetings were to contribute an amount equal to the annual pro-rata share of costs being expended by those that are able to host, sufficient funds would be available to support a modest infrastructure, as well as the Consultative Meetings themselves.

35. A number of delegations pointed out that if cost-sharing were agreed upon, some formal mechanism would be required through which contributions could be paid. This was cited as a function for a permanent infrastructure. It was also suggested,

however, that special funds or accounts might be a viable alternative. It was agreed that this issue should be explored in more detail.

36. With respect to the frequency of Consultative Meetings, it was noted by most delegations that this question is related to the issue of establishing a permanent infrastructure.

37. The possibility of annual rather than biennial Consultative Meetings was considered, with some advantages identified for such practice. However, there was a more widespread view that it is premature to adopt an annual pattern. If, at any Consultative Meeting, the Consultative Parties decided that the next meeting should take place sooner than two years thereafter, they could make such an arrangement on an ad hoc basis, including advancing the timing of Preparatory Meetings.

38. It was agreed to take up the organizational aspects of the Treaty System again at the XVth Consultative Meeting.

Matters arising under Article IX of the Antarctic Treaty

39. Discussion of the sub-item, matters arising under Article IX of the Antarctic Treaty, involved two subjects. The first related to Recommendations adopted at Antarctic Treaty Consultative Meetings. The second concerned guidelines on notifications with respect to consultative status.

Recommendations

40. The Meeting had before it a working paper (ANT/XIV/WP/9) on this subject originally circulated at the Preparatory Meeting by the Delegation of the United States. That delegation indicated that, as Depository Government for the Antarctic Treaty, the United States had noted that the interval between the adoption of Recommendations and their becoming effective pursuant to Article IX of the Treaty was becoming increasingly long.

41. In the ensuing discussion, attention was drawn to the fact that it is the practice of the Consultative Parties to apply Recommendations, on an interim basis, immediately following their adoption at Consultative Meetings. This represented a pragmatic and effective response to delay in the formal entry into force of Recommendations. At the same time, it was pointed out that delay in the entry into force could create the impression of non-compliance. It was recognized, therefore, that every effort should be made to ensure that Recommendations become effective rapidly.

42. There was also consideration of the matters dealt with in Recommendations. These ranged from detailed environmental provisions, such as the Agreed Measures for the Conservation of Antarctic Fauna and Flora, which in most instances required implementing legislation by Consultative Party Governments, to routine procedural matters. There was an exchange of views on whether agreement on the latter types

of question might be better expressed in the Final Reports of Consultative Meetings rather than in formal Recommendations.

43. On this point, it was noted that the Final Reports of Consultative Meetings offered the opportunity to express the commitment of Consultative Parties to take steps of a routine or procedural nature prior to the subsequent Consultative Meeting. At the same time, the Meeting recalled that the Antarctic Treaty provides in Article IX a specific process for making Recommendations to Governments and noted that the text of the Final Report could in no way substitute for this process.

44. The Meeting felt that this matter could best be dealt with in the future on an ad hoc basis by paying close attention to whether the action contemplated was appropriate for a Recommendation, ensuring that the Final Reports of Consultative Meetings reflect a full description of views expressed at the Meeting, and without affecting the consensus decision making procedures provided for in Article IX of the Treaty.

45. At the Preparatory Meeting, the U.S. Delegation had also suggested that it would be useful for consideration of this question if Consultative Parties shared information on the procedures by which they implement Recommendations. Several delegations provided brief descriptions of their Government's procedures. It was pointed out that the question of how Recommendations were approved, was an internal matter at the sole discretion of each Party. At the same time, the value

of an exchange of information on this matter was noted particularly to assist Parties newly active in Antarctica. The exchange of information on national practices could be of benefit to other Consultative Parties as an illustration. One delegation noted that such exchange could illustrate the relationship between Recommendations adopted at Consultative Meetings and other international obligations applicable to activities in Antarctica.

Guidelines on Notification with respect to Consultative Status

46. The Meeting had before it a Working Paper on this subject submitted by the Delegation of the United States (ANT/XIV/WP/26). The Working Paper referred to the procedures relating to notifications seeking acknowledgement of consultative status which had been adopted at the First Special Antarctic Treaty Consultative Meeting in 1977. It proposed that guidelines be elaborated for the information, which, according to the Agreed Procedures, is to be submitted in support of such notifications.

47. It was pointed out that any such guidelines would be designed to be of assistance to non-Consultative Parties which sought acknowledgement of Consultative status in accordance with the Agreed Procedures (see Part I of the Final Report of the First Special Antarctic Treaty Consultative Meeting).

48. Some non-Consultative Party delegations posed questions about the proposal, noting concern that guidelines might become a precedent for more rigid interpretation of Article IX of the Treaty in the future. In this regard, it was understood by the Meeting that any such guidelines could in no way affect the provisions of Article IX or any Party's right to interpret those provisions. In fact, it was further noted that such guidelines could draw attention to the openness of the Consultative mechanism.

49. With these points in mind, the U.S. Delegation suggested that it would be useful if the information provided by a non-Consultative Party to the Treaty in support of a notification relating to Consultative status, pursuant to the procedures agreed at the First Special Antarctic Treaty Consultative Meeting included:

a) A complete description of its past scientific programs and activities in Antarctica, including published results or studies;

b) A complete description of its ongoing and planned scientific programs and activities in Antarctica, including how they relate to long-term scientific objectives; and

c) A complete description of the planning, management and execution of its scientific

programs and activities in Antarctica, including identification of the governmental and non-governmental institutions involved.

The Meeting agreed with this suggestion.

THE OPERATION OF THE ANTARCTIC TREATY SYSTEM: REPORTS

(Agenda item 7)

50. In accordance with a decision taken at the Preparatory Meeting, the host Government invited the Chairman of the Commission for the Conservation of Antarctic Marine Living Resources, the President of SCAR, a representative of the depositary Government for the Convention for the Conservation of Antarctic Seals and the Chairman of the 4th Special Consultative Meeting to present a report, or to appoint a representative to do so, under item 7 of the Agenda - "The operation of the Antarctic Treaty System: reports".

51. The attendance as observers of representatives of CCAMLR and SCAR was regulated by paragraphs 2, 30, 31, 32, 33 and 34 of the Rules of Procedure adopted by the Meeting under item 5 of the Agenda.

52. The attendance of the representatives of CCAMLR and SCAR and that of the experts took place in accordance with a statement made by the Chairman (attached at Annex C).

53. The representative of the United Kingdom presented a report, as the representative of the depositary Government for the Convention for the Conservation of Antarctic Seals. This report is contained in document ANT/XIV/INF/19 (attached at Annex D).

54. The representative of New Zealand presented a report on the Antarctic mineral resource negotiation, which is contained in document ANT/XIV/INF/17, on behalf of the Chairman of the 4th Special Consultative Meeting (attached at Annex E).

55. The representative of Belgium presented a report on behalf of the Chairman of the Commission for the Conservation of Antarctic Marine Living Resources (Document ANT/XIV/INF/20).

56. The representative of the United States of America, as Representative of the Depositary Government for the Antarctic Treaty, mentioned that the table containing the status of the Recommendations adopted at previous Meetings had been presented (this is attached at Annex F).

57. The President of SCAR, Professor Claude Lorius, presented a summary report of SCAR proceedings and relevant publications. Professor Lorius also gave a presentation on the current state of Antarctic scientific research. The report presented by SCAR is contained in document ANT/XIV/INF/18.

58. The Meeting warmly welcomed the reports presented under item 7 of the Agenda. The Meeting expressed its wish that such documents be circulated in advance in the future, so as to assist the work of the Meeting and thus allow maximum benefit of this examination of the operation of the Antarctic Treaty System.

59. The Permanent Representative of Australia to the United Nations, Ambassador Richard Woolcott, in his capacity as Chairman of the informal group of Treaty Parties in New York, presented an oral report which was received with much interest.

60. The Chairman drew the attention of the Meeting to the Final Report of the Seventh Special Consultative Meeting (Rio de Janeiro, 5th October 1987) where the Consultative Parties recorded their acknowledgement that the German Democratic Republic and the Republic of Italy had satisfied the requirements established in Article IX, paragraph 2 of the Antarctic Treaty. The Report has been published separately.

PUBLIC AVAILABILITY OF THE DOCUMENTS OF CONSULTATIVE MEETINGS
(Agenda Item 8)

61. The Meeting noted that all Conference and

Information Documents from the first three Consultative Meetings, Canberra (1961), Buenos Aires (1962) and Brussels (1964), had become publicly available as of 31 December 1985, in accordance with the procedures agreed upon at the XIIIth Meeting.

62. The Meeting discussed the possibility of making publicly available the Conference and Information Documents of the IVth, Vth, VIth and VIIth Consultative Meetings, held respectively at Santiago de Chile (1966), Paris (1968), Tokyo (1970) and Wellington (1972). The Meeting decided that, given the passage of time since these meetings were held and in view of the contents of the documents in question, there was no need for them to continue to be treated as confidential. The documents are therefore publicy available from the conclusion of the XIVth Consultative Meeting.

63. It was understood, however, that those documents initiated by or containing correspondence with other entities, like the WMO, and with governments not party to the Antarctic Treaty, would not be released before the agreement of those entities and governments had been obtained. Brazil, in its capacity as host government, was requested to take the necessary steps in this regard and subsequently notify the Contracting Parties.

64. The Meeting also agreed that it would be appropriate to consider at the XVth Consultative Meeting the

possibility of making publicly available the Conference and Information Documents of the VIIIth, IXth, Xth, XIth, XIIth, XIIIth, and XIVth Consultative Meetings, held respectively in Oslo (1975), London (1977), Washington (1979), Buenos Aires (1981), Canberra (1983), Brussels (1985) and Rio de Janeiro (1987). To facilitate preparation for this, the Meeting requested each host government of those Consultative Meetings to compile a list of the Conference and Information Documents of the Meeting for which it was the host, to circulate that list to all Consultative Parties as soon as possible and in any case not later than 31 October 1988 and to have available and, if requested, to transmit the Documents listed to the Consultative Party which will host the XVth Consultative Meeting not later than 31 December 1988. The Meeting also requested the Consultative Party which will host the XVth Consultative Meeting to seek, before the opening of that Meeting, the agreement of any entity or government not a Party to the Antarctic Treaty to the release of any document containing correspondence with or initiated by such entity or government which forms part of the Conference or Information Documents of the VIIIth to the XIVth Consultative Meetings, inclusive.

65. It was also suggested that it would be appropriate to consider at the XVth Consultative Meeting the possibility of making publicy available the minutes of the meetings held in Brussels in 1965 as a part of the preparation of the

Agreed Measures on the Conservation of Antarctic Fauna and Flora and the Final Report from the Special Preparatory Meeting held in Paris in 1976.

66. The Meeting further agreed that, beginning with the XVth Consultative Meeting each Consultative Meeting will consider the possibility of making publicly available the Conference and Information Documents of the immediately preceding Consultative Meeting.

67. As a result of these decisions, paragraph 4(c) of Recommendation XII-6 is no longer relevant. As regards paragraph 4(a) and (b) of that Recommendation, the Meeting agreed to modify this so that, starting with the XVth Consultative Meeting, delegations should indicate, when submitting an Information Document, if they intend that document not to be made public; in the absence of such an indication, the document will be publicly available as from the closure of the Meeting at which it was submitted. The Meeting adopted Recommendation XIV-1 which modifies Recommendation XII-6 accordingly. With regard to Conference documents, the Meeting noted that some delegations were indicating on documents which they submitted the date of public availability.

HUMAN IMPACT ON THE ANTARCTIC ENVIRONMENT
(Agenda item 9)

Environmental Impact Assessment

68. A draft Recommendation was tabled by the United Kingdom delegation. In considering this draft, delegations were assisted by the work that SCAR had done with respect to the elaboration of procedures for evaluating impacts from scientific and logistic activities, and by the development within the United Nations Environment Program (UNEP) of "Goals and Principles of Environmental Impact Assessment" which were adopted by the UNEP Governing Council at its Fourteenth Session (June 1987).

69. In discussion of the draft Recommendation much attention was paid to the difficulties surrounding the use of the word "significant" in respect of environmental impact. It was recognized that the decision as to whether to proceed from an Initial Environmental Evaluation to the more demanding Comprehensive Environmental Evaluation rested upon the manner in which the word "significant" was interpreted. It was pointed out that the use of "significant" was common to virtually all national and international systems of environmental impact assessment. Its interpretation was inevitably a matter of judgement involving risk. On the one hand, there was the prospect of unnecessarily undertaking the burdens of Comprehensive Evaluations and the consequent risks of bringing the procedures into disrepute. On the other hand, there was the prospect of undertaking too few

comprehensive evaluations and the consequent risks of environmental damage which might have been avoided, of adverse criticism and, again, of bringing the procedure into disrepute.

70. It was agreed that the necessary judgements were inherently a matter for national authorities. It was suggested that, as a matter of national practice, criteria should be developed to be used in determining whether proposed activities would have a significant impact on the Antarctic environment. Reference was also made to the second of the UNEP Principles and its footnote. Recommendation XIV-2 was adopted.

Waste disposal

71. The Meeting reviewed the progress made by SCAR in response to Recommendation XIII-4 and noted in particular the SCAR Initiative in setting up a Panel of Experts, chaired by Mr. J. Bleasel, Australia, with terms of reference appropriate to its task of completing a report.

72. Delegates welcomed the interim report provided by SCAR but expressed concern regarding the limited replies to date in response to SCAR's requests for information about national practices. Accordingly the Meeting decided to urge national operating agencies to respond promptly and as fully as possible to the SCAR questionnaire.

73. The Meeting also attached importance to the SCAR Panel of Experts including in its work the development of possible standards with respect to waste disposal and the examination of the relevance of standards set out in existing international conventions relating to marine pollution and dumping.

74. In further discussions delegates agreed:

(a) That with increasing activities, waste disposal was likely to become a more serious issue, and that, therefore, it was important that pending the review of the Code of Conduct in the light of SCAR's report to the XVth ATCM, national operating agencies implement the existing Code of Conduct and continue to improve their waste management practices in the interim.

(b) When establishing new stations, Contracting Parties should endeavour to implement new technology and methods of waste disposal to minimize the potential for adverse impact on the environment.

(c) Waste disposal methods associated with non-governmental activities in Antarctica should

also take into account the need to minimize environmental impact. In this connection, organizers should be encouraged to take account of the Code of Conduct for waste disposal and relevant provisions of international instruments.

(d) Information on new and improved methods of waste disposal should be exchanged between national operating agencies, and their implementation and application should be encouraged.

(e) Acknowledging information provided by several delegations on new and improved methods of waste disposal, Parties were urged to take into account the following goals in conducting their activities in the Antarctic:

(i) The cleanup of existing waste disposal sites;

(ii) The minimization of the amount of waste generated, through careful consideration of the nature and volume of materials taken into the Antarctic which are likely to become or generate waste;

(iii) The re-use or recycling of waste materials;

(iv) The removal of all waste from the Treaty Area that cannot otherwise be disposed of in an environmentally sound manner.

Additional Protective Measures

75. The Meeting was pleased to receive from SCAR a response to Recommendation XIII-5 (2) which took the form of a Report entitled "The Protected Area System in the Antarctic" (SCAR, Cambridge, 1987). This was presented to the Meeting as Document ANT/XIV/INF/7. Discussion focussed on the five proposals contained in the SCAR Report and the Working Papers submitted by Australia (ANT/XIV/WP/17) and the United Kingdom (ANT/XIV/WP/11) which suggested possible responses to these proposals.

76. Acknowledging the achievements of the existing system of protected areas, the Meeting noted SCAR's view that the system could be improved by additions to it. Some delegations felt that some of the SCAR proposals needed further careful study, and should be approached step by step with a view to improving the area protection system in the Antarctic. In this connection, it was also pointed out that SCAR's response to paragraph (2) of Recommendation XIII-5,

which should be available for the XVth Meeting, would assist in the consideration of this subject.

SCAR Proposal 1:

77. In taking note of this proposal to make visits for periodic assessment to Specially Protected Areas (SPAs), Sites of Special Scientific Interest (SSSIs), and Historic Monuments (HMs), the Meeting recognized the need to determine whether the objectives for which these Areas, Sites and Monuments have been designated, are being met.

78. The Meeting recognized the value of visits to Areas, Sites and Monuments being made at such intervals as are necessary in order to determine whether the objectives of their designation are being met and, if not, steps that possibly could be taken better to meet them. In undertaking these visits relevant management provisions should be strictly adhered to, so as to ensure that this process does not itself have an adverse environmental impact.

79. With these necessary constraints in mind, it was strongly suggested that Contracting Parties should use their best endeavours to undertake visits to as many Areas, Sites and Monuments as possible, when access and opportunity exist, and provide reports of such visits for review at the Preparatory Meeting for the XVth Meeting, so that this

issue may be considered in more detail at the XVth Consultative Meeting. It was suggested that it would be helpful if the reports covered the same categories of subject matter in relation to each Area, Site and Monument.

80. A reference document listing categories of relevant information which should be collected on Areas, Sites and Monuments, which might assist Parties in carrying out these visits, is annexed to this Report (Annex G).

81. The need to continue a process of reports on, and review of, the status of Areas, Sites and Monuments was recognized, but decisions as to how this might be achieved were deferred to the next Consultative Meeting to consider in the light of the reports it received.

SCAR Proposal 2:

82. In taking note of Proposal 2 of the SCAR Report, to make available information resulting from such visits, the Meeting proposed that reports of these visits should be circulated when available to Contracting Parties, to SCAR, and, if appropriate, to CCAMLR, prior to the Preparatory Meeting for the XVth Meeting.

83. It was also recognized that information arising from such an assessment process should be made publicly available. In this respect, inclusion in the annual exchange

of information and other possible means for disseminating such reports were identified, such as publication through SCAR.

84. The value of data-base mechanisms for the storage and retrieval of this information was also acknowledged. It was noted that consideration of this issue would be better deferred until the XVth Meeting, to be discussed in connection with SCAR's response to Recommendation XIII-5 (2).

SCAR Proposal 3:

85. Some delegations acknowledged, as advocated in this proposal, the desirability of having management plans for SPAs. These would provide a technique for ensuring that the objectives of designation of SPAs are being met. Some other delegations were concerned that the value of SPAs as a protective mechanism could be diminished by the adoption of management plans for them. The view was also expressed that adoption of such plans would in any case require a prior amendment to Article VIII of the Agreed Measures. The United States delegation proposed such an amendment, but time was insufficient to consider the proposal fully, and further consideration was deferred until the XVth Meeting.

86. To assist in considering what should be included in such plans and how they should be adopted, it would be helpful if Contracting Parties, in particular those conducting

visits to report on SPAs, would provide examples of possible management plans for SPAs at the XVth Meeting to facilitate discussion of this issue.

87. Such examples might be expected to include a specification of the compelling scientific purposes for which entry to the SPA could be permitted, and any actions in pursuit of these purposes which would not adversely affect the natural ecological system existing in the SPAs (as referred to in Article VIII of the Agreed Measures).

SCAR Proposal 4:

88. The meeting noted SCAR's call for the submission of proposals for additional protected areas to provide for geographically distributed representative examples of all Antarctic terrestrial, inland water and marine ecosystems.

89. The view was expressed that it would not be possible for marine SPAs to be designated under the Agreed Measures for the Conservation of Antarctic Fauna and Flora without amending them. Some delegations held that there was no distinction in the application of the Agreed Measures to land or sea areas.

90. The Meeting, recalling Recommendation VII-2,

recognized that the existing SPAs and SSSIs still did not fully cover representative examples of the major Antarctic land and freshwater ecological systems, and it urged national organizations to conduct surveys and take such other steps as may be feasible to identify potential areas, and to draft proposals for new SPAs and SSSIs that would fill gaps in this representation. Where possible they should pass these proposals to XX SCAR for consideration.

91. In this connection, the Meeting noted that the classification of Antarctic ecosystems published in SCAR Bulletin Nº 55 (SCAR, Cambridge 1977) would be helpful in identifying such gaps. The results of surveys and available proposals might then be considered at the XVth Meeting in the light of further information arising from the visits to SPAs and SSSIs called for in paragraph 79 .

SCAR Proposal 5:

92. There was keen discussion of the fifth of the SCAR proposals, "that a new category of protected area be introduced to the system while retaining the present categories".

93. Several delegations were of the view that the concept of multiple use in Antarctica was not yet well enough developed, either operationally or conceptually. They noted

that prior consideration of, and experience in, the means for protection of values other than those currently protected would assist in the future in building up a co-ordinated management system. The SCAR Report called for the use of management plans as flexible tools in the management of areas. The merit of developing concepts of multiple use and zoning for different levels of protection was acknowledged.

94. In this context, there were differing views expressed as to whether existing protective arrangements could be used to provide protection for areas of outstanding geological, recreational, scenic or wilderness interest, in addition to those of outstanding biological interest. To resolve this uncertainty, the United States delegation proposed establishing a new category of protected area, tentatively called "Special Reserves", to provide a clear means for protecting areas of outstanding geological, recreational, scenic, or wilderness value. Time was insufficient to fully consider this proposal and further consideration was deferred until the XVth Consultative Meeting.

95. Discussion of the SCAR proposal to establish a new category of protected area was assisted by a paper submitted by the Australian delegation entitled "Antarctic Protected Areas - Examples of Application" (ANT/XIV/WP/16), and a paper submitted by the United Kingdom delegation entitled "Management Plans for Antarctic Protected Areas" (ANT/XIV/WP/25). It was commonly felt that real examples of

management plans would considerably assist Consultative Parties in further understanding how best to introduce such a new category of protected area into the existing system. It would be helpful if Parties were to prepare draft management plans for areas with which they are familiar, and which in their opinion, would benefit from the application of multiple use zoning techniques of area management.

96. It was noted that, in order to obtain a better idea of the scope and consequences of such a new category, it would be helpful if the Preparatory Meeting for the XVth Consultative Meeting could have before it draft management plans relating, inter alia, to:

(a) areas surrounding scientific research stations;

(b) areas of cultural, scenic, wilderness, recreational and historic values; and,

(c) SPAs, SSSIs and HMs and adjacent areas, including buffer zones.

97. Some delegations suggested that provisional management plans for some of the following, among others, might provide useful insights into the value of such plans:

Arthur Harbour, Anvers Island

Beardmore Glacier

Deception Island, South Shetland Islands

Dry Valleys, Victoria Land

Ross Island

Signy Island, South Orkney Islands

Vestfold Hills, Princess Elizabeth Land.

It was emphasized that submission of management plans for these or other areas implied no commitment to their eventual acceptance.

Improving the comparability and accessibility of Scientific Data on Antarctica

98. The Meeting recalled that Recommendation XIII-5 (2) invited the Scientific Committee on Antarctic Research to provide advice on steps that possibly could be taken to improve the comparability and accessibility of scientific data on Antarctica.

99. The Meeting welcomed the information from SCAR which indicated that it had established an ad hoc group on Environmental Data Management to prepare a response to Recommendation XIII-5 (2) and that, because of the complexities of the task, a definitive response could not be provided until after XX SCAR in 1988.

100. The SCAR Report included a working paper prepared by the Chairman of the SCAR ad hoc group on Environmental Data Management. In considering this paper, delegations noted that its terms of reference emphasized assessment of the kinds and content of biological data bases available and the relevance of data management to existing and planned SCAR programs.

101. Delegations recalled discussion of this topic at the XIIIth Consultative Meeting where it had been recognized that improving the comparability and accessibility of scientific data on Antarctica could contribute to better planning and management of Antarctic activities and strengthen the Antarctic Treaty System.

102. Delegations recognized that because of the complexity of the task there were advantages in focussing initially on biological data bases and SCAR programs as set out in the terms of reference for the ad hoc group on Environmental Data Management established by SCAR. They also affirmed that it would be desirable, at an early stage, to consider steps that might usefully be taken to improve the comparability and accessibility of additional types of Antarctic scientific data. These steps might include consultations with experts such as operators and managers of data banks and international data centers. The steps could also include consideration of actions needed to make future collections of Antarctic data as accessible as possible.

103. With regard to the preceding points, it was noted that two important initial steps are: a) to identify the types of data likely to be of particular use for planning, managing, and evaluating activities in Antarctica, including assessment of protective arrangements; and b) to develop a directory listing where and in what format those data exist and how they can be accessed.

104. It was noted that national contact points, designated pursuant to Recommendation XIII-1 (6), could assist, as far as they were able, in developing an Antarctic scientific data directory by, for example, conducting an inventory and advising other national contact points and the SCAR ad hoc group on Environmental Data Management of the types, locations, format, and means for accessing Antarctic scientific data archived in their countries.

105. The Meeting looked forward to receiving SCAR's response to Recommendation XIII-5 (2) following XX SCAR in 1988, and called upon national contact points, as far as they are able, to take all steps to assist SCAR in obtaining information needed to provide sound scientific advice.

Concentration of Siting of Stations

106. Discussion focussed on three aspects of the matter. The first was related to the increased opportunities

for contributing to scientific knowledge that could be gained from the siting of stations in the widest possible range of areas in Antarctica. This was more particularly true in respect of synoptic observation programmes related to meteorology and studies of the upper atmosphere. The heart of the matter was that new stations should be so situated as to maximize their scientific potential and should not be situated in locations which devalue the programmes of existing stations.

107. Freedom of scientific investigation and cooperation in scientific programmes in accordance with the principles of the Antarctic Treaty were seen as imposing obligations on the Party establishing a new station to have regard to the programmes of existing stations, as well as on the Party responsible for existing stations to be receptive to proposals for new stations. In this regard, the Republic of Korea outlined steps that it had taken with regard to the siting of its planned station. During the course of the Meeting, Sweden also provided information about the planned establishment of a Swedish scientific station in Antarctica. The station will be established in the beginning of January 1988 and will be located in Dronning Maud Land (74° 34'S, 11° 15' W).

108. In the discussion of the second aspect, the Meeting noted that SCAR had recorded its concern that the continued increase in number of stations in some parts of the

Antarctic could result in unproductive duplication of scientific programmes; and that SCAR had recommended that adequate prior notice be given of intent to undertake a development or scientific activity that is likely to have a major environmental impact.

109. Attention was drawn to Recommendation XIII-6 which called for consultations "where stations had been established in the same vicinity". It was suggested that consultation before the event would be preferable rather than after. What was needed was a process of consultation which started as early as possible in the planning stage for new stations and continued through the subsequent stages, including the development and implementation of routine operations.

110. The third aspect of the matter to which reference was made related to discussions which had previously taken place in the Working Group with respect to the creation of a new category of protected area in connection with land-use planning round existing stations. It was suggested that such a mechanism could help to alleviate problems that might arise from proposals for the siting of new stations in proximity to one another.

111. Some delegations raised the additional point of accessibility to the Antarctic continent and suggested this

question might be examined in depth at subsequent Consultative Meetings and commented that, eventually, SCAR could be requested to advise on the matter.

112. A proposal was tabled by Chile (ANT/XIV/WP/36) outlining measures intended to improve coordination in the location and use of stations but time was insufficient to consider it fully and further consideration was deferred until the XVth Consultative Meeting.

Safeguards for Scientific Drilling

113. Attention was drawn to the potential for encountering hydrocarbons and the risk of environmental damage as drilling for scientific purposes occurs in Antarctica.

114. The Delegations of the United States and New Zealand introduced a proposed recommendation to establish "Guidelines for scientific drilling in the Antarctic Treaty Area".

115. One delegation expressed the view that the adoption of the recommendation should not be construed as prejudicing individual Parties' positions in relation to Article VI of the Treaty. Other delegations held that there could be no distinction in the application of guidelines as between scientific drilling on land or at sea and that

no questions relating to the interpretation of Article VI of the Antarctic Treaty were relevant.

116. The text of the proposed recommendation was revised to take account of questions raised during its consideration including, in particular, the linkage between these guidelines and the environmental impact evaluation procedures contained in Recommendation XIV-2. Recommendation XIV-3 was adopted.

SITES OF SPECIAL SCIENTIFIC INTEREST (SSSIs) AND SPECIALLY PROTECTED AREAS (SPAs)

(Agenda item 10)

117. Draft recommendations were tabled by Chile and the United Kingdom. The Chilean draft was in two parts, proposing that three sites in the marine environment should be designated and that SCAR should have regard to certain criteria when considering proposals for marine sites of special scientific interest. The United Kingdom drafts covered extension of the designation of one existing SSSI (No 2: Arrival Heights) and the designation of four additional sites. The Meeting agreed with the substance of all these drafts but decided to amalgamate the first part of the Chilean draft with the second part of the second of the United Kingdom drafts.

118. Recommendation XIV-4, XIV-5 and XIV-6 were adopted.

119. One delegation noted the interim nature of the Recommendations under which Sites of Special Scientific Interest were designated. There were now in existence management plans for 28 Sites of Special Scientific Interest; in relation to these management plans it had been stated in the Preambles to each of the relevant Recommendations (VIII-4, X-5, XIII-8) that it "would be advantageous to gather experience of the practical effect of" these plans; in the operative paragraph of these Recommendations it had been recommended that Governments should "voluntarily take account" of these plans. The United Kingdom suggested that at the next Consultative Meeting consideration should be given to placing the observance of management plans on a more formal, substantive basis.

TOURISM AND NON-GOVERNMENTAL EXPEDITIONS

(Agenda item 11)

120. The Meeting noted that there had been a rapid increase in tourism and other non-governmental activities in Antarctica. Although so far tourism and non-governmental activities have had minimal adverse impact, very significant numbers of people were now involved in these activities and, given the concentration of such activities in various areas,

there was potential for serious impacts, both in environmental terms of possible damage to fragile ecosystems and compounding existing waste disposal problems and in scientific terms on national research programmes.

121. Several delegations stated their concerns that:

(a) Although landings of cruise passengers are infrequent, they are localized and repetitive and usually occur at sites which are vulnerable to disturbance. Changes in the habitats or reduction of the breeding population of some species could possibly result from repeated visits by tourists. Waste disposal was also identified as a problem. The scale of human activity also presented risks to buildings and monuments of historic significance situated in the more accessible parts of the Antarctic continent. Some delegations said there was evidence to suggest that some violations of existing standards had occurred. The need for environmental factors to be assessed and monitored in the planning and conduct of non-governmental activities was also mentioned.

(b) Tourist visits to scientific stations are often welcome to station personnel but large numbers of visits can be disruptive. Some delegations indicated that the numbers of visitors to their stations had reached a threshold which already interfered with their scientific programmes, and that future visits to their stations would need to be restricted.

(c) Possible accidents requiring search and rescue operations were of particular concern. These can be expensive and hazardous and demanding on the limited resources and facilities available. In this connection, it was noted that there have been accidents involving both tourist operations and also private expeditions. Some delegations stressed that in this respect, it was non-governmental expeditions that caused them most concern in relation to safety of human life and potential disturbance of the normal operation of scientific and logistic activity in Antarctica. Others expressed equal concerns about tourist operations. In this connection problems of liability and insurance were mentioned as well as the need for ice capable vessels.

122. Several delegations outlined their own policies and conditions governing tourist activities, based on recommendations from Consultative Meetings. These give details of requirements and procedures for requesting permission to visit scientific stations, including prior notice; use of station facilities and rules of conduct: supervision and briefings from lecturers and professionally trained guides; safety and self-sufficiency of expeditions; and observance of restrictions of access to protected areas. It was noted that SCAR had produced a useful guide for visitors to the Antarctic and some countries have published leaflets in a format designed to provide an awareness and understanding of the global importance of Antarctica.

123. The Meeting recalled that the Antarctic Treaty Consultative Parties adopted their first recommendation on the effects of tourism in the Antarctic in 1966, and by 1975 tourism was recognized as a development in the Treaty area requiring regulation. The Meeting therefore reviewed the existing measures adopted by the Consultative Parties. This process was considerably assisted by a document tabled by the United Kingdom (ANT/XIV/WP/16) which sought to consolidate, in a single statement, the relevant provisions of the Antarctic Treaty, Recommendations IV-2, VI-7, VII-4, VIII-9 and X-8 and elements from the Report of the XIIth Consultative Meeting.

124. The concern was expressed that the existing measures were complex and that a more simple and transparent set of measures might assist operators to secure effective compliance.

125. Several delegations also expressed concern that the existing measures revealed some inadequacies; that there were significant gaps in information, especially with respect to small private expeditions and suggested the need for an improved procedure for receiving reports from operators and private expeditions, and for exchanging this information among Treaty Parties. It was also suggested that, when feasible, measures should be taken to monitor non-governmental activities in Antarctica.

126. It was agreed that the question of measures relating to tourism and non-governmental activity should be subject to consideration by national authorities before the next Consultative Meeting with a view to further consideration of the item at the XVth Consultative Meeting.

127. Finally the Meeting urged Consultative Parties to renew their efforts in the interim to disseminate information about the existing measures and promote compliance with them.

ANTARCTIC METEOROLOGY AND TELECOMMUNICATIONS

(Agenda Item 12)

128. The Meeting considered a draft recommendation submitted by the United Kingdom. The draft recommendation addressed two particular sets of issues. The first took the form of technical changes to the descriptions of the Basic Synoptic Network and the Network of Climat and Climat Temp Reporting Stations in the Antarctic as contained in Annex 1 to Recommendation XII-1, as well as the amendment of the statement of the existing links for the daily international exchange of data within the Antarctic and the principal routes by which Antarctic meteorological data enter the Global Telecommunications System of the WMO World Weather Watch annexed to Recommendations X-3 and XII-1. The second part of the draft recommendation addressed certain matters arising from paragraph 4.1 and Annex I to the Final Report of the Fourth Session of the WMO Executive Council Working Group on Antarctic Meteorology (EC/WGAM) and subsequent action taken by the WMO Tenth Congress.

129. Given the technical nature of these issues and the interest expressed by several delegations an informal working group was convened under the coordination of Dr. A.D. Moura of Brazil to examine these proposals. As a consequence of the subgroup's deliberations the draft recommendation was revised and referred back to the Meeting and was adopted as Recommendation XIV-7.

130. In the consideration of this item the Meeting, together with the informal working group, were greatly assisted by the expert advice provided by Dr. N. Streten of WMO, and to whom the Meeting expressed its appreciation.

131. The Consultative Meeting took note of the importance which the problem of the depletion of the ozone layer in the Antarctic has acquired, and of the various studies and investigations which have been undertaken to determine the scope, origin and implications of the phenomenon. Attention was also drawn to the proposals formulated in this regard by the Working Group on Antarctic Meteorology of the Executive Council of the WMO (paragraphs 6.7 and 6.8 of the Report EC/WGAM-IV).

132. The Argentine delegation submitted an information paper describing activities being developed to contribute to the study of this phenomenon.

133. In this context, various delegations expressed their views on the subject. A presentation was made by the President of SCAR under item 7 of the Agenda. These views reflected the importance that the Consultative Parties and SCAR place upon studies concerning the state of the ozone layer.

134. The Meeting urged the Parties to continue with the programs which have been undertaken on this matter and to cooperate with one another in order to achieve best results.

135. On this subject, several delegations drew attention to the recent conclusion of the Montreal Protocol on Substances that Deplete the Ozone Layer and noted the importance of the early entry into force, and implementation, of that agreement.

136. The Meeting decided to include this subject on the agenda of the XVth Consultative Meeting.

HISTORIC SITES AND MONUMENTS

(Agenda Item 13)

137. Attention was drawn, in discussion of this item, to the need to provide for continued and improved protection for those historic monuments that stand as witnesses to a significant human presence in the Antarctic; and which are an essential part of the record of human activity in Antarctica, the only continent in which some of the original buildings constructed for human habitation still stand.

138. New Zealand introduced a paper which stressed the more vulnerable condition of monuments located in the relatively accessible areas of Antarctica and exposed to the

risk of damage arising from the increasing scale and intensity of human activities in the Continent. It went on to suggest that, while certain steps could be taken at the national level, the best protection could be found in the collective action of Treaty Parties. It concluded by urging the meeting to consider the adoption of further protective measures, including, whenever appropriate, delineation of buffer zones around monuments threatened by human activity or situated in a very sensitive ecological milieu.

139. It was remarked that this last proposal involved a measure of overlap with work that had been done by a working group of the Consultative Meeting in response to the proposals from SCAR for additional protective measures. The Meeting acknowledged that, in considering the issue of additional measures for the protection of historic monuments, account should be taken of the site visits referred to in paragraph 79 of the Report, and the interrelationship between such measures and the possible new category of protected areas discussed in paragraphs 92-97 of this Report.

140. Chile introduced a paper, recalling that Recommendation I-9 provided the general framework for the most comprehensive treatment of this subject, including recourse to consultations, issuance of appropriate reports and the adoption of all appropriate measures. The paper stated that the initiative concerning specific methods of preserving or

protecting monuments rested with the individual Parties to the Antarctic Treaty, although provision existed for the periodic reports to be regularly exchanged by the Governments.

141. The Federal Republic of Germany informed the Meeting that the metal plaque at Potter Cove, King George Island, erected by Eduard Dallmann to commemorate the visit of his German expedition on 1st March 1874 and mentioned in the List of Historic Monuments annexed to Recommendation VII-9 (Nº 36) will be replaced before the end of the year by a copy of the original plaque which had disappeared. The Meeting agreed that the protection accorded to the original plaque by inclusion in the List would also be extended to the new plaque.

142. Chile introduced a draft recommendation to incorporate a new monument to the above-mentioned List, accompanied by a summary of the events that led to the rescue in 1916 of a party from Shackleton's expedition stranded at Elephant Island by the Chilean Navy cutter Yelcho, as well as a short history of Elephant Island. Subsequently, the Meeting adopted Recommendation XIV-8 to that effect.

143. The Meeting agreed that the issue of preservation and protection of historic monuments and sites deserved careful attention and should be addressed in a more comprehensive manner at a subsequent Consultative Meeting after a survey had

been carried out of the state of present historic monuments and sites.

