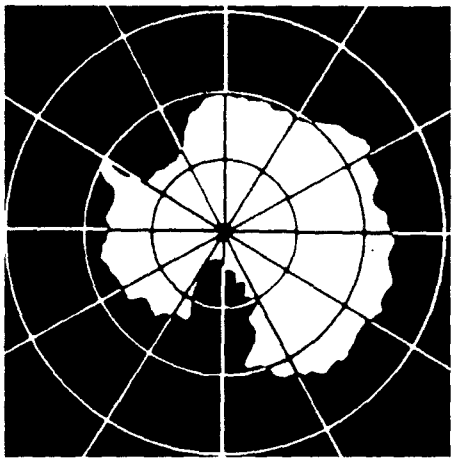

ANTARCTIC TREATY

Final Report of the Seventeenth Antarctic Treaty Consultative Meeting

Venice

11 - 20 November 1992

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FINAL REPORT OF THE

XVIIth ANTARCTIC TREATY CONSULTATIVE MEETING

FINAL REPORT
OF THE XVIIth ANTARCTIC TREATY CONSULTATIVE MEETING

(1)

Pursuant to Article IX of the Antarctic Treaty, Representatives of the Consultative Parties (Argentina, Australia, Belgium, Brazil, Chile, China, Ecuador, Finland, France, Germany, India, Italy, Japan, the Republic of Korea, the Netherlands, New Zealand, Norway, Peru, Poland, the Russian Federation, South Africa, Spain, Sweden, the United Kingdom of Great Britain and Northern Ireland, the United States of America, and Uruguay) met in Venice from 11 to 20 November 1992, for the purpose of exchanging information, holding consultations, and considering and recommending to their Governments measures in furtherance of the principles and objectives of the Treaty.

(2)

The Meeting was also attended by Delegations from Contracting Parties to the Antarctic Treaty which are not Consultative Parties (Austria, Canada, Colombia, Czechoslovakia, Denmark, Greece, Hungary, the Democratic People's Republic of Korea, Romania and Switzerland).

(3)

Given the short time between ATCM XVI and ATCM XVII, no Preparatory Meeting was held. All necessary arrangements were made through diplomatic contacts. A meeting with Embassy Representatives was held in Rome on August 4th, 1992 with the purpose of finalising the provisional Agenda. Information on the meeting was distributed to delegates (XVII ATCM/INFO 1).

(4)

The Chairman of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) and the President of the Scientific Committee on Antarctic Research (SCAR) were invited to attend the Meeting as observers in accordance with Rule 2 of the Revised Rules of Procedure of 1987 (see paragraph 13).

(5)

Pursuant to paragraph 24 of the Final Report of the XVIth Antarctic Treaty Consultative Meeting, the Chairman of the Council of Managers of National Antarctic Programmes (COMNAP), was invited to attend the Meeting and to present a report on the activities of COMNAP, on the same basis as SCAR under Recommendation XIII - 2.

(6)

Pursuant to Rule 35 of the Revised Rules of Procedure of 1987, several international organisations having a scientific or technical interest in Antarctica were invited to appoint experts to attend the XVIIth ATCM and to assist in discussions of specific agenda items. The following organisations took part in the proceedings:

- the Antarctic and Southern Ocean Coalition (ASOC) (agenda items 6, 9, 10, 11, 13)

- the International Hydrographic Organisation (IHO) (agenda item 16)

- the International Maritime Organisation (IMO) (agenda item 9, 15)

- the Intergovernmental Oceanographic Commission (IOC) (agenda item 15)

- the International Union for the Conservation of Nature and Natural Resources (IUCN-World Conservation Union) (agenda items 6, 9, 10, 11, 13)

- the World Meteorological Organisation (WMO) (agenda item 14)

- the World Tourism Organisation (WTO) (agenda item 13)

(7)

The Meeting accepted the proposal submitted by one Delegation that a Representative of the International Association of Antarctica Tour Operators (IAATO), already present in Venice to take part in the Informal Working Group on Tourism (9, 10 November 1992), could attend the Meeting, as expert, to assist in consideration of agenda item 13.

(8)

The International Civil Aviation Organisation (ICAO) and the United Nations Environmental Programme (UNEP) were invited to attend but were unable to take part.

(9)

The Meeting was formally opened by Mr Emilio Colombo, Minister of Foreign Affairs of Italy. The opening address is reproduced at Annex A.

(10)

Ambassador Giuseppe Jacoangeli, of the Italian Delegation, was elected Chairman of the Meeting. Ambassador Jacoangeli thanked the Delegations for having elected him as Chairman.

(11)

The Chairman proposed that Dr Adriano Gasperi, Scientific Attaché to the Italian Embassy in the Hague be appointed Executive Secretary, and that Dr Silvio Dottorini, Scientific Attaché to the Italian Embassy in Canberra and Dr Franco Vicenzotti of the Italian Ministry of Foreign Affairs be appointed as Deputy Executive Secretaries of the Meeting. This proposal was adopted.

(12)

In order to save time, the Meeting agreed that Delegations would not deliver opening statements, but, instead, provide their texts for circulation and inclusion in the Final Report. The texts of the opening statements are reproduced at Annex A.

(13)

The following Agenda was adopted:

1. **Opening of the Meeting**
2. **Election of Officers**
3. **Opening addresses**
4. **Adoption of Agenda**
5. **Operation of the Antarctic Treaty System: Reports**

a) under Recommendation XIII - 2:

i) the Chairman of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR);

ii) the Head of the Delegation of the United Kingdom in his capacity as Representative of the Depositary Government of the Convention for the Conservation of Antarctic Seals (CCAS);

iii) the President of the Scientific Committee on Antarctic Research (SCAR)

iv) the Head of the Delegation of the United States of America in his capacity as Representative of the Depositary Government;

v) the Convenor of the Informal Group of Treaty Parties in the United Nations;

vi) the Council of Managers of National Antarctic Programmes (COMNAP);

b) in relation to Article III (2) of the Antarctic Treaty

6. Protocol on Environmental Protection to the Antarctic Treaty

a) Implementation

b) Committee for Environmental Protection

c) Liability Annex

7. Operation of the Antarctic Treaty System:

a) Organisational Aspects. Secretariat

b) Public Availability of Documents

c) Examination of Recommendations

d) Exchange of Information

e) Amendment to ATCM Rules of Procedure

8. Inspections under the Antarctic Treaty

9. Environmental Monitoring

10. Implementation of Environmental Impact Assessment Procedures

11. The Antarctic Protected Area System

12. International Antarctic Scientific and Logistic Cooperation

13. Tourism and Non-Governmental Activities in the Antarctic Treaty Area

14. Antarctic Meteorology and Telecommunications

15. Marine Hydrometeorological Services to Navigation in the Southern Ocean

16. **Cooperation in Hydrographic Surveying and Charting of Antarctic Waters**

17. **Air Safety in Antarctica**

18. **Questions Related to the Exercise of Jurisdiction in Antarctica**

19. **Preparation of the XVIIIth Consultative Meeting:**

    a) Date and Place of the XVIIIth Consultative Meeting

    b) Invitation of International and Non-Governmental Organisations

    c) Preparation of the Agenda of the XVIIIth Consultative Meeting

20. **Any other Business**

21. **Adoption of the Report**

22. **Closing of the Meeting**

(14)

In accordance with the Chairman's suggestion:

a) discussion of items 1 to 6 (a), 7 (general presentation) and 18 to 22 took place in plenary session

b) the remaining items were remitted to two Working Groups:

(i) Working Group I, under the Chairmanship of Mr Pieter Verbeek of the Netherlands, discussed items 6,7 and 13

(ii) Working Group II, under the Chairmanship of Mr Roberto Puceiro Ripoll of Uruguay, discussed items 8 to 12 and 14 to 17.

Item 5

a) Operation of the Antarctic Treaty System: Reports under Recommendation XIII-2

(15)

Pursuant to Recommendation XIII-2, the Meeting received reports from the following:

i) the Chairman of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR);

ii) the Head of the Delegation of the United Kingdom in his capacity as Representative of the Depositary Government of the Convention for the Conservation of Antarctic Seals (CCAS);

iii) the President of the Scientific Committee on Antarctic Research (SCAR);

iv) the Head of the Delegation of the United States of America in his capacity as Representative of the Depositary Government of the Antarctic Treaty;

v) the Permanent Representative of Germany to the United Nations in New York in his capacity as Convenor of the Informal Group of Treaty Parties;

vi) the Chairman of the Council of the Managers of National Antarctic Programs (COMNAP).

(16)

The report of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) was presented, on behalf of its Chairman, by Dr Silvio Dottorini of Italy. The report is appended at Annex B(i).

(17)

The Head of the Delegation of the United Kingdom, Dr Michael Richardson, in his capacity as Representative of the Depositary Government of the Convention for the Conservation of Antarctic Seals (CCAS), presented a report. The report is appended at Annex B(ii).

(18)

The report of the Scientific Committee for Antarctic Research (SCAR) was presented, on behalf of its President, by Dr David W.H. Walton. The report is appended at Annex B(iii).

(19)

The Head of the Delegation of the United States of America, Mr R. Tucker Scully, in his capacity as Representative of the Depositary Government of the Antarctic Treaty, presented a report. The table covering the status of the Recommendations adopted in compliance with Article IX of the Treaty is at Annex B(iv).

(20)

The Head of the Delegation of Germany, Ambassador Dietrich Granow, in his capacity as Representative of the Convenor of the Informal Group of Treaty Parties in New York, presented a report on the Antarctic item in the United Nations. The report, which was received with much interest, is appended at Annex B (v).

(21)

The Chairman of the Council of Managers of National Antarctic Programs (COMNAP), Mr Mario Zucchelli, submitted a report to the Meeting. The report is at Annex B (vi).

(22)

The Meeting recognised the valuable contribution of SCAR and encouraged it to continue working to identify, promote and coordinate research aimed at improving the understanding of Antarctica and its role in global processes.

(23)

The Meeting also recognised the importance of SCAR in providing objective scientific information and advice to the Parties.

(24)

The Meeting welcomed the report presented by Mr Mario Zucchelli, Chairman of COMNAP, which provided a comprehensive picture of the technical, logistic and environmental problems involved in Antarctic operations.

(25)

The Meeting reaffirmed the value of reports to ATCMs by COMNAP on its activities. The Meeting further endorsed full and continuing participation by COMNAP at future ATCMs to provide advice and assistance on issues relating to Antarctic operations.

b) in relation to Article III(2) of the Antarctic Treaty

(26)

The Representative of the World Meteorological Organisation (WMO), Dr Neil A. Streten, presented a report to the Meeting on the activities of WMO in relation to Antarctica. The report is at Annex C (i).

(27)

The Representative of the International Hydrographic Organisation (IHO), Ms Barbara Bond, submitted a report to the Meeting concerning the recently established Permanent Working Group on Hydrographic Cooperation in Antarctica. The report is at Annex C (ii).

(28)

The Representative of the Antarctic and Southern Ocean Coalition (ASOC), Mr James Barnes, presented a report to the Meeting. The report is at Annex C (iii).

Item 6

Protocol on Environmental Protection to the Antarctic Treaty

a) Implementation

(29)

The Representative of the Depositary Government informed the Meeting that 36 Contracting Parties, including 26 Consultative Parties, had now signed the Protocol since its opening for signature on 4th October 1991 in Madrid. With regard to entry into force, for which ratification by all Consultative Parties is required, the Representatives of the Consultative Parties informed the Meeting on the progress achieved by them in the process of ratification including the preparation of national legislation to implement the Protocol and its Annexes.

(30)

The Meeting acknowledged that Spain had deposited its instruments of ratification and it appeared from Parties reports that other Parties would be able to do so in the next months and that others would need until 1994 to do so.

(31)

Similar reports were presented by the other Contracting Parties represented at the Meeting.