144. Governments were urged to ensure that the provisions of Recommendations I-9, V-4 and VI-14 were fully respected; that all necessary steps were taken to ensure the survival of historic monuments and that additional measures to ensure improved protection for historic monuments would also be carefully considered if and when required. In this connection, it was asserted that it might be appropriate, in certain circumstances, to establish buffer zones to guard buildings and monuments against the risk of damage arising from human activity in Antarctica. Attention was drawn to the suggestion made in paragraph 96 of this Report that the Preparatory Meeting for the XVth Consultative Meeting could have before it management plans relating, inter alia, to historic sites and monuments. This would assist in determining whether the establishment of such buffer zones would be necessary for particular monuments.

145. Governments were encouraged to circulate reports on the condition, including additional information when they deem it necessary, of such tombs, buildings or objects of historic value, and a description of measures adopted to protect them from damage and destruction. SCAR's proposals for periodic visits to historic sites and monuments (paragraph 79 above) and the content of a reference document listing categories of information considered useful for this purpose

(Annex G) were drawn to the attention of the Meeting.

146. Governments were also encouraged to promote consultation and exchanges with regard to experiences in the preservation and restoration of Antarctic monuments, and to take appropriate steps to publicize the achievements made under the Antarctic Treaty for the preservation and protection of historic monuments in Antarctica.

AIR SAFETY IN ANTARCTICA

(Agenda Item 14)

147. The Meeting recognized the importance of safe air operations in the Antarctic and that there is a wide range of problems which are becoming more important and urgent with increasing activity.

148. Accordingly, an informal working group was convened under the chairmanship of R.B. Thomson (New Zealand) to study this Agenda item and report back to the Meeting.

149. The work of the informal working group is reflected in Recommendation XIV-9.

150. The host Government of the XVth ATCM agreed during the XIVth Consultative Meeting to initiate, at an appropriate time, the consultations concerning the date and

place for a Meeting of Experts, as mentioned in Recommendation XIV-9 to take place prior to the XVth Consultative Meeting.

INTERNATIONAL SYSTEM OF MARINE HYDROMETEOROLOGICAL SERVICES TO NAVIGATION IN THE SOUTHERN OCEAN

(Agenda Item 15)

151. The Meeting acknowledged this timely initiative by the delegation of the Soviet Union and considered a draft recommendation submitted by it embodying a proposal for improved marine meteorological and sea ice assessment and prediction in the Treaty Area of the Southern Ocean. It was decided that this matter should be referred for further consideration to the same informal working group established to study Agenda item 12 (Antarctic Meteorology and Telecommunications). The informal working group was again greatly assisted by the expert advice provided by Dr. Neil Streten of WMO to whom the meeting expressed its appreciation. The draft recommendation, including its title, was modified by the informal working group and referred back to the Meeting and adopted as Recommendation XIV-10.

152. The Meeting noted with appreciation the generous offer made by the Delegation of the USSR to host, in Leningrad, any meeting of experts that might be convened under paragraph 4 of Recommendation XIV-10.

INSPECTIONS UNDER ARTICLE VII OF THE TREATY:

EXCHANGE OF INFORMATION

(Agenda Item 16)

153. Attention was drawn in discussion of this item to the importance of exercising the right of inspection provided for in Article VII of the Antarctic Treaty. The Meeting noted that the increasing range and intensity of activities in Antarctica warrants their effective review. This will both promote compliance with the principles and purposes of the Antarctic Treaty, its provisions, and the Recommendations adopted pursuant to it, and demonstrate the value of the Antarctic Treaty as an effective international instrument for the regulation of activities in Antarctica. It was further noted that exercise of the right of inspection provides a basis for exchange of information and ideas on Antarctic operations. In this regard, inspection reports may identify and bring to the attention of Contracting Parties emerging problems requiring correction or improvement, problems which otherwise could result in, for example, damage to the Antarctic environment or conflicts of use. Inspection reports may also provide useful examples of national practice in addressing problems, allowing one Party to learn from the experience of another. The value of the existence of the inspection system under the Treaty, which could be used, where appropriate, as a precedent for other non-militarization and disarmament instruments was also noted by the Delegation of the Soviet Union.

154. The United States introduced a paper (ANT/XIV/WP/8) describing the values of exercising the right of inspection, the planning process undertaken in the United States in preparation for conducting inspection, and a general description of the types of observations the United States observer team is required to carry out at each location. Specifically these types of observations are:

(a) Relationship of the logistic support and principal activities at the station to the information provided in the annual exchanges;

(b) Matters prohibited by the Treaty, such as military exercises, nuclear explosions, disposal of radioactive waste, and weapon testing;

(c) The quantity of small arms present;

(d) Preservation and conservation of living resources and environmental protection (including waste treatment, waste disposal, air and water pollution, or disturbance of habitats through noise or construction);

(e) Observance of measures to protect Historic Sites, Specially Protected Areas, and Sites

of Special Scientific Interest, as designated in Recommendations adopted at Antarctic Treaty Consultative Meetings;

(f) Scientific research activities and equipment;

(g) Logistic support and construction activities; and

(h) Any new or unusual activities and/or construction.

The types of observations called for are elaborated in a more detailed checklist for the team in order to ensure complete coverage at each location.

155. In introducing its paper, the United States stressed the advantages of the wide availability of inspection reports. This contributes to accurate and complete information about the Antarctic Treaty System and to maintaining the confidence of Parties to the Antarctic Treaty, and others asserting an interest in Antarctica, that the objectives of the Antarctic Treaty, its provisions, and Recommendations adopted pursuant to it, are being fully implemented and enforced.

156. The delegation of Australia also introduced a

paper on inspection, in which it underlined the importance attached to inspections and reported that inspections were now a regular feature of its Antarctic Program, that it had conducted inspections both in 1985/86 and 1986/87 and that the inspection reports had been distributed to the Contracting Parties to the Antarctic Treaty. The United States and Chile circulated at the meeting reports on inspections conducted during 1985 and 1986/87 respectively. The United States informed the meeting that in keeping with the desirability of making inspection reports widely available it will forward to the United Nations Secretary-General the 1985 US Inspection Report, as it did all prior US Inspection Reports for the 1984 United Nations Study on Antarctica, and that it maintains US Inspection Reports as public information at its national contact point established pursuant to Recommendation XIII-1. The Government of Chile informed the Meeting that its recent inspection report had been circulated to all Consultative Parties.

157. The delegation of Argentina commended the United States Antarctic Observer Team Report. In this regard, it pointed out that the information contained on page 16 of that Report, to the effect that the Argentine Station Jubany "is the only civilian-staffed Argentine Station in the Antarctic" is not accurate. The Argentine delegation noted that when the United States inspection was carried out in 1985, there were several other civilian-staffed Argentine Stations in Antarctica.

The list of these stations and of the civilian personnel therein employed had been provided to the U.S. delegation.

158. The U.S. delegation took note of this information, which demonstrated the usefulness of the dissemination of information on inspections carried out by Consultative Parties.

159. The Meeting expressed its appreciation to the Governments of Australia, Chile and the United States for their papers on inspection and acknowledged the usefulness of such an exchange of information on the procedures followed by national governments to give effect to Article VII of the Antarctic Treaty in assisting other countries planning to exercise the right of inspection. It was suggested in addition, that it would be helpful in the future to make available reports on inspections that have taken place subsequent to the previous Consultative Meeting, at the Preparatory Meeting for the following Consultative Meeting, in order to allow adequate time for Governments to review the reports.

DATE AND PLACE OF NEXT CONSULTATIVE MEETING

(Agenda Item 17)

160. The Meeting received with special satisfaction the invitation of the delegation of France to host the

XVth Consultative Meeting in Paris, France, in 1989. The precise date of the Meeting will be determined after consultations through diplomatic channels to be conducted by the Government of France.

ANY OTHER BUSINESS

(Agenda Item 18)

161. During the XIVth Antarctic Treaty Consultative Meeting the Parties to the Antarctic Treaty noted, in the light of an initiative taken by the United Kingdom representative, that 1987 marked the thirtieth anniversary of the beginning of the International Geophysical Year (IGY) of 1957-58 - one of the first examples of international scientific collaboration of global significance. But they recalled that the IGY, at its conception, was to have been the Third International Polar Year with a history that went back through the Second International Polar Year of 1932-33 to the First International Polar Year of 1882-83. Noting that the inspirer of that First Polar Year had been an Austrian naval officer, Karl Weyprecht, they particularly welcomed the accession of Austria to the Antarctic Treaty, 105 years after an event to which that Treaty could trace its ancestry.

162. The Parties paid tribute to the scientists of the IGY who had shown how much more could be achieved by co-operation than by competition, and to the statesmen who,

resting on that example, had negotiated the Antarctic Treaty, thus demonstrating that the Antarctic was a place that drew together people from many nations, cultures and social systems in a common endeavour.

163. The Meeting agreed to send a message of greetings to the Antarctic stations of all Consultative Parties. Its text is at Annex J. The Chairman undertook to arrange its distribution.

ADOPTION OF THE FINAL REPORT

(Agenda Item 19)

164. The Final Report and the Recommendations contained therein were adopted by consensus.

CLOSING OF THE MEETING

(Agenda Item 20)

165. Following a closing address, by the delegation of Argentina on behalf of all delegations, of warm thanks to the Government of Brazil, the Chairman of the Meeting, the Executive Secretary and his staff, and an address by the delegation of the Federal Republic of Germany looking forward to the next Consultative Meeting to be hosted by the Government of France, the Meeting was closed at 4:00 p.m. on 16 October 1987.

II

RECOMMENDATIONS ADOPTED AT THE FOURTEENTH ANTARCTIC TREATY CONSULTATIVE MEETING

XIV-1

OPERATION OF THE ANTARCTIC TREATY SYSTEM:

PUBLIC AVAILABILITY OF THE DOCUMENTS OF CONSULTATIVE MEETINGS

The Representatives,

Conscious of the value of increasing public knowledge of the achievements and operation of the Antarctic Treaty System;

Noting operative paragraph 4 of Recommendation XII-6, sub-paragraph (c) of which is no longer relevant;

Desiring to modify subparagraphs (a) and (b) of the said operative paragraph 4, which deal with the handling of Information Documents;

Recommend to their Governments that operative paragraph 4 of Recommendation XII-6 be replaced by the following:

> "4. Starting with the XVth Consultative Meeting, Delegations should indicate, when submitting an Information Document, if they intend that document not to be made public. In the absence of such an indication, the Document will be publicly available as from the closure of the Meeting at which it was submitted."

XIV-2

HUMAN IMPACT ON THE ANTARCTIC ENVIRONMENT:
ENVIRONMENTAL IMPACT ASSESSMENT

The Representatives,

Recalling:

(i) Article II of the Antarctic Treaty, Recommendations IV-4, VIII-11, VIII-13, IX-5 and XII-3;

(ii) the work of SCAR with respect to the elaboration of procedures for evaluating impacts from scientific and logistic activities;

(iii) the United Nations Environment Program (UNEP) "Goals and Principles of Environmental Impact Assessment" adopted by the UNEP Governing Council at its Fourteenth Session (June 1987);

Reaffirming that, before decisions are taken by their respective national organizations responsible for Antarctic activities to undertake scientific research or associated logistic activities that are likely significantly to affect the Antarctic environment, the environmental effects of such activities should be identified so that such effects may be carefully weighted against the advantages that are expected to be derived from the activity in question;

Desiring:

(i) to promote the implementation by Consultative Parties of appropriate procedures consistent with national laws and decision-making processes, through which the foregoing goal may be realized;

(ii) to encourage the development of reciprocal procedures for information exchange and comment between Parties

when proposed activities are likely to have significant effects on the Antarctic environment;

(iii) to introduce a measure of comparability between environmental impact assessment procedures for use with respect to the scientific research and associated logistic activities of Consultative Parties;

(iv) to ensure that in the implementation of such procedures due account is taken of, inter alia, the cumulative impact such activities may have in the Antarctic environment and of their possible impact on other uses of Antarctica and on dependent and related ecosystems;

Recommend to their Governments that:

1. In the planning process leading to decisions about scientific research programmes and their associated logistic support facilities, their respective national Antarctic organizations responsible for Antarctic activities evaluate the environmental impact of such activities in accordance with the procedural guidelines set out below:

GUIDELINES

(i) The proposed activity should be defined and described; such description to include information on the needs to be met by the proposed activity and features of the activity that might cause impacts on the environment;

(ii) A first evaluation, termed an "Initial Environmental Evaluation", should be performed to determine whether the activity might reasonably be expected to have a significant impact;

(iii) If this Initial Environmental Evaluation indicates that the proposed activity is likely to have no more than a minor or transitory effect on the environment, the activity may proceed, with the proviso that appropriate monitoring of the actual impact should take place;

(iv) Otherwise, a "Comprehensive Environmental Evaluation" should be prepared;

(v) Such a Comprehensive Environmental Evaluation should include:

(a) descriptions of the proposed activity and feasible alternatives, including the alternative of not proceeding, and their respective consequences on Antarctic research;

(b) a description of the initial environmental reference state with which predicted changes are to be compared and a prediction of the future environmental state in the absence of the proposed activity;

(c) estimation of the nature, extent, duration and intensity of the likely direct environmental effects resulting from the proposed activity;

(d) consideration of possible indirect or second order effects;

(e) consideration of cumulative impacts of the proposed activity in the light of existing activities and other known planned activities;

(f) identification of measures, including

monitoring programmes, that could be taken to minimize or mitigate impacts and detect possible unforeseen effects;

(g) identification of unavoidable impacts;

(h) evaluation of the significance of the predicted environmental effects in relation to the advantages of the proposed activity;

(vi) On the basis of the Comprehensive Environmental Evaluation, a decision would be made by the appropriate national authority whether the activity should proceed and, if so, in its original or in a modified form;

(vii) Key indicators of the environmental effects of the activity should be monitored and, where possible, environmental impacts should, as in all Antarctic activities, be minimized or mitigated.

2. In the process of preparing a Comprehensive Environmental Evaluation, Parties concerned shall be informed, and be given the opportunity to comment, either directly or through their national contact points.

3. Final Comprehensive Environmental Evaluations shall be transmitted as part of the annual exchange of information provided for under the Antarctic Treaty.

XIV-3

HUMAN IMPACT ON THE ANTARCTIC ENVIRONMENT:

SAFEGUARDS FOR SCIENTIFIC DRILLING

The Representatives,

Recalling Article II of the Antarctic Treaty and Recommendations VIII-13, IX-5, X-7 and XII-3;

Recognizing the knowledge of the tectonic, geochemical and climatic evolution of the Antarctic region that can be obtained from Scientific Drilling;

Bearing in mind the potential risk to the Antarctic environment in cases where such drilling could result in hydrocarbons being released into the Antarctic environment;

Conscious of the need for adequate preparation and planning of such drilling to ensure the best possible scientific results and protection of the Antarctic environment;

Conscious also that planning such drilling will require preparation of a Comprehensive Environmental Evaluation as provided for in Recommendation XIV-2 ;

Recommend to their Governments that they adopt and use the following Guidelines to assist in evaluating and avoiding the potential risk for significant adverse environmental impacts resulting from such drilling:

Guidelines for Scientific Drilling in the Antarctic Treaty Area

i) Before undertaking any scientific drilling that may have sgnificant adverse environmental effects, adequately detailed geophysical surveys shall be performed of the sites in question to enable any potential hazard associated with any specific drill

site within the area of interest to be evaluated along with any other information available about that particular site.

ii) All feasible precautions shall be taken to locate such drill sites offstructure to reduce the possibility of encountering hydrocarbons.

iii) Such planned drill sites and operational drilling plans, including the geophysical survey results and other information, shall be reviewed by a body of appropriate experts to identify potential hazards and to assess the potential risk to the environment resulting from the proposed drilling and how those risks can be minimized.

iv) If any significant potential hazard is identified which cannot be avoided by modifying the planned drilling procedure or equipment, the location of the proposed drill site shall be abandoned and any recommendations of the reviewing body shall be considered in connection with the choice of an alternative site.

v) Contingency plans shall be prepared to deal with any problems that may develop during the drilling process.

vi) The drilling process shall be continuously monitored for potential hazards and necessary action shall be taken if problems occur.

vii) Notification shall be provided to the responsible national agency by those conducting drilling operations of all hazards encountered, including the location of the site at which they were identified, and a description of the actions taken.

XIV-4

FACILITATION OF SCIENTIFIC RESEARCH: SITES OF SPECIAL SCIENTIFIC INTEREST: INTERIM GUIDELINES: EXTENSION OF DESIGNATION.

The Representatives,

Recalling Recommendations VIII-3, VIII-4, X-6, XII-5 and XIII-7;

Noting that:

(i) in accordance with paragraph 2 of Recommendation VIII-3 the Scientific Committee on Antarctic Research (SCAR) at its Nineteenth Meeting at San Diego, USA in June 1986, had reviewed the Site of Special Scientific Interest Nº 2 and had noted the importance of protecting this site from man-made electromagnetic interference over a range of frequencies from 10^{-2}Hz to 10^{8} Hz in view of the value of the site for the study of natural electromagnetic phenomena of relevance to ionospheric and magnetospheric physics;

(ii) experience of the practical effect of the management plan for the site had shown it to be an effective means of reducing the risks of harmful interference with the scientific research being undertaken in it;

(iii) no change to the management plan had been proposed by SCAR;

Recommend to their Governments that:

1. The date of expiry of designation of Site Number 2 be extended from 31 December 1987 to 31 December 1997.

2. They use their best endeavours to ensure, in accordance with paragraphs 3 and 4 of Recommendation VIII-3 that the management plan for this site is observed.

XIV-5

FACILITATION OF SCIENTIFIC RESEARCH: SITES OF SPECIAL SCIENTIFIC INTEREST: INTERIM GUIDELINES: ADDITIONAL SITES.

The Representatives,

Recalling Recommendations VIII-3 and VIII-4;

Noting that management plans have been prepared and approved by the Scientific Committee on Antarctic Research (SCAR) for certain Sites of Special Scientific Interest additional to those already designated;

Considering that it would be advantageous to gather experience of the practical effect of the management plans prepared for these Sites;

Recommend to their Governments that they voluntarily take account of the management plans, annexed to this Recommendation for the following Sites:

Site Nº 22: Yukidori Valley, Langhovde, Lutzow-Holm Bay.

Site Nº 23: Svarthamaren, Mühlig-Hofmannfjella, Dronning Maud Land.

Site Nº 24: Summit of Mt Melbourne, North Victoria Land.

Site Nº 25: Marine Plain, Mule Peninsula, Vestfold Hills, Princess Elizabeth Land.

Site Nº 26: Chile Bay (Discovery Bay), Greenwich Islands, South Shetland Islands.

Site Nº 27: Port Foster, Deception Island, South Shetland Islands.

Site Nº 28: South Bay, Doumer Island, Palmer Archipelago.

ANNEX

SITE OF SPECIAL SCIENTIFIC INTEREST N° 22

YUKIDORI VALLEY, LANGHOVDE, LUTZOW-HOLM BAY

Management Plan

(i) Description of Site
Physical Features

Yukidori Valley (lat. 69°14'30" S, long. 39°46'00" E), is situated in the middle part of Langhovde, on the east coast of Lutzow-Holm Bay, Greater Antarctica.

The site encompasses an area of 3 km by 0.5-1.5 km, located between a tongue of the ice cap and the sea at the western end of the valley; it extends up to 50 m offshore near the mouth of the stream. The location of the site and its boundaries are shown on the attached maps.

Topography. The valley is about 3 km in length from east to west and 0.5 to 1.5 km in width and contains a prominent melt stream and two lakes; the head of the valley, about 200 m above sea level, abuts the edge of the ice cap. Lake Higashi Yukidori lies north of the head of the valley. The stream flows from the ice cap towards the sea through V-shaped and U-shaped sectors of the valley and enters Lake Yukidori, in the middle of the valley, 125 m above sea level; it then flows from the south-west corner of the lake and runs through the lower valley formed by steep cliffs. Fluvioglacial terraces in the lower part of the valley consist of fine sand and gravel. There is a dissected deltaic fan formed at the mouth of the stream.

Geology and soils. The valley is underlain by well-layered sequences of late Proterozoic metamorphic rocks, consisting of garnet-biotite gneiss, biotite gneiss,

pyroxene gneiss and hornblende gneiss with metabasite. The foliation of the gneisses strike N 10°E and dips monoclinally to the east.

Meteorology. A continuous climatic record has been maintained since 1957 at Syowa Station, Ongul Island, 30 km north of the site (published as "Antarctic Meteorological Data" by the Japan Meteorological Agency).

Biological Features

Terrestrial. Almost all of the plant species recorded from the Langhovde area occur within the site. They include the mosses Bryum pseudotriquetrum (= B. algens), B. argenteum, Ceratodon purpureus, Pottia heimii, Grimmia lawiana, and the lichens Usnea sphacelata (= U. sulphurea), Umbilicaria antarctica, U. decussata, Alectoria (= Pseudephebe) minuscula, Xanthoria elegans. There are no liverworts or vascular plants. Two species of free living mites (Nanorchestes antarcticus and Tydeus erebus) have been reported.

Inland waters. Sixty-four species of microalgae, including cyanobacteria and green algae, have been reported from Lake Yukidori and the adjacent area. Among them were one new species of Cosmarium (C. yukidoriense) and three new varieties of C. clepsydra.

Marine. No information

Birds and seals. Several pairs of the south polar skua (Catharacta maccormicki) and numerous snow petrels (Pagodroma nivea: Note "Yukidori" is Japanese for the snow petrel) breed in the site. The excrement of snow petrels is especially important as a major supply of

nutrients for lichens and mosses. There is no information on seals.

(ii) Reason for designation

Yukidori Valley is representative of the typical continental Antarctic fellfield ecosystem. The area has been chosen for an on-going biological research programme and for long-term monitoring studies. It is therefore necessary to afford protection to the site so as to minimize human impacts. With more extensive expeditions in the ice-free areas, pedestrian traffic is increasing in the vicinity of the exceptional stands of vegetation. A biological research hut has been constructed near the beach at the mouth of the valley, 250 m from the western boundary of the site, for the purpose of minimizing impact on the fauna, flora and terrain of the site. Pedestrian access has been limited and no vehicular access has been permitted since the construction of the hut. The valley has not been subjected to any environmental disturbance, with the exception of carefully controlled small-scale biological sampling of lake water, soil, lichens, mosses, invertebrates and sea birds.

(iii) Outline of research

Field surveys of geoscience and biological science have been carried out in the Langhovde area, including the site, since the first Japanese Antarctic Research Expedition in 1957.

A preliminary biological survey of the site was made during JARE 15 and 16 (1973-75). This survey obtained information on the pristine state of the terrestrial ecosystem to compare with that influenced by man around Syowa Station on East Ongul Island. The studies were mainly undertaken in summer, and terminated after two seasons. A three year intensive study of the ecosystem commenced during the 1985-86 season. The present programme is planned to gain a deeper understanding of the terrestrial ecosystems in this site; it consists of several ecological studies on fauna and flora in relation to the climatic

and edaphic environmental conditions. Long-term monitoring of fauna and flora in some selected areas has been conducted from the early stages of the investigation and will be continued.

(iv) Date of expiry of designation

31 December 1992.

(v) Access points

None specified.

(vi) Pedestrian and vehicular routes

Pedestrians should enter the site only in connection with research activities. Surface vehicles should not be operated and helicopters should not land within the site.

(vii) Others kinds of scientific investigations which would not cause harmful interference

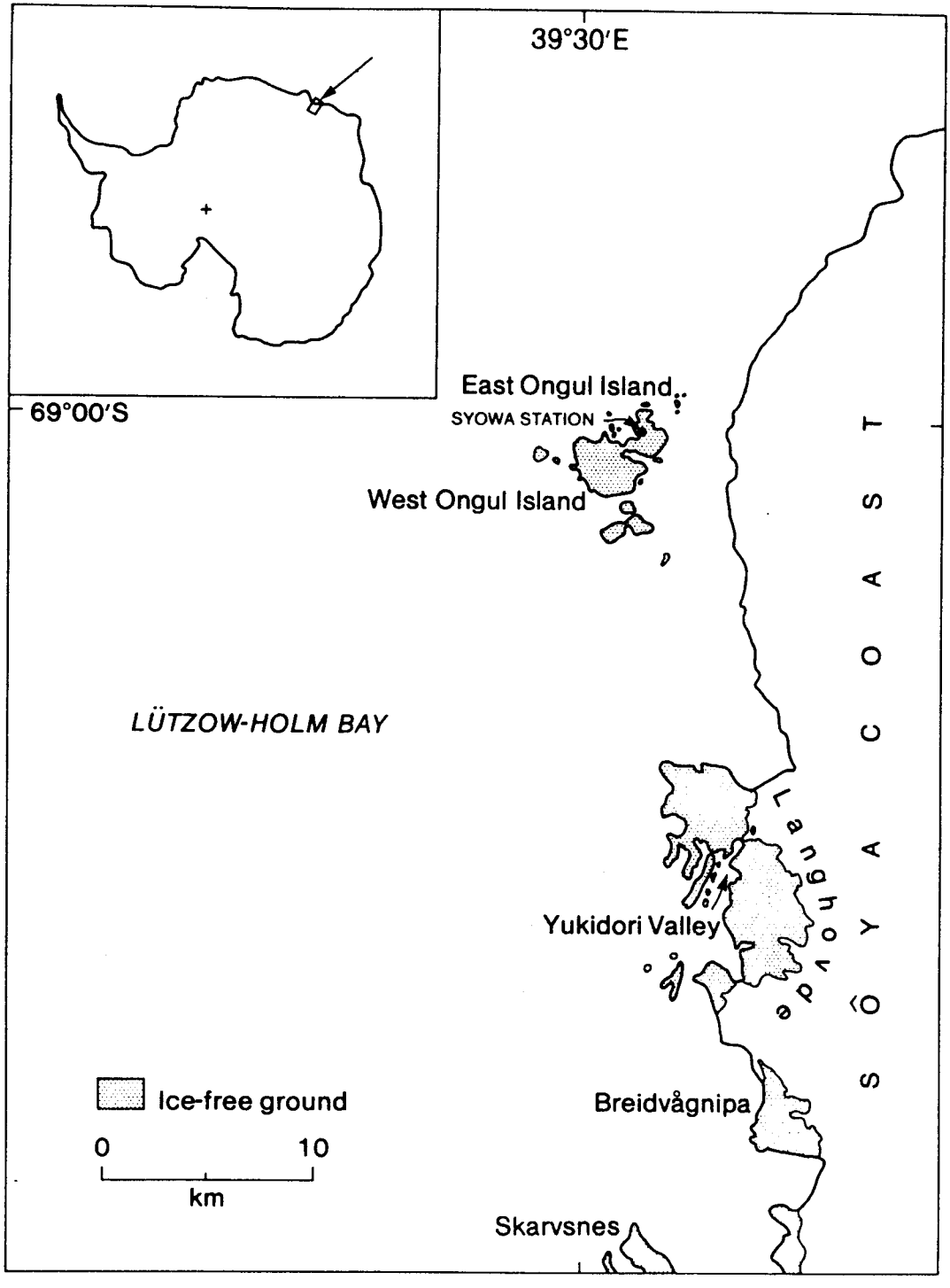
Research of other disciplines that would not affect the continuing biological studies for the protection of which the site has been designated.

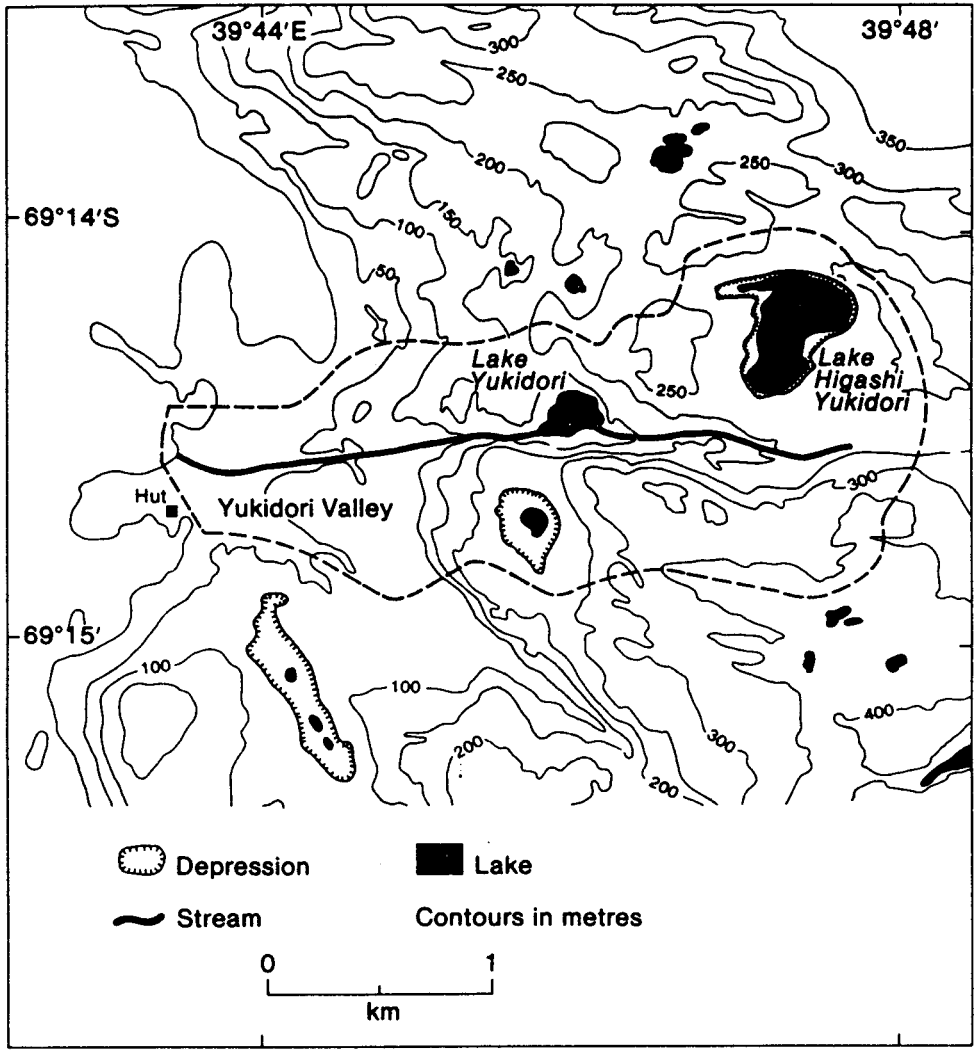
(viii) Scientific sampling

This should be restricted to the minimum required in connection with the programme. No rock samples may be obtained.

(ix) Other restraints

None specified.


39°30′E
69°00′S
East Ongul Island
SYOWA STATION
West Ongul Island
LÜTZOW-HOLM BAY
Langhovde
Yukidori Valley
Breidvågnipa
Skarvsnes
SÔYA COAST
Ice-free ground
0
10
km


39°44'E
39°48'
69°14'S
69°15'
300
250
200
150
100
50
350
Lake Yukidori
Lake Higashi Yukidori
Hut
Yukidori Valley
400
Depression
Lake
Stream
Contours in metres
0
1
km

SITE OF SPECIAL SCIENTIFIC INTEREST Nº 23

SVARTHAMAREN, MÜHLIG-HOFMANNFJELLA, DRONNING MAUD LAND

Management Plan

(i) Description of Site

Physical Features

Svarthamaren is an ice free area (lat. 71º53'S, long. 5º10'E) situated in Mühlig-Hofmannfjella, Dronning Maud Land. The distance from the ice front is about 200 km. The site consists of about 3.9 km² of the north-eastern facing cliffs and screes north of the summit of Svarthamaren. The location of the site and its boundaries are shown in the attached maps.

Topography. Svarthamaren is surrounded by ice and is about 6 km long along a NW-SE axis, with the highest point at 2195 m a.s.l. The northern part of the NE side is dominated by screes (slope 31-34º), extending 240 m upwards from the base of the mountain at about 1600 m a.s.l. Above these screes are almost vertical cliffs. Beneath the screes is a narrow area of flat ground bordered by glacier ice. The major feature of this site are two rock amphitheatres inhabited by breeding Antarctic petrels.

Geology and soils. The main rock types are coarse and medium grained charnockitoids and small amount of zenoliths. Banded gneisses, biotite amphibolites and granites of the amphibolites facies mineralogy are included in the charnockitoids. The slopes are covered by decomposed feltspathic sand.

Meteorology. Data exist for the period 13 January to 15 February 1985 (prevalent air temperature ranged between -5ºC and -15ºC). An automatic weather station was set up by the Norwegian Antarctic Research

Expedition 1984/85 in an analogous situation at Jutulsessen, 100 km west of Svarthamaren, to obtain long-term weather statistics.

Biological Features

Terrestrial. The flora and vegetation at Svarthamaren are sparse compared with other areas in Mühlig Hofmannfjella and Gjelsvikfjella to the west of the site. This is apparently due to the elevation of Svarthamaren, the shortage of meltwater, and the excessive nutrient deposition from the bird colonies. The only plant species occurring in abundance, but peripherally to the most manured areas, is the foliose green alga, Prasiola crispa. There are a few lichen species on glacier-borne erratics 1-2 km away from the bird colonies: Candelariella hallettensis (= C. antarctica), Rhizoplaca (= Lecanora) melanophthalma, Umbilicaria spp., and Xanthoria spp. Areas covered with Prasiola are inhabited by Collembola (Cryptopygus sverdrupi) and a rich fauna of mites (Eupodes angardi, Tydeus erebus), protozoans, nematodes and rotifers.

Inland waters. A shallow pond measuring about 20 x 30 m, lying below the middle and largest bird subcolony, is heavily polluted by petrel carcasses, and supports a strong growth of a yellowish-green unicellular algae, Chlamydomonas sp. Smaller concentrations of algae occur on the fringes of a small frozen lake below the northern face of the mountain. No invertebrates have been recorded.

Birds. There are important breeding colonies of sea-birds. The north-east slopes of Svarthamaren are occupied by a densely populated colony of Antarctic petrels (Thalassoica antarctica), divided into three separate subcolonies. Less then ten breeding colonies of Antarctic petrels are described in the literature, and the Svarthamaren colony is by far the largest

known. The colony was first closely examined in January/February 1985 by Norwegian ornithologists. The total number of breeding pairs was estimated to be 208,000. In addition, 500-1000 pairs of snow petrels (Pagodroma nivea) and 50 pairs of south polar skuas (Catharacta maccormicki) were breeding in the area. The Antarctic petrels nest in the two rocky amphitheatres with a mean density of 0.75 nest per square metre. Most of the snow petrels nest in separate parts of the scree characterized by larger rocks. The south polar skuas nest on the narrow strip of flat, snow-free ground below the screes.

(ii) Reason for designation

The Svarthamaren Antarctic petrel colony is the largest known seabird colony situated inland on the Antarctic continent, and probably represents a significant proportion of the world population of this species.

The site is of exceptional scientific interest and provides for research on the Antarctic petrel, snow petrel and south polar skua and the study of adaptations in seabirds breeding inland on the Antarctic continent.

(iii) Outline of research

A study of the breeding biology and ecophysiological adaptations in the Antarctic petrel was initiated in 1985. This is planned to continue during future Norwegian Antarctic Expeditions. The accessibility of the site is limited by its location far inland.

The Antarctic petrel colony was discovered by Soviet geologists in January 1961 when a party landed in the area with an AN-2 aircraft and unexpectedly encountered thousands of birds. During the period 9 January to 16 February 1985 ten of the scientists of the Norwegian Antarctic Research Expedition worked in Mühlig-Hofmannfjella and Gjelsvikfjella, and established a base camp (Camp Norway 5) on the glacier approximately 500 m north-east of the northernmost slope of the site.

Three ornithologists, a botanist and an invertebrate zoologist worked in the area and researchers of other disciplines surveyed this and nearby areas. Helicopter landings during the period were kept to a minimum. A wooden laboratory hut has been left to be used by future parties.

(iv) Date of expiry of designation

31 December 1997.

(v) Access points

The site may be entered from any direction but access should cause minimum disturbance to the bird colonies.

(vi) Pedestrian and vehicular routes

Vehicles should not enter the Site. Pedestrians should not move through the populated areas except in the course of scientific investigations. Helicopters and low-flying aircraft should avoid the bird colonies in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

(vii) Other kinds of scientific investigations which will not cause harmful interference

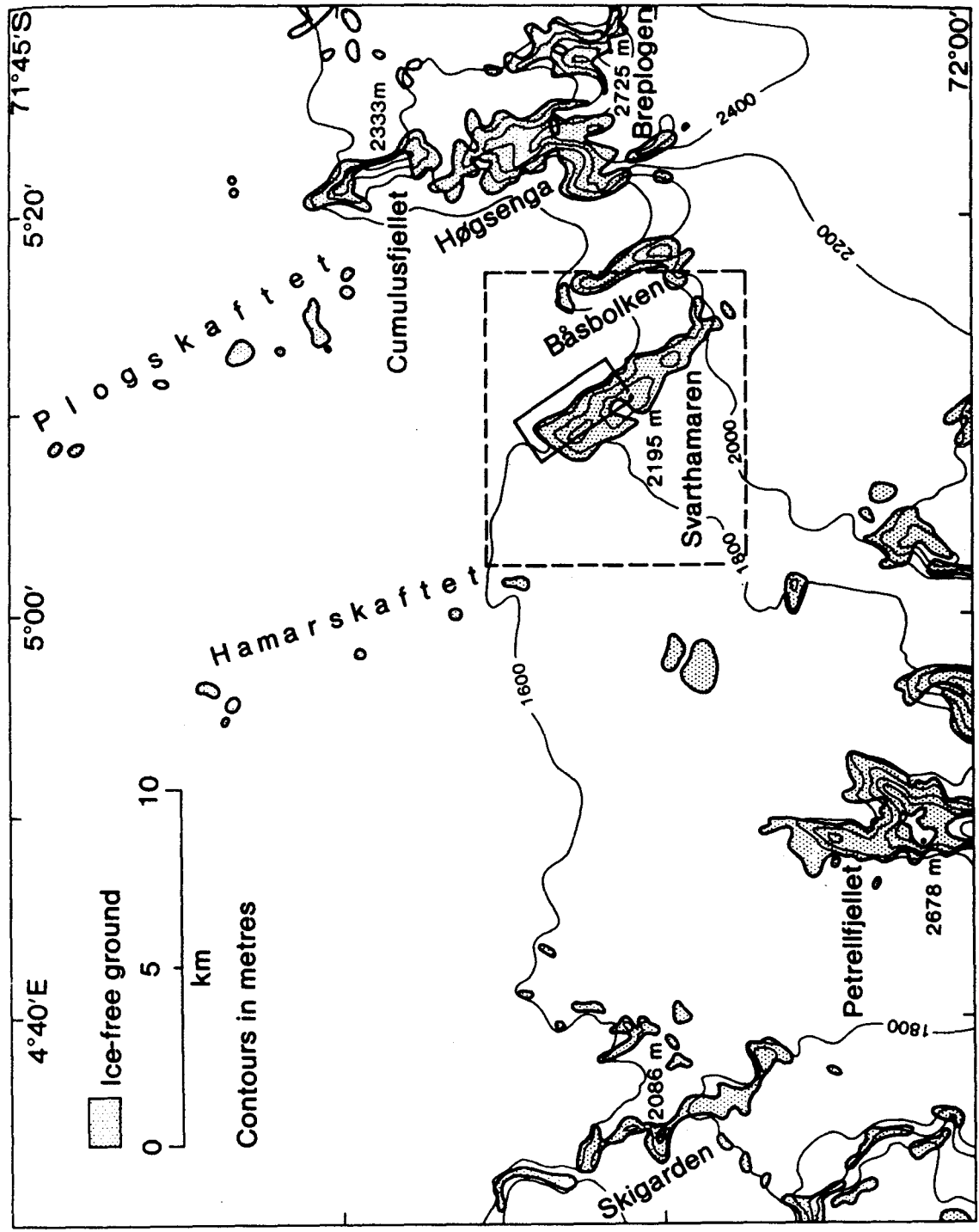
Any scientific investigation which will not cause significant disturbance to the biological programmes for which the site has been designated.

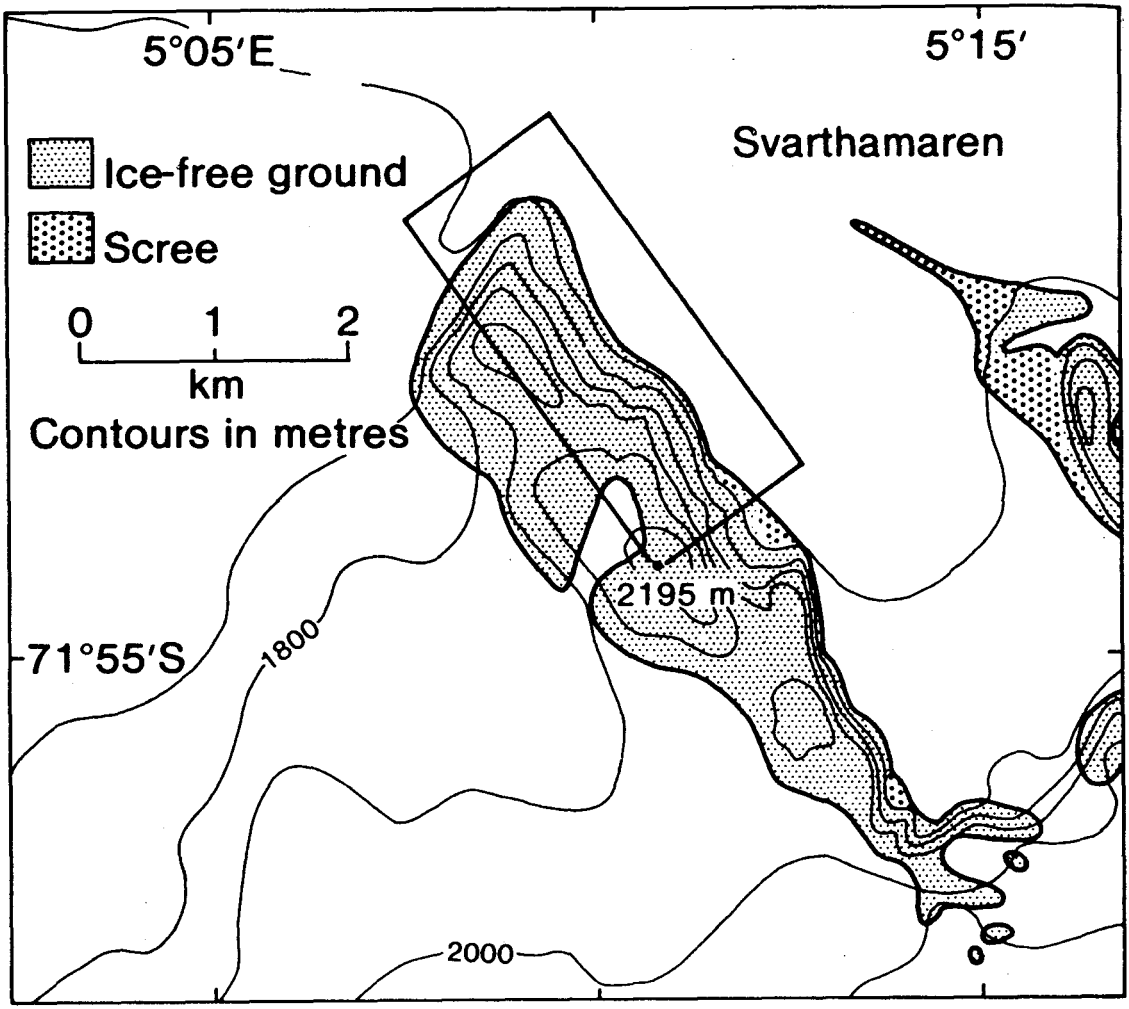
(viii) Scientific sampling

Taking samples of the bird population by killing, capture, or taking of eggs should be done only for a compelling scientific purpose and in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

(ix) Other restraints

None specified.


71°45'S
5°20'
5°00'
4°40'E
72°00'
Plogskaftet
Hamarskaftet
Cumulusfjellet
2333m
Høgsenga
2725 m
Breplogen
2400
2200
Båsbolken
2195 m
Svarthamaren
2000
1800
1600
Petrellfjellet
2678 m
1800
2086 m
Skigarden
Ice-free ground
0
5
10
km
Contours in metres


5°05'E
5°15'
Svarthamaren
Ice-free ground
Scree
0 1 2
km
Contours in metres
2195 m
71°55'S
1800
2000

SITE OF SPECIAL SCIENTIFIC INTEREST Nº 24

SUMMIT OF MT. MELBOURNE, NORTH VICTORIA LAND

Management Plan

(i) Description of Site

Physical Features

Mt. Melbourne, North Victoria Land (lat. 74º21'S, long. 164º42'E) is situated between Wood Bay and Terra Nova Bay, on the west side of Ross Sea, and Campbell Glacier, about 10 km to the west. The site comprises all terrain above the 2200 m contour surrounding the main crater of Mt. Melbourne. The location of the site and its main features are shown in the attached maps.

Topography. In profile, Mt. Melbourne is an almost perfect low-angle volcanic cone rising to 2732 m a.s.l., showing only slight dissection and little or no glacial erosion. Many smaller basaltic cones and mounds occur near the base and on the flanks of the mountain. The summit caldera is about 1 km in diameter and forms a neve for a glacier flowing westward. The two areas of ice-free steaming ground (at A - "Cryptogam Ridge" and B on the accompanying map) are on the edge of the caldera, with a third area (C) 250 m lower on the northern slopes. "Cryptogam Ridge", on the southern side of the main crater, is an area of geothermal activity. About 300-400 m of this ridge is ice-free with the remainder covered by numerous ice hummocks. These hummocks are hollow, contain fumaroles and are 1-6 m in diameter and up to 4 m high.

Geology and soils. Mt. Melbourne is part of the McMurdo Volcanics which are a line of dormant and extinct volcanoes running along the coast of Victoria Land. The Mt. Melbourne area is more likely to be late Quaternary than late Tertiary in age, and the most recent eruption

may have been only about 150 years ago. The mountain is a large low-angle strato-volcano containing basalt, trachyandesite and trachyte flows and including pyroclastics. Small basalt scoria cones are scattered around the base, some of which appear to be very recent as they are undissected. Several older slightly dissected cones occur on the summit caldera.

Surface ground temperatures vary markedly over distances of centimetres on ice-free warm ground, up to a recorded maximum of 47°C. Random probing to depths of 1 m and detailed temperature transects to depths of 15 cm indicate substrate temperatures of up to 60°C. Within the ice pinnacles soil surface temperatures range from 10°C to over 40°C. Frost heave occurs at some warm areas.

Although the substratum is classified as azonal, there are two distinct soil zones within some areas of hot ground probably caused by heat, moisture and gases from below. A typical profile comprises an upper 0-5 cm layer of dark sandy soil with a lower 6-30 cm horizon consisting of large lighter coloured scoria gravels. The upper layer contains organic matter in which there is microbiological activity, including cyanophaecean nitrogen fixation. No clay minerals have been detected.

Meteorology. No detailed data are available for the site. Field party records, during one week in late November 1984, indicate summer air temperatures in the caldera area of -6°C to -20°C, with an absolute minimum of -32°C.

Biological Features

Terrestrial. The warmest areas of ground support patches of yellow-green moss, liverwort and brownish crusts of algae. The site contains an unique bryophyte community

comprising the moss Campylopus pyriformis and the liverwort Cephaloziella exiliflora. C. pyriformis is not known elsewhere in the Antarctic biome, and C. exiliflora is known from only three other (low altitude) areas of continental Antarctica. Other than at a similar geothermal site at the summit of Mt. Erebus (protonemata only) this is the highest altitude at which bryophytes have been found in Antarctica. A single unidentified lichen has been observed as a component of black crusts over small areas of warm soil. The unusual occurrence of shallow peat is evidence of bryophyte growth having taken place over at least several decades.

Algar grow over wide areas of the warm ground and on the surface of warm rocks in some fumaroles. The microflora comprises a range of unicellular and filmentous algar, including the green Chroococcus sp. Tolypothrix sp. and Stigonema sp. and the cyanobacteria Mastigocladus laminosus and Pseudococcomyxa simplex. Thermotolerant and thermophilic micro-organisms have been isolated from the soil. The only invertebrate reported is a testate amoeba, Corythion dubium, amongst the vegetation. The occurrence of plant life is made possible only by the water droplets formed by the condensation of steam. Very small 'pools' up to 50 cm^2 and about 1 cm deep have been observed on occasions where dripping condensate gathered in small depressions.

Birds. No observations of birds have been made near the summit of the volcano.

(ii) Reason for designation

The site of exceptional scientific interest because of its extensive ice-free geothermal areas, at high altitude, supporting a unique cryptogamic flora and microbiota and accumulations of organic matter. The closest documented, high altitude fumarolic ground is 400 km to the south of the summit

of Mt. Erebus (see SSSI N? 11, Tramway Ridge Mt. Erebus), but there the organisms differ significantly from those on Mt. Melbourne. Elsewhere in Antarctica vegetation on steam-warmed ground is known only in low altitude maritime areas of the Antarctic Peninsula region where, again, the vegetation differs significantly from the Mt. Melbourne community. The site is scientifically significant for botanists, microbiologists, volcanologists and geophysics. Uncontrolled human activity within this area could cause severe damage by trampling of plants, compacting soil and altering soil temperature gradients, changing rates of steam release and possibly causing the introduction of alien micro-organisms and cryptogamic plants.

(iii) Outline of research

There has been little previous research activity in the site. The studies that have been undertaken have involved investigations of geothermal and volcanic activity and a survey of the plant and microbial communities. Future research is likely to include studies of soil microbiology and microfauna, vegetation, volcanology and the geophysics of the area.

Mt. Melbourne was first sighted in 1841 by James Ross and first climbed in January 1967 by a New Zealand party. Since then the summit area has been visited by New Zealand parties in December 1972 and November 1984. The 1984 party surveyed the biota on "Cryptogam Ridge". Brief visits were also made in January 1983 by a United States party and more recently by West German (1984/85) and Italian (1985/86) parties.

(iv) Date of expiry of designation

31 December 1997.

(v) Access Points

Access to the site is normally by helipcopter and landings should be made only on the glacier ice in the caldera, thereby avoiding any of the vegetated or other sensitive areas.

(vi) Pedestrian and vehicular routes

No vehicle should be used within the site. Pedestrians should avoid, whenever possible, walking on any obvious areas of warm ground or disturbing any vegetation. Entry to the "Cryptogam Ridge" area of the site should be made only from either end of the ridge. Entering the ridge directly up its slopes should be avoided.

(vii) Other kinds of scientific investigations which would not cause harmful interference

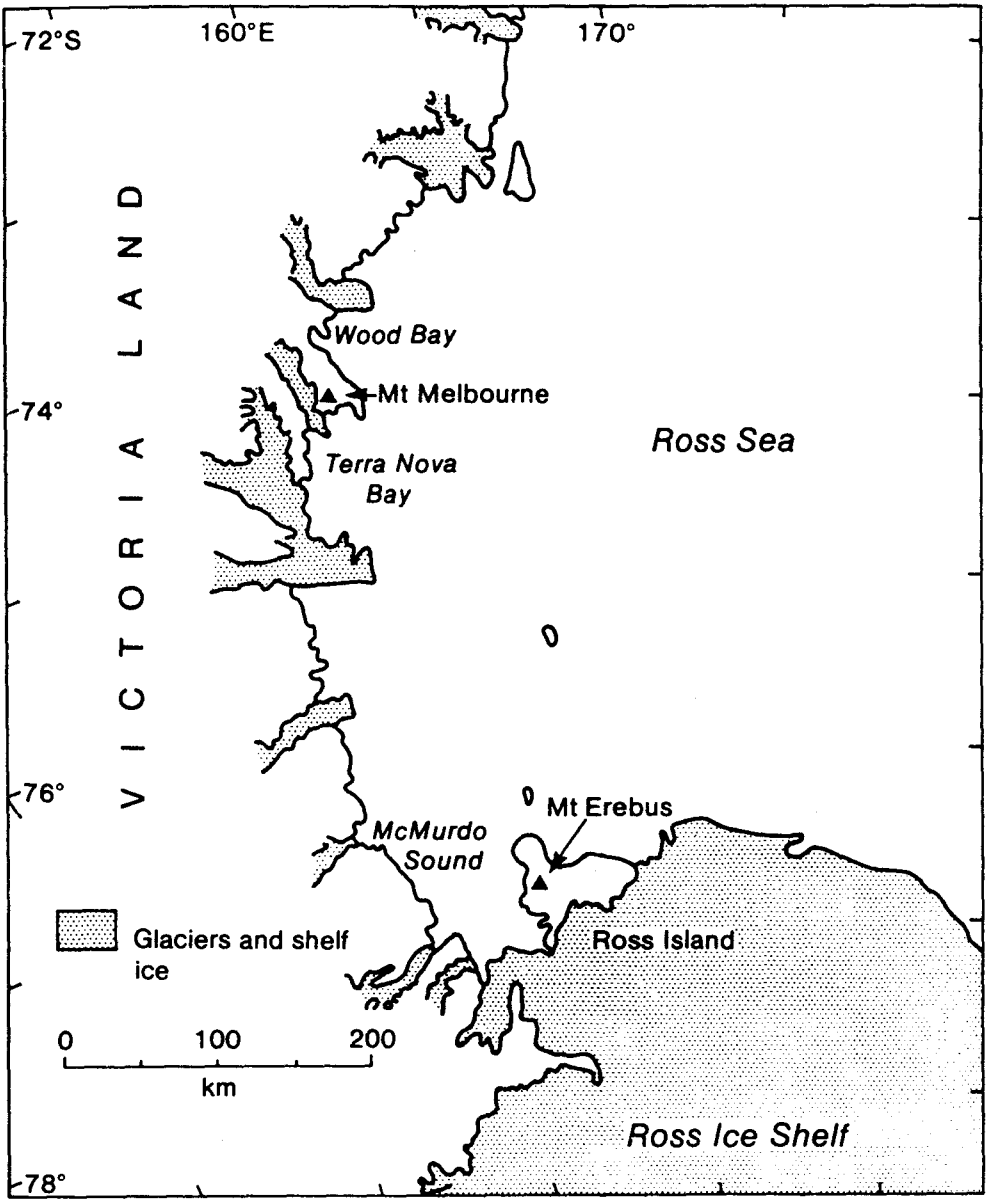
Low impact studies having a minimal effect on the environment of the site.

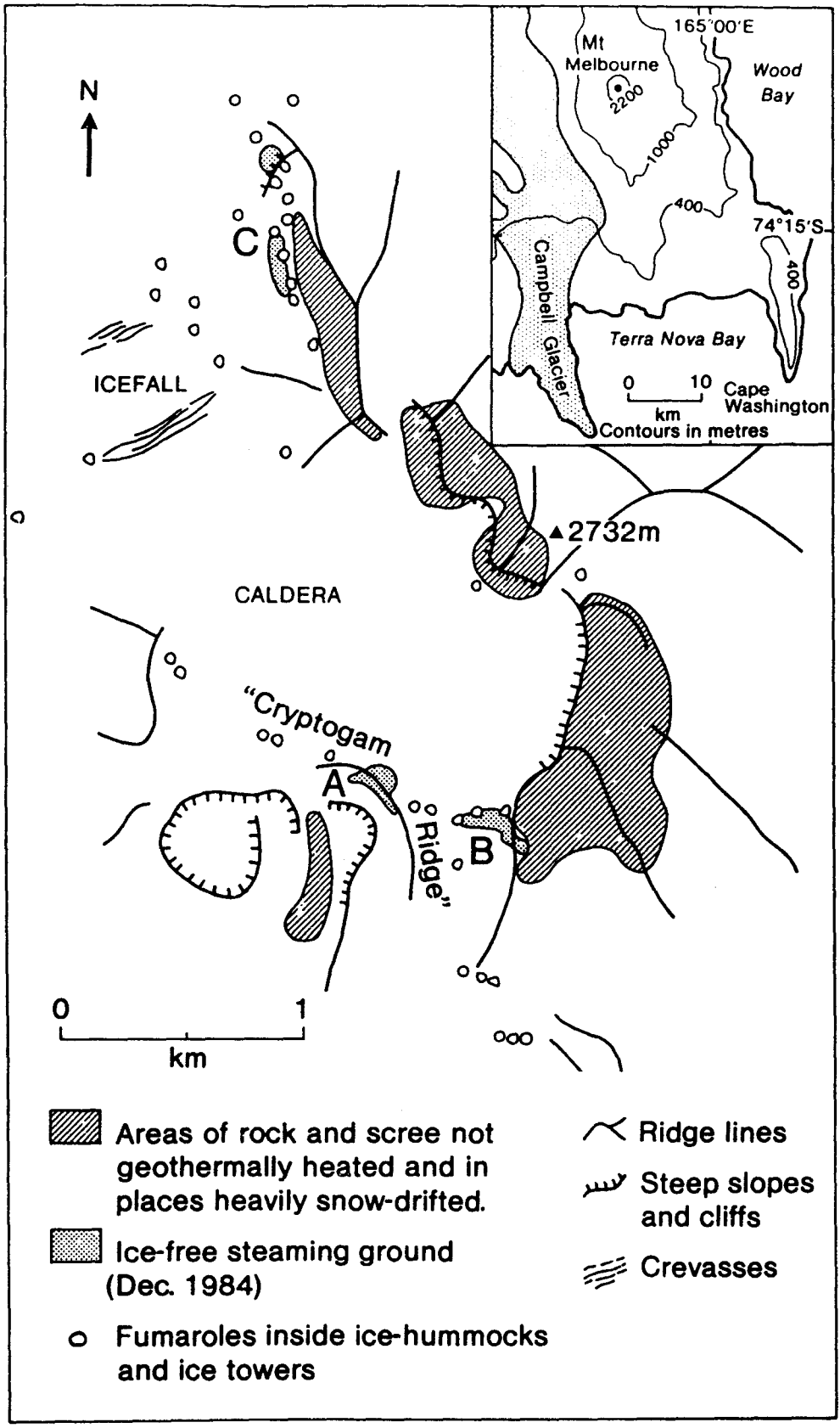
(viii) Scientific sampling

Samples should be taken only for compelling scientific reasons.

(ix) Other restraints

To prevent the introduction of foreign organisms sterile protective overclothing should be worn and footwear should be sterilized before entering the site. Sterilized sampling equipment should also be used. All wastes should be removed from the site.


72°S
160°E
170°
VICTORIA LAND
Wood Bay
Mt Melbourne
74°
Terra Nova Bay
Ross Sea
76°
Mt Erebus
McMurdo Sound
Glaciers and shelf ice
Ross Island
0
100
200
km
Ross Ice Shelf
78°


N
C
ICEFALL
CALDERA
▲2732m
"Cryptogam
Ridge"
A
B
0
1
km
Mt
Melbourne
2200
1000
400
165°00'E
Wood
Bay
74°15'S
Campbell Glacier
Terra Nova Bay
0
10
km
Contours in metres
Cape
Washington
Areas of rock and scree not geothermally heated and in places heavily snow-drifted.
Ice-free steaming ground (Dec. 1984)
Fumaroles inside ice-hummocks and ice towers
Ridge lines
Steep slopes and cliffs
Crevasses

SITE OF SPECIAL SCIENTIFIC INTEREST Nº 25

MARINE PLAIN, MULE PENINSULA, VESTFOLD HILLS, PRINCESS ELIZABETH LAND

Management Plan

(1) Description of Site

Physical Features

Marine Plain (23.4 km, lat. 68°38'S, long 78°08'E) opens into an arm of Crooked Fjord on the southern side of Mule Peninsula, the southernmost of the three major peninsulas which comprise the Vestfold Hills. The Vestfold Hills comprise an essentially ice-free oasis (approx. 400 km²) of bedrock, glacial debris, lakes and ponds at the eastern side of Prydz Bay, Princess Elizabeth Land.

The boundary of the site is as follows: commencing at lat. 68°36'30"S, long. 78°09'00"E it runs south-easterly to lat. 68°36'45"S, long. 78°10'30"E; thence south-easterly to lat. 68°37'30"S, long. 78°10'30"E, then south along the parallel of long. 78°12'30"E to its intersection by the low water mark on the northern shore of Crooked Fjord; from here it follows the low water mark of the northern shore of Crooked Fjord to its intersection with the meridian of long. 78°03'00"E; thence north along the meridian of long. 78°03'00"E to its intersection with the parallel of lat. 68°37'30"S, then north-easterly to lat. 68°37'00"S, long. 78°05'00"E, and finally north-eastwards to the point of commencement.

Topography. The site includes Burton Lake (surface at sea level) as a major component of the western part of the region. An extensive low level (less than 20 m above sea level) area occupies the centre of the site with a north-south orientation. In the north-east is another area below 20 m. Areas above 20 m are mostly low, rugged hills of Precambrian rock acting as divides

between the lower part and characterized at their base by a marked change in their slope, probably representing and old (Holocene?) shoreline. The surface of the lower areas below 20 m is marked by a series of concave-to-the-south recessional moraine ridges.

Geology. The Precambrian rock consists for the most part of 3000 Ma gneisses from both igneous and metamorphic protoliths intruded in the course of at least three intervals between 1800 and 1375 Ma by numerous metabasalt dykes with a rough north-south orientation. These dykes are a major feature of the Vestfold Hills. Low lying areas consist of at least 8 melves of early Pliocene (40-46 million years) diatomites and, less commonly, lenticular sandstone overlying the Precambrian rock and occupying the sites of what were embayments in the early Pliocene. In the western part of the central area below 20 m a.s.l., the Pliocene deposits are overlain by a thin veneer of Holocene (6490 ± 130 y BP) glacial debris covering an area of 8-10 sq km, in places containing a few molluscs (Laternula elliptica King and Broderip) in situ. Low scarps in the Pliocene adjacent to small lakes have yielded remains of a new genus, species and probably family - all extinct - of dolphin, and there is evidence of another larger, fossil form.

Meteorology. No data are available from the area, but conditions are similar to those at Davis station, 6 km to the north-west.

Biological features

Terrestrial. Reconnaissance studies have reported few species and no significant stands of vegetation within the site.

Inland Waters. There are many small lakes and ponds.

Marine. Burton Lake opens to Crooked Fjord at its south-western corner and is affected by tides in summer. It has been the site of biological research for several years.

Birds and Seals. No bird or seal surveys have been conducted but it is relatively devoid of birds and sea mammals. Wilson's storm petrels (Oceanites oceanicus) and snow petrels (Pagodroma nivea) occur sporadically and nest in the Precambrian hills.

(ii) Reason for designation

The site is of exceptional scientific interest because of its vertebrate fossil fauna. In addition to the dominant important fossils such as molluscs and diatoms, which define the age of the Pliocene marine sediments, the site has yielded well-preserved vertebrate remains of a new species, genus and probably family of fossil dolphin and evidence of at least one other vertebrate species.

Burton Lake, as a hypersaline lake which is still in seasonal connection with sea, presents the opportunity for important limnological research. It represents a unique stage in the biological and physico-chemical evolution of a terrestrial water body from the marine environment. Burton Lake together with several of the smaller lakes, provide important examples of the spectrum of lake types in the Vestfold Hills.

Davis (68°85'S, 77°58'E), a permanently occupied Australian scientific station, is located on Broad Peninsula, the central peninsula of the Vestfold Hills, 6 km to the north-west of the site. It is the focus of continuing biological, including limnological, studies within the Vestfold Hills. As a result of its proximity to Davis station, the scientific value of the site could be diminished by accidental interference. The site lies on the frequently used pedestrian route to the Mule Peninsula lakes (Clear, Laternula, Cemetery and McCallum) from Ellis Rapids and

it is critical that fossil fauna should be protected from unrecorded sampling or collection.

(iii) Outline of research

A paleontological research programme has commenced following the initial discovery of vertebrate fossils at the site in 1985. The programme consists of the collection of well-preserved fossil molluscs and diatoms and, in particular, fossil vertebrates, with the aim of documenting the fauna of the epoch. Oxygen isotope studies on the well-preserved bivalve fauna will be employed to help quantify water temperature at that time.

Burton Lake is the subject of detailed year-round research as part of a programme aimed at understanding the evolution of the hydrological system in the Vestfold Hills, by looking at various stages of isolation from the marine environment.

(iv) Date of expiry of designation

31 December 1997

(v) Access points

Access should, where possible, be from the sea ice in Ellis Fjord or Crooked Fjord, or by helicopter at places where no disturbance can be caused by the aircraft to water bodies, vegetation or sediment deposits. If these means of access are not possible, access by land, either by vehicle or on foot, should be via Ellis Rapids at the eastern end of Ellis Fjord.

(vi) Pedestrian and vehicular routes

Vehicles should not be used within the site except for over-snow travel by motorized toboggan. Pedestrians or vehicles must not damage areas of vegetation, or disturb steep inclines marking sediment outcrops or the lake margins near these outcrops.

(vii) Other kinds of scientific investigations which would not cause harmful interference

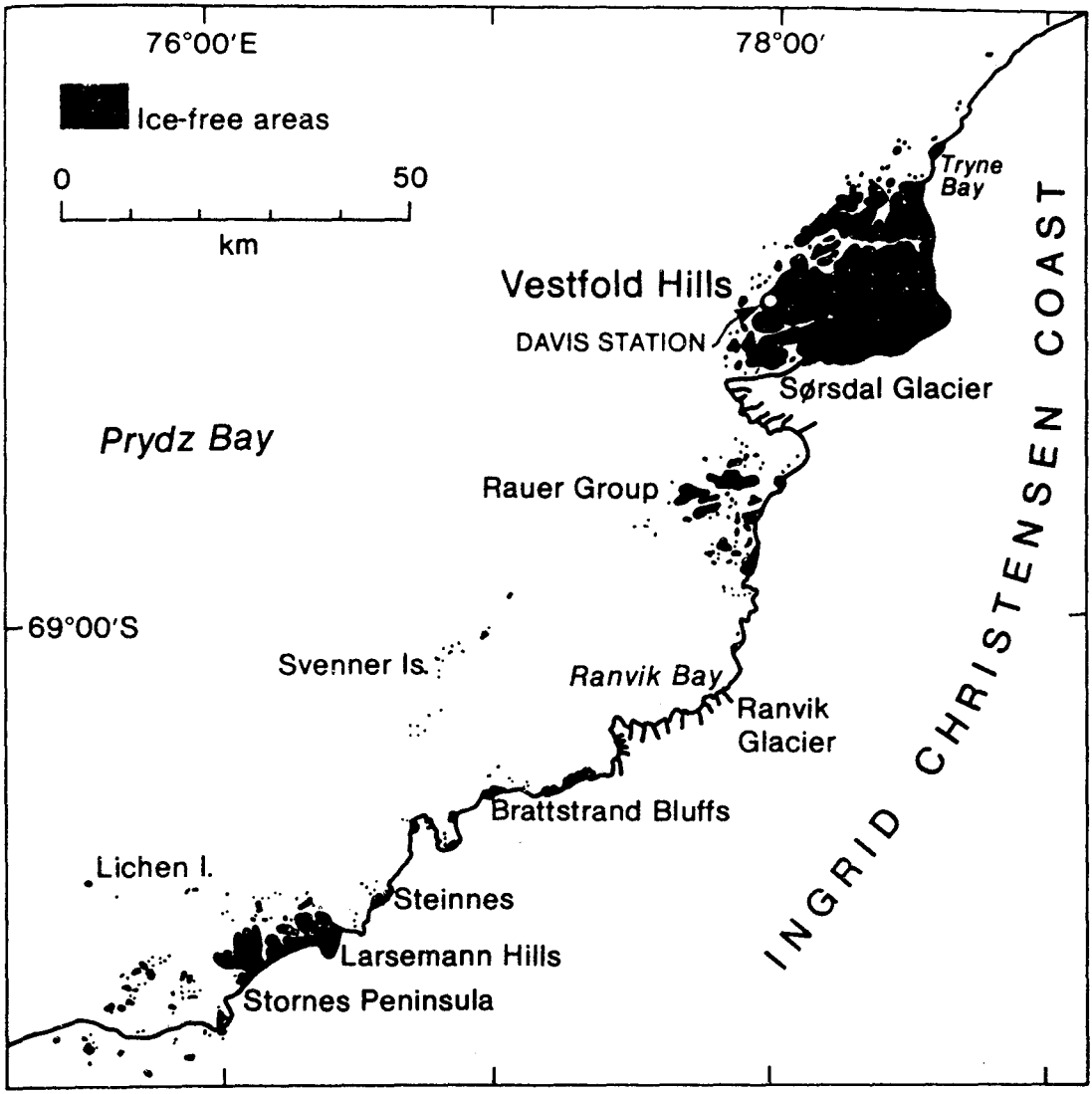
Research on the ecology of Wilson's storm petrels, snow petrels, mosses and lichens, and other biota, and investigation of water bodies other than Burton Lake. Other scientific investigations which do not disturb the palaeontological, ecological and limnological programmes being conducted.

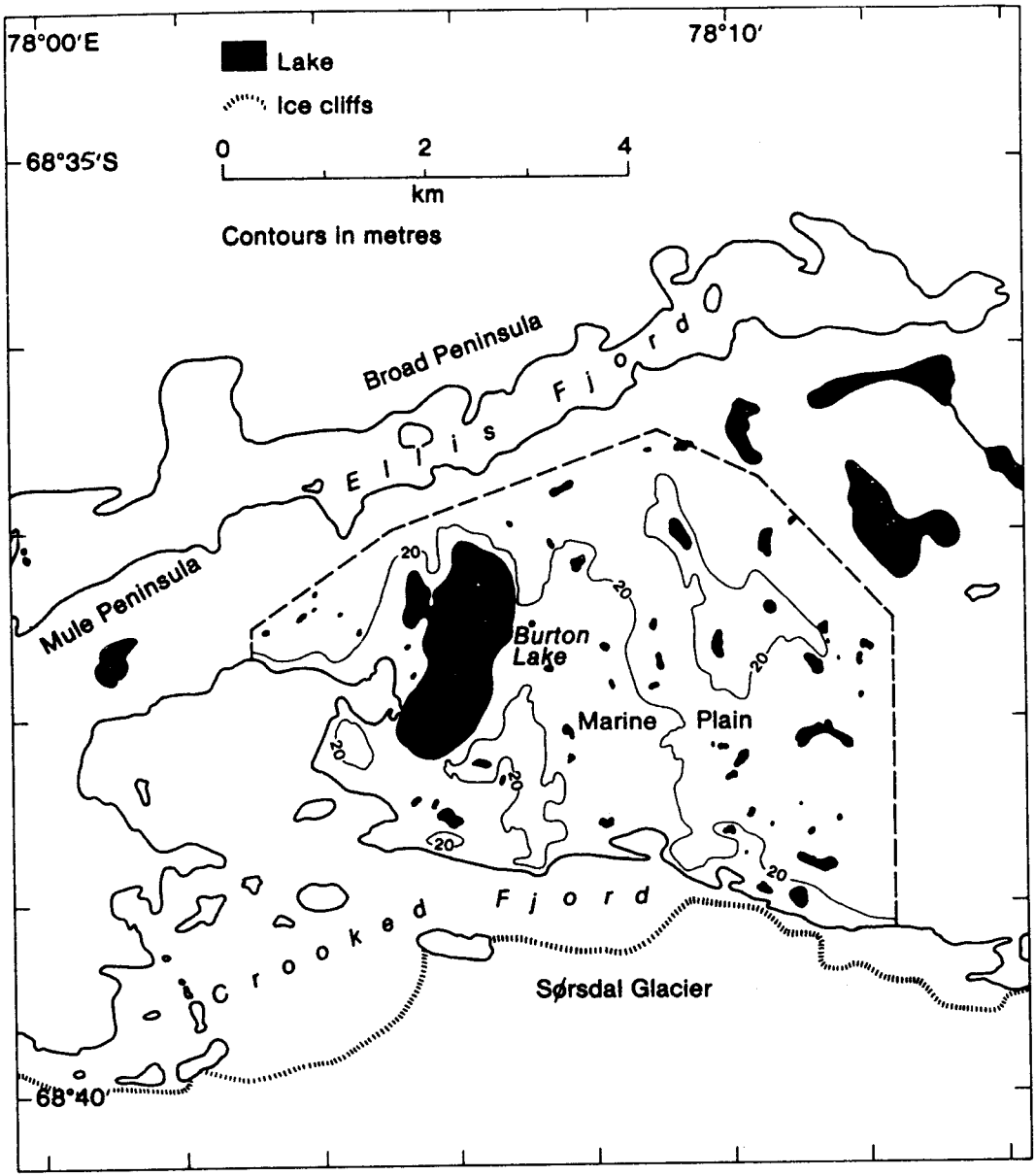
(viii) Scientific sampling

Scientific sampling should be restricted to that required for the programmes described in (iii) and (vii) above.

(ix) Other restraints

All waste materials taken into, or generated within the Site should be removed as soon as practicable. No fuel depots should be made within the Site, nor should refuelling operations be undertaken. No permanent buildings should be erected within the Site. Power boats should not be used on Burton Lake and use of other boats should be restricted to the minimum necessary to support programmes consistent with this plan.


76°00'E
78°00'
Ice-free areas
0
50
km
Tryne Bay
Vestfold Hills
DAVIS STATION
Sørsdal Glacier
Prydz Bay
Rauer Group
69°00'S
Svenner Is.
Ranvik Bay
Ranvik Glacier
Brattstrand Bluffs
Lichen I.
Steinnes
Larsemann Hills
Stornes Peninsula
INGRID CHRISTENSEN COAST


78°00'E
78°10'
Lake
Ice cliffs
68°35'S
0
2
4
km
Contours in metres
Broad Peninsula
Ellis Fjord
Mule Peninsula
Burton Lake
Marine Plain
Crooked Fjord
Sørsdal Glacier
68°40'
20

SITE OF SPECIAL SCIENTIFIC INTEREST Nº 26

CHILE BAY (DISCOVERY BAY), GREENWICH ISLAND, SOUTH SHETLAND ISLANDS

Management Plan

(i) Description of the Site

Physical Features

The site comprises two small areas of benthic habitat in Chile Bay located as follows:

Benthic habitat A: Between 50 and 100 m depths and the following coordinates:

Lat. 62°28.9'S Long. 59°41'12"W
Lat. 62°29.3'S Long. 59°41'43"W

Benthic habitat B: Between 100 and 200 m depths and between the following coordinates:

Lat. 62°28.3'S Long. 59°40'15"W
Lat. 62°28.7'S Long. 59°40'47"W

The bottom of both sites consists of coarse to fine silt. The lithological and mineralogical composition of the sediments show their provenance from the outcrops and littoral deposits surrounding Chile Bay, i.e., porphyritic andesite, aphanitic andesite, diorite and andesitic volcanic breccia and tuffs. This material is transported to the coastline mainly by glaciers, solifluction and mud flows. These processes are intensified in the inner part of the bay where the glacier terminates. Chile Bay has a transverse submarine barrier,possibly a submerged moraine separating habitats A and B and dividing the bay into an inner and an outer part. Sediments in the inner bay are protected from the action of waves and currents, thereby preserving the grain size distribution, sorting and shape of the

contained material.

Biolcgical Features

The benthic assemblages have high species diversity and biomass. Bottom topography and sediment features influence the structure of the communities and distribution pattern. Two assemblages have been recognized: one, dominated by the polychaete Maldane sarsi antarctica, is located in the outer part of the bay, mainly below 100 m depth; other characteristic species are Genaxinus bongranii, Cyamonactra denticulum, Typhlotanais greenwichensis and Pycogonida spp. The inner assemblage, on the other hand, is not dominated by any one species but contains Yoldia eightsii and Eudorella gracilor as characteristic fauna.

(ii) Reason for designation

In Chile Bay there has been continued quantitative and qualitative benthic research since 1967. Data being accumulated provide a baseline for long-term investigations. The site is of exceptional scientific interest and therefore requires long-term protection for possible harmful interference.