(32)

One Contracting Party stressed the desirability of ensuring uniformity of interpretation of those provisions of the Protocol and its Annexes which required national legislation or other measures by the Parties for their implementation. It was agreed that this aspect was of considerable importance and would require direct contacts between Parties through, for instance, diplomatic channels, as would seem useful.

(33)

It was also agreed to include this item in the Agenda for the next Consultative Meeting.

b) Committee for Environmental Protection (CEP)

(34)

The Meeting received Working Papers from the Delegations of Chile (XVII ATCM/WP 9), New Zealand (XVII ATCM/WP 10) and Australia (XVII ATCM/WP 20) regarding draft rules of procedure and other aspects involved in the establishment of the Committee for Environmental Protection, foreseen in Articles 11 and 12 of the Protocol on Environmental Protection to the Antarctic Treaty. Such draft rules of procedure will need to be adopted by the Committee itself, and approved subsequently by the Consultative Meeting.

(35)

Meetings of the Committee for Environmental Protection should be held in the same location as, and immediately before, the annual ATCM. There should, however, be provision made in the Rules of Procedure for the Committee to meet in a different location, and more frequently, if circumstances require. One Delegation offered to host any ad hoc

intersessional activities of the Committee, as might be agreed upon. It was understood that the Committee would be assisted by the Antarctic Treaty Secretariat to be created and would not require a separate Secretariat of its own, but would make use of the administrative facilities provided by the host Government at their sessions.

(36)

There was also general support for the view that the establishment of the Committee and the functioning of the Committee should be possible as soon as the Protocol entered into force. To prepare for this an informal contact group under the Chairmanship of Ambassador Jorge Berguño of Chile prepared draft rules of procedure in accordance with paragraph 31 of the Report from the XVIth ATCM. These draft Rules of Procedure are annexed to this Report at Annex D.

c) Liability Annex

(37)

The Meeting discussed the question of future action with respect to the undertaking in Article 16 of the Protocol on Environmental Protection to the Antarctic Treaty to elaborate rules and procedures relating to liability for damage arising from activities taking place in the Antarctic Treaty area and covered by the Protocol, with a view to their inclusion in one or more Annexes. Written contributions to this discussion were received from the Delegations of the Netherlands (XVII ATCM/WP 8) and Chile (XVII ATCM/WP 11).

(38)

The Meeting reiterated the wish expressed in the Final Act of the XIth Antarctic Treaty Special Consultative Meeting that work on the elaboration of such rules and procedures

could begin at an early stage and acknowledged the importance of developing a liability regime as being significant for the comprehensive protection of the Antarctic environment and its dependent and associated ecosystems.

(39)

The Meeting, therefore, agreed to convene a meeting of legal experts in accordance with Recommendation IV-24 to undertake to elaborate rules and procedures relating to liability as called for under Article 16 of the Protocol.

(40)

It was further agreed that prior to the convening of that meeting and in order to ensure adequate preparation of its work, proposals should be prepared and exchanged through the normal means of diplomatic communication. On the basis of agreement reached through diplomatic channels a first meeting of experts will be convened, under German Chairmanship, before the XVIIIth Consultative Meeting.

Item 7
Operation of the Antarctic Treaty System

a) Organisational Aspects. Secretariat

(41)

A number of Delegations submitted papers on this item; in particular the Netherlands (XVII ATCM/WP 7), Australia (XVII ATCM/WP 19), Uruguay (XVII ATCM/INFO 33) and USA (XVII ATCM/INFO 36).

(42)

The Consultative Meeting devoted considerable time to discussing the establishment of the Secretariat, its location, functions, composition, legal status and sharing of costs involved.

(43)

Consensus existed that a Secretariat should be established to assist the Antarctic Treaty Consultative Meeting and the Committee for Environmental Protection in performing their functions.

(44)

Two Contracting Parties, Argentina and the United States of America, offered Buenos Aires and Washington D.C. respectively, to serve as headquarters for the proposed Secretariat.

(45)

The Delegation of Argentina provided detailed information on the infrastructure and other facilities which its Government was ready to make available for this purpose as well as some possible criteria for privileges and immunities to be granted to the Secretariat.

(46)

The Delegation of the United States stressed the advantages of locating the Secretariat at the site of the Depositary Government.

(47)

A number of Delegations expressed themselves in favour of the Argentine offer. In this context, views were expressed favouring the insertion of Latin America in the institutional framework of the Antarctic Treaty System.

(48)

No decision has yet been taken on this specific issue.

(49)

Progress achieved in the consideration of the other main issues involved is reflected in the report and texts annexed hereto (Annex E). These texts were elaborated by a contact group of Working Group I, chaired by Prof Francesco Francioni of the Delegation of Italy.

(50)

The need for further work on this matter was acknowledged, including further consultations through normal means of diplomatic communication coordinated by the Chairman of the XVIIth Antarctic Treaty Consultative Meeting.

(51)

In this context, upon the offer made by the Republic of Italy, it was decided that an informal meeting of the Parties will be held in Italy before the XVIIIth ATCM with a view to reaching overall agreement on all the issues involved.

b) Public Availability of Documents

(52)

One Delegation pointed out that, as a result of decisions taken by earlier ATCMs, all official documents of all Consultative Meetings held so far were now publicly available, with the exception of those of the Xth and XIth Special Consultative Meetings. In view of the interest in the documents of these Meetings, it was proposed that the host governments should aim to circulate the list of official documents as soon as possible through diplomatic channels. If there were no objections within a period of three months to their public release, the host Government should so advise other Parties through diplomatic channels. The Representatives of the host Governments of the Xth and XIth ATSCMs indicated their willingness to follow this procedure.

c) Examination of Recommendations

(53)

The Delegation of China presented a Working Paper (XVII ATCM/WP 15) concerning the examination of Recommendations. The Meeting generally welcomed China's proposal to draw up a list of Recommendations which contain obligations still to be met. It was recognised that the proposal was a helpful and practical way to address the difficulties that some Contracting Parties have encountered in the course of implementing their Recommendations.

(54)

It was also recognised that it might be useful to draft a list of Recommendations which would be superseded by the entry into force of the Protocol and its Annexes.

(55)

The Meeting agreed that these proposals should be taken into account in future updating of the Handbook in the existing languages.

(56)

The Delegation of China proposed that future Recommendations be reserved to substantive matters which are closely related to the furtherance of the principles and objectives of the Antarctic Treaty and its Protocol as well as other legal instruments in effect within the Antarctic Treaty System. Other matters, however, should preferably be determined in the form of a decision, and be reflected in the Final Reports of Consultative Meetings.

(57)

The Meeting decided to consider further the question of the examination of Recommendations at the next Consultative Meeting.

d) Exchange of Information

(58)

The Meeting received a Working Paper from the Delegation of Chile (XVII ATCM/WP 13).

(59)

The Meeting agreed that the exchange of information among the Contracting Parties needed further improvement. The anticipated establishment of an Antarctic Treaty Secretariat and of the Committee for Environmental Protection should also be considered as important measures achieving this end.

(60)

It was agreed that this matter would again be considered by the XVIIIth ATCM.

e) Amendment to ATCM Rules of Procedure

(61)

The Meeting received a Working Paper from the Delegation of the United Kingdom (XVII ATCM/WP 24), in which a number of amendments to the ATCM's Rules of Procedure were proposed, reflecting arrangements arising from the decision agreed to at the XVIth ATCM to move to a cycle of annual Consultative Meetings without preceding Preparatory Meetings.

(62)

In addition, a further amendment was proposed to facilitate the participation in the substantive work of Consultative Meetings by experts representing International Organisations which had been invited to designate an expert to attend the Consultative Meeting.

(63)

The Meeting decided to adopt these proposed amendments to its Rules of Procedures as they are reflected in the Working Paper XVII ATCM/WP 24/rev.2

(64)

The revised Rules of Procedure are attached to this Final Report at Annex F.

Item 8
Inspections under the Antarctic Treaty

(65)

A number of Delegations advised that they would be carrying out inspections during 1992/93. None had been carried out since the XVIth Consultative Meeting.

(66)

The Meeting noted that inspections are a fundamental element of the Antarctic Treaty. It further emphasised the importance of promoting inspections within the Antarctic Treaty as a means of monitoring activities in Antarctica and exchanging information. The Meeting also stressed that ispections demonstrate the transparency of the Antarctic Treaty.

(67)

The Meeting noted that inspections, in addition to verifying adherence to the fundamental principles and objectives of the Antarctic Treaty, now require emphasis on environmental matters.

(68)

The Meeting noted the high cost of conducting inspections; logistic cooperation between Parties was seen as a means of reducing these costs.

(69)

To enhance the quality of inspections and to assist in comparing inspection results, the Meeting considered that there would be value in having an agreed checklist of items that might be referred to when conducting inspections.

(70)

The Meeting agreed to invite SCAR and COMNAP to prepare an inspection checklist, based on existing examples such as those indicated in paragraph 59 of the Final Report of the XVIth ATCM to assist assessment of adherence to the requirements of the Antarctic Treaty and the Protocol on Environmental Protection. It was recognised that such a checklist would not limit a Party's individual action in conducting ispections.

(71)

ASOC, attending the Meeting as an invited expert, expressed the view that a permanent technical and scientific team should be established to carry out inspections relating to the Antarctic environment. A number of Delegations expressed their view that a permanent inspection team is unnecessary and that the present arrangements for inspections are appropriate.

Item 9
Environmental Monitoring

(72)

The Meeting welcomed and considered the valuable Report and the Recommendations of the First Meeting of Experts on Environmental Monitoring in Antarctica (XVII ATCM/INFO 9). The terms of reference for the Meeting held in Buenos Aires on 1-4 June 1992, were set forth in paragraphs 62-66 of the Report of ATCM XVIth (Bonn, 1991), while paragraphs 106-109 passed also to the Meeting the consideration of the creation of an Antarctic environmental and scientific data system.

(73)

The Meeting also welcomed and considered the report by SCAR/COMNAP (XVII ATCM/WP 5) describing actions that could be taken to develop a coordinated data management system, with a view to improving the comparability and accessibility of both scientific and environmental data being collected by national programmes as called for by ATCM Recommendations XIII-5 and XV-16.

(74)

With regard to environmental monitoring, the Meeting noted and endorsed the general objectives of environmental monitoring set forth in paragraph 32 of the Report of the First Meeting of Experts on Environmental Monitoring and the specific objectives of Antarctic environmental impact monitoring set forth in paragraph 33 of the Report.

(75)

The Meeting considered the conclusions set forth in paragraph 43 and 44 of the Report, in particular that:

i) the nature and scale of most activities in Antarctica at present are such that they are unlikely to have significant adverse environmental impact as defined in Article 3 of, and the Annexes to, the Protocol on Environmental Protection except at the local level;

ii) the possibility and significance of environmental impacts depend upon the location, timing, and scale as well as the nature of the activities;

iii) the activities and events most likely to have impacts of possible concern are:

a) station and airstrip construction and logistic operations;

b) waste water and sewage disposal;

c) incineration of wastes;

d) power and heat generation;

e) activities involving or affecting native flora and fauna;

f) scientific research; and

g) accidents resulting in fuel spills or other types of environmental contamination.

(76)

The Meeting also considered the examples of activities causing possible impacts on the Antarctic environment set forth in Table 3 of the Report of the First Meeting of Experts.

(77)

The Meeting further noted paragraph 103 of the Report which points out that some form of monitoring may be required to ensure compliance with the Protocol on Environmental Protection. For example, at least a sub-set of the seal and bird colonies visited regularly by tourists, researchers and others, should be monitored to verify that they are not being affected adversely by human activities. SCAR should be asked for advice on types of monitoring needed to verify that human activities do not have unforeseen effects on Antarctic birds, seals and plants.