(iii) Outline of research

A long-term research program was started in 1967 in connection with the study of benthic fauna re-establishment within Port Foster, Deception Island, following the volcanic eruption of December 1967.

Chile Bay has been designated a control area. These studies are performed yearly in the summer. Community studies to observe biota changes will be augmented with other relevant studies to suit the requirements of a long-term biological monitoring programme.

(iv) Date of expiry of designation

31 December 1997.

(v) Access Points

Although access points as such are not applicable, free passage of ships through these areas is not in any way prejudiced.

(vi) Pedestrian and vehicular routes

Not applicable

(vii) Other kinds of scientific investigations that would not cause harmful interference

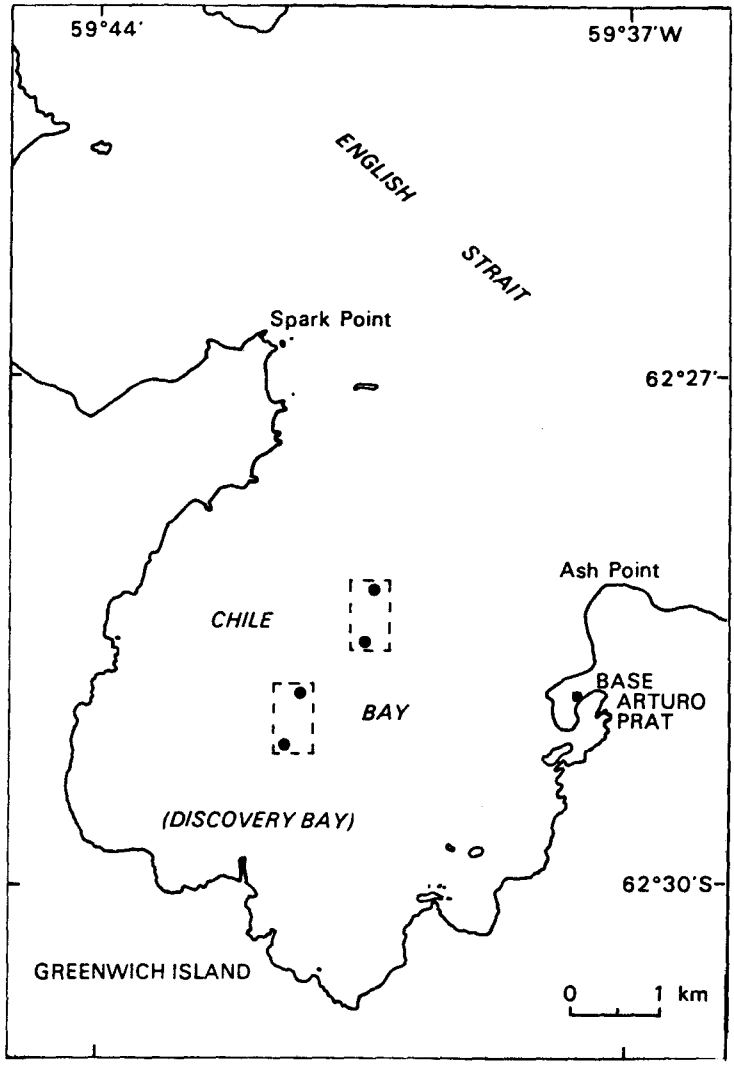
Scientific research other than that disturbing benthic habitats and communities.

(viii) Scientific sampling

Samples from the benthic habitats should be taken only for compelling scientific purposes.

(ix) Other restraints

The dumping of waste from ships and bottom hauling should be avoided. Anchoring should be avoided except in compelling circumstances. Siting of bottom devices should be avoided.


59°44'
59°37'W
ENGLISH
STRAIT
Spark Point
62°27'
Ash Point
CHILE
BAY
BASE
ARTURO
PRAT
(DISCOVERY BAY)
62°30'S
GREENWICH ISLAND
0
1 km

SITE OF SPECIAL SCIENTIFIC INTEREST Nº 27

PORT FOSTER, DECEPTION ISLAND, SOUTH SHETLAND ISLANDS

Management Plan

(i) Description of the Site

Physical Features

The site comprises two small areas of benthic habitat located in Port Foster as follows:

Benthic habitat A: Between 50 and 150 m depths and the coordinates:

Lat. 62º55.5'S Long. 60º38'00"W
Lat. 62º56.2'S Long. 60º37'00"W

Benthic habitat B: Between 100 and 150 m depths and the coordinates:

Lat. 62º57.2'S Long. 60º37'20"W
Lat. 62º57.9'S Long. 60º36'20"W

Deception Island is a caldera formed by subsidence of a group of Cenozoic volcanoes superimposed along radial faults. Port Foster is an almost entirely enclosed body of water which receives large volumes of fresh water during periods of melt. In several places there is geothermal activity. The bottom of habitat A consists of coarse to medium-sized, poorly sorted volcanic sediment, and that of habitat B of medium to fine, better sorted volcanic ash.

Biological Features

The composition of the benthic assemblages has varied greatly since the volcanic eruption of December 1967. The most recent data indicate a high dominance of

polychaetes, both in terms of number and biomass. The most conspicuous macrofauna in dredge samples include the nemerteans Lineus sp and Paraborlasia corrugatus, the isopod Serolis kemp: the bivalve Yoldia eightsii, the echinoids Abatus agassizi and Sterechinus neumayeri, the asteroids Lysasterias perrieri and Odontaster validus, the ophiuroid Ophionotus victoriae and the holothurian Ypsilothuria sp.

(ii) Reason for designation

The area is of exceptional ecological interest because of its actively volcanic character. The two habitat areas are subject to long-term research programmes and the purpose in designating them is, as far as is possible, to reduce the risk of accidental interference which could jeopardize these scientific investigations.

(iii) Outline of research

Following the volcanic eruption of December 1967, at Deception Island a long-term programme of research was initiated at Port Foster to study the mechanism and paths of the re-establishment of the benthic communities. Community studies to observe biota changes, augmented with other relevant studies to suit the requirement of a long-term biological monitoring programme, are performed periodically.

(iv) Date of expiry of designation

31 December 1997

(v) Access Points

Although access points as such are not designated, free passage of ships through these areas is not in any way prejudiced.

(vi) Pedestrian and vehicular routes

Not applicable

(vii) Other kinds of scientific investigation that would not cause harmful interference

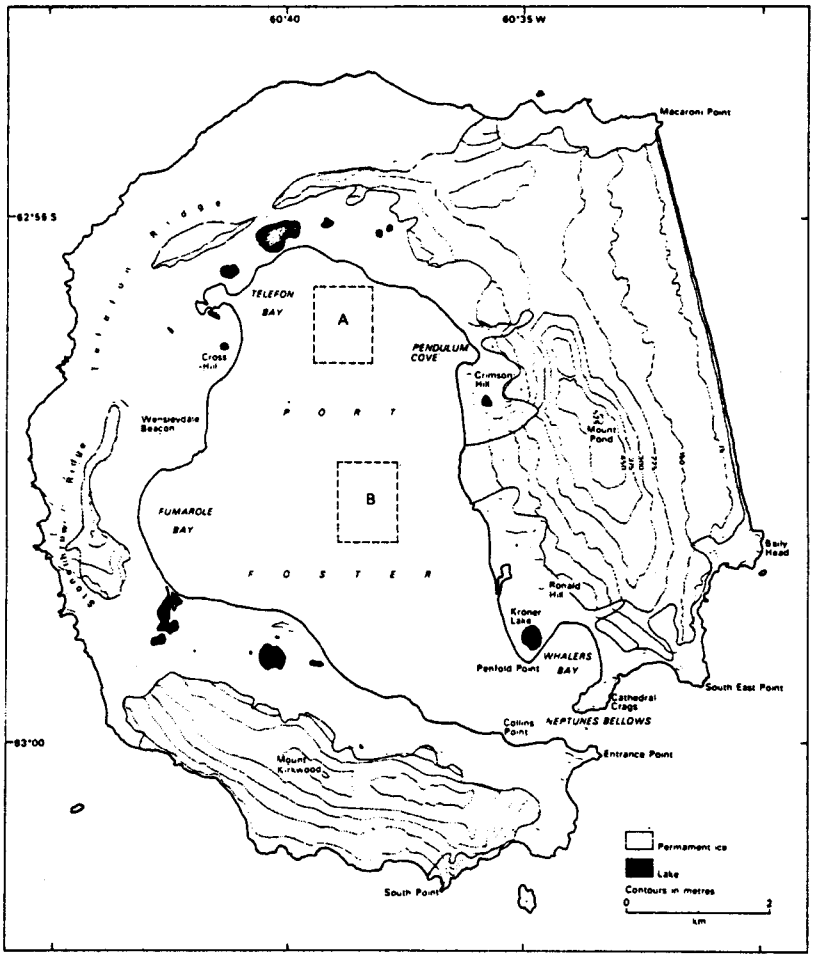
Scientific research other than that disturbing benthic habitats and communities.

(viii) Scientific sampling

Samples from the benthic habitats should be taken only for compelling scientific purposes.

(ix) Other restraints

The dumping of waste from ships and bottom trawling should be avoided. Anchoring should be avoided except in compelling circumstances. Siting of bottom devices should be avoided.


60°40
60°35 W
62°58 S
63°00
Macaroni Point
TELEFON BAY
A
PENDULUM COVE
Cross Hill
Crimson Hill
Wemyss Ridge
Wemyssdale Beacon
P O R T
Mount Pond
FUMAROLE BAY
B
F O S T E R
Ronald Hill
Kroner Lake
Penfold Point
WHALERS BAY
South East Point
Cathedral Crags
NEPTUNES BELLOWS
Collins Point
Entrance Point
Mount Kirkwood
South Point
Permanent ice
Lake
Contours in metres
0
2
km

SITE OF SPECIAL SCIENTIFIC INTEREST N9 28

SOUTH BAY, DOUMER ISLAND, PALMER ARCHIPELAGO

Management Plan

(i) Description of Site

Physical features

Doumer Island lies at the south-west entrances to Neumayer Channel. It is separated from Wiencke Island by the Peltier Channel. South Bay lies on the south coast of Doumer Island. The site consists of a small area of coastal and sub-tidal benthos down to 45 m depth as follows:

> Lat. 64°51'42"S to the North, between Long. 63°34'00"W and Long. 63°35'20"W, and to the South by a diagonal line that starts at a point 100 m north of the Refuge (Sub-base Yelcho) on the southern shore of South Bay and extends to Lat. 64°51'58"S and Long. 63°34'00"W Boundaries are shown on the attached map.

Biological Features

> Four different kinds of bottom surface have been described: rocky with algae growth, from 0 to 30 m depth; predominantly rock, covered by algae, silt and large quantities of sponges, from 30 to 110 m depth; mixed bottoms with predominantly deposits of mud and few rock outcrops with sponges, from 100 to 150 m depth; soft bottoms of silt and mud, from 150 to 200 m depth, corresponding to the deepest depression, occurs near the centre of the bay just outside the site. The benthic macrofauna richness increases with depth and is accentuated in bottoms with a steep slope. Ice scour exerts a strong influence on the patterns of distribution and the abundance of benthic fauna. Seals, in particular Weddell seals, Leptonychotes weddellii,

visit the area to feed. Cetaceans, like killer whales, Orcinus orca and humpback whales, Megaptera novaeangliae enter the bay. Manu Antarctic seabirds occur transiently in the site.

(ii) Reason for designation

The site is the subject of a long-term research programme on marine ecology and the purpose of designating it is to reduce, as far as is possible, the risk of accidental interference which might jeopardize these scientific investigations.

(iii) Outline of research

The research covers the study of the relationships of the marine organisms in the area. This was started by SCUBA diving in 1972. Since 1981 advanced experiments to elucidate community structure and functioning have been in progress and will continue in the future.

(iv) Date of expiry of designation

31 December 1997

(v) Access points

None specified. The area is not affected by the passage of boats.

(vi) Pedestrian and vehicular routes

Not applicable

(vii) Other kinds of scientific investigation that would not cause harmful interference

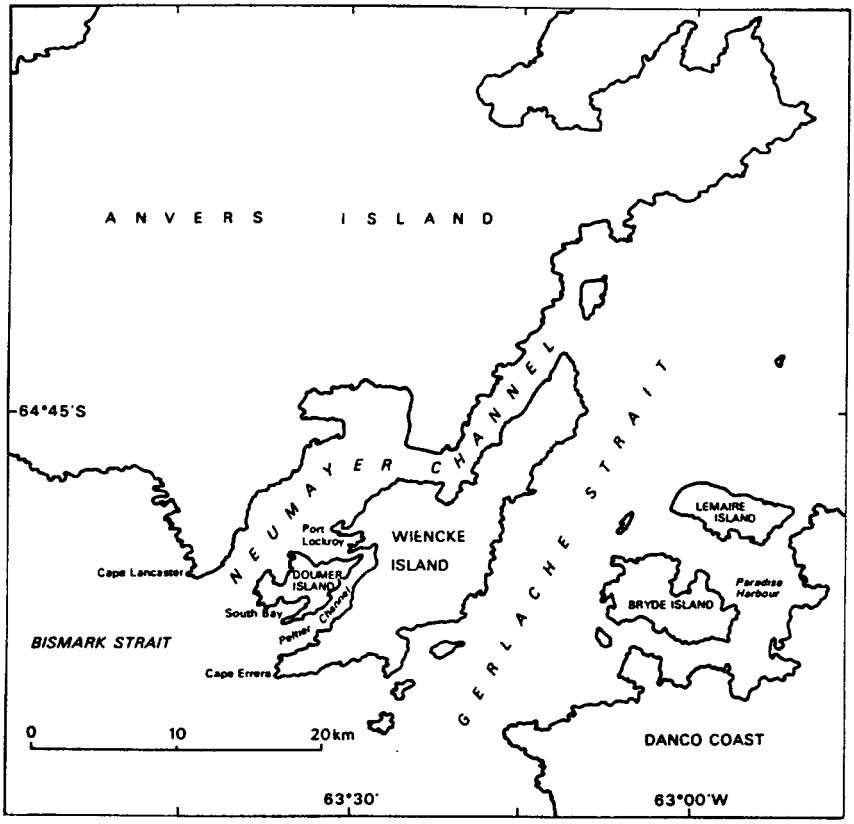
Scientific research other than that disturbing benthic habitats and communities.

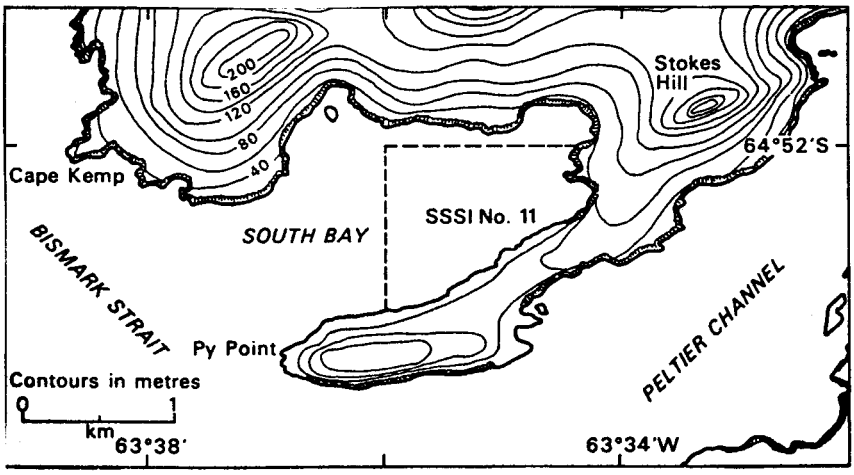
(viii) Scientific sampling

Collection of samples should be made only for compelling scientific purposes.

(ix) Other restraints

The dumping of wastes from ships or boats and bottom trawling should be avoided. Anchoring should be avoided except for compelling reasons.


ANVERS ISLAND
64°45'S
NEUMAYER CHANNEL
GERLACHE STRAIT
Port Lockroy
WIENCKE ISLAND
Cape Lancaster
DOUMER ISLAND
South Bay
Peltier Channel
BISMARK STRAIT
Cape Errera
LEMAIRE ISLAND
Paradise Harbour
BRYDE ISLAND
0 10 20km
DANCO COAST
63°30'
63°00'W


200
160
120
80
40
Stokes Hill
64°52'S
Cape Kemp
SSSI No. 11
SOUTH BAY
BISMARK STRAIT
Py Point
PELTIER CHANNEL
Contours in metres
0 1
km
63°38'
63°34'W

XIV-6

MARINE SITES OF SPECIAL SCIENTIFIC INTEREST

The Representatives,

Recalling Article II of the Antarctic Treaty, Recommendation VII-3 and VIII-3;

Conscious of the need to protect marine scientific investigations which might suffer from willful or accidental interference;

Desiring to protect inshore marine sites of scientific interest where harmful interference is generally recognized to be likely;

Recognizing the need to protect such marine scientific investigations;

Recognizing that a limited number of inshore marine sites of exceptional scientific interest may require long-term protection from harmful interference;

Recommend to their Governments that:

1. They invite SCAR through their National Committees, to have regard to the following when considering proposals for marine Sites of Special Scientific Interest:

(a) Marine sites should be proposed only when:

(i) marine scientific investigations are being carried out or are planned to begin before the following meeting of SCAR, and there is a demonstrable risk of interference which would jeopardize those scientific investigations; or

(ii) they are of exceptional scientific interest and

therefore require a measure of long-term protection from harmful interference.

(b) Marine sites should be proposed for designation up to a specified date, which may be extended following a review by SCAR;

(c) Proposals for the designation of marine sites should be accompanied by management plans which should include inter alia, and where applicable, the following details:

(i) A description of the marine site, together with a map delimiting its boundaries;

(ii) A statement setting out the reasons in conformity with paragraphs 1 (a) (i) and (ii) above for designation of the marine site;

(iii) A description of the scientific investigations being carried out or planned;

(iv) The proposed date at which the designation will expire unless extended;

(v) If adjacent to the coast, proposed points of access;

(vi) Other kinds of scientific investigations which would not cause harmful interference with the investigations described at paragraph (c) (iii) above;

(vii) Whether specific kinds of scientific sampling may take place and guidelines for such sampling.

2. They invite SCAR, through their National Committees to initiate review of those marine sites whose designation is likely to terminate before the second following Antarctic Treaty Consultative Meeting.

3. They request their national offices responsible for Antarctic activities to maintain a record of activities within each marine site of Special Scientific Interest in which their scientists are active.

4. Scientists wishing to work within marine Sites of Special Scientific Interest should consult their national offices responsible for Antarctic activities to obtain authorization.

XIV-7

ANTARCTIC METEOROLOGY AND TELECOMMUNICATIONS

The Representatives,

Recalling Article IV of the Antarctic Treaty and Recommendations VI-3, X-3 and XII-1;

Noting the Final Report of the World Meteorological Organization (WMO) Executive Council Working Group on Antarctic Meteorology, Fourth Session (EC/WGAM-IV), (September 1986) and subsequent action taken by the WMO Tenth Congress (May 1987), relating to Antarctic Meteorology.

Recommend to their Governments that:

1. Having regard to Recommendations 6 and 8 of EC/WGAM-IV (reproduced at Annex H to the Final Report of the XIVth Consultative Meeting), they accept Annex 1 to this Recommendation as a current statement of the Basic Synoptic Network and the Network of Climat and Climat Temp Reporting Stations in the Antarctic and that, as a consequence, Annex I to Recommendation XII-1 be withdrawn;

2. Annexes 1, 2 and 3 to Recommendation X-3 and Annexes 2 and 3 to Recommendation XII-1 be withdrawn and replaced by Annexes 2 and 3 to this Recommendation as a current statement of the "Existing links for the daily international exchange of meteorological data within the Antarctic" and the "Principal routes by which Antarctic meteorological data enter the GTS" (Global Telecommunications System of the WMO World Weather Watch);

3. Annexes I and II to Recommendation VI-3 be withdrawn and replaced by Annexes 4 and 5 to this Recommendation as current statements of Requirements for Observational Data and Requirements for Processed Information;

4. Having regard to paragraph 4.1 and Annex I to the Final Report of EC/WGAM-IV (reproduced at Annex I to the Final Report of ATCM XIV), they:

(a) respond expeditiously in respect of paragraph 288, sub-paragraphs (a) and (e);

(b) invite WMO to identify such areas of difficulty as there may be in respect of the transmission of meteorological data inside Antarctica, between the Antarctic and the outside world (in both directions) and in the operation of the GTS and to use all feasible means, through the exercise of their good offices, to see if such difficulties can be resolved;

(c) also be ready to consider a joint meeting of WMO and SCAR telecommunication experts, convened in accordance with Recommendation IV-24, in the light of any report which may be prepared reflecting action taken in accordance with sub-paragraph (b) above;

(d) respond positively to requests received in accordance with sub-paragraphs (b) and (c) of paragraph 289, subject to overriding scientific, administrative or budgetary considerations;

(e) request WMO, when passing to Antarctic Treaty Consultative Parties their recommendations arrived at in accordance with sub-paragraph (d) of paragraph 289, to set out in specific terms the technical functions, capacities and services of proposed "Antarctic Meteorological Centres" and WMO's view on the justification for the designation of each proposed Centre;

(f) be prepared to respond to any request for designation received from WMO, in accordance with sub-paragraph (e) of paragraph 289, on the understanding that any such designations and activities carried out accordingly, will be subject to Article IV of the Antarctic Treaty.

ANNEXES

STATIONS AND OBSERVATIONAL PROGRAMMES COMPRISING THE BASIC SYNOPTIC NETWORK IN THE ANTARCTIC

	STATION	SURFACE								RADIOWIND		RADIOSONDE	
		00	03	06	09	12	15	18	21	00	12	00	12
88963	ESPERANZA	x		x		x		x					
968	ORCADAS	x	x	x	x	x	x	x	x		x		x
970	MATIENZO B.A.*	x		x		x		x					
89034	BELGRANO	x		x		x		x					
053	JUBANY	x		x		x		x					
055	CENTRO MET. ANTARTICO "VICECOMODORO MARAMBIO"	x	x	x	x	x	x	x	x		x		x
066	SAN MARTIN	x		x		x		x					
001	S.A.N.A.E. STATION	x	x	x	x	x	x	x	x	x	x	x	x
002	GEORG VON NEUMAYER	x		x	x	x	x	x	x				x
009	AMUNDSEN-SCOTT	x		x		x		x		x	x*	x	x*
664	MCMURDO	x		x		x		x		x	x*	x	x*
022	HALLEY	x	x	x	x	x	x	x			x		x
042	SIGNY ISLAND	x			x								
062	ROTHERA POINT	x		x		x		x					
063	FARADAY (ARGENTINE ISLAND)	x	x	x	x	x	x	x	x				
065	FOSSIL BLUFF*	x				x			x				
050	BELLINGSHAUSEN	x		x		x		x		x		x	
132	RUSSKAYA	x		x		x		x					
512	NOVOLAZAREVSKAJA	x	x	x	x	x	x	x	x	x		x	
542	MOLODEZNAJA	x	x	x	x	x	x	x	x	x	x	x	x
592	MIRNYJ	x	x	x	x	x	x	x	x	x		x	
606	VOSTOK	x		x		x		x		x		x	
657	LENINGRADSKAJA	x	x	x	x	x	x	x	x	x			
056	CENTRO MET.ANTARTICO "PDTE.EDUARDO FREI"	x		x		x		x					
057	BASE ARTURO PRAT	x		x		x		x					
059	BASE BERNARDO O'HIGGINS	x		x		x		x					
532	SYOWA	x	x	x	x	x	x	x	x	x	x	x	x
564	MAWSON	x	x	x	x	x	x	x	x	x	x		x
571	DAVIS	x	x	x	x	x	x	x	x	x	x	x	
611	CASEY	x	x	x	x	x	x	x	x	x	x	x	
642	DUMONT D'URVILLE	x	x	x	x	x	x	x	x		x	x	
661	PALMER	x				x		x					
054	DINAMET-URUGUAY	x	x	x	x	x	x	x	x				
058	GREAT WALL	x				x		x					
510	DAKSHIN GANGTORI	x	x	x	x	x	x	x	x			O	

O Once weekly * Summer only

NETWORK OF CLIMAT AND CLIMAT TEMP REPORTING STATIONS IN THE ANTARCTIC

	STATION	CLIMAT	CLIMAT TEMP
88963	ESPERANZA	x	
968	ORCADAS	x	x
89034	BELGRANO	x	
053	TENIENTE JUBANY EC	x	
055	CENTRO MET. ANTARTICO "VICECOMODORO MARAMBIO"	x	x
066	SAN MARTIN	x	
001	S.A.N.A.E. STATION	x	x
002	GEORG VON NEUMAYER	x	x
009	AMUNDSEN-SCOTT	x	x
664	MCMURDO	x	x
022	HALLEY	x	x
062	ROTHERA POINT	x	
063	FARADAY (ARGENTINE ISLAND)	x	
050	BELLINGSHAUSEN	x	x
132	RUSSKAYA	x	
512	NOVOLAZAREVSKAJA	x	x
542	MOLODEZNAJA	x	x
592	MIRNYJ	x	x
606	VOSTOK	x	x
657	LENINGRADSKAJA	x	x
054	DINAMET URUGUAY	x	
056	CENTRO MET.ANTARTICO "PDTE.EDUARDO FREI"	x	x
057	BASE ARTURO PRAT	x	
059	BASE BERNARDO O'HIGGINS	x	
532	SYOWA	x	x
564	MAWSON	x	x
571	DAVIS	x	x
611	CASEY	x	x
642	DUMONT D'URVILLE	x	x

Figure 1 — The existing links for the daily international exchange of meteorological data within the Antarctic

(F1 indicates radio teleprinter broadcasts, F4 indicates facsimile broadcasts, A1 is a morse transmissions)

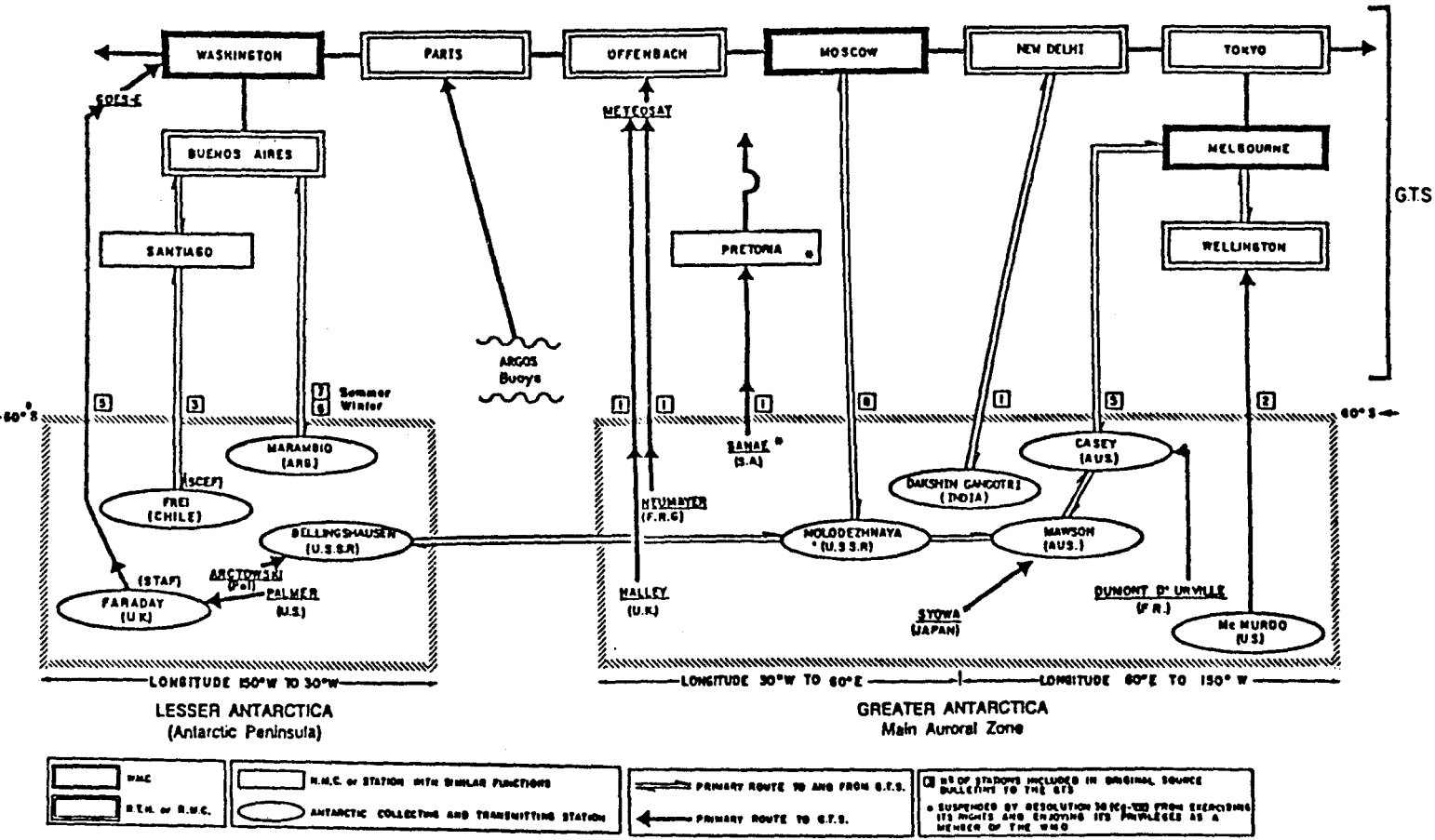


Figure 2 — The principal routes by which Antarctic meteorological data enter the GTS

Note : SHIP and AIREP reports will be collected from south of 60°S and compiled in Antarctic bulletins by appropriate GTS centres.

Requirements of the observational data
Part I

DATA REQUESTED BY / DATA REQUESTED FROM		McMurdo	McMurdo	Dumont d'Urville	Dumont d'Urville	Casey	Davis	Mawson	Syowa	Bellingshausen	Molodezhnaya	Frei	Marambio	Great Wall	Rothera		Santiago	Buenos Aires	Pretoria	Wellington	Melbourne	Moscow	Washington	Bracknell	Tokyo	New Delhi
Esperanza	88963	4	1							4	4	4	4		4		4	4	2		4	4	4	4	4	4
Orcadas	88968	2/4	1/1							2/4	2/4	2/4	2/4		4		2/4	2/4	2/2		2/4	2/4	2/4	2/4	2/4	2/4
Matienzo	88970	4	1							4	4	4	4		4		4	4	2		4	4	4	4	4	4
Belgrano II	89034	4	1							4	4	4	4		4		4	4	2		4	4	4	4	4	4
Jubany	89053												4				4	4			4	4	4	4		
Marambio	89055	1/4	1/1						1/2	1/4	1/4	1/4	X		1/4		1/4	1/4	1/2		1/4	1/4	1/4	1/4	1/4	1/4
San Martin	89066	4	1							4	4	4	4		4		4	4	2		4	4	4	4	4	4
Frei	89056	4	1							4	4	X	4	4	4		2/4	4	2		4	4	4	4	4	4
Prat	89057	4	1							4	4	4	4		4		4	4	2		4	4	4	4	4	4
O'Higgins	89059	4	1							4	4	4	4		4		4	4	2		4	4	4	4	4	4
Great Wall	89058											4		X			4							4	4	4
Dinamet - Uruguay	89054											4					4							4	4	4
Arctowski	89052								2			4	4	2				4			4			4	4	4
SANAE	89001	1/4	1/1	1/2	1/1				1/4	1/4	1/4	4	1/4		1/4			1/4	1/2	1/4	1/4	1/4	1/4	1/4	1/4	1/4
Neumayer	89002	4	1	2	1					4	4	4	4		4			4	2	4	4	4	4	4	4	4
Dakshin Gangotri	89510																									
Syowa	89532	2/4	1/1	2/2	1/1	2/4	2/4	2/4	X	2/4	2/4	4			2			2/4	2/2	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Mizuho	89544														2											
Mawson	89564	2/4	1/1	2/2	1/1	2/4	2/4	X	1/4	2/4	2/4	4	2/4		2/2			2/4	2/2	2/2	2/4	2/4	2/4	2/4	2/4	2/4
Davis	89571	2/4	1/1	2/2	1/1	2/4	X	2/4	1/2	2/4	2/4	4	2/4		2/2			2/4	2/2	2/4	2/4	2/4	2/4	2/4	2/4	2/[illegible]
Casey	89611	2/4	1/1	2/2	1/1	X	2/4	2/4	1/2	2/4	2/4	4	2/4		2/2			2/4		2/4	2/4	2/4	2/4	2/4	2/4	2/4
Dumont D'Urville	89642	2/4	1/1	X	X	2/4	2/4	2/4	1/2	2/4	2/4	4	2/4		2/2			2/4	2/2	2/4	2/4	2/4	2/4	2/4	2/4	2/4
McMurdo	89664	X	X	2/1	1/1				1/2	2/4	2/4	4	2/4		2/2			2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Amundsen-Scott	89009	2/4	1/1	2/2	1/1				1/2	2/4	2/4	4	2/4		2/2			2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Palmer	89061											4	4		4			4						4	4	4
(Scott Base)												4	4		4			4		4		4	4	4	4	-

Key : A = As available.
B = When requested.
M = Monthly.

Upper air / Surface

Requirements of the observational data
Part II

DATA REQUESTED BY → / DATA REQUESTED FROM ↓	McMurdo	McMurdo	Dumont d'Urville	Dumont d'Urville	Casey	Davis	Mawson	Syowa	Bellingshausen	Molodezhnaja	Frei	Marambio	Great Wall	Rothera		Santiago	Buenos Aires	Pretoria	Wellington	Melbourne	Moscow	Washington	Bracknell	Tokyo	New Delhi
Halley 89022	1/4	1/1						1/4	1/4	1/4	4	1/4		4		4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
Signy 89042	4	1						4	4	4	4	4		2		4	4	4		4	4	4	4	4	4
Rothera 89062	4	1						4	4	4	4	4		X		4	4	4		4	4	4	4	4	4
Faraday 89063	4	1						4	4	4	4	4		4		4	4	4		4	4	4	4	4	4
Fossil Bluff 89065	4	1						4	4	4	4	4		4		4	4	4		4	4	4	4	4	4
Bellingshausen 89050	2/4	1/1	2/2	1/1				1/2	X	2/4	4	2/4	1/2	1/4		4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Russkaya 89132	4	1	2	1				2	4	4	4	4		4			4	4	4	4	4	4	4	4	4
Novolazarevskaya 89512	2/4	1/1	2/2	1/1				1/4	2/4	2/4	4	2/4					2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Molodezhnaya 89542	2/4	1/1	2/2	1/1				2/4	2/4	X	4	2/4	2				2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Mirnyj 89592	2/4	1/1	2/2	1/1				2/2	2/4	2/4	4	2/4					2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Vostok 89606	2/4	1/1	2/2	1/1				1/2	2/4	2/4	4	2/4					2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Leningradskaya 89657	2/4	1/1	2/2	1/1				1/2	2/4	2/4	4	2/4		2/4			2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Region I Selection																									
Blocks 61, 67, 68	2/4	1/1	1/1	1/1													2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
(South of 20 S)																									
Region III Selection	2/4	1/1									M 2	2/4		2/4		2/4	2/4	2/4		2/4	2/4	2/4	2/4	2/4	2/4
Blocks 85, 87, 88																									
Region V Selection																									
Blocks 91, 93, 94, 95	2/4	1/1	1/1	1/1												2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
(South of 20 S)																									
All Southern									2/4	2/4							2/4	2/4		2/4	2/4	2/4	2/4	2/4	2/4
Hemisphere																									

(In each cell: upper air / surface.)

Key : A = As available.
B = When requested.
M = Monthly.