(78)

The Meeting took special note of paragraph 49 of the Report of the First Meeting of Experts, which indicates that environmental impact monitoring programmes should be designed to answer specific questions or to test specific hypotheses.

(79)

The Meeting also took special note of paragraphs 107-110 of the Report, which point out that environmental impact monitoring programmes should be carefully designed, practicable, cost-effective and focused only on what is essential to meet the requirements of the Protocol. Unnecessary monitoring will consume substantial resources that may diminish the ability of Parties to undertake key research, thus reducing the overall value of Antarctic science.

(80)

The Meeting noted the concern expressed in the Report that resources required to meet the environmental monitoring challenge may not be available. The Meeting further noted the value of developing cooperative programmes as a means for carrying out cost-effective and productive monitoring.

(81)

On the basis of Recommendations of the First Meeting of Experts, the Meeting adopted Recommendation XVII-1. The Meeting noted that the recommended activities would assist the work of the Committee for Environmental Protection to be established when the Protocol enters into force.

(82)

With regard to data management, the Meeting considered and agreed on the scheme and steps proposed in the Report of the First Meeting of Experts on Environmental Monitoring for the creation of a cooperative Data Management System. In this regard, the Meeting agreed that Parties should continue efforts to identify national data sets for eventual inclusion in the Antarctic Data Directory. Documentation of these data sets should follow the format described in paragraph 70 of the Report of the First Meeting of Experts on Environmental Monitoring. This format may be subsequently modified to make it compatible with the International Directory Network referred to in the SCAR/COMNAP Report (XVII ATCM/WP 5).

(83)

Parties should request SCAR and their COMNAP Representatives to convene a workshop to help initiate the implementation of the Antarctic Data Directory System. The Workshop should:

* identify the steps necessary to establish the Antarctic Data Directory System as part of the existing International Directory Network;

* finalise the format for Antarctic Data Directory entries;

* prepare a draft Antarctic Data Directory for circulation to all Parties, including properly formatted entries from contributing Parties;

* identify the kind of geographic information system currently being used by national programme operators to organise, store, display and analyse Antarctic data; and consider whether the Antarctic Digital Topographic Database produced under the auspices of SCAR, or another system, can be used as the basis for a common computer map system for plotting data.

(84)

The Meeting agreed to consider, at the next ATCM, the need for another Meeting of Experts to consider such questions as available technologies, monitoring methods and protocols, standardisation of data collection methods, quality assurance and data analysis and interpretation.

(85)

The Delegation of Russia presented a Working Paper on environmental monitoring (XVII ATCM/WP 30); the items contained therein could help in the discussion of future work.

Item 10.
Implementation of Environmental Impact Assessment Procedures

(86)

On this issue documents were presented by New Zealand (XVII ATCM/INFO 19), France (XVII ATCM/INFO 35), Finland (XVII ATCM/INFO 45 and 46), United States (XVII ATCM/INFO 68), Germany (XVII ATCM/INFO 71) and ASOC (XVII ATCM/INFO 84).

(87)

The Representative of COMNAP reported that it has developed practical guidelines relating to implementation of environmental impact assessment procedures based on the Protocol on Environmental Protection and its Annexes.

(88)

The Representative of SCAR reported that the Group of Specialists on Environmental Affairs and Conservation (GOSEAC) is examining the scientific content of Initial Environmental Evaluations and Comprehensive Environmental Evaluations produced so far.

(89)

The Meeting welcomed these efforts and emphasised the importance of continuing efforts to implement the environmental assessment procedures set forth in the Protocol on Environmental Protection.

Item 11.
The Antarctic Protected Area System

11. a) Revised Description and Proposed Management Plans for Specially Protected Areas.

(90)

The United Kingdom tabled a draft Recommendation (XVII ATCM/WP 22) setting out revised descriptions and proposed management plans for the following Specially Protected Areas:

SPA No. 1 Taylor Rookery, Mac Robertson Land;

SPA No. 2 Rookery Island, Holme Bay, Mac Robertson Land;

SPA No. 3 Ardery Island and Odbert Island, Budd Coast;

SPA No. 20 New College Valley, Caughley Beach, Cape Bird, Ross Island.

Management plans for SPAs 1,2 and 3 were prepared by Australia, and SPA 20 by New Zealand and had been recommended and approved at SCAR XXII.

(91)

Recommendation XVII-2 was adopted.

(92)

The Meeting agreed that Parties should require that their national programme operators and, to the maximum extent possible, persons subject to their jurisdiction comply with the provisions of the above management plans, and the management plans for SPAs, 8,9,13,14,15,16,18 and 19 annexed to the Report of the XVIth ATCM.

11. b) Historic Sites and Monuments

(93)

Argentina submitted a draft Recommendation (XVII ATCM/WP 27/rev.2) to designate a wooden plaque and rock cairn at Penguin Bay, Southern Coast of Seymour Island (Marambio) (64° 16′ 00″ S, 56° 39′ 10″ W) as an Historic Monument.

(94)

Recommendation XVII-3 was adopted.

(95)

New Zealand announced its intention to propose the listing of the northern slopes of Mt Erebus above Lewis Bay, which was the site of the Air New Zealand DC 10 crash in November 1979, as an Historic Site as is provided for in Article 8 of Annex V of the Protocol.

11. c) Review and Implementation of the System

(96)

The Meeting considered measures that could be taken to improve the Antarctic Protected Area System and to begin to give effect to provisions of Annex V of the Protocol. The Meeting was assisted in this regard by a paper (XVII ATCM/WP 4) summarising the results of a Workshop on Antarctic Protected Areas held jointly by SCAR and IUCN, 29 June - 2 July 1992. The Meeting noted that some aspects of this paper related to issues beyond the Protected Area System and that these were not addressed explicitly.

(97)

The Meeting noted that, when Annex V of the Protocol enters into force, all SPAs and SSSIs designated as such by past ATCMs will be designated as Antarctic Specially Protected Areas and be renamed and renumbered accordingly. The Meeting recognised that the management plans for many SSSIs and SPAs may need to be revised at that time to ensure they conform with the provisions of the Protocol. The Meeting also recognised that the Committee for Environmental Protection, which will be established when the Protocol enters into force, will be required to provide advice. To assist in this regard, it was agreed that the Parties which originally proposed the existing SSSIs and SPAs should review their management plans and be prepared to submit proposed revisions for consideration when the Protocol enters into force. It was also agreed that SCAR could be asked to provide assistance to Parties in reviewing and revising management plans to conform with the provisions of the Protocol.

(98)

With regard to the previous point, the Meeting was advised that SCAR was preparing a handbook to assist in the preparation of management plans. The Meeting welcomed this information, recognising that the handbook could be useful to the Parties and the CEP, as well as SCAR. It urged SCAR to complete and make available the handbook as soon as possible.

(99)

The Meeting was also advised that the joint SCAR/IUCN Workshop on Protected Areas had begun revision of the ecosystem classification system developed by SCAR to assist in identifying areas that might usefully be included in the Antarctic Protected Area System. The Meeting noted that the classification system might be useful to the Parties for deciding, and to the CEP for providing advice on, measures necessary to meet the requirements of Article 3 (2) of Annex V of the Protocol which specifies that the Parties shall

seek to include certain types of areas in the series of Antarctic Specially Protected Areas. The Meeting urged SCAR and IUCN to complete the revision and make it available as soon as possible.

(100)

The Meeting noted that Annex V of the Protocol will prohibit entry into Antarctic Specially Protected Areas except in accordance with a permit issued under Article 7 of the Annex. The Meeting urged Parties that have not already done so to institute a permit system to begin to give effect to the permitting provisions.

(101)

With respect to the preceding point, the Meeting recognised that effective implementation of Annex V will require, where appropriate,that ASPAs and ASMAs are marked and posted with signs, and that all persons visiting Antarctica are aware of the locations and purposes of ASPAs and ASMAs, and the prohibitions or restrictions on entry and activities that can be conducted in these Areas. Towards this end, the Meeting urged that all Parties take such steps as possible to begin to give effect to Article 9 of Annex V. The Meeting also urged that the need to make such information available be considered in the development of the Data Information System referenced in paragraphs 82 and 83 of this Report.

(102)

The Meeting noted that ASPAs, ASMAs, and Historic Sites and Monuments may need to be visited periodically to ensure that the objectives of their management plans are being met. The Meeting further noted that a suggested list of information that should be collected and included in reports of site visits was developed at, and was appended to the Report of, the XIVth ATCM. The Meeting agreed that Parties, through their National Committees, would ask SCAR to review this list and provide advice on :

(i) how it should be revised to reflect the provisions of the Protocol

(ii) how site visits should be carried out

(iii) how the results of such visits should be reported to be most useful in implementing the Protocol.

(103)

Attention was called to the fact that, under Annex V of the Protocol, it would be appropriate in some cases to adopt management plans specifying conditions for visiting and activities that can be carried out in the vicinity of Historic Sites and Monuments. Attention was also drawn to the fact that a number of abandoned work sites may have scientific and historic values and that programme operators should consider such possibilities before initiating clean-up operations to give effect to Article 1 (5) of Annex III of the Protocol.

Item 12.
International Antarctic Scientific and Logistic Cooperation

(104)

The Delegation of Japan (XVII ATCM/INFO 37) and Finland (XVII ATCM/INFO 44) submitted information papers on cooperation.

(105)

Many Delegations reported on scientific and logistic cooperation with other Parties, thus emphasising the concrete results obtained and the need to continue this cooperation within the Antarctic Treaty System. Of particular interest was New Zealand's announcement of, and paper on, the opening of the International Antarctic Centre in Christchurch.

(106)

The Delegation of Chile presented a Draft Recommendation on "Global Change Research and International Cooperation in Antarctica" (XVII ATCM/WP 28).

(107)

Following a debate on the issue, which underlined the significance of the subject and the need for its analysis, Recommendation XVII-4 was drawn up and adopted on the basis of the Chilean proposal.

Item 13.
Tourism and non-Governmental Activities in the Antarctic Treaty Area.

(108)

The Meeting received a report from Mr Antonio José Guerreiro (Brazil), Chairman of the Informal Meeting on Tourism held in Venice on 9 and 10 November 1992 in accordance with Recommendation XVI-13. The Informal Meeting examined the issues identified in that Recommendation without arriving at any specific conclusions.

(109)

Working Group I studied proposals set out in XVII ATCM/WP 1 for a draft Annex on tourism to the Protocol prepared by Chile, France, Germany, Italy and Spain and other documents and proposals prepared by Australia (XVII ATCM/WP 14), the UK (XVII ATCM/WP 2, XVII ATCM/WP 3 and XVII ATCM/INFO 6), and the United States (XVII ATCM/WP 6, XVII ATCM/INFO 31).

(110)

The Meeting undertook an analysis of the existing Recommendations regarding tourism and non-governmental activities, as well as the Protocol on Environmental Protection to the Antarctic Treaty and its Annexes. In addition, more detailed consideration was given to the list of items contained in paragraph (ii) of Recommendation XVI-13.

(111)

All Parties stressed that the Protocol and its Annexes apply to all activities in Antarctica, including tourism and non-governmental activities.

(112)

Some Parties, including the initiators of a draft Annex to the Protocol, maintained that more precise regulation having legally binding force was required for such activities. Some other Parties were of the view that, with respect to environmental protection, the most important and immediate task is the early entry into force and implementation of the Protocol and its Annexes. Another group put forward the view that implementation of the Protocol and relevant provisions of the Treaty and Recommendations would be promoted in a practical way by providing a guiding statement of provisions for Parties and organisers of tourism and non-governmental activities to assist in understanding and meeting relevant obligations.

(113)

The negative impacts which the growing number of tourists might have on the conduct of scientific activities in Antarctica by the Parties were also considered, both in the light of the Working and Information Papers mentioned above and in the light of oral and written contributions by

Representatives of COMNAP, SCAR, WTO, IUCN, IAATO, IMO, ASOC and PATA, who attended the Meeting.