Upper air	
	Surface

Requirements for the process information
Part I

Data Required from	Data Required by	Surface		Upper Air Analyses and Prognoses								Hazardous Weather Warnings				Marine Forecast				
		Analyses	Prognoses	500	300	200	Alt [illegible]	[illegible] Rpt	CLIMAT	CLIMAT TEMP	Terminal forecast	Bellingshausen Sea	Drake Passage	Weddell Sea	Scotia Sea	Bellingshausen Sea	Drake Passage	Weddell Sea		Other processed data
I PROCESSED DATA REQUIRED BY ANTARCTIC STATIONS FROM OUTSIDE TREATY AREA																				
Melbourne	Dumont D'Urville	(4) 2	(4) 2	(4) 2																
Melbourne	Frei	4	4		(1) 2	(1) 2		2												
	McMurdo	4		(1) 2	(1) 2		(1) A													
	Mawson	A	A	A																(6) X
	Casey	A	A	A																(6) X
	Davis	A	A	A																(6) X
	Molodeznaja	4	4	2	2			A	1	1										
Buenos Aires	Molodeznaja	4	4	2	2			A	1	1										
	Marambio	4	4	2	2	2	4	2	1		1	1	1	1	.1	1	1			
	McMurdo								1	1	1									
	Arctowski	4	4	2	2			A												
Wellington	McMurdo							2			(2)									
Christchurch																				
Bracknell	Marambio }	A	A	A	A	A		A			1	1	1	1	1	1	1	1		1
	Buenos Aires }																			
	Rothera	A	A	A																(ice)
Nairobi	Molodeznaja	4	4	2	2			A												
Rio de Janeiro	Molodeznaja							A												
Washington	Molodeznaja							A												
Santiego	Frei	4	4	1	1															
Punta Arenas	Frei	3	3																	
II PROCESSED DATA BY CENTRES OUTSIDE THE TREATY AREA FROM ANTARCTIC STATIONS																				
Molodeznaja	Pretoria	2	2	2	2	2														
	Moscow	2	2																	
McMurdo	Melbourne	A	A	A																
	Wellington	(2) 1	(2) 1	(2) 1	(2) 1															
All Antarctic Stations {	Buenos Aires	4	4			2														
	Melbourne	A					A													
Marambio	Buenos Aires	2	3	1		1		2	½M	1	2	2	2	2	2	2	2	2		
	Melbourne	A	A				A	A	A	A										
	Christchurch																			
	Bracknell								A	A										
	Washington								A	A										
Frei	Santiago	3	2						1	1						2		2		
	Punta Arenas	3	2													2		2		

Key : A = As available
B = When requested
M = Monthly

Requirements for the process information
Part II

Data Required From	Data Required By	Surface Analyses	Surface Prognoses	Upper Air Analyses and Prognoses 500	300	200	All available	Hazardous Weather Warnings Terminal forecast	Drake Passage	Weddl Sea	Scotia Sea	Marine Forecast Bellingshausen Sea	Drake Passage	Wedhel Sea	Other processed data
III PROCESSED DATA TO BE EXCHANGED BETWEEN ANTARCTIC STATIONS															
McMurdo	Dumont D'Urville	2(4)	2(4)												
	Frei	4	4	2	2		2	2							
	Pole	(10)													
Molodeznaja	Dumont D'Urville	(4) 2	(4) 2	(4) 2											
	Frei	4	4	2	2		2	2							
	Syowa	1	1	1		1									
	McMurdo	2		(1) 2			2	X							
	Bellingshausen														
	Novolazarevskaja														
	Vostok														
	Mirnyj														
	Mawson	4		1			2								
	Artowski	4	4				2	M	M						(ice) A
	Dakshim Ganootri	A	A	A					A	A		A	A		
McMurdo	Syowa	1	1	1		1									
Frei	All UK Antarctic stations														(13)
	McMurdo	2		(1) 2			2	X							
	Palmer								A	A		1	1		
	Moldeznaja	A		A	A	A			A	A		A	A		
Marambio	Molodeznaja	2	3				2	M	M	2	2	2	2	2	2	2	
	McMurdo														
Molodeznaja	Neumayer	2	2	2	2										
Frei	Neumayer	2													

Key: A = As available
B = When requested
M = Monthly

XIV-8

HISTORIC SITES AND MONUMENTS

The Representatives,

Recalling Recommendations I-IX, V-4, VI-14, VII-9, XII-7 and XIII-16;

Recommend to their Governments that the following historic monuments be added to the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" annexed to Recommendation VII-9 and that, thereafter, they be accorded the respect and protection required by the Recommendations recalled above:

53. Monoliths and Commemorative Plaques celebrating the rescue of survivors of the British ship "Endurance" by the Chilean Navy cutter "Yelcho" displaying the following words:

"Here, on August 30th., 1916, the Chilean Navy cutter "Yelcho" commanded by Pilot Luis Pardo Villalón rescued the 22 men from the Shackleton Expedition who survived the wreck of the "Endurance" living for four and one half months in this Island."

The Monolith and the plaques have been placed on Elephant Island (61°03' Lat. S., 54°50' Long. W.) and their replicas on the Chilean bases "Arturo Prat" (62°30' Lat. S., 59°49' Long. W.) and"Lieutenant Rodolfo Marsh" (62°12' Lat. S., 62°12' Long. W.).

XIV-9

AIR SAFETY IN ANTARCTICA

The Representatives,

Recalling Recommendation I-X;

Recognizing the importance of safe air operations in the Antarctic and:

(i) that there is a wide range of problems in air operations which are becoming more important and urgent with increasing activity;

(ii) that the principal body of knowledge and experience of Antarctic air operations, and its current problems, lies with the operators of national Antarctic programmes.

Recommend to their Governments that:

1. Arrangements be made for a meeting of experts in accordance with Recommendation IV-24, to be held well in advance of the Fifteenth Consultative Meeting, at a time and place to be decided through diplomatic channels, and that the host Government for the XVth Consultative Meeting should initiate the necessary consultations. Delegations from Consultative Parties to the meeting should include experts with direct experience in Antarctic operations. In the course of preparing for the meeting, consideration shall be given to the invitation of ICAO and other experts to attend the meeting in accordance with paragraph 1 of Recommendation IV-24 (e.g.WMO, ITU);

2. The terms of reference for the meeting shall be to provide for:

(i) avoidance of inter-operator air-incidents;

(ii) mutual assitance in the course of Antarctic operations, including medical evacuations;

(iii) co-ordinated measures to improve search and rescue procedures.

3. In the fulfillment of these terms of reference, the meeting shall have regard to:

(i) existing systems for safe air operations;

(ii) means of mutually co-ordinating air traffic movements in Antarctica;

(iii) means of ensuring adequate communications between operators originating air traffic movements, between aircraft and stations in the vicinity of their operations and between aircraft, including consideration of the possible advantages of satellite communications and adoption of predetermined radio frequencies;

(iv) means of rapidly initiating search and rescue operations, including the advantages of using common dedicated calling frequencies and of co-ordinating subsequent operations;

(v) how best to ensure that all operators in the Antarctic are aware of air-operational safety requirements and search and rescue procedures;

(vi) air operations from ships.

4. In order to facilitate the work of the Meeting they provide relevant information to the host Government, preferably 3 months in advance of the meeting, for circulation to other Consultative Parties. An indicative list of such information is set out in the Annex to this recommendation.

5. The report of the meeting be circulated to all Consultative Parties and be referred for consideration at the XVth Consultative Meeting in accordance with Paragraphs 3 and 4 of Recommendation IV-24.

ANNEX

ANNEX

The following information is an indicative list of the relevant information to be circulated to all Consultative Parties prior to the Meeting of Experts on Air Safety in Antarctica as recommended at the XIVth Consultative Meeting:

(i) Current areas of air operation;

(ii) Period and frequency of operation;

(iii) Types of aircraft used and their navigation and communication equipment;

(iv) Operating altitudes and ranges;

(v) Other airborne devices (e.g. balloons, rockets) or other uses of air space in Antarctica;

(vi) Runway length, width, slope, orientation, surface type and condition, load capacity and markings;

(vii) Radio Direction Finding and Distance Measuring equipment;

(viii) Navigation aids, including beacon power and frequencies and communications equipment;

(ix) Features in the vicinity of landing facilities which could be hazardous to aircraft;

(x) Prevailing weather conditions of significance to air operations in the vicinity of landing facilities;

(xi) Service facilities;

(xii) Type and specification of fuel used;

(xiii) Operating times of landing and communication facilities;

(xiv) Available air navigation charts and published visual and instrument approach procedures;

(xv) Medical facilities available, including medical personnel, and whether stations have trained search and rescue personnel.

MARINE METEOROLOGICAL AND SEA ICE INFORMATION SERVICES FOR NAVIGATION IN THE TREATY AREA OF THE SOUTHERN OCEAN

Recalling Article II of the Antarctic Treaty and Recommendations relating to co-operation with regard to Antarctic logistics (II-V, III-3, IV-25) and Antarctic meteorology and telecommunication (I-II, II-3, III-5, IV-26, V-2, VI-1, VI-3, VII-7, IX-3, X-3, XII-1, XII-2);

Aware of numerous cases when ships have been lost or beset in Antarctic sea ice for long periods;

Aware (i) of increasing interest in the science and operational relevance of Antarctic meteorology and sea ice studies on the part of the WMO, SCAR, and IOC as indicated by existing research projects of these international bodies;

(ii) of advances in satellite monitoring of marine meteorological and sea ice conditions and of the consequent improvement in the quality, reliability and content of their assessment and prediction;

(iii) of the strides that have been made in predicting optimal ship routings with respect to marine meteorological and sea ice conditions;

(iv) of existing marine meteorological and sea ice services;

Considering advances in telecommunication and the exchange of marine meteorological and sea ice information;

Desiring to apply the benefits of these developments to the improvement of real time data utilization and prediction of weather, sea ice, currents and sea-state conditions (particularly in the sea ice zone) with a view to further increasing the efficiency and the safety of navigation;

Recommend to their Governments that:

1. They invite WMO and SCAR (through their Permanent Representatives and their National Committees, respectively) to consider ways of improving or developing operational marine meteorological and sea ice information services in the Treaty Area of the Southern Ocean;

2. Any such consideration should take into account the Implementation Programme for the Antarctic described in Annex I of the Final Report of the Fourth Session of the EC Working Group on Antarctic Meteorology (September 1986), and subsequent pertinent decisions of the Tenth WMO Congress (May 1987);

3. Such consideration be coordinated with the IOC;

4. After receiving a response from WMO and SCAR, they convene, if necessary, in accordance with Recommendation IV-24, a Meeting of Experts to consider how an improved approach to marine meteorological and sea ice information services in the Treaty Area of the Southern Ocean could be implemented.

III - ANNEXES

ANNEX A

OPENING ADDRESSES

OPENING ADDRESS: MR. ROBERTO DE ABREU SODRÉ

MINISTER OF EXTERNAL RELATIONS OF BRAZIL

Distinguished Delegates,

Ladies and gentlemen,

On behalf of the Brazilian government and the Brazilian people, I am extremely honored to welcome you to the city of Rio de Janeiro and to express best wishes for total success in the work to be undertaken during the XIVth Antarctic Treaty Consultative Meeting.

We Brazilians are pleased and proud that during the next two weeks this city will be host to important deliberations on Antarctic matters. We hope that they will be fruitful and will contribute positively to foster the principles and objectives upheld in the Treaty which governs the activities of nations on the Antarctic continent.

I am pleased on this occasion to welcome the representatives of the new countries which have acceded to the Antarctic Treaty since the last Consultative Meeting held in Brussels. The Brazilian government is also happy to convene on this same date the VIIth Special Consultative Meeting, where new notifications on admission to Consultative status will be reviewed.

I would like to take this opportunity to reiterate Brazil's firm intention to work closely and constructively not only with those countries which recently formalized their accession but also with those which are about to assume new and more relevant responsibilities under the Treaty.

Gentlemen,

The Brazilian government is fully aware of the

importance of the Antarctic Treaty as a resourceful formula for international cooperation. By establishing peaceful and harmonious regulations almost thirty years ago for the role to be played by nations on a tremendously vast region of the planet, this legal instrument takes its place in the history of contemporary international relations as a work of immesurable political value.

In addition to providing a practical solution to skirt an international legal controversy which involved the first steps to explore the Antarctic, the Treaty has played a critical role in developing varied and useful scientific cooperation. I do not believe there is any doubt - even among nations which nowadays seem to defend a different institutional order - that the Treaty is reaching the objectives it proposes.

The Treaty has secured for the continent to remain unaffected by political upheavals and power confrontations. Consequently, nations with different views of the world were able to consolidate the bases for Antarctic cooperation. Though differences may separate us, we are inspired by the ideal of preserving and reinforcing the aims of a Treaty dear to us all.

As a guarantee for peace, the Treaty forbids conducting activities of a military nature as well as nuclear explosions. An efficient inspection system not only provides for the strict observation of these regulations but also automatically benefits the international community as a whole. This is an undeniable truth.

The Antarctic, however, is much more than a continent of peace. As a source of research which furthers and enriches human knowledge, it became a true scientific laboratory.

Under the principles of freedom to conduct research and of preservation of the Antarctic delicate and

unique ecological balance, the studies made on the physical and biological conditions, as well as on the enormous Antarctic economic potential have advanced remarkably.

The mineral and animal wealth abounding in Antarctica have become increasingly important. During one year, "krill", for example, a crustacean with high protein content, can provide the same amount of protein consumed in the rest of the world in the same span of time, without upsetting the ecological balance in the Antarctic oceans. The prospects for making use of these resources, therefore, do not fail to instill a certain hope when we realize that climatic and soil changes help to worsen the tragedy of hunger.

The increase in research activities and, above all, in economic exploitation in Antarctica, naturally reinforces the valid concerns of economic nature. It was precisely to protect the flora and fauna of the southern seas that the Convention for the Conservation of Antarctic Marine Living Resources was concluded.

Distinguished Delegates,

Ladies and Gentlemen,

The more active involvement of Brazil in Antarctica is relatively recent. Since we acceded to the Treaty in 1975, we have tried diligently to fulfill the necessary requisites for greater participation in the Antarctic Treaty System.

Our policy for the area became more notable in 1982 with the approval of the Brazilian Antarctic Program and in 1983 with the installation of the Comandante Ferraz station on King George Island. Admitted as a Consultative Party in 1983

at the Special Meeting in Canberra, Brazil acquired its right to participate fully in the meetings held every two years to coordinate the activities of nations on the white continent.

Before long, the sixth Brazilian Antarctic campaign will begin, to lend continuity to the work begun to enhance the knowledge on the nature of that enormous ice mass and on the phenomena of scientific nature verified there.

Last year, accompanied by my colleagues, Navy Minister Henrique Sabóia and Science and Technology Minister Renato Archer, I had the chance to see in loco the activities Brazil is developing in Antarctica. I was proud to witness the determination and resolve of our scientists, researchers and support personnel who are spending their second winter this year at the Comandante Ferraz station. Also worthy of our recognition are all those Brazilians who help to make our presence possible in that remote region.

Approved on June 3 of this year by President José Sarney, the National Antarctic Policy directs in an integrated manner the actions we undertake in the area which, under the guidelines of peaceful cooperation outlined in the Treaty of 1959, concentrate essentially on scientific knowledge, the identification of living and non-living economic resources and incentive to technological research.

Brazil believes that its direct and substantial interests in the area of application of the Treaty are sufficiently protected by that legal instrument. Brazil did not present claims of territorial sovereignty in Antarctica before the Treaty took effect and, while the Treaty is in force, abides strictly by its provisions. If the Treaty is revised, however, Brazil reserves itself the right to defend its interests and will do so according to the orientation and scope such a revision may imply.

We believe that the claims of territorial sovereignty made previously do not interfere with the fulfillment of the provisions of the Treaty, nor can they create obstacles for future activities of an economic nature conducted under its aegis or those of other international acts accepted by the Consultative Parties.

The basic principles that guide Brazil internationally - sovereign equality of states, peaceful settlement of controversies and non-interference in the internal affairs of other countries - also characterize our conduct in Antarctic matters. The policy of the country for the continent is an integral part of Brazilian foreign policy.

Brazil participates in the deliberations under the Antarctic System as a non-claimant country. Nevertheless, it has tried to introduce a new perspective and a new emphasis into this forum as a developing country which seeks to voice internationally the valid aspirations of its people to progress economically and socially. Consequently Brazil welcomes the interest shown in the Antarctic Treaty by a growing number of developing countries.

We believe that the participation of these countries lends a new experience to the Treaty which, due to its flexible nature, must always be prepared to confront new realities. This is a challenge we must meet with determination, pragmatism and creativity, so that past achievements lay the foundations for further success in the future. Thus, we will jointly demonstrate the vitality and dynamism of the cooperative process which unites us on this occasion.

It is with these wishes that I declare open the XIVth Consultative Meeting of the Antarctic Treaty.

OPENING ADDRESS: ARGENTINA

Mr. Chairman,

First of all,I would like to express, through you, to the government of Brazil, a country so closely linked to us by friendship and nearness, the recognition of my delegation for the warm welcome and the perfect organization of this Consultative Meeting, which were already easy to surmise during the Preparatory Meeting held last May.

Our welcome to Italy and to the Democratic Republic of Germany that have just joined as Consultative Parties, as well as to the Republic of Korea, Greece, the Popular Republic of Korea, Austria and Ecuador which became signatories of the Treaty after the last Consultative Meeting. The attitude adopted by them reflects their upholding of the principles and efficiency of the Antarctic Treaty System and their decision to cooperate with other participant States pursuant to the established norms. It is also according to these norms and with the agreed organizational covenants that we shall for the first time welcome among us the observers and experts of international entities to discuss specific subjects; we trust that the new method will be useful to the work we are developing.

The Antarctic Treaty System has been developing and enlarging its membership throughout these last years and has proved its adaptability and flexibility in meeting ever-increasing needs arising from activities relating to non-militarization and freedom of scientific research, as well as to other activities, whether emerging or foreseen during the last decade, within the scope of a deep concern for conservation of the environment and of wildlife.

It is axiomatic that the Antarctic Treaty, with its lofty purpose of maintaining peace - a peace ever more closely linked to social, economic and political development - has proven to be efficient in fulfilling its aims without dissension for over a quarter century, with the unconditional commitment of the Member States of the United Nations. This has been and will go on being possible thanks to the respect of parties for the special legal and political conditions of the Antarctic, based on a spirit of free negotiation and a sound rule of unanimity. It must be pointed out that it is only by acceptance and a strict observance of the modus operandi to which we have been committed since it came into effect that we shall succeed in upholding an acceptable system, particularly for those of us who have so greatly endeavoured to participate. Let us, therefore, strive to strengthen and improve the Antarctic Treaty System, to go on building upon that which has already been created, avoiding the pitfalls of other paths capable of leading to chaos and conflicts in the Antarctic.

This Consultative Meeting should focus on the important matter of tackling, in the future, specific aspects of scientific and logistical activities, as well administrative and regulatory procedures. We are certain that, as in the past, we shall be able to solve them in ways that will be acceptable to all. We should however point out the existence of certain undertakings which have caused my country a measure of concern, that we will analyze during this Meeting. They threaten to lead us astray from our chosen path, which we have travelled in a spirit of such perfect understanding. Sometimes, as an excuse for such undertakings, it is alleged that they are necessary to counter external pressures on the Treaty. It is our feeling that the best way to deal with such extraneous attitudes is to make it clear that the contracting parties steadfastly believe that the Treaty must be preserved for the good of mankind and that can only be achieved by upholding our unity and discipline.

Argentina, which for over eighty years has been present and active in the Antarctic and that, as a sovereign State has accepted the provisions of the Antarctic Treaty, shall persist in its endeavours to work together with the contracting parties, whether bilaterally, or as regards the specific activities of Consultative Meetings, in the same spirit that has motivated it until now.

Mr. Chairman, we congratulate you on your fully deserved election and hereby assure you of the wholehearted collaboration of the Argentinian delegation with a view to the success of this Meeting.

OPENING ADDRESS: AUSTRALIA

Mr. Chairman,

It is with much pleasure that we have come back to Rio, to this beautiful setting and fine and historic hotel, to resume where we left off last May. The Australian delegation would like to congratulate you on your election as Chairman. We look forward to working under your most capable and sympathetic leadership.

It is very gratifying to note the continuing growth in our membership, even in the last four months. It is with much pleasure that Australia welcomes Austria and Ecuador to the Treaty. We also welcome Italy and the German Democratic Republic to the ranks of the Consultative Parties, which was achieved in each case by virtue of the extent of their scientific work and ongoing commitment in Antarctica. We look forward to cooperating closely with them. We note the high quality of the GDR's scientific activity over many years. We have been pleased to cooperate with Italy in some aspects of their program and are reminded that our first connection with Italy in Antarctica dates back to the end of the 19th Century in the form of the work of the Italian—Australian physicist Louis Bernacchi, who was one of the first people ever to spend the winter in Antarctica.

Looking back over almost three decades then, we see steady growth in the number of Parties from the first 12, to 37 as of now. The fact of new members, bears testimony to the aims and ideals of the Antarctic Treaty, which continue to be worthy. The question is however, have we grown sufficiently in other ways over the years? To raise the question of possible system overload is not merely in relation to membership numbers, but to

note the scale, intensity, and complexity of current activity in the Antarctic and the Treaty System. We embark today on a heavy agenda with the benefit of reports from all areas of the Treaty System. SCAR, CCAMLR, the Seals Convention, the minerals negotiations, and our colleagues at the UN in New York have urged Australia's Permanent Representative to report in person to this meeting on the state of play on what has become the annual defence of the Treaty System in the General Assembly. We will arrive here, prepared to do this towards the end of next week.

We have important business and issues to discuss, notably on the environment - the urgent need to develop measures to ensure its adequate protection. Then there is meteorology and air safety and safety at sea, as well as tourism and the question of non-government expeditions. We will have experts present from other bodies which share our interest in the Antarctic to advise us on some of these items.

Mr. Chairman, Consultative Meetings are the hub of the wheel in all our activity, but as it turns, can we really be confident that the hub is in control and we are operating with maximum efficiency and are communicating our message effectively? Mr. Chairman, one cannot underestimate the importance of our discussion this fortnight on the subject of suitable infrastructure and work methods, which we have discussed many times before - questions of frequency of meetings, cost-sharing and a secretariat demand answers. We need work arrangements which will help us to maintain continuity, to make good and timely decisions and to be seen to be so doing.

We trust that under your leadership we will make significant progress at this meeting.

Last but not least Mr. Chairman, through you we would like to joint with others in expressing our thanks to H.E. Mr. Abreu Sodré, Foreign Minister of Brazil, for opening our

deliberations, and to thank most warmly the government of Brazil for the welcome it has given us here.

OPENING ADDRESS: BELGIUM

Mr. Chairman,

The Belgian delegation wishes to give thanks to the Brazilian government for the warm welcome which it has extended to all of the participants of the XIVth Consulvative Meeting of the Antarctic Treaty, and congratulates you on your election to the Chair of our conference.

We are also glad to take note of the acquisition of Consultative Party status by the Republic of Italy and the Democratic Republic of Germany, whom we welcome on behalf of our government. We offer them our heartfelt congratulations and feel great satisfaction at the important contributions which these two countries are making to scientific research in the Antarctic. We also wish to welcome the Representatives of Austria and Ecuador.

The Belgian government, as announced by our External Relations Minister in October 1985, in his opening address to the XIIIth Consultative Meeting, has expressed its desire to actively contribute to the development of scientific knowledge of the Antarctic, by carrying out a pluriannual program of scientific research. This program is of a multidisciplinary nature and ranks among the priorities of national and international policy.

I am glad to be able to inform you that during the southern summer 86-87 Belgian researchers took part in several expeditions led by Australia, France, Japan, the Federal Republic of Germany and Brazil and that highly fruitful bilateral scientific collaboration was developed, notably during the expeditions. It is hereafter accepted that Belgian scientists will be associated to foreign expeditions in the Antarctic during the next southern summer.

The accessibility of the Treaty is amply proven by the presence at our meeting of two new Consultative Parties, as well as the participation in an observer's capacity, over the past four years, of Non-consultative Parties. This openness shows every sign of enduring since our conference is soon to debate the possibility of inviting experts to our meetings.

The functioning of the Antarctic Treaty System, as well as several aspects of the protection of the environment of this fragile and unique continent will constitute other issues of our meeting.

Finally, aviation security and maritime hydrometeorology, inscribed in the agenda, deserve, in our opinion, special attention.

Mr. Chairman, the Belgian delegation wishes to assure you that it will take part in the XIVth Consultative Meeting with all of its energy and dedication.

OPENING ADDRESS: CHILE

Mr. Chairman,

May I congratulate you on your election and express, on behalf of my delegation, our thanks to the government of Brazil for its warm welcome, as well as mention how gratifying it is to attend this XVIth Consultative Meeting of our Treaty here, in Rio de Janeiro. I spent an unforgetable part of my childhood just a few steps away from this place, a time I fondly remember with affection and deep regard for Brazil. In the XIVth century this part of Rio and of its beautiful bay was the "Antarctic France" of Huguenot colonists - not that this would confer on France the right to assert territorial claims, but merely to share it with all of us, supported by the emotional claims of those who come to this universal city. Brazil adopted as its symbol the constellation that inspired Bastião Lopez, a Portuguese cartographer, to dreamily ponder on the unknown lands of the Southern Hemisphere. Old XV and XVI century maps show the Brasilie Regio as prefiguration of the Antarctic Continent. This was a powerful myth, a sign of the strong historical and geographical links that bind South America to the Antarctic Continent. A token of the unity created not only by conditions that are common to all developing countries, but by the exemplary cooperation that prevails among our bases in those Southern reaches and by the long-standing friendship between Chile and Brazil.

Spanish navigators pioneered the quest for a theoretical Antarctic Continent. Cosmographer André Thevet, one of the colonists of "Antarctic France", recorded this in his works, that lead us to surmise that in 1526, the "San Lesmes" was the first ship to reach Cape Horn and to brave the seas of the Deep Gulf, as it was then called, and that we now know as the Sea of

Bellingshausen near the Antarctic Peninsula. Later, in 1603, in a clear exercise of legal power, as granted by a number of royal edicts to the Governors of Chile, a fleet commanded by Gabriel de Castilla sailed from Valparaiso and reached Lat. &49S. - the first soundly documented and proven antarctic maritime expedition.

The heir to such enterprises, the newly born Republic of Chile rejoiced in the discovery by the "Dragón", from Valparaiso, of the MacFarlane Straits and in being the first to tread the shores of the till then unknown Antarctic Peninsula. Chilean sealers found the Shetland, the St. George and Sandwich Islands; the wreck of the Chilean schooner "San José" that sailed in the neighbourhood of the Elephant Islands sounded the call for the return of the Antarctic sealers and whalers; and, the first factory-whalers to operate in Deception Bay, early in this century, were Chilean, from the "Sociedad Ballenera de Magallanes". I have no intention, here, of boasting of past glories, the time for this is long gone and we have already finished discussions on the respective merits and priorities of discoverers. I simply want to share with you and to further divulge some of the wealth of Antarctic History. Sponsored by the Chilean Antarctic Institute, a team of researchers dedicated to the newborn science of antarctic archeology has found solid proof of the on-going activities that once closely bound Chile to the Antarctic actuality.

Mr. Chairman,

The Antarctic System is distinguished by the originality of a number of its characteristics. Born of the interaction of concerned States, having come together in the interest of standards and aspirations commom to all of them and mankind at large, it has grown into a joint international effort of hitherto unknown proportions. The organization which it has created has provided its members with a framework of on-going and reliable consultation and information to assist them in meeting

their special responsibilities. It has given rise to additional agreements, documents and mechanisms whose autonomy has not conflicted with their dependency on the central Treaty, which stands not only as a frame but a veritable nucleus of authority.

The Antarctic System is therefore endowed with universally upheld principles and purposes; with a framework of standards applying to a determined although expanding area; with specific activities and characteristics; with an internally structured consultative mechanism; and with shared decision-making among the Consultative Parties on the basis of consensus. This System is of a fundamentally objective nature, with a concommital process of law-making taking its shape from both international law and the accumulation of jurisdiction passed on a national level before the Treaty's creation, making it a unique crucible of collective and individual legislation. Characteristics of this process are flexibility, structural versatility and a dynamic ability to grow, which is offset by firmness of purpose.

Essential in defining the Antarctic System's contribution to the International System is the antarctic subsystem's role in the following areas:

a) The establishment of the first and, regrettably, so far the only veritable peace zone in the world, in which nuclear weapons and military activity are banned. In a narrower but also meaningful scope, mention should be made of the contributions made by the Treaties of Tlatelolco, Rarotonga and the recent Declaration of a Peace and Cooperation Zone in the South Atlantic, toward the on-going expansion of peaceful zones. It was in this spirit that an august mediator recently suggested the establishment of such a zone, in the area immediately adjacent to the northernmost tip of the Antarctic Peninsula at

the meeting-point between the southern waters of Chile and the Republic of Argentina.

b) The likewise unique example of a practice of co-responsibility on the part of the administrating powers of the Antarctic, who in a series of declarations (i.e. the Declaration of London on the Antarctic Environment of 1977) have simultaneously affirmed their rights and responsibilities in creating joint solutions which, as well as settling internal matters, enable "the effective treatment of these questions to be balanced with the need to safeguard the interests of Mankind as a whole".

c) The orchestration of functional efforts in scientific cooperation, the protection of the environment and the rational exploitation of resources, without interfering in any way with current collaboration and alliances between the participants in these collective undertakings.

d) The complementary and convergent nature of long-term interests in the scientific, technological and economic area, fine-tuned in such a way as to provide divergent political interests with a more all-embracing framework, rather than simply repressing them.

There is another aspect of the Treaty System which we consider to be even more profound and to which my country has made decisive contributions in the persons of brilliant law-makers such as Julio Escudero and José Daniel, to whom I would here like to pay homage, as well as to the negotiators of the Treaty of Washington and to Professor Enrique Gajardo, who represented us at the Preparatory Meetings which resulted in the said document.

It constitutes the golden rule, the lynchpin of political balance, which defines the special political and juridical condition of the Antarctic. Proposed by Chile in April 1948, renewed on September 7th, 1950, in a new project combining the moratorium on territorial disputes with standards for wildlife conservation and fishing regulations, it was derived from a 1908 agreement between Russia, Germany, Sweden and Denmark for the preservation of the status quo in the Baltic, and by projects previous to the Treaty of Svalbard. This article IV to whose origins I am referring is focused on one fundamental fact: claims. This means that each country using the Treaty should recognize the seriousness of the claim, accept its existence, even when the Treaty itself allows it to deny its validity.

We are meeting today in circumstances which the new relationship of forces produced by the increase of consultative and non-consultative members who have just joined, and to whom we take pleasure in welcoming, is projected into the Antarctic System in terms of increased participation of the member countries in the forums of the Treaty with a view to improving their contribution; and also, to a certain extent and in specific situations, as pointed out by the Brazilian External Relations Ministry, from the stand point of the special problems of developing countries. Observers are at present taking part, within clearly defined rules, and we will for the first time receive a full range of information on all of the developments taking place in the different components of the Antarctic System.

The new challenges and the themes which fill our agenda require careful but vigorous treatment, to be reflected in a strengthening and broadening of the System. I am referring to the two great issues which continue to hold our attention: the operationality of the Antarctic System, stemming from an initial Chilean proposal, and the protection of the exceptional Antarctic environment, a matter which causes Chile great concern, and within the scope of which mention should be made of our

participation in the important research carried out by the NASA agency of the United States on the deterioration of the ozone layer. In both cases, mechanisms are called for enabling a full study, and in respect to the impact of man on the environment stress should be laid on the cumulative effect, on the activities of overly—concentrated bases, and on neighboring and dependent ecosystems; and on harmonizing other legitimate and peaceful uses of the Antarctic, including those mentioned in the new themes on our agenda (meteorology, telecommunications, hydrometeorology, civil aviation, etc.).

In regard to operationality, our preference is clear: a decentralized regime under the power of the supreme authority of the Treaty and the higher jurisdiction of the Consultative Parties, which excludes any bureaucratic or media-related conception of the decisions which the sovereign States might adopt directly, in a closely-linked relationship and spirit of consensus. Programming fine-tuned by regular examinations of developments throughout the System, by improvement of the consultative mechanism, by better organization of our meetings, including the establishment of permanent commissions and of appropriate functional relationships with competent international organizations genuinely interested in Antarctic activity, including, of course, the already institutionalized relationship with the General-Secretary of the United Nations. Our vision is that of a strong, transparent and efficient system, without unnecessary red-tape, and in which all members participate fully. It is the Chilean delegation's deep conviction, Mr. Chairman, that such a model should be nothing more than a continuation of the System as it has evolved historically until the present, and that we whould remain loyal to the spirit of the heritage we have received from its founders and which we have committed ourselves to defending and fostering.

Thank you, Mr. Chairman.

OPENING ADDRESS: PEOPLE'S REPUBLIC OF CHINA

Mr. Chairman,

First of all, on behalf of the Chinese delegation, I would like to extend to you our warm congratulations on your assumption of the chairmanship of the present meeting, and to express our deep appreciation to the Brazilian government for its excellent preparatory work for this meeting and for all the facilities made for us. I should also like to thank Mr. Sodré, Minister of Brazilian Foreign Ministry for his kind welcoming speech delivered to us this morning. And finally, I would take this opportunity to extend hearty congratulations again to German Democratic Republic and Republic of Italy as Consultative Parties, and sincere welcome to the delegates of new members of the Antarctic Treaty.

Mr. Chairman, the Chinese Government has always been in favour of the purposes and principles of the Antarctic Treaty. We have been constant in making efforts to facilitate the implementation of these purposes and principles. The Antarctic Treaty constitutes a fundamental international legal instrument regulating activities of states in the Antarctic. For almost 30 years now, the Treaty has guaranteed peaceful uses of Antarctica, helped Antarctica to remain a demilitarized and nuclear-free zone and facilitated the scientific investigation thereof and international cooperation therein. It has also made great contribution to the preservation of the vulnerable unique Antarctic environment and ecosystem. Meanwhile, we are fully aware that in order to make the Treaty System more effective and dynamic in pursuit of its purposes and objectives, we should progressively improve and perfect its operation in accordance with the new developments in Antarctic affairs. And this is the very objective we have all in mind for the meetings of ATCM.

Mr. Chairman, in recent years, China has been very active in the field of Antarctic scientific investigation and research. Since 1984, China has dispatched three Antarctic scientific expeditions, conducting investigations and research activities in various disciplines including geology, biology, chemistry, oceanology, geodesic survey, glaciology, upper atmospheric physics and medical science. At the end of this year, China is to dispatch a fourth Antarctic expedition. China is mankind its due efforts to assist the mankind in having a better understanding of the Antarctic and in making peaceful use of the Antarctic.

Mr. Chairman, with the increasing concern expressed by the international community over the Antarctic affairs and with Antarctic activities ever widening and deepening, we are confronted with new problems that come out from time to time. For example, would that be necessary to establish certain infrastructure to enable the ATCM to work more effectively, owing to the larger scale of the ATCM meetings and the extended scope of consultations? How could the meeting documents and information on Antarctic activities be made earlier available to more states? And would there be any feasibility for the relevant international organizations' participation in the ATS? Moreover, as a result of the greater presence of people and facilities in Antarctica, how to deal with problems therefrom such as waste disposal and over concentration of activities in certain areas? The solution of any of these problems requires consultations among states in the spirit of cooperation at the ATCM meetings.

Mr. Chairman, the Chinese delegation is prepared to hold serious discussions on all these problems together with other delegations. We wish every success for the Meeting.

Thank you, Mr. Chairman.

OPENING ADDRESS: FRANCE

Mr. Chairman,

Allow me to take this occasion, on my own behalf and that of the French delegation, to tell you how happy we are to be here in Rio de Janeiro, gathered for the XIVth Meeting of the Consultative Parties of the Antarctic Treaty, in this lovely city which we feel provides such a perfect setting for our work. I would also like to express our gratitude to the organizers of this Meeting, and thank Minister Abreu Sodré for his thoughtful and pertinent remarks. Finally, I take pleasure in congratulating you on your election and in extending our best wishes to you in your new duties, Mr. Chairman.

I am also pleased to welcome our colleagues from Italy and the Democratic Republic of Germany, who have just been admitted as Consultative Parties. The Consultative Parties' decision to enlarge the circle of its members is based, as we all know, on a close examination of scientific work carried out by countries which are, in accordance with the spirit of the Treaty, connected to the development of Antarctic research. This examination gains depth with each new case, to my great satisfaction. The admissions we have just announced are in indication of the attractiveness of the Treaty of Washington and the open-mindedness which inspired it. This open-mindedness has led us to increase the participation of adhering countries, whose contribution is so precious to us. I take the occasion to greet the representatives of all the States who are present here, as well as the new members, Austria and Ecuador.

The XIVth Meeting, Mr. Chairman, is one of special importance, as the Brazilian External Relations Minister has already indicated. As in the past we are committed to pursuing our work in a spirit of fidelity to the Treaty and its provisions,

and to our chosen purpose, that of the development of scientific research in the Antarctic. France, as you know, is making substantial contribution to the effort and firmly intends to increase its activity on the continent, while continuing to encourage international cooperation, one of the fundaments of the Treaty.

Of course, this research cannot be carried out without unflagging respect for the protection of a fragile environment. This protection is among the missions of the Party States of the Treaty, fully assumed by each one of them.

Obviously, preaching respect for the Treaty does not mean sealing ourselves off from any kind of change, but we must nevertheless use prudence in adapting our system, when necessary, to developments and the aspirations of the international community. We are convinced that this adaptation can be effected within the framework of the Treaty as it stands. This Treaty functions to the satisfaction of all of its members and is characterized primarily by a spirit of mutual trust. We are like sportsmen in thinking that a team which wins does not need to be changed. There is absolutely no purpose in altering a Treaty which works and works well, which can even be said to be a model of perfect functioning, streamlined, versatile and unencumbered by red tape.

We should be on our guard against apparently beneficial innovations which could jeopardize the integrity and effectiveness of the Treaty, which has enjoyed thirty long years of productive harmoniousness. Our supple and fair-handed way of proceeding is a heritage we must zealously protect.

It is in this spirit, Mr. Chairman, that the French delegation will approach the work of this Meeting. May this XIVth Conference be guided by the same deliberate thoughtfulness which has always presided over our work with such sucess.

OPENING ADDRESS: GERMAN DEMOCRATIC REPUBLIC

Mr. Chairman,

First of all permit me, please, to congratulate you, on behalf of the delegation of the German Democratic Republic, on your election as Chairman of the XIVth Consultative Meeting.

We are convinced that the experience which you have already proved during the Preparatory Meeting in May and which you now will use to handle such a comprehensive agenda, will contribute to the success of this Consultative Meeting at which highly important questions are up for discussion and which are suited to strengthen and to substantially develop further the well tried Antarctic Treaty System.

At the same time we wish to express our gratitude to the government of Brazil for the invitation to attend this Meeting, and for the excellent working conditions which we have been granted, as well as to the Minister of Foreign Affairs for his words of welcome he addressed to us when opening the meeting.

Mr. Chairman, for my delegation and for my country this XIVth Consultative Meeting has special significance for obvious reasons: It is the first meeting in which the GDR takes part as a Consultative Party. We sincerely feel bound to thank you and all delegations for the kind words and the congratulations.

In particular we wish to express our deep-felt gratitude to all Consultative States for the support granted. On this occasion the GDR wishes to reconfirm its preparedness to do its utmost to maintain, strengthen and further develop the well

tried Antarctic Treaty System and in this sense to contribute to the success of this meeting.

Last not least we have the desire to express our pleasure that together with the GDR also the Italian Republic has successfully applied for the Consultative status, and we heartily congratulate the delegation of Italy on that.

In the same way we heartily welcome the delegations of Austria and Ecuador on the occasion of the accession to the Antarctic Treaty.

Mr. Chairman,

It is certainly not necessary for our delegation to once again outline in detail the position of the GDR with regard to the Antarctic Treaty System and our contribution to the exploration of the 6th continent.