(114)

Some Parties, including the five Parties that had initiated the draft Annex mentioned above, proposed the convening of a meeting in 1993 before the next ATCM in order to continue the urgent examination of the issues identified in Recommendation XVI-13, which remained pending. Some other Parties could not agree to this proposal and felt that Recommendation XVI-13 had been adequately discussed. Still other Parties would agree with an intersessional meeting that was properly prepared and gave prospects of progress. They suggested their papers contained a number of considerations that could be examined in future work.

Item 14.
Antarctic Meteorology and Telecommunications

(115)

Under this item, two Information Papers (XVII ATCM/INFO 29 and XVII ATCM/INFO 49) were provided by WMO. The Representative of WMO presented the principal points of the XVII ATCM/INFO 49 which referred to improvements on Antarctic telecommunications using satellite technology and to the deficiencies in the existing observational networks. A plea was made to Treaty Parties to improve meteorological networks by deploying Automatic Weather Stations at appropriate and remote locations, by deploying ocean buoys at higher latitudes, by improving the frequency of upper air observations and by siting new upper air stations to fill gaps in the existing network.

(116)

The work carried out in Antarctica by the World Meteorological Organisation, both in the field of weather forecasting and of atmospheric science, was welcomed. These activities include coordinating efforts, preparing

Recommendations and distributing specific information on meteorological and atmospheric phenomena affecting Antarctica and the global system.

(117)

The Meeting acknowledged that the trend of observed ozone depletion continued. On October 4th 1992, Japanese meteorologists working from Syowa station in Antarctica recorded their "lowest ever" ozone reading. Measurements at research centres in Argentina, Australia, Chile and by the National Science Foundation of the United States, among others, showed a rise in ultraviolet radiation and the XIth CCAMLR had expressed concern about the adverse effects that UV-B radiation could have on the Antarctic marine ecosystem.

(118)

The Meeting agreed that this information should be made known to the Parties of the Montreal Protocol, meeting late this month in Copenhagen, Denmark.

Item 15
Marine Hydrometeorological Services to Navigation in the Southern Ocean

(119)

Under this item a Working Paper (XVII ATCM/WP 18) was provided by Russia and an Information Paper (XVII ATCM/INFO 50) was provided by WMO.

(120)

The Delegation of Russia described the activities of their country's expeditions in relation to support of shipping by providing information on sea ice derived from satellite observation, particularly in support of the joint United States/Russia research programme in the Weddell Sea.

(121)

Other Delegations described their marine weather and ice forecasting in Antarctica.

(122)

The Representative of WMO presented XVII ATCM/INFO 50 which pointed out the increase in availability of high resolution satellite and meteorological data in Antarctica and which noted the vulnerability of poorly equipped ships to ice and severe weather in the region. Support was sought from Treaty Parties in improving observations for the special periods during FROST (an experiment of SCAR aimed at assessing the capabilities of existing numerical weather forecasting in Antarctica).

Item 16.
Cooperation in Hydrographic Surveying and Charting of Antarctic Waters.

(123)

The International Hydrographic Organisation (IHO) informed the Meeting that, pursuant to Recommendation XV-19 of the XVth ATCM, it has established a Permanent Working Group (PWG) on cooperation in Antarctica. The inaugural meeting was held in Venice on the 13 November 1992, and was attended by Representatives from several Parties as well as from SCAR and COMNAP.

(124)

A report of this meeting was presented by IHO to the XVIIth ATCM (XVII ATCM/INFO 64). The IHO PWG has agreed on several important initiatives to achieve more effective cooperation in hydrographic surveying and charting in Antarctica. These

include production of an annually updated report of completed and planned surveys which will allow better coordination and more effective disposition of limited hydrographic survey resources. It was also agreed to develop an international scheme of charts for Antarctica, which would reduce the degree of duplication between national Hydrographic Offices.

(125)

The IHO also expressed the view that it is important to continue close liaison with SCAR and COMNAP.

(126)

The IHO believes that these initiatives are an effective response to the Recommendation emanating from the XVth ATCM. They will contribute significantly to improving safety of life at sea and avoiding adverse environmental impact. The IHO will continue to present reports to the ATCM on its activities. The IHO suggested a continuing role for the ATCM in ensuring the ongoing national funding of these activities.

(127)

Several Parties emphasised the importance of this work and commended the IHO on its progress.

(128)

The Meeting reached consensus that in principle item 16, Cooperation in Hydrographic Surveying and Charting of Antarctic Waters, should be addressed at the XVIIIth ATCM under the Agenda item Operation of the Antarctic Treaty System, Reports from International Organisations.

Item 17.
Air Safety in Antarctica

(129)

Under this item an Information Paper was presented by Chile (XVII ATCM/INFO 66) related to a meeting of a panel on Air Safety in the Antarctic Peninsula Region, which was held in Chile in October 1992, in accordance with the proposal by the SCALOP Sub-Group on Air Safety in Antarctica.

(130)

It was suggested that item 17, Air Safety in Antarctica, may not need to be included on the Agenda of the XVIIIth ATCM.

Item 18.
Question Related to the Exercise of Jurisdiction in Antarctica

(131)

One Delegation submitted a Working Paper on item 18 (XVII ATCM/WP 17). The Meeting agreed that this question should be considered at the next Consultative Meeting.

Item 19.
Preparation of the XVIIIth Consultative Meeting

a) Date and Place of the XVIIIth Consultative Meeting

(132)

The Meeting received with special satisfaction the invitation of Japan to host the XVIIIth Consultative Meeting in the Spring of 1994. Date and venue of the above mentioned Meeting will be notified by the Government of Japan through diplomatic channel.

(133)

Some Delegations expressed a wish to know, for planning purposes, which Consultative Party would host the XIXth Consultative Meeting.

(134)

The Meeting acknowledged the offer put forward by the Representative of the Republic of Korea to host the XIXth Consultative Meeting in the year 1995.

b) Invitation of International and Non-Governmental Organisations

(135)

The Meeting decided that the following International Organisations having a scientific or technical interest in Antarctica shall be invited to designate an expert: UNEP, ASOC, IHO, IMO, IOC, IUCN, WMO, WTO, IAATO, PATA, to attend the forthcoming Meeting in order to assist it in its substantive work.

(136)

With reference to Rule 41 of the revised Rules of Procedure as amended by the XVIIth ATCM, it was agreed that these experts could attend the Meeting during the discussion of all items on the provisional Agenda of the XVIIIth Consultative Meeting except for the following:

4. Provisional Agenda

7. Operation of the Antarctic Treaty System

8. Inspections under the Antarctic Treaty

16. Questions Related to the Exercise of Jurisdiction in Antarctica

17. Preparation of the XIXth Consultative Meeting

(137)

It was, however, recognised that issues to be discussed under item 18 of the Preliminary Agenda "Any Other Business" might be related to the Operation of the Antarctic Treaty System. The presence of these experts during the discussion of item 18 would therefore have to be decided on an individual basis when the issues to be discussed under this Agenda item were identified.

c) Preparation of the Agenda of the XVIIIth Consultative Meeting

(138)

The Meeting approved the Preliminary Agenda of the XVIIIth Consultative Meeting, appended at Annex G.

Item 21.
Adoption of the Report

(139)

The Final Report and the Recommendations contained therein were adopted by consensus on 20 November 1992.

Item 22.
Closing of the Meeting

(140)

The Meeting expressed its warm thanks to the Government of Italy, the Chairman of the Meeting, of the Working Group I and Working Group II, the Executive Secretary and his staff, and was closed on 20 November 1992.

PART II

RECOMMENDATIONS ADOPTED AT

THE XVIIth ANTARCTIC TREATY CONSULTATIVE MEETING

Recommendation XVII-1

ENVIRONMENTAL MONITORING AND DATA MANAGEMENT

The Representatives,

Recalling Recommendations XV-5, XV-16, XVI-12 and paragraphs 106-109 of the Report of the XVIth ATCM;

Noting the report and the valuable work of the First Meeting of Experts on Environmental Monitoring in Antarctica (XVII ATCM/INFO 9) and the recommendations set forth in the afore mentioned report;

Noting that better data management can improve the quality of Antarctic Environmental Monitoring, operations and science;

Noting additionally the report by SCAR-COMNAP (XVII ATCM/WP 5) describing actions that could be taken to develop a coordinated data management system with the intent to improve the comparability and accessibility of both scientific and environmental data being collected by national programmes, as called for by ATCM Recommendations XIII-5 and XV-16.

Recognising that, in the Final Act of the Protocol on Environmental Protection to the Antarctic Treaty, it was agreed that it was desirable to ensure effective implementation at an early date; and that paragraph 69 of the Report of the XVIth ATCM exhorts the Consultative Parties to ratify the Protocol as soon as possible, and that meanwhile efforts also should be made to implement the provisions of the Annexes as rapidly and completely as possible.

Acknowledging that in order to meet the requirements of the Protocol on Environmental Protection to the Antarctic Treaty that calls, under Articles 3.2 (d) and 3.2 (e), for regular and effective monitoring, to allow assessment of the adverse impacts of human activities, it is necessary to focus environment impact monitoring particularly on anthropogenic effects at a local level;

Aware that once established, the Committee for Environmental Protection may offer its advice on these measures, consistent with its terms of reference as provided for in the Protocol;

Aware that applied monitoring can be expensive and may require long term commitment and that any environmental monitoring should be scientifically defensible, practicable and cost-effective;

Recommend to their Governments that they:

1. Through their SCAR National Committees request SCAR to consider and provide advice on:

   (i) The types of long-term programmes, if any, necessary to verify that human activities (such as tourism, scientific research or other activities) do not have significant adverse effects on birds, seals and plants; and

   (ii) emission standards that should be established to ensure that the combustion of fossil fuels and incineration of waste do not contaminate the Antarctic atmosphere, terrestrial, ice, aquatic or marine environments in a way that would compromise their scientific values;

2. Ask their COMNAP Representatives in consultation with SCAR to establish research programmes at a representative subset of facilities in Antarctica to determine how different types and sizes of facilities in different localities (eg. coastal and inland stations on rocks and on ice shelves) affect the Antarctic environment;

3. Provide a list of the Antarctic data sets being compiled and archived by their nationals and make this list available to other Parties, SCAR and COMNAP, as soon as possible, to form the basis for the development of an Antarctic Data Directory;

4. Establish, as appropriate, national arrangements for obtaining expert advice on the types of data products and data access mechanisms which would best meet both the basic scientific requirements and long-term environmental monitoring requirements.

Recommendation XVII-2

REVISED DESCRIPTIONS AND PROPOSED MANAGEMENT PLANS FOR SPECIALLY PROTECTED AREAS

The Representatives,

Recalling Recommendations XV-8 and XV-9;

Noting that revised Area Descriptions and proposed Management Plans have been approved by the Scientific Committee on Antarctic Research (SCAR);

Noting also that the format of these revised Area Descriptions and proposed Management Plans accord with Article 5 of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty adopted under Recommendation XVI-10;

Recommend to their Governments that for the Specially Protected Areas listed below:

(i) the Descriptions inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora be deleted;

(ii) the Descriptions and Management Plans of Specially Protected Areas, annexed to this Recommendation, be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

The Specially Protected Areas involved are:

AREA No. 1 Taylor Rookery, Mac Robertson Land;

AREA No. 2 Rookery Islands, Holme Bay, Mac Robertson Land;

AREA No. 3 Ardery Island and Odbert Island, Budd Coast;

AREA No. 20 "New College Valley", Caughley Beach, Cape Bird, Ross Island.