A comprehensive documentation under the title "Summary Report of the GDR Antarctic Scientific Campaigns since 1959 and Future Activities" has been presented, and we have had ample opportunity to report on our National Antarctic Research Programme. The research base of the Academy of Sciences which has been maintained since 1976 and which has continuously been enlarged, has been converted this year into an independent research station of the GDR. It was given the name of "Georg Forster". Since 1959 a total of more than 170 scientists and technicians of the GDR have implemented research programmes of their own within the framework and with logistic support from Soviet expeditions. During these days the first self-supporting GDR expedition will be sent to Antarctica.

We are convinced that the first GDR expedition as well as subsequent expeditions will contribute to enlarged knowledge on Antarctica for the benefit of all mankind and for the strengthening of well tried peaceful international cooperation

between States of different social systems on the 6th continent.

Mr. Chairman,

The GDR has repeatedly confirmed - within and outside of the United Nations - that it defends the Antarctic Treaty System against unjustified attacks and highly appreciates its advantages.

Our readiness to strongly advocate the preservation of the Antarctic Treaty is substantially determined by the fact that the Antarctic Treaty declares the whole 6th continent a completely demilitarized zone, prohibits any kind of nuclear explosions and the disposal of radioactive waste and only allows the exclusively peaceful use of Antarctica.

In our opinion this politically and legally very important status must be maintained at any rate in the interest of peaceful international relations. In this context we wish to underline that the strict observance and application of Article IV of the Antarctic Treaty as well as of the principle of consensus are of great significance.

A part of the Antarctic Treaty System is undoubtedly the complex of recommendations adopted by the Consultative Parties. And the Antarctic activities of the GDR will be guided by these recommendations.

Mr. Chairman,

The agenda decided upon at the Preparatory Meeting in May contains a number of important questions the solution of which can have a decisive influence on the future operation of the Antarctic Treaty System. Among these questions is the whole complex of environmental protection.

We share the view of those delegations and experts who have repeatedly pointed out that even slight changes in the Antarctic environment may have grave (sensible) effects on the climate of the Earth.

In the foreground there should stand the strict observance of the existing recommendations; this would be an important element in order to restrain or even eliminate existing sources of pollution. We are open-minded to the question of reviewing existing procedures, maintaining the well tried principle of the freedom of scientific investigation in Antarctica.

In conclusion, Mr. Chairman, I wish to assure you once again that the GDR is prepared to make all efforts to strengthen the coherence and cooperation of the States Parties and to contribute to the success of this Meeting.

Thank you, Mr. Chairman.

OPENING ADDRESS: GERMANY, FEDERAL REPUBLIC OF,

Mr. Chairman,

First of all allow me to congratulate you on your election. I am confident that under your circumspect guidance, which you have already demonstrated at the Preparatory Meeting, we will safely achieve the aims we have set ourselves for this XIVth Antarctic Treaty Consultative Meeting. I wish also to take the opportunity to express my warm thanks to the Brazilian government for their invitation to hold this meeting in Rio de Janeiro and for their generous hospitality.

My delegation welcomes the fact that Austria and Ecuador have just acceded to the Antarctic Treaty. Their accession emphasizes the worldwide recognition accorded to the Treaty and the commitment of its members. This has further strengthened the Antarctic System.

The representatives of the German Democratic Republic and the Republic of Italy are today participating in an Antarctic Meeting for the first time with Consultative status. My delegation wishes to thank them and their governments for their readiness to share the special responsibility of the Consultative States for Antarctica for the sake of the whole of mankind.

I am pleased to be able to inform you on behalf of the government of the Federal Republic of Germany that on September 30th 1987 the Federal Republic deposited with the government of the United Kingdom of Great Britain and Northern Ireland its instrument of accession to the Convention of 1 June 1972 for the Conservation of Antarctic Seals. I also wish to inform you that the necessary domestic legislation for the adoption of the

recommendations associated with the Agreed Measures for the Conservation of Antarctic Flora and Fauna is at present in preparation. This means that after having passed this legislation the Federal Republic of Germany will have adopted all recommendations relating to the Antarctic Treaty.

My delegation are confident that this meeting will in particular point the way to further improvements in the operation of the Treaty System and for the continuation and development of methods of protecting the sensitive Antarctic environment. Within the scope of cooperative research activities we shall be particularly anxious to afford greater protection for man and nature in the Antarctic.

Mr. Chairman,

My delegation are looking forward to a constructive session in the spirit of the traditionally good cooperation among the State Members of the Antarctic Treaty.

OPENING ADDRESS: INDIA

Mr. Chairman,

My delegation would also like to share the sentiments expressed by several delegations who spoke earlier, in giving our warm felicitations to you on your election as Chairman and through you, Mr. Chairman, to your government for the hospitality extended to all of us in hosting the XIVth Antarctic Treaty Consultative Meeting in your country. It is indeed a pleasure to be in this beautiful city of Rio de Janeiro which is the venue of this meeting. We would also like to thank your Foreign Minister for the very gracious remarks he has made on the role and functions of the Antarctic Treaty System.

Mr. Chairman, we believe that the Antarctic Treaty System is an unique organization, the parallel of which is not found anywhere in the world. It will always be our endeavour to strengthen the objectives of the Treaty System. From its inception, the scientific work carried out by the Treaty countries has been very commendable and whatever we know about Antarctic today - and we know a great deal - has been as a result of the efforts made by the Treaty Countries.

Mr. Chairman, I would like to take this opportunity to congratulate the two countries namely the Republic of Italy and the German Democratic Republic for becoming the members of the Consultative Party. The scientific work demonstrated by the Republic of Italy within a few years has been most commendable whereas the activities of the German Democratic Republic have been going on for the last several years. In January 1982, when the first Indian Expedition landed on Antarctica in Queen Maudland area, we met some of the GDR scientists in Schirmachar Oasis (East

Antarctica) near the Soviet Station Novolazerevskaya and exchanged our greetings. In 1984, India built its permanent station, "Dakshin Gangotri" close to the present GDR Station. We are thus neighbours in Antarctica. India has so far sent six expeditions to Antarctica and the preparations for the seventh expedition are under way. There are about thirty institutions in the country where scientific work on the data, samples and material collected from Antarctica is being pursued. So far, nearly 200 publications have come out from India on Antarctic Sciences.

We warmly welcome the Republic of Italy and the German Democratic Republic on their attaining Consultative Status. We are confident that their presence will further strengthen the working of the Antarctic Treaty System.

Mr. Chairman, we would also like to congratulate the 5 new members who have joined the Antarctic Treaty, since the last meeting (ATCM-XIII) was held two years ago; thus making the total 37 countries in all. We indeed appreciate their full participation in this meeting. My country, Mr. Chairman,has some additional responsibilities by being a member (earlier Chairman) of the Non-Aligned Movement (NAM) and a member of the "Group of 77" countries. We have defended the Antarctic Treaty System in all the forums where Antarctica was discussed and we would like to thank the present Chairman of ATCP - Australia - for defending the Antarctic Treaty and its working so effectively in the United Nations General Assembly. We are confident that, as time passes, the Antarctic Treaty will become stronger and larger and each country will contribute significantly towards developing a greater understanding about this mysterious but promising continent. I wish you all possible success in your deliberations Mr. Chairman.

Thank you, Mr. Chairman

OPENING ADDRESS: ITALY

Mr. Chairman,

On behalf of my delegation I join the previous speakers in welcoming you as Chairman of the XIVth Antarctic Treaty Consultative Meeting.

We are looking forward to working with you, the Secretary-General and the Deputy Secretary-General for the full success of our meeting.

I wish to extend my warm appreciation for the presence here of the Foreign Minister of Brazil which honors our Committee and underlines the importance attached by the government of Brazil to the Antarctic Treaty.

I would also like to ask him to extend our admiration and gratitude to the entire government of the "República Federativa do Brasil" for hosting this meeting and having also hosted the Preparatory Meeting of last April offering outstanding working conditions in this "Cidade Maravilhosa".

I would like now to present our warm greetings to the Consultative Parties and to thank them for having favorably considered the substantial scientific work accomplished by Italy in Antarctica an to have judged this work as appropriate for a Consultative Member of the Treaty. We are proud to be considered as full fledged Consultative Party. To the delegates who have expressed their congratulations I would like to extend our thanks.

It is my pleasure now to congratulate the German Democratic Republic on her accession to the status of Consultative

Party, and to formulate our best wishes for a fruitful contribution in enacting the principles of the Treaty.

May I also greet the delegation of the Non-consultative Parties which since Canberra 1983 have worked with the Consultative members offering a substantial contribution.

I do hope that our presence among the Consultative Members may represent a further reinforcement of the Treaty System and may assist in pursuing its objectives in the interest of mankind: to preserve the Continent as a demilitarized and denuclearised oasis in this globe of ours; to ensure freedom of scientific research; to facilitate the exercise of the right of inspection; and to promote international cooperation for the protection of the environment.

We seize this opportunity for reiterating our engagement to strictly abide by the provisions of the Treaty and by the recommendations adopted at previous Consultative Meetings. Italy is also ready to ensure its full participation to all the relevant instruments of the Antarctic System.

We have adhered to the Treaty in 1980. The law of 29th November 1980 nº 963 passed by the Italian Parliament gave "full and entire execution" to it. Four and a half years later Parliament passed a law setting up a five-year Programme of Scientific Research in Antarctica, fixing a budget of 230 billions lire (a little more than 180 millions US dollars).

Many Italian scientists (some of them with us here enjoying this climax of the recognition of their activity) have worked since 1985 in Antarctica at stations of other countries, mainly in the field of geology, meteorology and marine biology. It is only fair that I mention here our debt of gratitude to those who have assisted them with their invaluable experience, above all the Newzealanders.

In 1985/86 a first governmental expedition left Italy for the Ross Sea and selected in Victoria Land in Terra Nova Bay the site considered fit for establishing a permanent station.

Interesting scientific studies were performed and published.

In 1986/87 a bigger expedition followed and at Gerlache Inlet at Terra Nova Bay a building was erected for the accommodation of some 48 persons and offering substantial facilities for scientific research and monitoring of the environmental impact.

Three weeks from now a third expedition will sail from Genova to Terra Nova Bay to extend the installation of the base and to pursue extensive work in glaceology, meteorology, cosmophysics, biology, geological cartography, physical and biological oceanography. The nearby Mount Melbourne will offer the opportunities of research in vulcanology.

Mr. Chairman,

As Consultative Members, we feel we have a common object to pursue and consider close cooperation with scientists of other countries one of the main aims of the Treaty. On the other hand, we regard as essential the diplomatic cooperation achieved by this Committee and are ready to give it our full support.

OPENING ADDRESS: JAPAN

Mr. Chairman,

On behalf of the Japanese delegation, I wish to offer you my warmest congratulations on your appointment as Chairman of the Fourteenth Antarctic Treaty Consultative Meeting. I am confident that under your guidance this session will attain its intended goals.

I also wish to express my sincere appreciation to the Foreign Minister of Brazil, H.E. Mr. Soárê for the warm welcome which he kindly extended to us yesterday morning. I should like to express my delegation's most profound gratitude to the government of Brazil for hosting this Consultative Meeting following the Preparatory Meeting in May. I am confident that this Meeting here in this beautiful Rio de Janeiro will add another new lustre to the history of Antarctic Treaty Consultative Meetings and that it will long remain in the memories of all participants.

Yesterday, the German Democratic Republic and the Republic of Italy were approved as new members of the Consultative Meeting. I am indeed honoured to welcome warmly the delegations of both countries to the Meeting.

We know that the German Democratic Republic and the Republic of Italy have been already conducting active works in the Antarctica and therefore they are fully eligible for the membership of this Meeting. I am sure that the addition of these two countries will contribute greatly not only to the more extensive deliberation in this Meeting but also to further reinforce and develop the present Antarctic System.

We are also happy to note that five new members have acceded to the Antarctic Treaty since the thirteenth Consultative Meeting. The Japanese delegation wishes to express its warmest welcome.

Mr. Chairman,

It may be recalled that over the past few years, various arguments have been set forth on the present Antarctic System at several international fora, including the United Nations. In this connection, I would like to stress that the Consultative Meeting should strongly appeal to the outer world of the role the present Antarctic System played in ensuring the peace an the freedom of scientific research in Antarctica and thus contributed to the interest of all mankind. At the same time, we should continue our efforts in strengthening the present system among the members of the Consultative Meeting. In the light of the above-mentioned situation, very much is expected of this Meeting.

Mr. Chairman,

Since Japan reopened its activities in the Antarctic by participanting in the scientific programs of the International Geophysical Year of 1957-1958, thirty years have passed and this year we have celebrated the 30th anniversary of our activities in the Antarctica. The First Japanese station "Showa" was established on the Ongul Islands in 1957 and the second station "Mizuho" was build in July 1970. Furthermore, it has become possible to expand the area of its activities after the commissioning of "Shirase" which is now one of the biggest icebreakers under operation. We added the third stations "Asuka Camp" in 1984 and started wintering there from January 1987. We are firmly determined to use our experiences and achievements accumulated during the last 30 years so that we can contribute to the sucess of this Meeting as well as the strengthening of the present

Antarctic System. In closing, Mr. Chairman, I would like to assure you that my delegation is fully prepared to make every effort to make this Meeting a successful one.

Thank you.

OPENING ADDRESS: NEW ZEALAND

Mr. Chairman,

Please accept our thanks for your willingness to accept the burden of chairing this meeting. It is not an easy task. Please also accept our thanks to the government of Brazil for providing us with the splendid facilities we enjoy here. We fully understand the burdens that are imposed on a host government. It is largely in recognition of those burdens that we hope to see progress on the item on the infrastructure of the Treaty System in order to alleviate the load placed on any host government.

We are pleased to welcome two new Consultative Parties to our meeting. As the leader of the Italian Delegation so graciously acknowledged yesterday, New Zealand has had long and close cooperation with Italy in Antarctica and we are happy to see Italy join us at the table of Consultative Parties. While we have had less close contact with the GDR we have been aware of the extraordinarily good scientific work they have carried out in Antarctica.

We welcome the new parties to the Antarctic Treaty since our last meeting, particularly the newest members, Ecuador and Austria.

I would like to highlight the priorities for New Zealand at this Consultative Meeting. The first two relate to the issue of environmental protection. We hope that this meeting will set some new goals for our work on these importatn issues.

The first is the management of waste disposal in Antarctica. We would like to think it is possible that the

mistakes of the past will be recognised, that they can be avoided in the future and that we can set some clear guidelines as goals for improving our performance in this area of activity in Antarctica.

We also want to see substantial progress in the area of environmental impact assessment. We have not come as far as we had hoped on this issue since our meeting in Canberra in 1983. We are eager to get down to work on this question to see what can be done to ensure progress in practical and concrete ways.

The third issue is that to which I referred earlier, the organizational aspects of the Treaty System. We listened carefully to the leader of the delegation of France. We fully understand what he had to say about the need to proceed with caution. But the need for caution does not mean that we should do nothing. We should proceed cautiously, but we should proceed. A central feature of the work to be achieved at this meeting is the need not only to improve the functioning of the Treaty System within the group of Treaty Parties but also to ensure that the benefits of the system are understood by the outside world.

Finally, Mr. Chairman I want again to thank you for taking on the task of leading us at this Consultative Meeting. We are sure you will do so admirably. You have our full support.

OPENING ADDRESS: NORWAY

Mr. Chaiman,

On behalf of the Norwegian delegation I should like to congratulate you on your election as Chaiman of the Fourteenth Antarctic Treaty Consultative Meeting. We are looking forward to working with you for the furtherence of our common objective: the strenghhening of the Antarctic Treaty and the cooperation that has developed through it.

Let me also, through you, convey the warm thanks of my delegation to the government of Brazil for presenting us with such a magnificent setting for our meeting. The fabulous city of Rio de Janeiro has already revealed its many wonders to those of us who had the pleasure to attend the productive session of the minerals negotiations in 1985, as well as the Preparatory Meeting for this Consultative Meeting last May. The splendour of the Copacabana Palace secures us all the space, calm and efficiency we could hope for in our work.

At the outset of this meeting I should also like to extend a heartfelt welcome to the German Democratic Republic and to the Republic of Italy as new Consultative Parties. We are looking forward to working together with them, both within the Consultative Meeting process and within SCAR. Both have already amply demonstrated their commitment to Antarctic research and their ability to contribute effectively to our work.

Norway has long believed that one important way to strengthen the Antarctic Treaty lies in the welcoming of new contracting parties. We are pleased to note that the Antarctic family has grown considerably since the Thirteenth Consultative Meeting. I wish the Republic of Korea, the Democratic People's

Republic of Korea, Greece, Austria and Ecuador a warm welcome to the Treaty.

Mr. Chairman,

One of the trademarks of the Treaty has been its ability to adjust and meet the challenges of the day. I think we have good reason to be proud of the achievements of the Consultative process over the last 26 years. We have created a system which has secured scientific, environmental and, not least, political cooperation in the Antarctic. It is a system that works.

We cannot relax, however, and take for granted that something which has served us well for so long will continue to do so faced with new challenges. We must make sure that the measures we adopt and the decisions we now take are adequate and tailored for their time. The Antarctic scene has changed over the past 30 years. We ourselves - through the very success of our endeavours - have been the architects of this development. Recommendations, agreed measures, conventions, or just undertakings noted in the final reports, - all have contributed to making the Treaty System stronger, and unavoidably, more complex. At the same time, the membership of the Treaty is steadily expanding. Instead of 12 there are now 37 parties to the Treaty. All this renders it necessary to continuously monitor the operation of the Antarctic Treaty System. That item on our agenda will undoubtedly continue to be of great significance also for many Consultative Meetings to come.

Over the past few years there has been a growing awareness of Antarctica in the world. The question of Antarctica has been on the agenda of the General Assembly of the UN since 1983. At the same time the increasing concern about our global environment has naturally also focused attention on the Antarctic. International organizations like the WMO, the FAO and the IUCN as well as UNEP have undertaken work related to different aspects of Antarctica. The World Commission on Environment and Development has

published a report which includes a section on Antarctica, and which stressesthat it is essential that the continent be managed and protected in a responsible manner.

It is a matter of great satisfaction to my delegation that a viable system is already in existence to adequately meet the concerns expressed. The Antarctic Treaty System is a singular vehicle for taking care of all facets of human activity on the southern continent. We have, I believe, proven that we have met all challenges up till today effectively. We must not rest on our laurels, however. We must be prepared to think creatively, to respond positively to the new expressions of interest in Antarctica, and to find ways to make the Treaty System even better. I believe that we made one such significant step forward during the Preparatory Meeting last May through our decision concerning the attendance of observers and experts. It is through our ability to adapt and pull together that we have managed to safeguard the Antarctic for so long. My delegation is committed to pursue this proven path for the further strengthening of the Antarctic Treaty and the System that has developed under it.

Mr. Chairman,

We have a long agenda ahead of us. My delegation is prepared to contribute fully to a productive discussion of each one of the items. Our tradition of effective cooperation in the quest for solutions to all matters we deal with is such that I feel confident that we shall obtain considerable results once again. In so doing, we will once again have demonstrated the singular effectiveness of the Antarctic Treaty.

Thank you.

OPENING ADDRESS: POLAND

Mr. Chairman,

First of all I would like to join the previous speakers in expressing my sincere satisfaction that the XIVth Consultative Meeting is held under your able guidance.

I also request you, Mr. Chairman, to convey our appreciation to the distinguished Minister for Foreign Affairs of Brazil for his kind words addressed to us. In hosting this Meeting, Brazil demonstrated its growing interest in Antarctic matters and its commitment to the Antarctic Treaty System.

Mr. Chairman,

It gives me personally a great pleasure to participate in the Consultative Meeting held in Brazil, where I spent four years as Ambassador of Poland.

At this juncture I wish to recall the fact that on 5 January 1983 at 7.25 p.m. in the Polish scientific station "Arctowski", situated on King George Island, the national flag of Brazil was hoisted for the first time over the land of Antarctica by Fernando Pastor - commander of the Brazilian polar vessel "Barão de Teffé" and Dr. Ryszard Wróblewski - head of the Polish station. It marked a very significant beginning of good and fruitful cooperation between the Polish and Brazilian scientists in Antarctica.

Amongst items on our agenda some are of particular importance, namely those which deal with the crucial matter of the strengthening of the Antarctic Treaty System based on the principles of demilitarization and denuclearization of the region and on close international cooperation to protect and preserve the unique environment in Antarctica.

The world of today witnesses the attempts to stop the arms race and to begin disarmament. The Polish delegation is convinced that all delegations assembled here welcome with great satisfaction the recent Soviet-American accords on the subject. Let the famous stipulations of Article I of the Antarctic Treaty be a good precedent and a good example for this noble task!

The Antarctic Treaty System faces a continuous challenge to live up to the expectations of those who created it over 25 years ago. This is simultaneously a challenge to the Consultative and Non-consultative Parties to the Antarctic Treaty. Therefore we are glad that during our Meeting in Rio de Janeiro, Consultative and Non-consultative Parties will be working together in order to meet this challenge.

It is also a matter of satisfaction to note that today the number of Consultative Parties has increased up to 20 states. The German Democratic Republic and Italy, after conducting substantial scientific research in Antarctica, have fulfilled entirely the requirements provided for in Article 9 paragraph 2 of Antarctic Treaty and joined the ranks of Consultative Parties. On this occasion my delegation wishes to joint with others in welcoming warmly the delegations of both new Consultative Parties. We are convinced that their membership in Antarctic Treaty System will contribute to the strengthening of our common efforts in achieving the objectives of this System.

Generally speaking, the presence here of about 35 delegations, representing a wide range of countries with different political and economic systems, is a clear sign for the international community as a whole that the Antarctic Treaty System is alive, effectively carrying out its responsibilities in Antarctica. It is evident proof of its open character.

As I already said, the draft agenda of our Meeting contains a number of important items, like the Operation of

Antarctic Treaty System, Air Safety in Antarctica, International System of Marine Hydrometeorological Service to Navigation in the Southern Ocean, Amendments to the Rules of Procedure.

Without going into details, I would like to say that my delegation is ready to accept the amendments to the Rules of Procedure elaborated at the Preparatory Meeting in Rio de Janeiro some months ago. We are also prepared to discuss the idea to transform preparatory meetings into regular Consultative Meetings. I hope that these and other items will be discussed in an open and constructive manner, in the search for a solution acceptable to all Consultative Parties.

In conclusion, I would like to thank the government of Brazil for its generous hospitality extended to us and for the excellent arrangements that have been made in Rio de Janeiro, undoubtedly the most beautiful city in the world.

I thank you, Sir.

OPENING ADDRESS: SOUTH AFRICA

Mr. Chairman,

First of all allow me on behalf of my delegation to join with other speakers in congratulating you upon your election as Chairman of this our XIVth Consultative Meeting. We look forward to working constructively and expeditiously under your able guidance which most of us here already experienced. Our congratulations go also to the Executive Secretary of the Meeting, Mr. Moreira Lima.

Through you, Mr. Chairman, I should also like to convey to the government of Brazil our thanks and our appreciation for the welcome extended to us this morning by the distinguished Minister of External Relations - as well as for the excellent arrangements and facilities provided for our Meeting. It is a real pleasure to have once again as our venue this beautiful city of Rio de Janeiro with its many attractions, scenic and otherwise.

We sould also like to extend a warm welcome and our congratulations to the German Democratic Republic and to the Republic of Italy who have now joined us as Consultative Parties. They have already demonstrated their interest in Antarctica and the Antarctic Treaty System and we look forward to their continued contributions to our common endeavours. We wish them well in the years ahead.

It is also a pleasure to welcome all those countries which have acceded to the Treaty and who are present at our Meeting - more particularly those whom we were able to welcome for the first time at our Preparatory Meeting in May this year. A special word of welcome goes to Austria and Ecuador which acceded to the Treaty only after that Meeting.

Finally, we welcome the representatives of those international organizations and bodies who for the first time are attending a Meeting to report on developments in their various areas of competence relating to the operation of the Antarctic Treaty System or to assist us in our discussion of certain of the items on the agenda.

Mr. Chairman, the increasing numbers of Consultative Parties and of accessions to the Antarctic Treaty and its related instruments are clearly indicative of the growing awareness of the importance of the Antarctic Treaty System as an instrument for the preservation of Antarctica as a region of peace and stability; for the fostering of international cooperation and the promotion of scientific research; and for the protection of the Antarctic environment and the conservation of Antarctic resources.

But in spite of the fact that the operation of the Treaty System has amply demonstrated its effectiveness over the last quarter of a century; in spite of its undoubted and considerable achievements over a wide spectrum of activities; and in spite of the fact that the system is open to any country which subscribes to its principles and objectives; in spite of all these factors, there are, regrettably, forces at work today which seek to undermine the very basis of the present system and to replace it with some other system which would be uncertain in its content and unproven in its implementation.

We are convinced that the substitution in the foreseeable future of any other system for the present one would herald the end of that uniquely successful international cooperation in the pursuit of our common goals which has always characterized the Antarctic Treaty System and which indeed is its great strength. It would harbour the dangerous seeds of instability and confrontation for a region which is today perahps the most peaceful on earth.

We should therefore continue to resist vigorously the pressures against us and continue to develop and strengthen the present system, as we are doing, in order to make it even more effective in the future.

This, I believe, we can do inter alia by dealing constructively and with foresight with those issues appearing on the provisional agenda of our present Meeting. My delegation looks forward to working with other delegations towards this end.

Thank you.

OPENING ADDRESS: UNION OF SOVIET SOCIALIST REPUBLICS

Mr. Chairman,
Ladies and Gentlemen,

First of all, I would like to join the other delegates in congratulating you for being elected Chairman of our Meeting, and also to thank the Brazilian government through you for the excellent accommodations it has provided to make this event a reality. I would also like to extend a cordial welcome to the delegations of the German Democratic Republic and the Republic of Italy, which participate for the first time in the Meeting as Consultative Parties.

Mr. Chairman,

The Soviet Union believes that the acceptance of new members as participants in the Consultative Meetings and the increase in the total number of participants of the Treaty of 1959 reflect the confidence vested in this Treaty, the growing realization of its significance in the modern world and the overwhelming feeling that there is no other alternative possible to this small instrument of international law, where brilliant solutions are found to settle matters on demilitarization, territorial claims, scientific research and international cooperation in the Antarctic. We believe that the Treaty of 1959 has been successful because it is based on the practical experience of government activities in the Antarctic, and also because the founding countries, out of political good will and based on common interests, reached a compromise which was accepted by the countries subsequently acceding to the Treaty as the only viable solution for the complex political problems of the Antarctic continent.

The International Geophysical Year, instituted thirty years ago, was largely responsible for the content of the Antarctic Treaty. Article II of the Treaty established that the freedom to conduct scientific research and the cooperation growing out of such research, such as that agreed upon during the International Geophysical Year, shall continue according to the provisions of the Treaty in force. In our opinion, this provision, not to mention other articles, has worked and worked effectively.

Mr. Chairman,

I would like do convey the hope that the participants of the present Meeting use this occasion to make a broader declaration of their commitment to the ideals of international cooperation in the Antarctic which have prevailed over our expeditions since 1957. Thus we may rest assured that our cooperation will benefit not only those directly involved but will also serve the interests of the progress of science and all mankind.

Thank you.

OPENING ADDRESS: UNITED KINGDOM

Mr. Chairman,

May I start by congratulating you on your election to Chair our meeting. From our experience of your firm and wise guidance of our deliberations at the Preparatory Meeting, we know that we are in safe hands. May I also, through you Mr. Chairman, offer our thanks to the Foreign Minister of Brazil for his warm words of welcome to us, and also offer our thanks to the Government of Brazil for the excellent facilities they have laid at our disposal for the work of this meeting.

Mr. Chairman,

I shall not take your time to elaborate on the many matters of concern to my delegation at this meeting. I would, however, wish to take this opportunity to pick out one of them. It relates to the adoption of Environmental Impact Assessment procedures. My delegation is strongly of the view that the adoption and implementation of mutually acceptable guidelines for such procedures will influence our common approach to many of the other issues on our agenda.

Finally, Mr. Chairman, may I add my own congratulations to the German Democratic Republic and the Republic of Italy who join us as Consultative Parties for the first time today and also welcome the five Treaty Parties who have acceded since the Thirteenth Consultative Meeting in Brussels.

Thank you Mr. Chairman

OPENING ADDRESS: UNITED STATES OF AMERICA

Mr. Chairman,

In response to the warm words of welcome of the distinguished Foreign Minister of Brazil, let me say that we are delighted to be back in Rio - under your chairmanship - to work with colleagues, old and new, including the German Democratic Republic and Italy as new Consultative Parties; the new acceding states; as well as the observers and experts of international organizations, with the objective of ensuring that activities in Antarctica take place in safe and environmentally sound fashion, without mutual interference, and that the Antarctic Treaty System operates openly and effectively both internally and in its relationship to the international community, so that Antarctica will remain, as it has for the past quarter century, a zone of peace devoted to peaceful international cooperation.

OPENING ADDRESS: URUGUAY

Mr. Chairman,

I am extremely pleased to be able to join the preceding delegations in congratulating you for your election as Chairman of this Preparatory Meeting, with the certainty that you will lead us towards positive achievements. I also wish to congratulate the Executive Secretary.

Here we have the convergence of a series of propitious circumstances:

- The locale, this beautiful "carioca" city makes us grateful for the warmth of Brazilian hospitality and for an efficient organization as is required by the Antarctic issues;

- that once more we meet the Non-consultative Members whom we welcome into our midst, particularly Austria and Ecuador, that joined us quite recently. It is certain that, to the incontestable enrichment we shall thus enjoy, we shall add the no less significant open-minded ratification of the Antarctic Treaty System, an actual proof that the arguments of our oppositors lack justification. The achievements and the dynamics of the System clearly show to a World rife with dissension the path towards a peaceful and effective international relations.

With this in mind, the adhesion of two new States, the Democratic Republic of Germany and Italy, whom we welcome and congratulate, once again demonstrates the truth of these concepts. We firmly believe that both will have a great deal to contribute,

now as in the future, thus benefitting the Antarctic System as a whole and therefore, Mankind.

Uruguay, a country that takes pride in its pluralism, has detected in the provisions of the Antarctic Treaty a higher version of an exceptional conviviality, benefitting from the solidarity that permeates the Antarctic environment, materialized as a scientific and logistic cooperation that significantly contributed towards enrichment of Uruguayan activities in the Antarctic. I now state that my country is ready to go on pursuing its course of contributing all that is required, within the limitation of the resources allotted to the Antarctic area.

Mr. Chairman,

Given the hefty Agenda that will exact all our efforts and dedication, the Uruguayan delegation expresses our sincere hope that under your guidance the XIVth Consultative Meeting of the Antarctic Treaty will be a total success.

OPENING ADDRESS: AUSTRIA

Mr. Chairman,

Let me first of all congratulate you, on your election as Chairman of this meeting.

This is an important moment for the Republic of Austria since it is the first time that an Austrian Delegate has the opportunity to address this distinguished forum. I would like to express the thanks of the Austrian government to the government of the Federative Republic of Brazil for the invitation to the XIVth Antarctic Treaty Consultative Meeting. Furthermore, Austria being a Non-consultative Party, I want to express our gratitude to the Consultative Parties for having opened the Antarctic Treaty Consultative Meetings to Non-Consultative Parties. My thanks also go to delegations for their words of welcome for Austria.

Austria acceded to the Antarctic Treaty on 25 August 1987. For this reason I would like to say a few words on the motives that induced Austria's accession to the Treaty.

For 26 years the Antarctic Treaty System has proved its workability and its ability to live up to the standards defined by its general functions.

Austria is specifically interested in keeping Antarctica an area free of conflicts. My country has the firm intention to contribute - within her limited means - to the fulfillment of the general principles enshrined in the Antarctic Treaty, such as the stopping or limiting of the arms race, the ban on nuclear explosions and disposal of nuclear waste and the elimination of territorial disputes. Austria also considers the protection of the Antarctic environment an issue of far-reaching consequences and thus an area of particular concern. Finally,

Austria is interested in participation in scientific research, however, her limited resources do not allow her to undertake any projects on her own - at least not in the near future. Permit me nevertheless to mention the interest Austrians already showed for Antarctica at the beginning of this century. In 1911 the vessel "Oesterreich" lay in the port of Trieste ready for an expedition to Antarctica. The outbreak of World War I, however, put a sudden end to this ambitious project. Subsequently, although no exclusively Austrian expedition could be dispatched to Antarctica, several Austrian explorers and scientists have participated in Antarctic projects initiated by other States.

Mister Chairman,

Many problems will arise in the future with respect to Antarctica. It will require substantial efforts by the Parties to the Antarctic Treaty to overcome them. Antarctica will probably have to cope with a wide range of environmental problems which will be fairly different from those encountered in the rest of the world. This fact is due to Antarctica's very particular conditions, such as the extremely slow cycle of reproduction of its flora. It is due to the global climatic implications which the melting of significant portions of Antarctic ice would have. And it is due to the still incalculable adverse effects of the gradual depletion of the ozone layer by the continued use of chlorofluorocarbons which particularly affect the atmosphere over the poles. In this context I should like to point out that progress has already been made by the international community in the field of protection of the ozone layer. It was an Austrian who had the honour to chair the international conference in Montreal last September which succesfully concluded with the adoption of the "Montreal Protocol on Substances that Deplete the Ozone Layer". All the above mentioned considerations will also have to be taken into account in connection with the question of a possible exploitation of the mineral resources of Antarctica. In this context Austria considers favourably

initiatives designed to safeguard the Antarctic environment and to preserve it as a source of human knowledge.

Problems of a different kind may be raised by States and individuals who criticize the Antarctic Treaty System as a source of a further increase in inequality among States. It is often said that too little information on the activities within the framework of the Antarctic Treaty is available to the public. Being the representative of a country which has crossed the line that separates States within the Antarctic Treaty System from those outside only recently, I take - with your permission - the liberty to observe that there is indeed a substantial difference, especially as regards obtaining information and documents, according to whether a State is inside or outside the Treaty System. Having this still fresh experience in mind I should like to say on behalf of the Austrian delegation that increased transparency as to developments within the Antarctic Treaty System would certainly have a beneficial effect on how the world looks at this system.

Austria is convinced that these problems and others that may exist, or that will come up in the future, can be resolved within and by the Antarctic Treaty System which offers sufficient and adequate mechanisms to deal with them.

Thank you, Mr. Chairman.

OPENING ADDRESS: BULGARIA

Mr. Chairman,

In the first place, the delegation of the People's Republic of Bulgaria would like to join the congratulations on your election as Chairman of the XIVth Consultative Meeting.

Besides, we express our satisfaction for being invited to take part in this meeting, in the capacity of observers. Also, we are grateful to the Brazilian government for the fine conditions which it has created for the successful work of the meeting.

We equally take the opportunity to greet the German Democratic Republic and Republic of Italy, for having been granted the status of Consultative Parties.

Mr. Chairman,

The People's Republic of Bulgaria attaches a great importance to the goals and principles incorporated in the Antarctic Treaty. In this connection, I would like to point out, particularly, the provisions of the Treaty reinforcing the use of the 6th continent solely for peaceful purposes, free scientific investigations, cooperation.

We appreciate favorably the operation of the Treaty System, which, in practice, has shown its vitality, and decisively stands for the strengthening and development of a regime of prevalence of international law in Antarctica, in full conformance with the contractual obligations undertaken by the participating governments.

Manifesting ourselves against the attempts to revise the Treaty and undermine the legal order established by it, we deem it particularly important to continue the efforts aimed

at ensuring, also in the coming days, the political, economic and juridical advantages of the Antarctic System.

In our opinion, through such plan, the expansion of the practice of international cooperation creates considerable chances to really guarantee the right of all states to peaceful research of Antarctica, irrespective of the level of their development or economic potential.

Thanks to the cooperation with scientific institutes of the U.S.S.R. and Great Britain, Bulgarian specialists are participating in joint Antarctic expeditions, to be carried out in 1987/88. This is enabling Bulgarian scientists to acquire the experience that is required for the work under polar conditions, envisaging the preparation for an independent scientific work in Antarctica. We take this opportunity to express our thanks to the scientific institutes of the U.S.S.R. and Great Britain, for their willingness to accomplish a joint work.

Mr. Chairman,

You may rest assured that, to the extent of its possibilities, the delegation of the People's Republic of Bulgaria is ready to provide its contribution for the successful realization of the meeting.

Please accept our deepest thanks!

OPENING ADDRESS: DENMARK

Mr. Chairman, Ladies and Gentlemen,

First of all the Danish delegation would like to take the opportunity to state its admiration and gratefulness for all the work done by the Brazilian government to accommodate the delegations of the XIVth ATCM in the beautiful surroundings of Rio de Janeiro.

The Danish delegation has followed carefully the discussions during the first part of this meeting in order to sound out the evolution of events and would like at this stage to offer its opinion on a number of subjects.

1. Firstly the Danish delegation is extremely pleased to state that the change in the Rules of Procedure admitting international organizations to participate in certain subjects discussed by the ATCM have been adopted by this meeting.

We would like to take this evolution as a positive omem for more contact and cooperation of the Antarctic Treaty sphere with relevant and interested international organizations and forums.

We very much hope that the inclusion of the relevant international organizations in the work under the Antarctic Treaty will progress further in order to take advantage of the specific relevant knowledge of these international organizations and the important work and results in respect of the Antarctic, which these organizations have already achieved with the support of the States of the Antarctic Treaty.

2. Like the Swedish delegation, the Danish delegation is greatly concerned with the handling of the Antarctic question

at the United Nations' General Assembly, which must be solved as soon as possible. In view of the claim for more openness of the work under the Antarctic Treaty we find that it would be extremely helpful if the preliminary report of this meeting could be handed over to the Secretary-General of the United Nations before the Antarctic question is being dealt with by the 42nd General Assembly.

In respect of the claim of the outside world for more openness of the work under the Antarctic Treaty we attach great importance to progress in the matters of publications about the work under the Antarctic Treaty. We believe that information in the shape of pamphlets might be useful to break the present deadlock.

3. The question of the Antarctic Treaty infrastructure has already been discussed for a number of years. In this matter we share the views expressed in working papers of Norway, Australia, USA, UK and China. We find that a small secretariat would be helpful not only for organizing the ATCMs, especially in the case of a small country - but also as a proof of openness in view of the ongoing closer scrutiny of the Treaty System by world public opinion - notably within the UN System. We are happy to state that there is a steadily growing conviction, shared by a majority of the Consultative Parties, in favour of a small secretariat. We hope that the ATCM will reach a consensus on this important issue as soon as possible.

4. Furthermore, Mr. Chairman, the Danish delegation is greatly satisfied to state that there is a growing concern for the environmental impact of scientific activities in the Antarctic. In this respect we would like to express our support in favour of setting up reasonable rules for environment impact assessment of planned scientific activities and for provisional guidelines for waste disposal until a new Code of Conduct has been adopted.

It is well-known that Danish expertise and technology have already for some time been profoundly involved in the environment problems in the global context, and we are therefore concerned that these problems should be solved as they gradually increase along with the development of scientific activities in the Antarctic. We very much welcome the outspoken tendency in this context to regulate and set up rules for these activities.

To be more specific in this way of thinking the Danish delegation can wholeheartedly support the UK draft recommendation for procedural guidelines for the environmental impact assessment of scientific activities in the Antarctic. In the same sense the Danish delegation supports the idea of Specially Protected Areas (SPAs), recommended by the Australian working papers.

5. Finally, Mr. Chairman, the Danish delegation is pleased to inform that during more than 35 years danish polar ships have carried out more than 70 transports to the Antarctic. In this way the Danish Shipping Industry has been instrumental in support of scientific as well as logistic activities in the Antarctic. This danish expertise and technology is being developed further in order to continue its participation in these important activities. In this connection, Mr. Chairman, the Danish delegation is well aware of the importance of the Soviet proposal for an international system of marine hydrometeorological services to navigation in the Southern Ocean.

Let me conclude, Mr. Chairman, with congratulating most heartily Italy and the German Democratic Republic for having attained the Consultative Status.

Thank you, Mr. Chairman

OPENING ADDRESS: ECUADOR

Mr. Chairman, Messrs. Delegates:

Mr. Chairman, I congratulate you for your election to preside over this Meeting and request you to convey to the Brazilian government our thankfulness for the welcome that awaited us in Rio de Janeiro. Ecuador is greatly pleased to attend the XIVth (Fourteenth) Consultative Meeting of the Antarctic Treaty, since our government has delivered the deed of acceptance in Washington. Thus, we thank you for the warmth of your welcome, expressed by the words of the Delegates who took the floor before me.

The historical tradition of my country's permanent interest and engagement in the activities and research carried out in the Antarctic Continent is well-known to all the countries represented in this Meeting. This interest is not contingent upon participation by Ecuador in the scientific expeditions of Brazil, Chile and New Zealand.

Ecuador is also committed to the preparation of a scientific expedition that will sail on the ORION, on December 1987. As mentioned by H.E. the Brazilian Minister of Foreign Affairs in the opening session of this Meeting, all the parties to the Antarctic Treaty must interpret it as an instrument for effective cooperation.

All the countries are jointly responsible for the success of the Antarctic System, particularly considering that the Antarctic is a peace zone, exempt from nuclear activities, for the good of mankind.

I take this opportunity to congratulate Italy and the Democratic Republic of Germany for joining the Consultative

Members of the Antarctic Treaty. My congratulations, as well, to all other countries that have recently joined the Treaty.

Ecuador expresses its best wishes for the unqualified success of this Meeting, which you will most certainly guide to achievement, Mr. Chairman, to consensus on each of the Items that we shall on this occasion consider.

Thank you, Mr. Chairman
Thank you Messrs. Delegates

OPENING ADDRESS: FINLAND

Mr. Chairman,

May I join other delegates in congratulating you, Mr. Chairman, on your election to conduct this XIVth Meeting of the Consultative States to the Antarctic Treaty. I am convinced that with your vast knowledge and long experience you will lead this meeting to a successful and fruitful conclusion. I would also like to express our gratitude to the government of Brazil for the facilities it has provided for this meeting, the warm welcome and hospitality.

Finland is attending this meeting of the Consultative States now for the second time after having acceded to the Treaty in May 1984. We are grateful to the Consultative States for having invited the government of Finland to this important gathering. We would now like, in our turn, to congratulate the governments of the Republic of Korea, the Democratic People's Republic of Korea, Greece, Austria and Ecuador for having acceded to the Antarctic Treaty.

My congratulations go, in a very special way, to the delegations of German Democratic Republic and of Italy for having reached the Consultative Status yesterday.

When Finland took the decision to accede to the Treaty and thus to contribute to the strengthening of the present successful Treaty System she was inspired by the interest of maintaining peace and security, co-operation in scientific research and protection and conservation of the fragile environment of the continent and its surrounding sea areas. Indeed, the Treaty provides for the effective demilitarization of Antarctica. The continent of Antarctica and its adjacent waters have been effectively isolated from all international military and political tensions which I think is very much in

the interest of all mankind. Thus, the masters of the Treaty have been very successful in fulfilling one of the main objectives of the Treaty which is formulated in the Preamble as follows "recognizing that it is in the interest of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene of object of international discord".

My country will continue to preserve these activities and consider the demilitarization of the continent to be a corner-stone of the Treaty System and all future endeavours on the continent.

Another proof of wisdom can be found in the provision which constitutes a fundamental element in the present Treaty System and which provides a moratorium on territorial claims in Antarctica during the time the Treaty is in force. This provision has given a comfort for all countries to cooperate and indeed to compete, without pressure, in scientific research all over the continent. We have noticed in Finland with great satisfaction that scientific observations and results from Antarctica are being exchanged and made freely available between all the interested parts.

Mr. Chairman, it is with this spirit of co-operation and openness that Finland is participating in the scientific research work on the continent of Antarctica. It goes without saying that Finland which is situated in the sub-arctic zone has a wide experience of coping with severe cold climate conditions. We have developed high technology for operations in the arctic regions which is equally applicable in the antarctic region. It is in Finland where we find the biggest producers of ice-breakers and other special vessels to be used in cold waters and waters covered with ice. As a matter of fact 80 per cent of the total world production of ice-breakers, arctic cargo vessels and artic and antarctic special duty vessels has been produced by Finnish shipyards. This technology

has been used and is being used by various scientific expeditions under numerous national flags.

Mr. Chairman, this specific technology has gone hand in hand with purely scientific research work in general which covers a wide spectrum including disciplines such as geomorphology, geology, ionospheric and magnetospheric studies, glaciogeology, permafrost, sedimentology, marine biology, sea ice, meteorology, medicine and biology. In order to co-ordinate all activities of scientific research and development of technology the government of Finland has recently decided to establish a specific organ called Finnish Polar Committee, which is composed by representatives of various fields of scientific research and competitive authorities. This committee will be also responsible for the preparation of a Finnish expedition to Antarctica in the austral summer 1989-90.

The expedition is going to be carried out in a special research vessel now under construction in Finland. In order to prepare that expedition Finnish scientists are participating in expeditions mainly carried out by other countries.

Mr. Chairman, in our opinion the logical result from this activity should be the Consultative Status for Finland among the Antarctic Treaty parties. Indeed, I can announce here today that Finland is going to apply for the Consultative Status as soon as we have been in the position to demonstrate our interest in Antarctica by "conducting substantial scientific research activity there". We hope that the application will be considered during the next meeting of the Consultative Committee in 1989.

My delegation has distributed a small booklet which will explain the aims of the Antarctic activities in Finland in a brief form.

Finland has been participating actively in the working group on an Antarctic Mineral Resources Regime which we hope will be concluded early next year. We are confident that the Regime is going to be organized in a way which does not exclude the N.C.P.'s from the central institutions and organs of the Regime. We have time and again underlined the importance of the protection and conservation of the Antarctic environment in this respect. It is therefore important that all interest representing environmental and scientific knowledge in the world community be taken into account in any decision-making.

Mr. Chairman, I would like to conclude this statement by underlining the importance of environmental aspects not only in the framework of Antarctic Mineral Resources Regime but also in much more general sense. We all know the extreme vulnerability of the Antarctic environment both on land and in the sea. We should therefore carry out exploratory and other activities in the area with utmost caution not only for the beauty and virginity of the continent itself but also knowing that a change in the climate conditions there could dramatically and fundamentally influence environmental conditions throughout the world.

I thank you Mr. Chairman.

OPENING ADDRESS: GREECE

Mister President,

On behalf of my delegation I would like to express my sincere thanks to the government of Brazil for its invitation to my country to participate in this meeting as Non-consultative Party.

On this occasion I would gladly like to inform you, Mr. President, that my country has already acceded to the Washington Antarctic Treaty of 1959 as well as to the Canberra Treaty regarding the conservation of Antarctic Marine Living Resources of 1980. My delegation also expresses its conviction, that in the interest of all mankind, Antarctica shall continue to be permanently used exclusively for peaceful purposes and that it shall not become the object of international friction or discord. Moreover Antarctica should be accessible to all nations.

The Antarctic Treaty represents in many respects a model for international cooperation. The freedom of scientific research, the exchange of data and the fact that stations may be visited and inspected at any time, the prohibition of military activities of nuclear testing of depositing radioactive wastes and the exclusion of the question of territorial claims, are particularly positive features of the Treaty. Furthermore I think that the most important fact is the contracting state's firm resolution to work for mutual understanding and cooperation regarding Antarctica.

Another salient characteristic of the Treaty is its openness in principle, for accession.

Every country can accede to the Treaty and, if it is engaged in substantial scientific research, attains a status of Consultative Party.

Mr. President, Greece believes that an eventual exploration of the Antarctica and an exploitation of its resources should be carried out for the benefit of all mankind and in a manner consistent, with the protection of the environment of this continent, which has considerable environmental, climatic, scientific and economic significance for the entire world.

Finally, Mr. President, I would like to express the willingness of my country to cooperate with all other State Parties of the Antarctic Treaty for the realization of its aims. In this respect, we believe that the position and the role of the Non-consultative Parties in the Antarctic Treaty Meetings should be strenghthened in the sense that due regard should be paid to their views during the decision-making process.

Thank you, Mr. President

OPENING ADDRESS: REPUBLIC OF KOREA

Mr. Chairman,

The delegation of the Republic of Korea, first of all, wishes to express its appreciation to the Antarctic Treaty Consultative Parties for their invitation to the XIVth Antarctic Treaty Consultative Meeting here in this beautiful city, Rio de Janeiro, Brazil. This delegation is deeply touched by the fact that the meeting is well organized under the leadership of the government of Brazil, and would like to take this opportunity to present Korea's commitment to the Antarctic.

Mr. Chairman,

As you may know well, the Republic of Korea acceded to the Antarctic Treaty on November 28, 1986. However, the commitment of the Republic of Korea to the Antarctic Treaty System goes back to as early as 1985. The Republic of Korea joined the Convention on the Conservation of the Antarctic Marine Living Resources in March 1985. In doing so, the Republic of Korea accepted the principles and objectives of the Antarctic Treaty System and assumed the obligations and responsibilities deriving from the system.

Like the cases of many other countries, the commitment of the Republic of Korea to the Antarctic was primarily prompted by scientific interest. Since 1978, the Republic of Korea has dispatched seven scientific expeditions to the area below 60 degrees south. Through these expeditions, physical, chemical, and biological data were collected to study the environmental features, nutrient concentrations, trace elements, primary productivity, distribution and abundance of flora and fauna in the Antarctic waters, and assessment of krill stocks. Food chain dynamics of Antarctic water, diurnal, and summer productivity of phytoplankton were also studied.

Mr. Chairman,

This delegation is very proud to inform you that the government of the Republic of Korea has a plan to build a permanent scientific research station in the Antarctic in order to further the study of Antarctic science. In the coming 1987-88 summer season, a team of scientists and technicians will start to set up the base. The proposed site of the Korean research station in the Antarctic is in King George Island of the South Shetland Islands.

In accordance with the Recommendation XIII-6 relating to siting of stations, the government of the Republic of Korea has undertaken due consultation with the concerned governments to safeguard existing scientific activities, avoid operational logistic difficulties and avoid undue adverse environmental effects arising from cumulative impacts. The government of the Republic of Korea wishes to thank the various governments which encouraged and gave proper advice with great supports and interest.

With the completion of Antarctic station by February 1988, the Republic of Korea will expand its scientific research areas to include oceanography, meteorology, solid earth geophysics, glaciology, and other related fields. By actively engaging in scientific research in Antarctica, the Republic of Korea would like to enlarge its polar-related research knowledge and contribute to the development of the Antarctic science.

In conducting scientific research in Antarctica, the Republic of Korea fully recognizes the fact that the Antarctic environment is extremely vulnerable to human activities. Hence, the Republic of Korea shall act in accordance with the international legal rules and regulations governing the protection and preservation of the Antarctic environment, developed by the Treaty System in the past years. In particular, the Republic of Korea shall observe the Code of Conduct for Antarctic Expeditions and

Station Activities annexed to Recommendations VIII-11, XII-4 and XIII-4. Even during the construction of the station, the government of the Republic of Korea will make every effort to minimize man's impact on the Antarctic environment. The government will not only provide the technicians with appropriate instructions and measures but also install proper machinery and parts such as the internationally approved sewage treatment and desalination units and incinerator to protect the pristine Antarctic environment.

To ensure the most peaceful use and preservation of the Antarctic environment, the government of the Republic of Korea will do its best by learning from the past lessons and by giving due consideration to any concern which may be raised by other Member States. Observing the principles of the Antarctic Treaty and the Code of Conduct, the Republic of Korea will contribute to widespread international support for the continuity of peaceful use of the Antarctic continent and protection of its environment.

In conclusion, Mr. Chairman, this delegation would like to reiterate that the government of the Republic of Korea is fully prepared to work together with the concerned governments in accordance with the tradition of international research cooperation in Antarctica.

Thank you.

OPENING ADDRESS: NETHERLANDS

Mr. Chairman,

My delegation would like to join others in congratulating you, on your election as Chairman of our meeting and Mr. Sergio Eduardo Moreira Lima as Executive Secretary. We would also like to congratulate Italy and the GDR on their new status of Consultative party and to welcome those states that have in recent months acceded to the Treaty. Last but not least I wish to thank the distinguished Minister of External Affairs of Brazil Mr. Roberto de Abreu Sodré for his inspiring opening address yesterday.

Mr. Chairman, it is twenty years ago this year that the Netherlands acceded to the Antarctic Treaty. During those years the delegations from my country have made an effort to make an active and hopefully useful contribution to the proceedings of the Consultative Meetings. The Netherlands is a strong supporter of the Treaty and its objectives. We believe that the parties to it through the years have worked hard and have made great progress towards what the original signatories set out to achieve in 1959, i.e. the continued development and strengthening of Antarctica as a zone used exclusively for peaceful purposes and scientific research benefiting all of mankind.

The system created by the Treaty is one that works as the distinguished delegate from Norway said earlier this morning. But indeed, as many delegates around this table have already stated, we need to keep up the good work, to never loose sight of the fact that a system, even if it functions effectively, needs constant attention and the stimulus of new and creative ideas.

I would like to stress that the fact that the Netherlands is still a Non-consultative Party to the Antarctic

Treaty Consultative Meetings should in no way be construed as to imply less commitment to the aims and objectives of the Treaty.

On the contrary, my Government is of the opinion that Non-consultative parties have an important contribution to make to the work of the Treaty System. We are a bit concerned about a tendency to emphasize the difference between the position of Consultative Parties on the one hand and Non-consultative Parties on the other. The new Rules of Procedure before this meeting which show a rather large difference are a case in point. My delegation feels that we should strive for more equality in the respective positions in particular with regard to what I would call matters of protocol. The Netherlands is in favour of investigating the possibility for a Non-consultative Party of organise and host the Consultative Meeting of the Antarctic Treaty and to provide its Chairman.

Mr. Chairman, in closing I would like to express my delegations conviction that under your able leadership and thanks to the excellent facilities provided to us by your Government this meeting will be fruitful and will contribute to the further elaboration and development of the Treaty System.

Thank you Mr. Chairman.

OPENING ADDRESS: PERU

Mr. Chairman,

It is an honour fot the Peruvian delegation to be present in this lovely and hospitable city of Rio de Janeiro to take part in the XIVth Consultative Meeting of the Antarctic Treaty.

Our delegation wishes to extend to you, Mr. Chairman, its warmest congratulations for your well-deserved election to the task of directing our work during this meeting.

Our delegation also wishes to take this opportunity, Mr. Chairman, to offer its greetings to the cordial and brotherly people and government of the Republic of Brazil.

Mr. Chairman,

Peru's presence at this meeting is intended to reaffirm our country's commitment to the principles and objectives of the Antarctic Treaty. Likewise, it is meant to express the presence and broad spirit of collaboration of the governemrnt of Peru in the constructive examination of matters concerning all the Parties of the Treaty.

Our delegation considers, Mr. Chairman, that the present Consultative Meeting is reflective of the healthy spirit of cooperation which, ever-increasingly, enables member countries of the Treaty to seek common ground in tackling shared Antarctic problems. This aspect, Mr. Chairman, is of particular importance, insofar as the true democratic process enables all the Parties of the Treaty to express those concerns reflective of their special interests, as well as of the general interests of the Members of the Treaty and of the international community as a whole.

The Peruvian delegation, Mr. Chairman, considers that the Consultative Parties are creating by means of the legitimate exercise of their duties a veritable legislative system within the framework of the Antarctic Treaty, by adopting recommendations and other measures destined to lay down standards or guidelines for adequately regulating specific aspects of Antarctic problems. In accordance with this spirit, the concepts which are formulated, examined and adopted, with the obligatory participation of all the parties of the Treaty, should reflect the principle of making ever more flexible, just and operational the basic mechanisms of the Antarctic Treaty, and gathering the the viewpoints of all the concerned parties. To this is added the need for making clear to the rest of the international community that does not take part in these meetings that a real and vital democratic spirit exists in the functioning of the institutions and mechanisms of the Treaty.

The Peruvian delegation is particularly happy to extend its warmest congratulations to the delegations and governments of Italy and the Democratic Republic of Germany in view of their recent entry as new Consultative Members of the Antarctic Treaty. Peru, as a Non-consultative Member, is extremely satisfied to observe the great flexibility and operationality which permits the Antarctic Treaty to go on increasing, to positive effect, its number of Consultative Members.

Before finishing, our delegation also wishes to greet all the delegations gathered here. We promise our closest collaboration in the joint task of examining the adoption of the measures which shall be agreed upon in this meeting, and express our hope that the XIVth Consultative Meeting of the Antarctic Treaty will be a full success.

Thank you, Mr. Chairman

OPENING ADDRESS: SWEDEN

Mr. Chairman,

First, Mr. Chairman, I want to express my sincere thanks to the government of Brazil for its invitation to Sweden to participate in the XIVth Consultative Meeting under the Antarctic Treaty. I feel confident the excellent conditions here in the beautiful city of Rio de Janeiro will promote progress in our work. Let me also join the other delegations in congratulating you on your election as Chairman of this important meeting.

Mr. Chairman,

At this occasion I would first of all reiterate the commitment of Sweden to the Antarctic Treaty System and to the Antarctic cooperation. The Antarctic Treaty itself is in our view an outstanding example of a successful Treaty, giving peace and stability to the Antarctic region. It also guarantees free scientific research on the whole continent and promotes the protection of the fragile environment of Antarctica to the benefit of all mankind. It is of utmost importance that the Treaty System will continue to be upheld in the future.

It is well-known that the outside world pays an increasing attention to the Treaty. A proof of that is the fact that since the XIIIth Consultative Meeting in Brussels two years ago, five more countries have acceded to the Treaty and two more countries, Italy and the GDR, have attained Consultative status. My delegation very much welcomes this development, because it demonstrates the attraction of this Treaty open as it is for accession to all members of the United Nations. It is the firm belief of the government of Sweden that the international cooperation concerning Antarctica should be pursued within the framework of the Antarctic Treaty.

The handling of the question on Antarctic at the United Nations General Assembly during the last few years is of grave concern to us. The question on Antarctica within the framework of the United Nations should be treated only on the basis of consensus. It is our hope that it will be possible to restore consensus on this issue during the 42nd General Assembly.

Mr. Chairman,

We have a full agenda before us which contains important questions for the future of the Antarctic continent and for the Treaty System. Sweden as a Non-consultative Party is an observer to this meeting. Even in that capacity it is the ambition of my delegation to try to constructively contribute to the work which lies ahead of us.

With the risk of repeating ourselves I would like to underscore that the Swedish interest in Antarctica is steadily increasing. At the last Consultative Meeting in Brussels we had the opportunity to state that Sweden planned to take up scientific activities in Antarctica, and that Sweden also had the ambition to become a Consultative Party to the Treaty before the end of this decade. Now, Mr. Chairman, I am happy to report that a Swedish expedition to Antarctica has been dispatched. There will be a Swedish scientific station in Antarctica in the beginning of 1988. This means that Sweden in a near future will be able to make a notification about Consultative status.

Sweden is a nation with well-known historic achievements in polar research. We have maintained and in the last few years considerably increased our interest and activities both in the Arctic and in Antarctica. We are anxious to - as soon as possible - fully and actively participate in the Antarctic cooperation in all its aspects - thus contributing to the strengthening of the Antarctic Treaty System.

Thank you, Mr. Chairman.

ANNEX B

NATIONAL CONTACT POINTS

NATIONAL CONTACT POINTS

(For purposes described in Recommendation XIII-1)

CONSULTATIVE PARTIES

ARGENTINA

1. For the purposes of Paragraph 3 of Recommendation XIII-1:

Dirección General de Antártida
Ministerio de Relaciones Exteriores y Culto
Reconquista 1088 - 10º piso
1003 Buenos Aires
República Argentina
Phone: 311-0071, ext. 378
Telex: (33) 21 194 RELBA AR
21 330
21 339
21 214

2. For the purposes of Paragraph 5 of Recommendation XIII-1:

Instituto Antártico Argentino
Dirección Nacional del Antártico
Cerrito 1248
1010 Buenos Aires
República Argentina
Phone: 44-1689

AUSTRALIA

The Director
Antarctic Division
Department of the Arts, Sport, the Environment, Tourism and Territories
Channel Highway
KINGSTON, Tasmania 7050
AUSTRALIA

BELGIUM

1. For the purpose of paragraph 3 of the above Recommendation:

Services des Affaires Générales (P 17)
Direction générale de la Politique
Ministère des Affaires étrangères, du Commerce extérieur et de la Coopération au Développement
2, rue Quatre Bras
1000 Bruxelles
Tel: 02/516.81.11
Telex 21.376

2. For the purpose of paragraph 5 of the above Recommendation:

Programmation de la Politique scientifique
Services du Premier Ministre
rue de la Science, 8
1040 Bruxelles
Tel: 02/230.41.00
Telex 24.501

BRAZIL

1. For the purposes referred to in paragraph 3:

Division of Marine, Antarctic and Outer Space Affairs (DMAE)
Ministério das Relações Exteriores
Sala 305 - Anexo I
Esplanada dos Ministérios
70.170 Brasília, DF
Brasil
Tel: (061) 211-6282
(061) 211-6367
Telex: 611311 MNRE BR

2. For the purposes referred to in paragraph 5:

Secretariat for the Interministerial Commission for
Marine Resources (SECIRM)
Ministério da Marinha
Esplanada dos Ministérios
70.055 Brasília, DF
Brasil
Tel: (061) 226-8647
Telex: 611392 MMAR BR

CHILE

1. For the purposes of paragraph 3 of the above Recommendation:

Director de Política Especial
Ministerio de Relaciones Exteriores
Bandera 52, Piso 7º
SANTIAGO
Phone: 6980301
6968636

2. For the purposes of paragraph 5 of the above Recommendation:

Instituto Antártico Chileno (INACH)
Address: Luis Thayer Ojeda Nº 814
Casilla 16.521
Correo Sucursal 21
Santiago
CHILE
Telex: 346261 INACH CK
Phone: 2310105 (Director)
2318177 (Vice-Director)

PEOPLE'S REPUBLIC OF CHINA

General Office
National Committee for Antarctic Research
1 Fu Xing Men Wai, West District
BEIJING, China

FRANCE

1. For the purposes of paragraph 3 of the Recommendation:

Territoire des Terres Australes et Antarctiques Françaises
34, Rue des Renaudes
75017 Paris

Tel.: 47.66.93.23

2. For the purposes of paragraph 5 of the Recommendation:

Ministère des Affaires Etrangères
Direction des Affaires Juridiques
37 bis Quai d'Orsay
75007 Paris

Tel.: 45.55.95.40 - ext. 7326/7310

GERMAN DEMOCRATIC REPUBLIC

1. For purposes under paragraph 3 of the Recommendation:

Director of the Legal and Treaty Department
Ministry of Foreign Affairs
Marx-Engels-Platz 2
Berlin
1020
German Democratic Republic

2. For purposes under paragraph 5 of the Recommendation:

Director for Antarctic Research
Institute for Physics of the Earth
Academy of Sciences of the GDR
Telegraphenberg
Postdam
1561
German Democratic Republic

GERMANY, FEDERAL REPUBLIC OF

Alfred-Wegener-Institut für Polar -
und Meeresforshung (AWI)
Columbusstrasse
Postfach 12 01 61

2850 Bremerhaven
Federal Republic of Germany

INDIA

1. For purposes referred to in paragraph 3:

The Secretary
Department of Ocean Development
Mahasagar Bhavan,
Lodi Road
New Delhi - 110003, INDIA

Tel. : New Delhi 360874
Telex: 3161535 DOD IN

2. For purposes referred to in paragraph 5:

The Director
National Institute of Oceanography,
Dona Paula
GOA - 403004, INDIA

ITALY

1. For the purposes under paragraph 3 of the Recommendation:

Direzione Generale Relazioni Culturali
UFF VII
Ministerio Affari Esteri
00100 Roma
Telephone: (39-6) 3960747
Telex: 626267 MAE

2. For the purposes under paragraph 5 of the Recommendation:

Programma Nazionale Di Ricerche in Antartide
Dipartimento Protezione Ambiente
ENE PAS
CP 2400
00100 ROMA AD
Telephone: (39-6) 30484275
Telex : 613296 ENEACA
Facsimile: (39-6) 30484893

NEW ZEALAND

The Ministry of Foreign Affairs
Private Bag
Wellington I
New Zealand

Telephone: (04) 728877
Cable: NZ 3441 external

NORWAY

1. For the purposes referred to in paragraph 3:

Royal Ministry of Foreign Affairs
Attn.: Special Adviser for Polar Affairs
Post Office Box 8114 Dep
0032 Oslo 1 Norway

Tel. : (47) (2) 20 41 70
Telex: 71 004
Telefax: (47) (2) 41 22 86

2. For the purposes referred to in paragraph 5:

Norwegian Polar Research Institute
Post Office Box 158
1330 Oslo Lufthavn Norway

Tel. : (47)(2) 12 36 50
Telex: 74 745
Telefax:(47)(2) 12 36 50
Telefax:(47)(2) 12 38 54
(outside office hours)

POLAND

1. For purposes set out in paragraph 3 of the Recommendation:

Director of the Legal and Treaty Department
Ministry of Foreign Affairs
Al. I Armii WP 23, Warszawa, Poland;

2. For purposes set out in paragraph 5 of the Recommendation:

Head of the Committee on Polar Research
Polish Academy of Sciences
Palac Kultury i Nauki
00-901 Warszawa, Poland.

SOUTH AFRICA

Director (Administration)
Department of Environment Affairs
Federated Forum Building
315 Pretorious Street
Pretoria
0002
Republic of South Africa

Telex : 32-0142
Telephone: (012) 26-7530

UNION OF SOVIET SOCIALIST REPUBLIC

Address of the Institute: 199226, Leningrad, B-226
Bering Street, Dom. 38
Cable Address: Leningrad, B-226, Arktika.
Telephone Number: 352-15-41

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

1. For purposes set out in paragraph 3 and other matters related to the operation of the Antarctic Treaty System:

Head of Polar Regions Section,
South America Department,
Foreign and Commonwealth Office,
London, SW1A 2AH, UK.

2. For purposes set out in paragraph 5 (a) and (b) insofar as they relate to British scientific research in the Antarctic:

Director,
British Antarctic Survey,
High Cross,
Madingley Road
Cambridge CB3 OET, UK.

3. For purposes set out in paragraph 5 (b) excepting those related to British scientific research in the Antarctic:

The Librarian,
Scott Polar Research Institute,
Lensfield Road,
Cambridge CB2 1ER, UK.

UNITED STATES OF AMERICA

Director,
Office of Oceans and Polar Affairs OES/OPA,
Room 5801
Department of State Washington D.C. 20520

URUGUAY

Instituto Antártico Uruguayo
Buenos Aires 350
Montevideo - Uruguay

Telephones: 954205, 956924, 955448.

NON-CONSULTATIVE PARTIES

DENMARK

Head of Section
Mr. JOHN KIAERULF
Secretariat for Law of the Sea Questions
Danish Ministry of Foreign Affairs
Asiatisk Plads 2
DK 1448 Copenhagen K
Denmark

ECUADOR

Ministerio de Relaciones Exteriores
Dirección de Asuntos Marítimos y Espaciales
Avenida 10 de Agosto y Carrion
Quito - Ecuador

Telex: 2142 MIRREE ED.
2705 MIRREE ED.

Phone: 564-280
563-201
561-215

FINLAND

The Ministry of Trade and Industry
Bureau for International Affairs
Aleksanterinkatu 10
00170 Helsinki
Finland

GREECE

Dr. Emmanuel Gounaris
Counsellor - Expert on the Law of the Sea
A 7 Direction
Department of the Law of the Sea and
Antarctica Matters
Ministry of Foreign Affairs
Academias 3
Athens 10671
GREECE

Tel. : 301/3612325 - 3634721

KOREA, REPUBLIC OF

1. For the purposes referred to in paragraph 3:

Director
International Law Affairs Division
Ministry of Foreign Affairs
7 Sejong-ro, Jongro-Ku
Seoul 110, Korea

2. For the purposes referred to in paragraph 5:

Polar Research Lab.
Korea Ocean Research & Development Institute
Ansan P.O. Box 29
Seoul 171-14, Korea
Cable : KORDI
Telex : KORDI K27675
Tel.: (2) 863-4770

NETHERLANDS

Mr. S.W.M. Derks
Scientific, Technological and Nuclear
Cooperation Section
Council of Europe and Scientific
Cooperation Department
Ministry of Foreign Affairs
P.O. Box 20061
2500 EB The Hague
The Netherlands

PERU

Comisión Nacional de Asuntos Antárticos (CONAAN)
Ministerio de Relaciones Exteriores
Lima - Perú
Telex : 20142 - 20165
Teléfono: 273860

SPAIN

Comisión Nacional del Programa Antártico Español
Dirección General de Cooperación Técnica Internacional
Ministerio de Asuntos Exteriores
c/José Abascal - 41
28003 - MADRID (ESPAÑA)

Tel. : (91) 4419333 or 4419044
Telefax: 4427657
Telex : 42237

SWEDEN

The Director
Polar Research Secretariat
P.O. Box 50005
S - 104 05 STOCKHOLM
Sweden

Tel. : 08/166320, 08/150430
Telex : 17073 royacad S
Telefax: 08/152464

ANNEX C

STATEMENT BY THE CHAIRMAN

ON THE ATTENDANCE OF OBSERVERS AND EXPERTS

STATEMENT BY THE CHAIRMAN

ON THE ATTENDANCE OF OBSERVERS AND EXPERTS

In accordance with a decision taken at the Preparatory Meeting, the Brazilian government, acting in its capacity as the Host Government of the XIVth Antarctic Treaty Consultative Meeting, extended an invitation to the following organizations to appoint experts to assist the Meeting in the consideration of some items of the provisional agenda:

- IUCN, in connection with item 9, "Human impact on the Antarctic Environment"

- WMO, in connection with item 12, "Antarctic Meteorology and Telecommunications", and item 15, "International System of Marine Hydrometeorology Service to Navigation in the Southern Ocean"

- SCAR, in connection with item 14, "Air Safety in Antarctica"

In response to the invitations extended by the Host Government, IUCN designated Dr. Wolfgang Burhenne to assist the Meeting in the consideration of item 9; WMO designated Dr. M. Streten to assist the Meeting in the consideration of items 12 and 15, and SCAR designated Dr. J. Bleasel to assist the Meeting in the consideration of item 14.

The attendance of the experts will be regulated by paragraphs 35, 36, 37 and 38 of the Rules of Procedure that we have just adopted and which had been drafted at the Preparatory Meeting held in May.

It is the understanding of the Chair that the relevant paragraphs of the Rules of Procedure apply to the Plenary and to the working groups in which will take place the consideration of the items for which the experts have been invited.

It is also the understanding of the Chair that those experts designated by international organizations who are also members of Delegations should take the seat reserved for the organizations which have designated them only during such time as the consideration of the specific item or items for which they have been designated is taking place. While the discussions of other items is going on, those experts who are also members of Delegations are requested to take their seats behind their Delegation's plate.

Also in accordance with a decision taken at the Preparatory Meeting held in May, the Host Government invited the President of the Scientific Committee and the Chairman of the Commission for the Conservation of Antarctic Marine Living Resources to present a report, or to appoint a representative to do so, under item 7 of the agenda, "The Operation of the Antarctic Treaty System: Reports".

The President of SCAR, Professor Claude Lorius, is among us and will present his report under item 7. The report by the Chairman of the Commission for the Conservation of Antarctic Marine Living Resources will be delivered by the Representative of Belgium.

The attendance of the representatives of SCAR and of CCAMLR will be regulated by paragraphs 2, 30, 31, 32, 33 and 34 of the Rules of Procedure that we have just adopted. In accordance with paragraph 2 of the Rules of Procedure, the representatives of CCAMLR and SCAR shall be referred to as "observers".

It is the understanding of the Chair that the "observers" who are also members of Delegations should take the seat reserved for them only during such time as they are presenting their respective report under item 7 of the agenda. While the discussions of other items is going on those observers who are also members of Delegations are requested to take their seats behind their Delegation's plate.

I now wish to give the floor to the representative of New Zealand who will present a report on behalf of the Chairman of the IVth Special Consultative Meeting.

I now invite the representative of Belgium to take the seat reserved for the "observer" of CCAMLR in order to present a report on behalf of the Chairman of the Commission for the Conservation of Antarctic Marine Living Resources.

I now invite the President of the Scientific Committee for Antarctic Research, Professor Claude Lorius, to present his report.

I now invite the representative of the United States of America, as the representative of the Depositary Government for the Antarctic Treaty, to present a report on the status of the Recommendations adopted at previous Consultative Meetings.

I shall now adjourn the consideration of item 7 of the agenda until some time next week when we will listen to a report by the Permanent Representative of Australia to the United Nations on the situation relating to the consideration of the item "The Question of Antarctica" in the General Assembly of the United Nations.

ANNEX D

CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS

REPORT SUBMITTED TO THE XIVTH ANTARCTIC TREATY CONSULTATIVE MEETING BY THE DEPOSITARY GOVERNMENT OF THE ABOVE CONVENTION (UNITED KINGDOM) IN ACCORDANCE WITH RECOMMENDATION XIII-2, PARAGRAPH 2 (d)

CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS

REPORT SUBMITTED TO THE XIVTH ANTARCTIC TREATY CONSULTATIVE MEETING BY THE DEPOSITARY GOVERNMENT OF THE ABOVE CONVENTION (UNITED KINGDOM) IN ACCORDANCE WITH RECOMMENDATION XIII-2, PARAGRAPH 2 (d)

1. The Convention for the Conservation of Antarctic Seals (hereinafter referred to as "the Convention" or "CCAS") was negotiated in London between 3 and 11 February 1972 by the States which, at that time, were the Consultative Parties to the Antarctic Treaty.

2. CCAS was signed by all States which negotiated the Convention between 9 June and 28 December 1972.

3. Instruments of ratification or acceptance (A) have been deposited by signatory States in the following order:

1.	South Africa	15 August 1972
2.	Norway	10 December 1973
3.	United Kingdom	10 September 1974
4.	France	19 February 1975(A)
5.	United States of America	28 December 1976
6.	Union of Soviet Socialist Republics	8 February 1978
7.	Belgium	9 February 1978
8.	Argentina	7 March 1978
9.	Chile	7 February 1980
10.	Japan	28 August 1980(A)
11.	Australia	1 July 1987

4. In accordance with Article 13, paragraph (1) of the Convention, CCAS entered into force on 11 March 1978.

5. On 22 March 1978 the Polish Government indicated to the Depositary Government its desire to accede to the Convention. In accordance with Article 12 of CCAS the Depositary Government

notified all the then Contracting Parties of Poland's desire on 4 April 1978. On 25 July 1978 the Depositary Government informed the Polish Government that all the then Contracting Parties had consented to accession by Poland and therefore invited Poland to accede. Poland deposited its instrument of accession on 15 August 1980.

6. On 12 April 1983 the Government of the Federal Republic of Germany indicated to the Depositary Government its desire to accede to the Convention. In accordance with Article 12 of CCAS the Depositary Government notified all the then Contracting Parties of the Federal Republic of Germany's desire on 13 May 1983. On 27 March 1984 the Depositary Government informed the Government of the Federal Republic of Germany that all the then Contracting Parties had consented to accession by the Federal Republic of Germany and therefore invited the Federal Republic of Germany to accede. The Federal Republic of Germany deposited its instrument of accession on 30 September 1987.

7. On 12 March 1985 the Government of Brazil indicated to the Depositary Government its desire to accede to the Convention. In accordance with Article 12 of CCAS the Depositary Government notified all the then Contracting Parties of Brazil's desire on 16 July 1985. On 25 April 1986 the Depositary Government informed the Government of Brazil that all the then Contracting Parties had consented to accession by Brazil and therefore invited Brazil to accede.