MANAGEMENT PLAN FOR SPECIALLY PROTECTED AREA (SPA) No.1

TAYLOR ROOKERY, MAC ROBERTSON LAND

1. DESCRIPTION OF VALUES TO BE PROTECTED

The area was originally designated a Specially Protected Area because it contains a colony of emperor penguins (Aptenodytes forsteri) which is one of the few, and probably the largest, of the known colonies of this species located wholly on land. Almost all other emperor penguins rookeries are located on sea ice. The rookery is also important because of long-term monitoring of the population of the penguins (since 1954). The colony is ideal for counting since it is surrounded by small rocky hills which make it possible to observe every bird without entering the breeding area. A photographic census programme has been carried out annually since 1988, and it is believed that this method has resulted in almost complete accuracy of counting.

2. AIMS AND OBJECTIVES

Management of the Area aims to:

* prevent unnecessary disturbance to the emperor penguin colony at Taylor Rookery; and

* permit research of a compelling scientific nature which can not be undertaken elsewhere, while ensuring no significant disturbance to the ecosystem of the area including the penguin colony.

3. MANAGEMENT ACTIVITIES

The management plan and activities in the area should be kept under review to ensure that the values for which the area was designated are being fully protected. Inspection visits may be made only when considered essential for management purposes.

4. PERIOD OF DESIGNATION

Designated under ATCM Recommendation IV-1 in November 1966, for an indefinite period.

5. DESCRIPTION OF THE AREA

(a) Geographical coordinates and natural features of the Area:

The Area consists of the whole of the northernmost rock exposure on the east side of Taylor Glacier, Mac Robertson Land (67°26'S; 60°50'E). The rookery is located on a low lying rock outcrop in the South-West corner of a bay formed by Taylor Glacier to the West, the polar ice cap to the South and the islands of Colbeck Archipelago to the East. The area is surrounded by sea ice to the North and East. The Area is some 90 kilometres West of Mawson station. There is ice free terrain adjacent to the glacier on the western boundary and to the south the rock rises steeply to meet the ice of the plateau. The rock itself forms a horseshoe around a central flat area of exposed rock and moraine. This Area is covered with snow in winter and is occupied by the emperor penguins. The compressed snow melts in summer to form a shallow lake and stream which exits to the North-East. The sides of the horseshoe are rounded ridges of rock which are bare and smoothed by ice.

Otherwise the terrain is rough and dissected with cracks and fissures. The average height of the ridges is about 30 meters. The Area also has a raised beach which is typical of several found along the coast of Mac Robertson Land. The beach is composed of locally derived pebbles, cobbles and boulders between 1 cm and 1 m across. It slopes upwards from the shoreline to a well defined platform several meters broad and 3 to 6 m above sea level.

There are no boundary markers since the Area is easily defined by its natural features.

(b) Access to the Area

Access to the Area is only in accordance with a permit or authority issued by a Contracting Party or its authorised representative.

Restrictions apply to the mode of transport to and within the Area, and access points are prescribed; see Section 8 (a).

(c) Location of structures including scientific stations, research and refuge facilities both within and near the Area:

There are no structures within the Area and no permanent structures are permitted. A four-berth refuge is located in the Colbeck Archipelago, approximately 5 kilometers to the North-East of the Area (see Map B): Mawson Station (67°36'S, 62°53'E) is approximately 90 kilometers to the East.

(d) Location of other protected areas in or near the Area:

The Rookery Islands (Specially Protected Area No.2) are located some 80 kilometers to the East of Taylor Rookery (see Map A).

6. IDENTIFICATION OF RESTRICTED ZONES

Access to the emperor penguin colony, marked on Map C, is prohibited unless authorised in a permit.

7. MAPS OF THE AREA

Map A shows the location of the Area in relation to the Mawson region;

Map B shows the location of the field hut on the Colbeck Archipelago, and access routes to the Area;

Map C shows the Area in greater detail, including the usual location of the penguin colony, and the area where all activity such as landing helicopters and installing field huts or field camps should take place, where permitted.

8. CONDITIONS UNDER WHICH PERMITS MAY BE GRANTED

Criteria for issuing a permit to enter the Area are that:

* it is issued for a compelling scientific purpose which can not be undertaken elsewhere;

* the actions permitted will not jeopardise the natural ecological system existing in the Area; and

* the actions permitted are in accordance with the management plan for the Area.

Conditions applying:

(a) Access to and movement within the Area:

i) Whatever possible, access should be from sea ice to the east of Colbeck Archipelago, to avoid disturbance to the birds by crossing their pathways from the rookery to the sea (see Map B). Persons in the vicinity, not approaching the colony, should also be aware of the penguins pathways, and take care to cause as little disturbance to them as possible.

ii) Travel to the Area may be by oversnow vehicle, which is generally only possible during the period 1 May to 25 December, or by helicopter. Vehicle entry to the Area is prohibited. Oversnow vehicles used for transport to the Area are to be left outside the Area, to the East, and entry must be by foot. The approach route for vehicles is marked on Map B.

iii) Helicopters are not permitted to land in the Area unless sea ice conditions outside the Area are such that it would be hazardous for aircraft to land on ice or for personnel to

walk on it. If sea ice conditions are not suitable, helicopters are authorised to land in the Area, to the North-East at the point marked "H", where a headland to the South obscures the colony from view (see Map C). Map B shows the helicopter access route.

iv) The following conditions apply to the use of helicopters:

* helicopters are to approach the Area from the East over the sea ice and, where sea ice conditions permit, land outside the Area, with access being by foot (see Map B);

* overflight of the rookery is prohibited;

* when landing outside the Area, helicopters should not land, take off or fly within 500 meters of the rookery;

* if landing inside the Area is essential due to sea ice conditions helicopters should land in the North-East of the Area at the point marked "H", where a headland to the South obscures the colony from view (see Map C);

* helicopters approaching to land in the Area must fly as low as possible over the sea ice to avoid disturbing the colony; and

* helicopters are not to be refueled within the Area.

v) There are no marked pedestrian routes within the Area; pedestrian should keep well away

from the penguins, unless disturbance to the penguins is authorised by permit. Movement in and around the Area should be such that, in general, the routes used by the birds are not crossed.

vi) Dogs are not to be used for transport to the Area.

(b) Activities which are, or may be, conducted within the Area, including restrictions on time and place:

i) The penguins are particularly sensitive to disturbance during the following periods:

* when they are incubating eggs, from mid-May to mid-July; and

* from mid-July, when feeding chicks to mid-December, when the chicks flegde. However penguins are known to be present at the rookery during every month except February, when no recorded expeditions to the rookery have been made; restrictions therefore apply year-round.

ii) The emperor penguin colony is ideal for counting. Normally the best vantage point for viewing and photographing the penguins is a rocky headland which runs adjacent to Taylor Glacier, on the western side of the rookery. The ideal time for a census is from 22 June to 5 July, since during this time only incubating males are present,each representing one breeding pair. An ongoing photographic census programme has been carried out since 1988.

iii) Other activities which may be conducted in the Area:

* compelling scientific research which can not be undertaken elsewhere and which will not jeopardise the ecosystem of the Area; and

* compelling management activities, which if not carried out would jeopardise the values for which the Area was designated.

(c) The installation, modification, and removal of structures:

No structures are to be installed in the Area unless essential for scientific purposes; any structure installed should be removed when it is no longer required. Only the minimum number of personnel necessary to install and to remove the structure should be used. Temporary field huts if permitted, should be placed well away from the penguin colony at the point marked "X", to the North-East of the Area, where a headland to the South obscures the colony from view (see Map C).

(d) The location of field camps:

See (c) above.

(e) Restriction on materials and organisms which may be brought into the Area:

i) No poultry products, including dried food containing egg powder, are to be taken into the Area.

ii) No depots of food or other supplies are to be left within the Area beyond the season for which they are required.

iii) Fuel is not to be depoted in the Area, unless required by a visitor for personal use, (i.e.) for cooking/heating in a field hut, and is to be removed when no longer required.

(f) The taking of, or harmful interference with, native flora and fauna:

Taking of, or harmful interference with, native flora and fauna is prohibited unless specifically authorised by permit issued in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora, or Article 3 of Annex II to the Protocol on Environmental Protection to the Antarctic Treaty, whichever is appropriate.

(g) The collection or removal of anything not brought into the Area by the permit holder:

There is to be no collection or removal of anything not brought into the Area by permit holder unless specifically authorised by permit for scientific or management purposes.

(h) The disposal of waste:

No wastes, including human wastes, are to be left in the Area.

(i) Measures that may be necessary to ensure that the aims and objectives of the management plan can continue to be met:

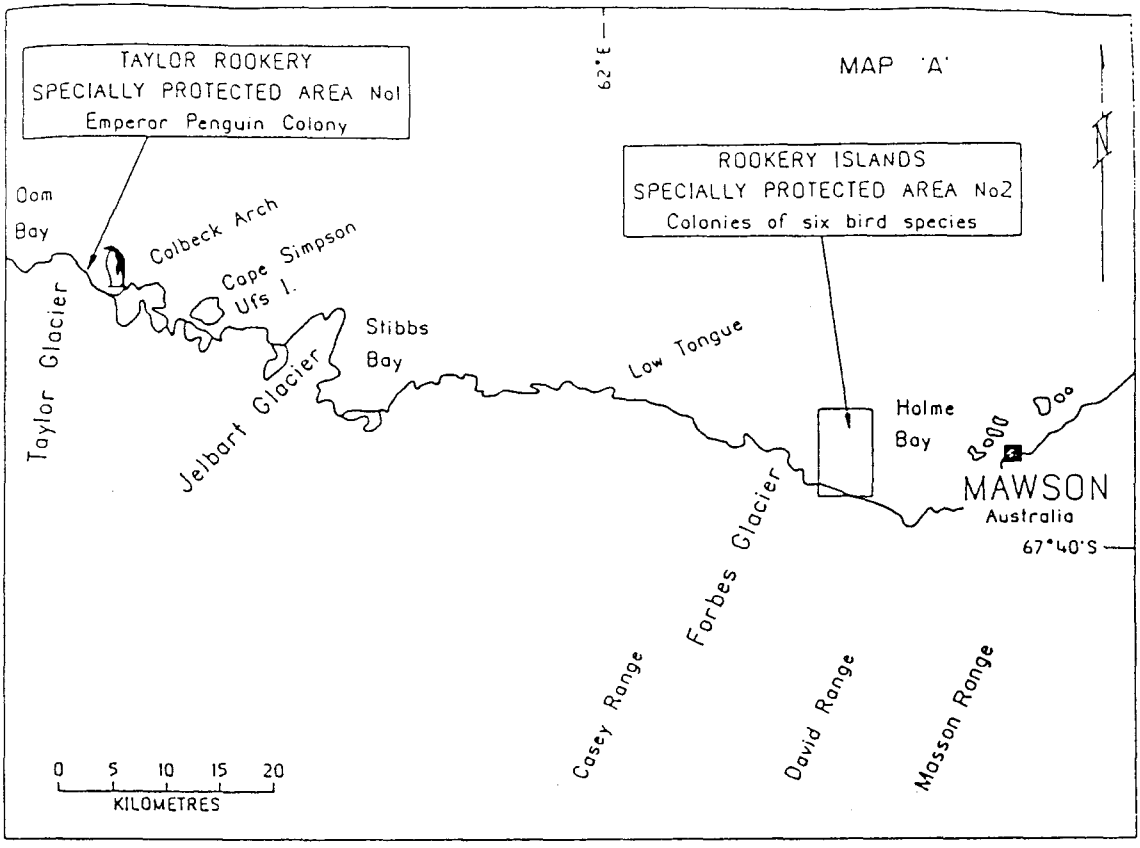
* Permits should specify the maximum number of people allowed entry at any one time.