8. On 28 October 1982 the Depositary Government issued an invitation to all the then Contracting Parties to attend a conference in London between 21 and 25 February 1983 to review the operation of CCAS in accordance with Article 7 of the Convention five years after its entry into force. The invitation noted that there had been no sealing operations in the Antarctic in the seasons 1978-79 to 1981-82. On 22 December 1982, having received no acceptances of the invitation and views from four Contracting Parties that a review conference was not necessary, the invitation was withdrawn.

9. On 8 September 1987 the Depositary Government issued to all the then Contracting Parties an invitation to attend a conference in London between 12 and 16 September 1988 to review the operation of the Convention ten years after its entry into force.

10. Signatories of CCAS which were not Contracting Parties at the material time have been kept informed of developments involving the Depositary Government by receiving copies of the relevant diplomatic correspondence.

ANNEX E

REPORT OF CHAIRMAN OF FOURTH SPECIAL CONSULTATIVE MEETING ON ANTARCTIC MINERALS

REPORT OF CHAIRMAN OF FOURTH SPECIAL CONSULTATIVE MEETING ON ANTARCTIC MINERALS

This report is presented in accordance with paragraph 2(a) or Recommendation XIII-2 adopted at Brussels.

2. The first session of the Fourth Special Consultative Meeting on Antarctic Minerals was held in Wellington, New Zealand from 14 to 25 June 1982, in accordance with Recommendation XI-I adopted at Buenos Aires, Argentina. Since then a further nine negotiating sessions, mostly informal, have been held.

3. The most recent session was held at Montevideo from 11 to 20 May 1987. As at previous sessions of the negotiations, the bulk of the work was carried out in working groups. Mr. Rolf Andersen of Norway continued to chair the working group charged with examining the functioning of the minerals regime should the stage of exploration and development ever be reached, and the requirement that the fundamental environmental principles on which the regime is to based are given full effect at all stages of any activity.

4. A second Working Group, chaired by Mr. Ruediger Wolfrum of the Federal Republic of Germany continued its work on the legal aspects of the minerals regime. At Montevideo it concentrated on the questions of liability for damage, particularly to the Antarctic environment, and the elaboration of procedures for the settlement of disputes.

5. The Chairman held informal discussions on the key institutional issues, including the composition and functions of the various organs of the regime.

6. It was the view of all participants that very substantial progress had been made at the Montevideo meeting. Accordingly, it was decided by the participants that a final session of the Special Consultative Meeting should be held in

Wellington, New Zealand in the first half of 1988 in order to adopt a Convention. It was also decided that the Chairman should conduct consultations to fix precise dates for the final session and to establish a schedule for the necessary preparatory work, including the establishment of a drafting committee.

ANNEX F

STATUS OF RECOMMENDATIONS

Status of Page One

Approval, as notified to the Government of the United States of America Of Measures relating to the Furtherance of the Principles and Objectives of the Antarctic Treaty

	16 Recommendations Adopted at First Meeting	10 Recommendations Adopted at Second Meeting	11 Recommendations Adopted at Third Meeting	28 Recommendations Adopted at Fourth Meeting	9 Recommendations Adopted at Fifth Meeting	15 Recommendations Adopted at Sixth Meeting
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina	All	All	All	All	All	All
Australia	All	All	All	All	All	All
Belgium	All	All	All	All	All	All
Brazil	All	All	All	All	All	All except 10
Chile	All	All	All	All	All	All
China	All	All	All	All	All	All except 10
Germany, Fed.	All	All	All except 8	All except 1-11 and 13-19*	All except 5 & 6	All except 9, 10**
France	All	All	All	All	All	All
India						
Japan	All	All	All	All	All	All
New Zealand	All	All	All	All	All	All
Norway	All	All	All	All	All	All
Poland	All	All	All	All	All	All
South Africa	All	All	All	All	All	All
U.S.S.R.	All	All	All	All	All	All
U.K.	All	All	All	All*	All	All**
Uruguay						
U.S.A.	All	All	All	All	All	All

*IV-13 terminated by VIII-2 **VI-8 terminated by VIII-5

Status of Page Two

Approval, as notified to the Government of the United States of America
Of Measures relating to the Furtherance of the Principles
and Objectives of the Antarctic Treaty

	9 Recommendations Adopted at Seventh Meeting	14 Recommendations Adopted at Eighth Meeting	6 Recommendations Adopted at Ninth Meeting	9 Recommendations Adopted at Tenth Meeting	3 Recommendations Adopted at Eleventh Meeting	8 Recommendations Adopted at Twelfth Meeting
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina	All	All	All	All	All	All
Australia	All	All	All	All	All	All
Belgium	All	All	All	All	All	All
Brazil	All except 5	All	All	All except 1 and 7	All except 1	All ex 3&8
Chile	All	All	All	All	All	
China	All except 5	All	All			
Germany, Fed.	All except 5	All except 1, 2, 5	All	All	All	All
France	All	All	All	All except X-1 and X-9	All except XI-1	
India						
Japan	All	All	All	All	All	All
New Zealand	All	All	All	All	All	All
Norway	All	All	All	All	All	All
Poland	All	All	All	All		
South Africa	All	All	All	All	All	All
U.S.S.R.	All	All	All	All	All	All
U.K.	All except 5*	All	All	All	All	All
Uruguay						
U.S.A.	All	All	All	All	All	All

*accepted as interim guidelines

Status of Page Three

Approval, as notified to the Governmeit of the United States of America
OF Measures relating to the Furtherance of the Principles
and Objectives of the Antarctic Treaty

	16 Recommendations Adopted at Thirteenth Meeting					
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina						
Australia						
Belgium	All					
Brazil	All ex 5 & 6					
Chile						
China						
Germany, Fed.	All except XIII-10 to 13					
France						
India						
Japan						
New Zealand	All					
Norway						
Poland						
South Africa	All					
U.S.S.R.						
U.K.	All except 10,11,12,&13 *					
Uruguay						
U.S.A.	All					

Department of State,
Washington,

*accepted as interim guidelines only

RECOMMENDATIONS OF ANTARCTIC CONSULTATIVE MEETINGS
NOT YET IN FORCE

CONSULTATIVE MEETING	RECOMMENDATION NUMBER	COUNTRIES WHICH HAVE YET TO APPROVE TO BRING RECS INTO FORCE
VII	5	UK
X	(X-1 and X-9)	France
XI	All (XI-1 - France)	France, Poland
XII	All	Brazil, Chile, France, India, Poland
XIII	FRG-XIII-10,11,12,13 Brazil-XIII- 5 & 6, UK-XIII-10,11,12 &13 All for others	Argentina, Australia, Brazil, Chile, China, Federal Republic of Germany, France, India, Japan, Norway, Poland, USSR, UK, Uruguay,

Department of State,
Washington,

ANNEX G

INFORMATION REQUIRED IN THE COMPILATION OF REPORTS ON VISITS TO SPECIALLY PROTECTED AREAS (SPAs), SITES OF SPECIAL SCIENTIFIC INTERESTS (SSSIs) AND HISTORIC MONUMENTS

INFORMATION REQUIRED IN THE COMPILATION OF REPORTS ON VISITS TO SPECIALLY PROTECTED AREAS (SPAs), SITES OF SPECIAL SCIENTIFIC INTERESTS (SSSIs) AND HISTORIC MONUMENTS

1. Name and position, with co-ordinates, of area, site or monument visited, and whether these differ from those in the original designation.

2. Date(s) of visit, methods of transport, and composition (including names and qualifications) of visiting party.

A. In the case of SPAs and SSSIs:

3. Information about the physical environment, soils, vegetation and fauna which is additional to or differs from that set out in the relevant description or management plan, and in Conservation Areas in the Antarctic, Bonner and Lewis-Smith (SCAR/ICSU 1985).

4. Description of any markers, buildings, other installations or man-made features and their purpose(s) within the area or site.

5. Evidence of any recent physical or biological change, particularly when such change might have been brought about by human activities.

6. Evidence of any activity contrary to the Agreed Measures or the relevant management plan.

7. Observations on special features of conservation significance.

8. Description of any scientific research that has been undertaken in the SPA (under permit issued in accordance with Articles VI and VIII of the Agreed Measures) or in the SSSI.

9. Evidence as to whether the area or site is continuing to serve the purpose for which it was originally designated.

10. Any other information considered relevant or useful in furthering the purpose for which the area or site was originally designated.

B. In the case of Historic Monuments:

3. Information about the monument which is additional to or differs from the description given in the Annex to Recommendation VII-9 and any other published account.

4. Evidence of any recent change, particularly when such change might have been brought about by human activities.

5. Description of any markers, notices, etc.

6. Description of any human activities in the vicinity of the monument.

7. Any other information considered relevant or useful in furthering the preservation of the monument.

ANNEX H

WORLD METEOROLOGICAL ORGANIZATION

THE EXECUTIVE COUNCIL WORKING GROUP ON ANTARCTIC METEOROLOGY

IV SESSION

RECOMMENDATIONS 6 AND 8

(Annex to Recommendation XIV-7)

RECOMMENDATION

Rec. 6 (EC/WGAM-IV) - BASIC SYNOPTIC NETWORK IN THE ANTARCTIC

THE EXECUTIVE COUNCIL WORKING GROUP ON ANTARCTIC METEOROLOGY

Noting

(1) Resolution 5 (EX-XXXIV) - Basic Synoptic Network in the Antarctic,

(2) The draft World Weather Watch plan and implementation programme for 1988-1997, as it relates to the Antarctic,

(3) The Manual on the Global Observing System, Volume I, Part III, Regulations 2.4.2.1, 2.4.2.2, 2.4.3.1, 2.4,3.2, and the definition of a principal land station,

Considering

(1) That the establishment and maintenance of a basic synoptic network of surface and upper-air stations in the Antarctic, adequate to meet the requirements of Members and of the World Weather Watch, constitutes one of the most important obligations of Members under Article 1 of the WMO Convention,

Recommends that the stations and the observational programmes listed in the annex to this recommendation constitute the basic synoptic network in the Antarctic,

Recommends further that:

(1) Members be urged to spare no effort in their endeavours to secure full implementation of the network of stations and observational programmes set forth in the annex to this recommendation at the earliest date possible,

(2) Members be urged to comply fully with the standard times of observation, the coding procedures and the data-collection standards, as laid down in the WMO Technical Regulations and the Manuals on the GOS, on Codes, on the GTS and on the GDPS,

(3) The President of WMO be authorized to approve, at the request of the Member concerned and in consultation with the Secretary-General and the Chairman of the Executive Council Working Group on Antarctic Meteorology, minor changes to the basic synoptic network in the Antarctic as may be required if they do not adversely affect the density criteria and the required programmes, it being understood that any change of substance would still require a formal consultation of the WMO Members, operating in the Antarctic,

(4) The Secretary-General be requested to bring such changes to the attention of the Members of WMO.

RECOMMENDATION

Rec. 8 (EC/WGAM-IV) - NETWORK OF CLIMAT AND CLIMAT TEMP REPORTING STATIONS IN THE ANTARCTIC

THE EXECUTIVE COUNCIL WORKING GROUP ON ANTARCTIC METEOROLOGY

Noting

(1) The Manual on the Global Observing System, Volume II Regional Aspects, Antarctic,

(2) The WMO Technical Regulations, Regulation (A.2.4) 3.1.

Recommends

(1) That the network of stations preparing and transmitting CLIMAT and CLIMAT TEMP reports in the Antarctic include the stations listed in the annex to this recommendation,

(2) That Members be urged to maintain the required observing programmes at the stations listed in the annex to this recommendation and to provide regularly, for international exchange, the required CLIMAT and CLIMAT TEMP reports,

(3) That Members be encouraged to expand the network by ensuring that all stations in the basic synoptic network provide CLIMAT and where applicable CLIMAT TEMP reports,

(4) That the President of WMO be authorized to approve, on behalf of the Executive Council and in consultation with the Secretary-General and the Chairman of the Executive Council Working Group on Antarctic Meteorology, minor changes to this network as may be required,

(5) That the Secretary-General be requested to arrange for the inclusion in WMO Publication N° 9, Volume A, of the information concerning this network and to bring the changes to it as approved by the President of WMO to the attention of all Members of WMO.

ANNEX I

WORLD METEOROLOGICAL ORGANIZATION

THE EXECUTIVE COUNCIL WORKING GROUP ON ANTARCTIC METEOROLOGY

IV SESSION

FINAL REPORT - ANNEX I (Paragraph 4.1)

IMPLEMENTATION PROGRAMME FOR THE ANTARCTIC

(Annex to Recommendation XIV-7)

IMPLEMENTATION PROGRAMME FOR THE ANTARCTIC

IMPLEMENTATION OBJECTIVES 1988-1997

Introduction

277. Although its formal Regional structure was not extended south of latitude 60°S, WMO recognizes that the basic synoptic newtork in the Antarctic is an important component of the Global Observing System (GOS). The operation and maintenance of this network, the implementation of the surface and upper-air observing programmes and the timely transmission of the observational data by means of the Global Telecommunication System (GTS) are essential components of the WWW system in order to meet Members' requirements for meteorological data for both global analysis and prediction and for data and specialized products within the Antarctic itself. The preparation and distribution of meteorological analyses and prognoses for the Antarctic and specialized forecasts for users, as well as warnings of dangerous weather conditions for the Antarctic are important components of the Global Data-Processing System (GDPS).

Overall objectives of WWW in the Antarctic

278. The objectives are:

(a) Implementation of surface and upper-air observations, consistent with the programmes initiated by the parties to the Antarctic Treaty and agreed to by the EC Working Group on Antarctic Meteorology;

(b) Operation, by mutual agreement of parties to the Antarctic Treaty, of Antarctic Meteorological Centres, with functions similar to those of as a WWW Specialized Meteorological Centre. Such centre(s) which could be located either inside or outside

the Antarctic would be supported by other centres which might also be located inside or outside the Antarctic. The purpose of the Antarctic Meteorological Centre is to meet the requirements of Members for specialized analyses, forecasts, and products covering the Antarctic;

(c) Organization and continuing improvement of the necessary telecommunication links, including satellite links, among the Antarctic stations, and between the Antarctic and the GTS;

(d) Definition by the EC Working Group on Antarctic Meteorology of the requirements for meteorological services in the various areas of the Antarctic continent and surrounding Southern Ocean, both by the parties to the Antarctic Treaty and of other interested countries;

(e) Organization of the exchange of agreed meteorological information between the Antarctic stations and the Antarctic Meteorological Centre(s), as well as of agreed information between the Antarctic and interested WMCs and other centres;

(f) Use in the Antarctic of modern techniques and systems for observations and data collection, processing and dissemination.

Specific implementation objectives to be achieved by 1997 in the Antarctic

279. The specific implementation objectives are listed for each WWW element in the following paragraphs.

GDPS

280. One or more Antarctic Meteorological Centre(s) will be designated by agreement with parties to the Antarctic Treaty. (Such Centre(s) may be inside or outside the Antarctic). With support from WMCs and other centres, these Centre(s) will provide the following services to users:

(a) Preparation of meteorological analyses and prognoses for the whole of the Antarctic or for defined sectors thereof, and making these promptly available to other centres/stations inside or outside the Antarctic;

(b) Preparation of specialized meteorological forecasts for users (marine and aviation interests, traverse parties, etc.) and making these promptly available to other centres/stations inside or outside the Antarctic;

(c) Preparation and distribution of warnings of dangerous weather conditions for the area for which the centre prepares analyses, prognoses or specialized forecasts;

Note: The provision of these services may be subject to seasonal variation between the southern summer and winter.

281. Data and product sets will be prepared in non-real-time at WMC and other Centres, or at Antarctic Meteorological Centre(s) and appropriately formatted and quality controlled, for use in various application and research programmes (e.g. climate diagnosis, synoptic/climatological analyses, etc.).

GOS

282. The space-based network will be implemented by the satellite operators in accordance with the WWW Plan. Certain observing systems (e.g. ASDAR, ASAP and drifting buoys) will

be implemented on a global basis, e.g. through groups of interested Members. Data from these observing systems and data and imagery from the space-based systems will be available to Centres and stations inside and outside the Antarctic for use in their analysis, forecasting and storm warning services.

283. Implementation of Basic Synoptic Networks in the Antarctic will be sought according to the programmes initiated by the parties to the Antarctic Treaty and reviewed by the EC Working Group on Antarctic Meteorology. These include a surface-based network with observations taken at the four main standard times of observation and where possible, at some or all of the four intermediate standard times of observation, and twice per day (00 and 12 GMT) at radiosonde stations. The Basic Synoptic Networks will also provide the Antarctic contribution to the global surface synoptic land station network reporting at least at the four main synoptic hours with ideally a horizontal spacing of 300 to 500 km and radiosonde stations reporting twice per day with a spacing of 500 to 1000 km.

284. Members concerned will also:

(a) Arrange for additional surface synoptic and upper-air observations from suitable ships;

(b) Operate radars for special purposes.

GTS

285. Observational data and products will be exchanged in a regular and timely fashion within the Antarctic through special data exchange arrangements between centres and stations: at least 80% of the Antarctic data will be available at centres and stations in the Antarctic within three hours. Processed products will reach stations within six hours.

286. Global and regional observational data and products from outside the Antarctic will be exchanged in a regular and timely fashion, through special transmission arrangements.

287. There will be regular and timely transmission of Antarctic data to other Regions and WMCs (as defined in paragraph 18, Part A).

IMPLEMENTATION ACTIVITIES

Main activities for achieving WWW objectives in the Antarctic

288. The following activities to improve the WWW in the Antarctic are expected to have been implemented when the Plan begins:

(a) The Secretary-General of WMO will have informed the parties to the Antarctic Treaty of the importance which WMO attaches to high quality and readily available meteorological observations in the Antarctic and will have requested them to communicate their plans with respect of the objectives of WWW as outlined in paragraph 278;

(b) The EC Working Group on Antarctic Meteorology will have been asked to review the various national plans and to provide the basis for a future detailed plan for WWW in the Antarctic;

(c) A survey will have been made of the requirements for data and services of nations conducting operational activities in the Antarctic and this will have been reviewed by the EC Working Group on Antarctic Meteorology by correspondence;

(d) The parties to the Antarctic Treaty will have been requested to organize a meeting of experts on telecommunications (including a representative of

the Secretary-General of WMO) to develop an improved scheme of telecommunication links within the Antarctic region and between Antarctica and other countries for the purposes of meeting the requirements of interested countries for the collection, exchange and dissemination of meteorological information;

(e) The parties to the Antarctic Treaty will be asked if they have any plans to establish a centre in support of Antarctic Meteorology;

289. The following activities to improve the WWW in the Antarctic will be implemented in the early years of this Second Long-term Plan:

(a) The EC Working Group on Antarctic Meteorology will be requested to formulate the requirements for meteorological services in the various areas of the Antarctic continent and surrounding southern Oceans;

1988

(b) Members concerned will be requested to begin the implementation of the improved Basic Synoptic Network in the Antarctic as agreed upon by the EC Working Group on Antarctic Meteorology;

1988

(c) Members concerned will be requested to begin the implementation of the improved telecommunication links, including satellite links, among the Antarctic centres/stations and between the Antarctic and the remainder of the GTS;

1988

(d) The EC Working Group on Antarctic Meteorology will recommend to parties to the Antarctic Treaty a list of proposed Antarctic Meteorological Centres whose designation would be technically and operationally sound;

1988

(e) The parties to the Antarctic Treaty will be asked to agree to the designation of the Antarctic Meteorological Centres;

1988

(f) Members concerned will be requested to begin the implementation of the designated Centres;

1989

(g) The EC Working Group on Antarctic Meteorology will be requested to determine the requirements for non-real-time data and relevant Members will be requested to develop procedures for generating non-real-time data and products.

1990

ANNEX J

TEXT OF MESSAGE TO ANTARCTIC STATIONS

MESSAGE FROM THE FOURTEENTH CONSULTATIVE MEETING TO STATIONS IN ANTARCTICA

Representatives of the Parties to the Antarctic Treaty have just completed two weeks of discussion at the Fourteenth Consultative Meeting, held in Rio de Janeiro and hosted by the Brazilian Government.

Two new Consultative Parties, the German Democratic Republic and Italy, were acknowledged at the Seventh Special Consultative Meeting held in Rio de Janeiro before the opening of the Fourteenth Consultative Meeting.

A full agenda of consultations has included matters of practical application to the work you are engaged in, such as air safety, waste disposal, tourism, sea ice forecasting and enviromental impact assessment.

Throughout their deliberations, the representatives were mindful that the successful operation of the Antarctic Treaty depended in large part on the continuation of the tradition of peaceful international scientific co-operation established thirty years ago during the International Geophysical Year. The addition of two new Consultative Parties will serve to strengthen scientific cooperation in Antarctica.

As the Antarctica winter draws to a close, all delegations participating in the Fourteenth Consultative Meeting extend warmest congratulations to you who, under the most arduous circumstances, have contributed to advancing our scientific objectives in Antarctica, and they extend best wishes for a successful summer to all those preparing to go south.

ANNEX K

LIST OF DELEGATES

AND

COMPOSITION OF BUREAU

LIST OF DELEGATES AND COMPOSITION OF BUREAU

A. CONSULTATIVE PARTIES

ARGENTINA

Representative

Ambassador JUAN CARLOS BELTRAMINO, Undersecretary for Special Affairs, Ministry of Foreign Affairs and Worship

Alternative Representative

Minister ALBERTO LUIS DAVEREDE, Director General of the Antarctic, Ministry of Foreign Affairs and Worship

Delegates

Counsellor ROBERTO HORACIO MAGNACCA, Deputy Director General of the Antarctic, Ministry of Foreign Affairs and Worship

Secretary CECILIA BARRIOS BARON, General Directorate of the Antarctic, Ministry of Foreign Affairs and Worship

Advisers

Dr. CARLOS A. RINALDI, Director of the Argentinian Antarctic Institute, National Antarctic Management

Dr. ANGEL ERNESTO MOLINARI, National Antarctic Management

AUSTRALIA

Representative

Mr. JEREMY HEARDER
Assistant Secretary
Antarctic, Refugees, Immigration and Asylum Branch
Department of Foreign Affairs and Trade

Alternative Representatives

Mr. J. BLEASEL
Director - Antarctic Division
Department of the Arts, Sport, the Environment, Tourism and Territories (Also representing SCAR for certain items)

Mr. BRENDAN DORAN
Antarctic Section

Mr. PETER HEYWARD
Policy Section - Antarctic Division
Department of the Arts, Sport, the Environment, Tourism and Territories

Mr. MICHAEL RAWSTRON
Conservation and Environment Assessment Division
Department of the Arts, Sport, the Environment, Tourism and Territories

Dr. MICHAEL VERTIGAN
Secretary
Department of Premier and Cabinet
State Government of Tasmania
(Representative of Australian States)

Ms. LYN GOLDSWORTHY
Antarctic and Southern Ocean Coalition (ASOC)
(Representative of Australian (Environmental) Non-government Organizations)

BELGIUM

Mr. VICTOR BERNARD
Head of the Delegation - Minister Plenipotentiary
Consul- General
Belgian Consulate General in Rio de Janeiro

Dr. Eng. PAUL VANHAECKE
Operational Director
Belgian Science Policy Office

Mr. PAUL MEES
Consul - Rio de Janeiro

BRAZIL

Head of the Delegation
Minister MAURO MENDES DE AZEREDO
Head of the Department for Special International Themes
Ministry of External Relations

Delegates
Counsellor SERGIO EDUARDO MOREIRA LIMA
Ministry of External Relations

Secretary ANTONIO JOSÉ VALLIM GUERREIRO
Ministry of External Relations

Advisers

Captain ARLINDO VIANNA FILHO
Ministry of the Navy

Captain PAULO LAFAYETTE PINTO
Ministry of the Navy

Captain RAYMUNDOSANT'ANNA ROCHA
Secretariat of the Interministerial Commission for Ocean Resources

Dr. ANTONIO DIVINO MOURA
National Meteorological Institute
Ministry of Agriculture

Commander ODOLFO HERMANO DE CARVALHO FRANCO
Presidency of the Republic

Secretary ALCIDES GASTÃO ROSTAND PRATES
Ministry of External Relations

Major EDUARDO D'AVILA DUPRAT
Ministry of the Air Force

Secretary LAURO EDUARDO SOUTELLO ALVES
Ministry of External Relations

Secretary MONICA MARIA MEIRELLES NASSER
Ministry of External Relations

Lieutenant ARI DE ALMEIDA PORTELA
Ministry of the Air Force

Dr. CARLOS OITI BERBERT
The National Department of Mineral Production
Ministry of Mines and Energy

Dr. EDSON SOFFIATTI
The Brazilian Telecommunications Company
Ministry of Communications

Dr. LAURENTINO FERNANDES BATISTA
National Development of Science and Technology
Ministry of Science and Technology

Dr. ALAOR DE ALMEIDA CASTRO
Special Secretariat for the Environment
Ministry of Urban Development and the Environment

Dr. AIRTON ADOLPHO NORTHFLEET
PETROBRAS (The Brazilian Petroleum Company)

Dr. ANTONIO CARLOS ROCHA-CAMPOS
Institute of Geosciences
University of São Paulo

CHILE

Ambassador JORGE BERGUÑO BARNES (Chief of Delegation)
Ministry of Foreign Affairs

Counsellor Minister LUIS GOYCOOLEA GREZ
Special Policies Vice-Director of the Ministry of Foreign Affairs

First Secretary PABLO ROMERO MUÑOZ
Antarctic Department of the Ministry of Foreign Affairs

Mrs. LUCIA RAMÍREZ ARANDA
Antarctic Department of the Ministry of Foreign Affairs

Mr. PEDRO ROMERO JULIO
Director of the Chilean Antarctic Institute

Ship Captain JAIME DONOSO DROGHET
Primary Planning Director of the Ministry of National Defense

Ship Captain CARLOS DE TORO ALVAREZ
Head of the Antarctic Department of the National Defense Staff

Ms. M. LUISA CARVALLO
Legal Advisor to the Chilean Antarctic Institute

PEOPLE'S REPUBLIC OF CHINA

Mr. WANG HOULI, Head of the Delegation, Director,
Department of Treaty and Law Ministry of Foreign Affairs

Mr. GUO KUN
Diretor, General Office National Committee for
Antartic Research

Mr. DONG ZHAOQIAN
Chief, Polar Institute National Committee for Antarctic Research

Mr. LI ZHANSHENG
Assistant Researcher, National Committee for Antarctic Research

Mr. SU WEI
Attaché, Department of Treaty and Law Ministry of Foreign Affairs

FRANCE

Mr. MICHEL SUCHOD
Counsellor of Foreign Affairs
Representative

Admiral CLAUDE CORBIER
Higher Management of French Southern and Antarctic Territories (TAAF)

Mr. NICOLAS METTRA
Civilian Manager of Legal Affairs
Quai d'Orsay (Ministry of Foreign Affairs)

Mr. CHRISTIAN TESTOT
Adjunct Secretary of American Foreign Affairs
Quai d'Orsay

Mr. BERNARD MORLET
Head of the TAAF Scientific Mission

Mr. FRANCIS BLONDET
Consul Adjunct of the French General Consulate in Rio de Janeiro

Mr. CLAUDE LORIUS
Chairman of French Polar Expedition

GERMAN DEMOCRATIC REPUBLIC

Professor HERBERT SUESS
Ambassador, Director of the Legal and Treaty Department
Ministry of Foreign Affairs
Head of the Delegation

Mr. ARMIN BRAUNE
Counsellor
Legal and Treay Department
Ministry of Foreign Affairs

Professor Dr. RUDOLF MEIER
Head of the Department on Antarctic Research
Central Institute for Physics of the Earth Academy
of Sciences of the GDR

Dr. REINHARD MUELLER
Professor of International Law
Martin Luther University Halle

Mr. ERHARD KREISSER
Second Secretary
Ministry of Foreign Affairs

GERMANY, FEDERAL REPUBLIC OF

Dr. KURT MESSER
Minister Plenipotentiary (Head of the Delegation)
Ministry of Foreign Affairs

Mr. THOMAS WRIESSNIG
Second Secretary
Ministry of Foreign Affairs

Dr. KARL FRIEDRICH NAGEL
Second Secretary
Ministry of Research and Technology

Professor Dr. GOTTHILF HEMPEL
Special Counsellor
The Alfred-Wegener-Institute for Polar and Marine Research

Dr. HEINZ KOHNEN
Special Counsellor
The Alfred-Wegener-Institute for Polar and Marine Research

INDIA

Dr. S.Z. QASIM (Head of the Delegation)
Secretary to Government of India
Department of Ocean Development
Mahasagar Bhavan
Lodi Road, New Delhi 110003, INDIA

Mr. V.P. GUPTA
First Secretary
Embassy of India - Brasilia

ITALY

Ambassador ANTONIO CIARRAPICO
Head of the Delegation

Ambassador FELICE BENUZZI
Senior Advisor

Counsellor LIANA MAROLLA
Ministry of Foreign Affairs

Counsellor GIAN LUIGI MASCIA
Ministry of Foreign Affairs

Professor BENEDETTO CONFORTI
University of Rome

Dr. FRANCO MORSELLI
Ministry of Scientific Research

Dr. CELIO VALLONE
ENEA, Antarctic Project

Dr. IVO GRIMALDI
National Research Council

Dr. MARCELLO MANZONI
National Research Council

JAPAN

Mr. KENSAKU HOGEN (Head of the Delegation)
Deputy Director-General
United Nations Bureau
Ministry of Foreign Affairs

Dr. TATSURO MATSUDA (Deputy Head of the Delegation)
Director
National Institute for Polar Research

Mr. YUJI UJITA
Administrative Supervisor for Antarctic Research
International Science Division,
Science and International Affairs Bureau
MONBUSHO

Mr. HAJIME SASAKI
Assistant Director,
Scientific Affairs Division
Ministry of Foreign Affairs

NEW ZEALAND

Mr. COLIN KEATING (Head of Delegation)
Head of Legal Division
Ministry of Foreign Affairs

Mr. ROBERT JAMES MACFARLANE
Director, Corporate Services
Department of Scientific and Industrial Research

Mr. KEN PIDDINGTON
Director General of Conservation

Mr. ROBERT B. THOMSON
Director Antarctic Division DSIR

Mr. G. VAN BOHEMEN
Ministry of Foreign Affairs

Mr. TIMOTHY GENTLE
Non-Government Organizations Representative

NORWAY

Mr. ROLF TROLLE ANDERSEN, Minister Plenipotentiary
Director in charge of Arctic and Antarctic Affairs
Royal Norwegian Ministry of Foreign Affairs
Head of the Delegation

Mr. CARL HELGE GULDBAKKE
Norwegian Consul General in Rio de Janeiro

Mr. HANS OLAV ØSTGAARD
Director General, Polar Department
Royal Norwegian Ministry of Justice

Dr. OLAV ORHEIM,
Head, Antarctic Section
Norwegian Polar Institute

POLAND

Mr. JANUSZ MICKIEWICZ
Director, Legal and Treaty Department
Ministry of Foreign Affairs

SOUTH AFRICA

Mr. J.D. VIALL
Head of the Delegation
Chief Legal Advisor
Department of Foreign Affairs

Mr. H.F. GAUM
Director - Administration
Department of Environment Affairs

Mr. PIET A. LE ROUX
Deputy - Director
Department of Environment Affairs

Dr. P.R. CONDY
Scientific Coordinator
South African National Program for Antarctic Research
Council for Scientific and Industrial Research

Mr. E.B. DE MONTILLE, Senior Foreign Affairs Officer
Department of Foreign Affairs

UNION OF SOVIET SOCIALIST REPUBLICS

Dr. ARTUR N. CHILINGAROV
Head of the Delegation
Vice-Chairman of the State Committee for Hydrometeorology
and the Environment of the USSR

Dr. VICTOR G. SAVTCHENKO
Head of the Laboratory of the AARI

Prof. EVGENIY S. KOROTKEVICH
Deputy Director of the AARI

Mr. VLADIMIR GLADYSHEV
Attaché, Treaty and Legal Department
Ministry of Foreign Affairs

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

Dr. JOHN A. HEAP
Head of the Delegation
Head of Polar Regions Section
South America Department, FCO - Foreign and Commonwealth Office

Mr. IAN D. HENDRY
Legal Counsellor, FCO - Foreign and Commonwealth Office

Mr. MICHAEL G. SNELL
Second Secretary
Polar Regions Section
South America Department, FCO - Foreign and Commonwealth Office

Mr. W. NIGEL BONNER
Deputy Director
British Antarctic Survey

Mr. MICHAEL STEAD
Vice Consul
British Consulate General
Rio de Janeiro

UNITED STATES OF AMERICA

Mr. R. TUCKER SCULLY
Director, Office of Oceans and Polar Affairs
Bureau of Oceans and International Environmental
and Scientific Affairs
Department of State

Advisers

Mr. JOHN B. TALMADGE
Head Polar Coordination
National Science Foundation

Mr. RAYMOND V. ARNAUDO
Office of Oceans and Polar Affairs
Bureau of Oceans and International Environmental
and Scientific Affairs
Department of State

Mr. EUGENE M. PINKELMANN JR.
Attorney Adviser
Department of State

Dr. ROBERT J. HOFMAN
Scientific Program Director
Marine Mammal Commision

Mr. THOMAS L. LAUGHLIN
Chief International and Intergovernmental Affairs
National Oceanic and Atmospheric Administration
Department of Commerce

Mr. DAROLD W. SILKWOOD
Chief,
Defense Program Analysis Division
US Arms Control and Disarmament Agency

Mr. BRAD J. LAUBACH
Minerals Management Service
Department of Interior

Ms. LEE A. KIMBALL
International Institute for Environment and Development
Washington, D.C.

URUGUAY

Sr. RICARDO GALARZA
President of the Uruguayan Antarctic Institute

Sr. ROBERTO PUCEIRO RIPOLL, Legal Advisor to the
Uruguayan Antarctic Institute

Sr. JUAN CARLOS MOREIRA
Consul General

Sr. ALVARO FERNANDO BARBA GARCIA
Consul of Uruguay in Rio de Janeiro

B. NON-CONSULTATIVE PARTIES

AUSTRIA

Mr. NIKOLAUS HORN
Ambassador in Brasilia

BULGARIA

Mr. ALIOSHA IVANOV NEDELCHEV
Attaché, Treaty and Legal Department
Ministry of Foreign Affairs

CZECHOSLOVAKIA

Dr. VA'CLAV MALOSIK
Head of Delegation
Ambassador in Brasilia

Mr. IVAN ZIKMUND
Commercial Attaché

DENMARK

Ms. ANNETTE MARTENSEN-LARSEN
Counsellor

Mr. KIRSTEN SANDER
Advisor

Mr. OLE AMELUNG, Vice-President
Danish Shipowners Association

ECUADOR

Mr. HERNAN MOREANO,
Head of the Delegation
Director of the Oceanographic Institute of the
Ecuatorian Navy

Dr. FEDERICO MENESES
First Secretary of the Ecuador Embassy in Brazil

FINLAND

Mr. ESKO RAJAKOSKI
Head of the Delegation
Ambassador
Ministry for Foreign Affairs

Mr. PERTTI VALTONEN
Assistant Director
Ministry of Trade and Industry

Ms. RIITTA MANSUKOSKI
Secretary for Antarctic Affairs
Technical Research Center
Ministry of Trade and Industry

Ms. ANNA MAIJA AHO
Vice-Consul
Rio de Janeiro

GREECE

Dr. GOUNARIS , EMMANUEL
Head of the Delegation
Counsellor, Expert on the law of the sea
Ministry of Foreign Affairs

KOREA (REPUBLIC OF)

Mr. YOON KYUNG OH
Director, International Law Affairs Division
Ministry of Foreign Affairs

Mr. YONG-MIN CHUN
Counsellor
Korean Embassy in Brazil

Dr. SEO HANG LEE
Research Associate
Korea Ocean Research & Development Institute

NETHERLANDS

Mr. S.E. RAMONDT
Consul-General
Netherlands Consulate General in Rio de Janeiro

Mr. C.F.G.M. OOMS
Vice-Consul
Netherlands Consulate-General in Rio de Janeiro

PERU

Ambassador JORGE CHAVES SOTO
Head of the Delegation
President of the National Committee on Antarctic Affairs

Mr. LUIS W. SANDIGA
Antarctica Affairs Management
Ministry of Foreign Affairs

Mr. LUIS URRUNAGA
Peruvian Air Force

ROMANIA

Mr. GOAGA VIRGIL
Embassy of Romania in Brasilia

SPAIN

Mr. ANTONIO DE OYARZABAL, Head of the Delegation
Director General of International Technical Cooperation
Ministry of Foreign Affairs

Mr. ALFONSO MUÑOZ SECA
Vice-Director General
International Technical Cooperation

Mr. CARLOS RODRIGUEZ CASAU
Ministry of the Defense

Mr. JOSE PIO BELTRAN PORTER
Coordinator of the Organism Biology and Systems Area
Interministerial Science and Technology Committee

Mr. CARLOS PALOMO PEDRAZA
Head of the Spanish Oceanographic Institute Department

Mr. F. ESTEBAN SANTIESTEBAN
Head of the Geological Resources Section
Trade Ministry

SWEDEN

Ambassador Dr. B. JOHNSON THEUTENBERG
Special Adviser for Polar Affairs
Ministry for Foreign Affairs

Mr. NILS GÖRAN ZETTERSTROM
Consul-General in Rio de Janeiro

Mr. BERTIL ROTH
Counsellor
Ministry for Foreign Affairs

Professor ANDERS KARLQVIST
Director of the Polar Research Secretariat

Ms. MARIE JACOBSSON
First Secretary
Ministry for Foreign Affairs

Ms. LISBETH JOHNSSON, Adviser
Polar Research Secretariat

C. OBSERVERS

SCAR
Mr. CLAUDE LORIUS - President

CCAMLR
Head of the Delegation from Belgium

D. EXPERTS

SCAR
Mr. J. BLEASEL
President of SCAR Working Group on Logistics

WMO
Mr. NEIL STRETEN
President EC Working Group on Antarctic Meteorology

IUCN
Dr. WOLFGANG E. BURHENNE
President IUCN Commission on Environmental Policy, Law and Administration

ESCOPO EDITORA