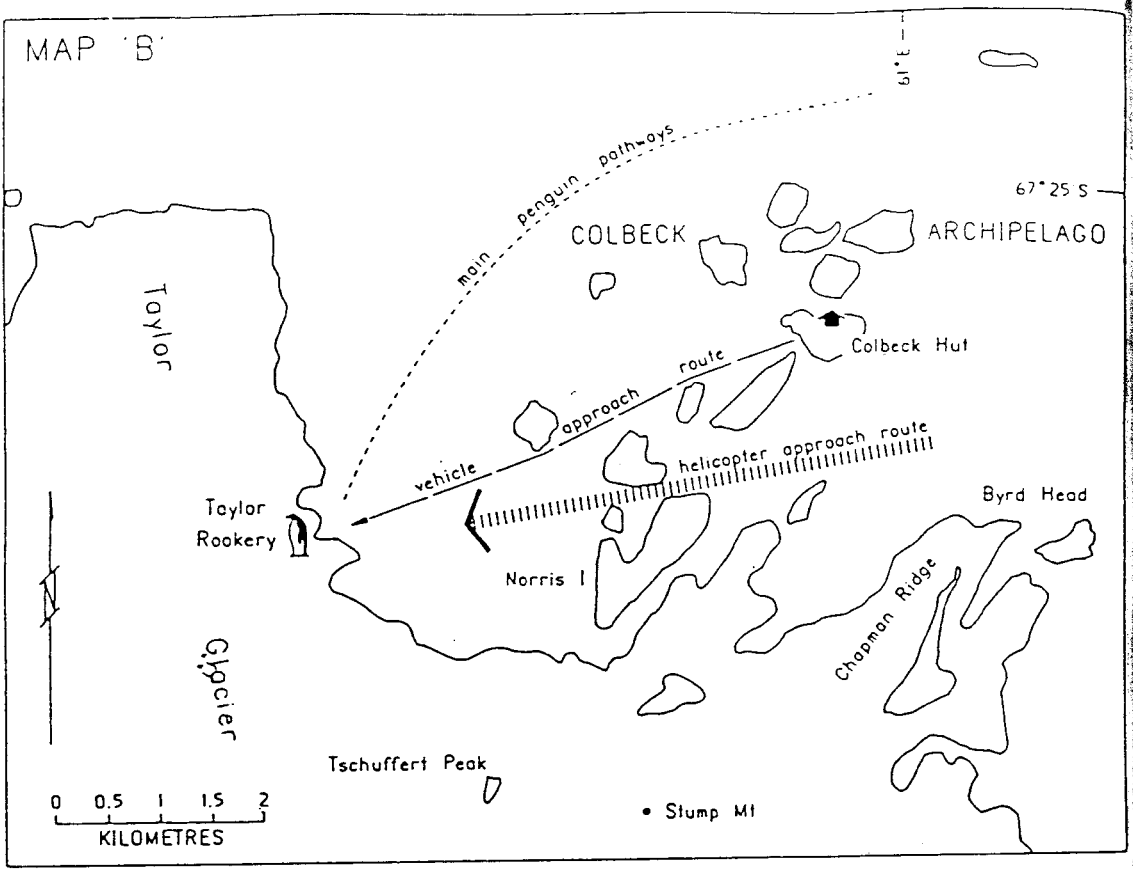
* Visits to the Area should be kept to the minimum necessary to achieve the research and management objectives.

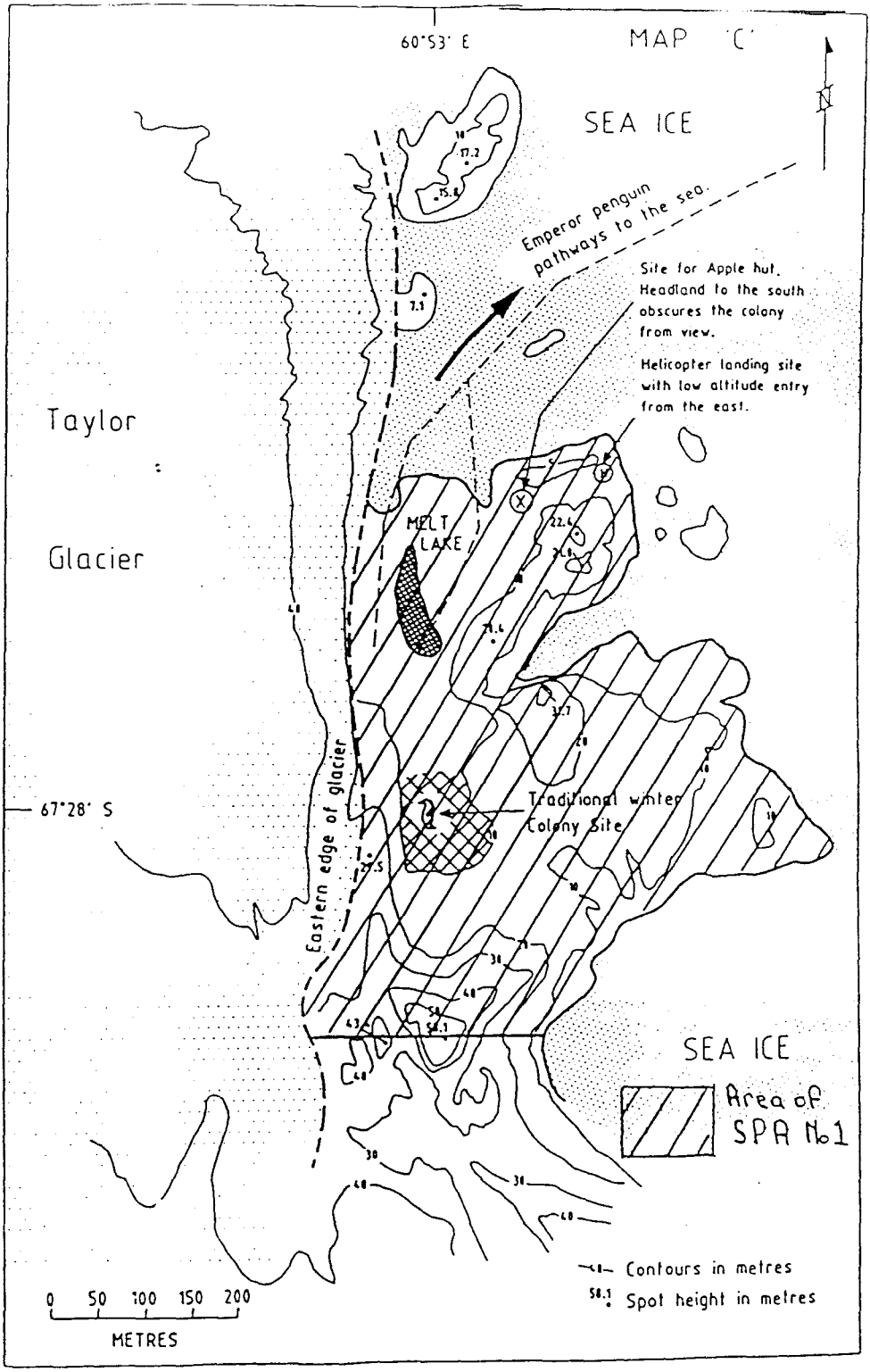
* Access should be permitted where necessary to place or remove structures or equipments.

(j) Requirements for reports:

Each permit holder shall submit a report to the permit issuing authorities detailing the activities undertaken within the Area including a summary of research findings, and comments indicating measures taken to ensure compliance with conditions. Where appropriate, the report may make recommendations relevant to the management of the Area, in particular, as to whether the values for which the Area was designated are being adequately protected. The report should be submitted as soon as practicable after the visit to the Area has been completed.


TAYLOR ROOKERY
SPECIALLY PROTECTED AREA No1
Emperor Penguin Colony
MAP 'A'
ROOKERY ISLANDS
SPECIALLY PROTECTED AREA No2
Colonies of six bird species
Oom
Bay
Colbeck Arch
Cape Simpson
Ufs I.
Taylor Glacier
Jelbart Glacier
Stibbs
Bay
Low Tongue
Holme
Bay
Dog
Doo
MAWSON
Australia
67°40'S
Forbes Glacier
Casey Range
David Range
Masson Range
0 5 10 15 20
KILOMETRES


MAP 'B'
61°E
67°25'S
main penguin pathways
COLBECK ARCHIPELAGO
Taylor
Colbeck Hut
approach route
vehicle
helicopter approach route
Taylor Rookery
Byrd Head
Norris I
Chapman Ridge
Glacier
Tschuffert Peak
Stump Mt
0 0.5 1 1.5 2
KILOMETRES


60°53' E
MAP 'C'
SEA ICE
N
Emperor penguin pathways to the sea.
Site for Apple hut. Headland to the south obscures the colony from view.
Helicopter landing site with low altitude entry from the east.
Taylor
Glacier
MELT LAKE
67°28' S
Eastern edge of glacier
Traditional winter Colony Site
SEA ICE
Area of SPA No1
0 50 100 150 200
METRES
Contours in metres
Spot height in metres

MANAGEMENT PLAN FOR SPECIALLY PROTECTED AREA (SPA) No.2

ROOKERY ISLANDS, HOLME BAY, Mac ROBERTSON LAND

1. DESCRIPTION OF VALUES TO BE PROTECTED

The Rookery Islands contain breeding colonies of six bird species resident in the Mawson area; Adélie penguin (Pygoscelis adeliae), Cape petrel (Daption capensis), snow petrel (Pagodroma nivea), southern giant petrel (Macronectes giganteus), Wilson'storm petrel (Oceanites oceanicus) and the Antarctic skua (Catharacta maccormicki). The southern giant petrel breeds nowhere else in the region. The designation of the Area aims to safeguard this unusual association of six species and ensure the preservation of a sample offshore island habitat.

2. AIMS AND OBJECTIVES

Management of the Area aims to:

* maintain a reference area unmodified by human interference;

* permit research of a compelling scientific nature which can not be undertaken elsewhere, while ensuring no significant disturbance to the ecosystem of the Area and maintaining the status of the SPA as a reference area; and

* ensure that the breeding colony of southern giant petrels, which is close to the point of local extinction, is not endangered by human impacts.

3. MANAGEMENT ACTIVITIES

The management plan and activities in the Area should be kept under review to ensure that the values for which the Area was designated are being fully protected. Inspection visits may be made only when considered essential for management purposes.

4. PERIOD OF DESIGNATION

Designated under ATCM Recommendation IV-1 in November 1966 for an indefinite period.

5. DESCRIPTION OF THE AREA

(a) Geographical coordinates and natural features of the area:

Rookery Islands are a group of small islands and rocks in the south-western part of Holme Bay, Mac Robertson Land, approximately 10 kilometres to the west of the Australian station, Mawson. The Area comprises the islands and rocks lying within the rectangle marked on the Map B (see Section 7), the general location of which is latitude 67°37'S, longitude 62°33'E. There are no boundary markers delimiting the site. There are approximately 75 small islands. They range in size from small rocks which barely remain above water at high tide to the largest members of the group which are Giganteus Island (approximately 400 m long, 400 m wide and 30 m high) and Rookery Island which is of similar area but slightly more elongated. Rookery Island is the highest of the group reaching an altitude of 62 m . Raised beaches are evident on Giganteus Island. The Rookery Islands are outcrops of the Mawson Charnockite, a rock type which is found over an area of at least 2000 square kilometers along the Mawson Coast of Mac Robertson Land.

There are terrestrial algae, as yet unidentified, but no known mosses or lichens. There are no freshwater bodies on the Rookery Islands.

(b) Access to the Area:

Access to the Area is only in accordance with a current permit issued by a Contracting Party or its authorised representative. No access points are prescribed. Restrictions apply to the mode of transport and to the proximity of access points to breeding colonies; for this refer to Section (8).

(c) Location of structures including scientific stations, research and refuge facilities both within and near the Area:

There are no structures within the Area. Mawson Station (67°36'S, 62°53'E) is approximately 10 kilometers to the east.

(d) Location of other protected areas in or near the Area:

Taylor Rookery (Specially Protected Area No.1) is approximately 80 kilometres west of the islands at latitude 67°26'S, longitude 60°50'E.

6. IDENTIFICATION OF RESTRICTED ZONES

Access to Giganteus Island is prohibited except where a permit specifies otherwise. See 8 (a) (vi) below.

7. MAPS OF THE AREA

Map A shows the location of the Rookery Islands in the Mawson area, and

Map B is a more detailed Map of the Area.

8. CONDITIONS UNDER WHICH PERMITS MAY BE GRANTED

Criteria for issuing a permit to enter the Area are that:

* it is issued for a compelling scientific purpose which can not be undertaken elsewhere;

* the actions permitted will not jeopardise the natural ecological system existing in the Area; and

* the actions permitted are in accordance with the management plan for the Area.

Conditions applying:

(a) Access to and movement within the Area:

i) Travel may be by oversnow vehicles (depending on sea ice conditions). Visitors must ensure that vehicles are taken no closer than 200 meters from concentrations of birds and that they are always left at the shoreline.

ii) As helicopter access may at times be the only viable means of reaching the islands, and as the islands are small in size, aircraft may land within 500 metres of breeding colonies. Permission to land an helicopter may be granted for essential scientific purposes only if it can be demonstrated that disturbance will be minimal.

iii) No refueling within the Area.

iv) Overflight of the islands is prohibited except where essential for scientific purposes. Such overflight is to be at an altitude of no less than 500 metres.

v) Dogs are not to be used for transport within the Area.

vi) Access to Giganteus Island is prohibited except for the purpose of monitoring the southern giant petrels (Macronectes giganteus) or for activities which may be conducted without threat to their population status. As the breeding colony is close to the point of local extinction and the birds are easily disturbed, the number of persons granted entry for this purpose must be strictly limited and include an experienced ornithologist.

(b) Activities which are, or may be conducted within the Area, including restrictions on time and place:

i) Compelling scientific activities which cannot be conducted elsewhere.

ii) Compelling management activities, which if not carried out would jeopardise the values for which the Area was designated.

(c) The installation, modification, or removal of structures:

No structures including field huts, are to be installed in the Area unless essential for scientific purposes; any structure installed should be removed when no longer required. Only the minimum number of personnel necessary to install and remove the structure should be used.

(d) The location of field camps:

See (c) above.

(e) Restrictions on material and organisms which may be brought into the Area:

i) Fuel is not to be depoted in the Area, unless required by a researcher for personal use, i.e. for cooking/heating in a field hut, and is to be removed when no longer required.

ii) No poultry products, including dried food containing egg powder, are to be taken into the Area.

iii) No food or other supplies should be left within the Area beyond the season for which they are required.

(f) The taking of, or harmful interference with, native flora and fauna:

Taking of, or harmful interference with, native flora and fauna is prohibited unless specifically authorised by permit in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora, or Article 3 of Annex II to the Protocol on Environmental Protection to the Antarctic Treaty, whichever is appropriate.

(g) The collection or removal of anything not brought into the Area by the permit holder:

There is to be no collection or removal of anything not brought into the Area by the permit holder unless specifically authorised by permit for scientific or management purposes.

(h) The disposal of waste:

No wastes, including human wastes, are to be left in the Area.

(i) Measures that may be necessary to ensure that the aims and objectives of the management plan can continue to be met:

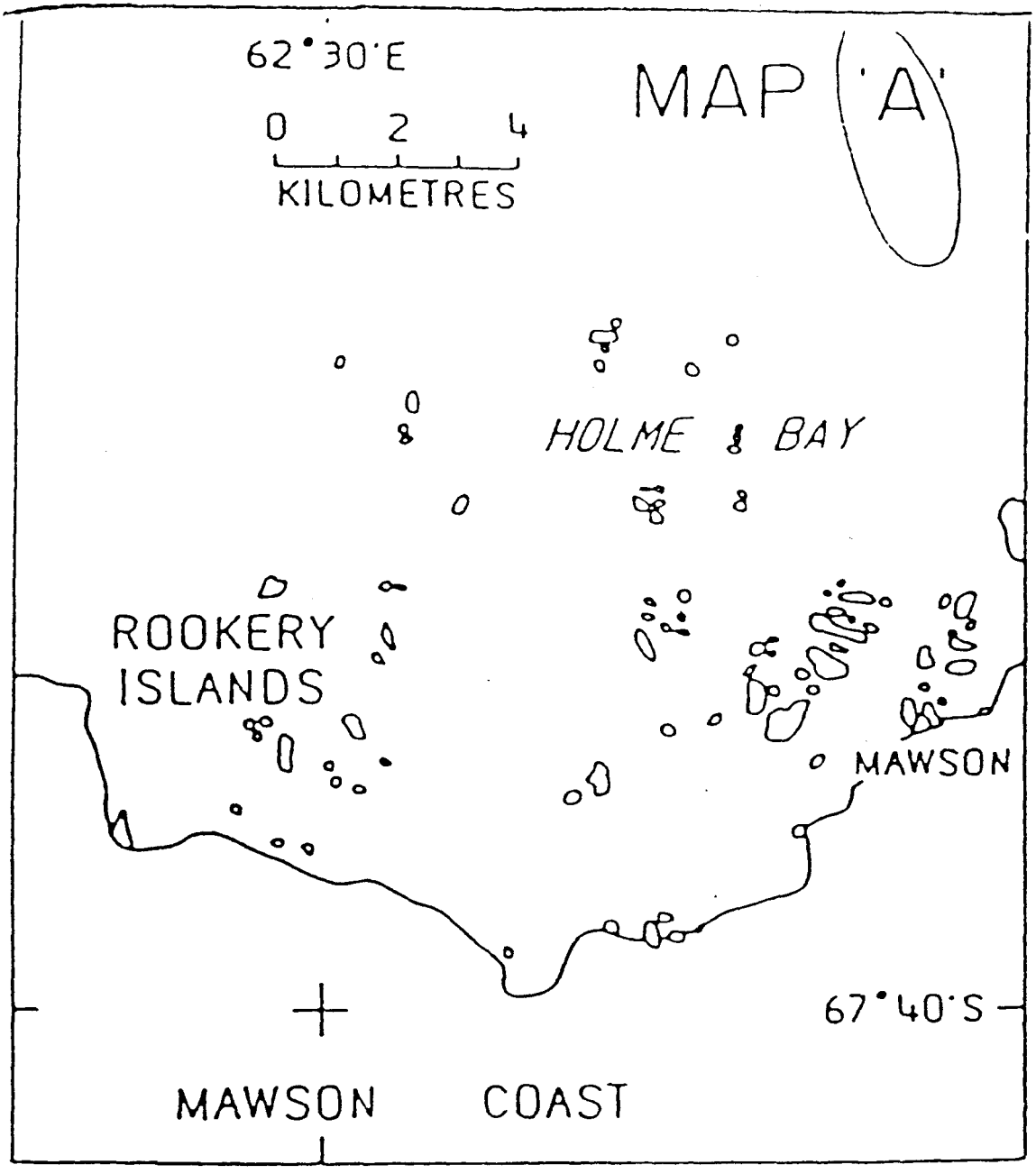
* permits should specify the maximum numbers of personnel who may enter the Area;

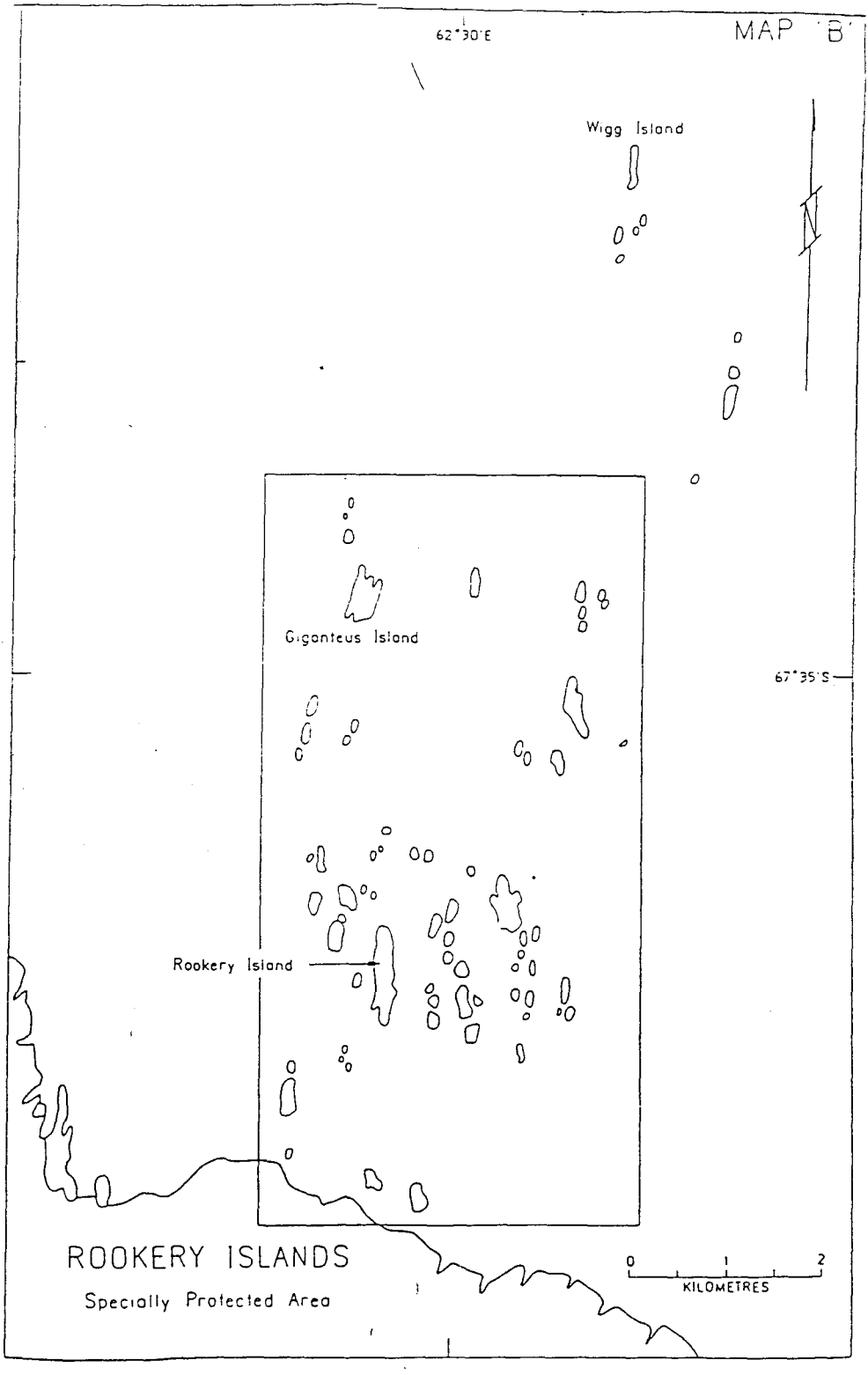
* visits to the Area should be kept to the minimum necessary to achieve research and management objectives;

* access should be permitted where necessary to place or remove structures or equipments.

(j) Requirements for reports:

Each permit holder shall submit a report to the permit-issuing authority detailing the activities undertaken within the Area including a summary of research findings, and comments indicating measures taken to ensure compliance with conditions. Where appropriate, the report may make recommendations relevant to the management of the Area, in particular, as to whether the values for which the Area was designed are being adequately protected. The report should be submitted as soon as practicable after the visit to the Area has been completed.


62°30'E
0 2 4
KILOMETRES
MAP 'A'
HOLME BAY
ROOKERY ISLANDS
MAWSON
67°40'S
MAWSON COAST


MAP 'B'
62°30'E
Wigg Island
N
Giganteus Island
67°35'S
Rookery Island
ROOKERY ISLANDS
Specially Protected Area
0 1 2
KILOMETRES

MANAGEMENT PLAN FOR SPECIALLY PROTECTED AREA (SPA) No.3

ARDERY ISLAND AND ODBERT ISLAND, BUDD COAST

1. DESCRIPTION OF THE VALUES TO BE PROTECTED

Ardery and Odbert Islands support several breeding species of petrel and provide a sample of their habitat. There is no other readily accessible place in eastern Antarctica where the four genera of fulmarine petrels (Thalassoica antarctica, Fulmarus glacialoides, Daption capensis and Pagodroma nivea) breed in the same place in sufficient numbers to allow comparative study. Study of these four genera at one location is of high ecological importance both from the point of view of understanding and of monitoring the Southern Ocean ecosystem. It is believed that Ardery Island is unique insofar as it is the only area in the Antarctic which harbours two different subspecies of snow petrels. Studies on morphological or ecological differences between these two subspecies are not possible anywhere else. In addition both islands have breeding populations of Wilson's storm petrels (Oceanites oceanicus) and Antarctic skuas (Catharacta maccormicki) and Odbert Island supports breeding populations of Adélie penguins (Pygoscelis adeliae).

2. AIMS AND OBJECTIVES

Management of the Area aims to:

* prevent unnecessary disturbance to the colonies of petrels on Ardery and Odbert Islands; and

* permit research of a compelling scientific nature which cannot be undertaken elsewhere, while

ensuring that this has no significant impact on the ecosystem in the area.

3. MANAGEMENT ACTIVITIES

The management plan and activities in the Area should be kept under review to ensure that the values for which the Area was designated are being fully protected. Inspection visits may be made only when considered essential for management purposes.

4. PERIOD OF DESIGNATION

Designated under Recommendation IV-3 in November 1966 for an indefinite period.

5. DESCRIPTION OF THE AREA

(a) Geographical coordinates and natural features of the Area:

Ardery Island (66°22'S, 110°28'E) and Odbert Island (66°22'S, 110°33'E) form part of the Windmill Islands group lying in the East of Vincennes Bay, off the Budd Coast (see Map A). They are located 5 km and 0.6 km respectively to the West of Robinson Ridge, South of Casey Station. Odbert Island is approximately 2.5 km long and 0.5 km wide. It has a rocky coast which raises steeply from the sea to a plateau. The highest point is 100 m above sea level. The plateau is dissected by a series of valleys which run to the South from the high flat rim on the northern side. These valleys are snow-covered in winter. The hill tops remain essentially ice and snow free. In some years the island remains joined to Robinson Ridge on the mainland by sea ice. Ardery Island is a steep ice-free island approximately 1 km

long and 0.5 km wide, with an East-West orientation. The highest point is 113 m above mean sea level.

The terrain on both islands is rugged and dissected by fissures. The cliffs are fractured and have many narrow exposed ledges which in Summer are occupied by nesting sea birds. On the hillsides and plateau region, the exposed rock is ice-smoothed and the valley floors are covered with moraine. Both islands have several small tarns which are frozen in Winter and filled with melt water in Summer. Many of these are ephemeral and dry out towards the end of Summer. Others which are located below snow banks, are fed continuously by melt water.

(b) Access to the Area:

Access to the Area may only be in accordance with a permit or authority issued by a Contracting Party or its authorised representative.

Defined landing sites for access by sea and helicopters to Ardery and Odbert Islands are shown on Map B and C respectively. On Ardery Island the preferred boat landing site is at Robertson Landing where there are three rock anchors present to tie down a boat or other equipment. It should be noted that all three boat landing sites marked on Map B are within 200 metres of colonies of birds, however they represent the only safe landing sites on the island and if landings are undertaken carefully there is no disturbance to the birds.

There are no defined pedestrian routes within the Area, however pedestrians should avoid disturbance of the birds at all times.

(c) Location of structures including scientific stations, research and refuge facilities both within and near the Area:

There are no structures within the Area and no permanent structures are permitted.

The islands lie approximately 12 km South of Casey Station.

A four-berth refuge hut is located on Robinson's Ridge, 0.5 km from the shore.

(d) Location of other protected areas in or near the Area:

North-East Bailey Peninsula (66°17'S, 110°32'E) (Site of Special Scientific Interest No 16) and Clark Peninsula (66°15'S, 110°36'E) (Site of Special Scientific Interest No 17) lie opposite the Windmill Islands (see Map A).

6. IDENTIFICATION OF RESTRICTED ZONES

Access to the petrel and Adélie penguin colonies marked on Maps B and C is prohibited unless authorised in a permit.

7. MAPS OF THE AREA

Three maps of the Area are attached.

Map A shows the Area and its location.

Map B (Ardery Island), and

Map C (Odbert Island) show preferred helicopter approaches and landing sites, landing sites for access by water and the location of the petrel and Adélie breeding colonies.

8. CONDITIONS UNDER WHICH PERMITS MAY BE GRANTED

Criteria for issuing a permit to enter the Area are that:

* it is issued for a compelling scientific purpose which cannot be pursued elsewhere;

* the actions permitted will not jeopardise the natural ecological system existing in Area; and

* the actions permitted are in accordance with the management plan for the Area.

Conditions applying:

(a) Access to and movement within the Area:

i) Travel to the island should be by foot, oversnow vehicle or boat where possible; oversnow vehicles used to visit the islands must be left at the shoreline and movement within the area should be by foot.

ii) If access to the islands is not possible by sea or over sea-ice, then helicopters may be used subject to the following conditions:

* overflight of the islands should be avoided at all times, except where it is considered essential for scientific purposes. In these instances, overflight must be at an altitude or horizontal distance of no less than 500 metres;

* during the breeding season of penguins and petrels, defined here as the period from 1 November to 1 April, helicopter movement to the islands should be kept to the minimum;

* refueling is not to take place within the Area;

* only personnel who are required to carry out work in the Area should leave the helicopter;

* the approach to Ardery Island should be at a high altitude and from a southern direction as the lowest densities of birds are on the southern cliffs (see Map B);

* the approach to Odbert Island should preferably be from the South, avoiding cliff areas because of the nesting petrels (see Map C).

(b) Activities which are, or may be, conducted within the Area, including restrictions on time and place:

i) Compelling scientific activities which cannot be conducted elsewhere.

ii) Compelling management activities, which if not carried out would jeopardise the values for which the Area was designated.

iii) Where activities necessitate interference with the birds care should be taken to cause the least possible disturbance, particularly during the period 1 November to 1 April.

(c) The installation, modification, or removal of structures:

No structures may be erected in the Area unless essential for research purposes. Any structures installed on the islands must be removed when no longer required. Installation of a field hut on Ardery Island should take place wherever possible before 1 November when the breeding season commences and removal should be after 1 April when the fledglings have departed. Installation and removal should be by oversnow transport unless sea-ice conditions prevent this. For use of helicopters see (a) ii above.

(d) The location of field camps:

If required for field work, a hut may be erected on Ardery Island at the point specified on Map B. There are 8 solid rock anchors available at this spot.

(e) Restrictions on materials and organisms which may be brought into the Area:

i) Fuel is not to be depoted on the islands, unless required by a researcher for personal use, i.e. for cooking/heating etc., in a

field hut on Ardery Island, and is to be removed at the same time as the hut.

ii) No poultry products, including dried food containing egg powder, are to be taken into the Area.

(f) The taking of or harmful interference with native flora and fauna:

Taking of, or harmful interference with, native flora and fauna is prohibited unless specifically authorised by permit issued in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora, or Article 3 of the Annex II to the Protocol on Environmental Protection to the Antarctic Treaty, whichever is appropriate.

(g) The collection or removal of anything not brought into the Area by the permit holder:

There is to be no collection or removal of anything not brought into the Area by the permit holder unless specifically authorised by permit for scientific or management purposes.

(h) The disposal of waste:

No wastes, including human wastes, are to be left in the Area.

(i) Measures that may be necessary to ensure that the aims and objectives of the management plan can continue to be met:

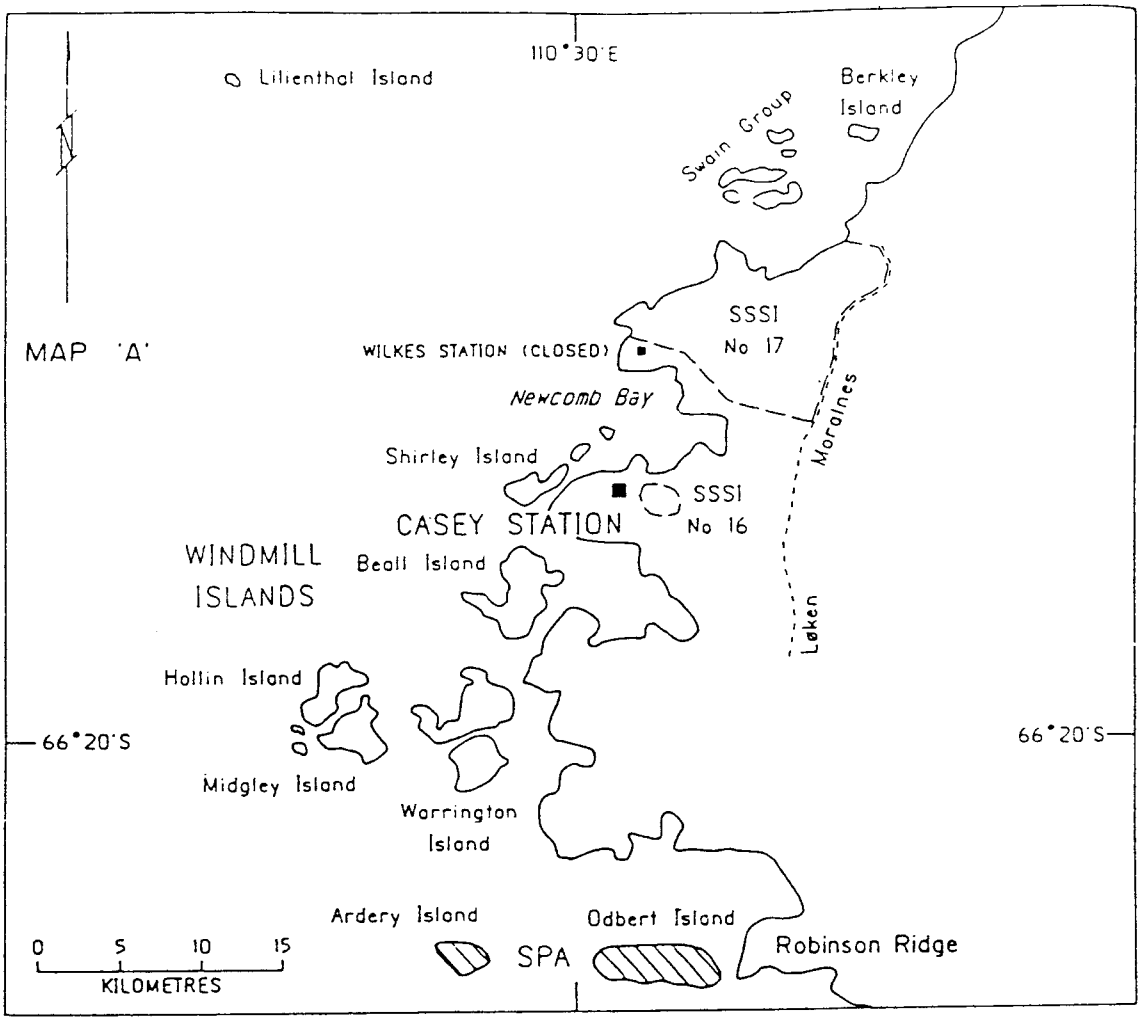
* permits should specify the maximum number of people allowed entry at any one time;

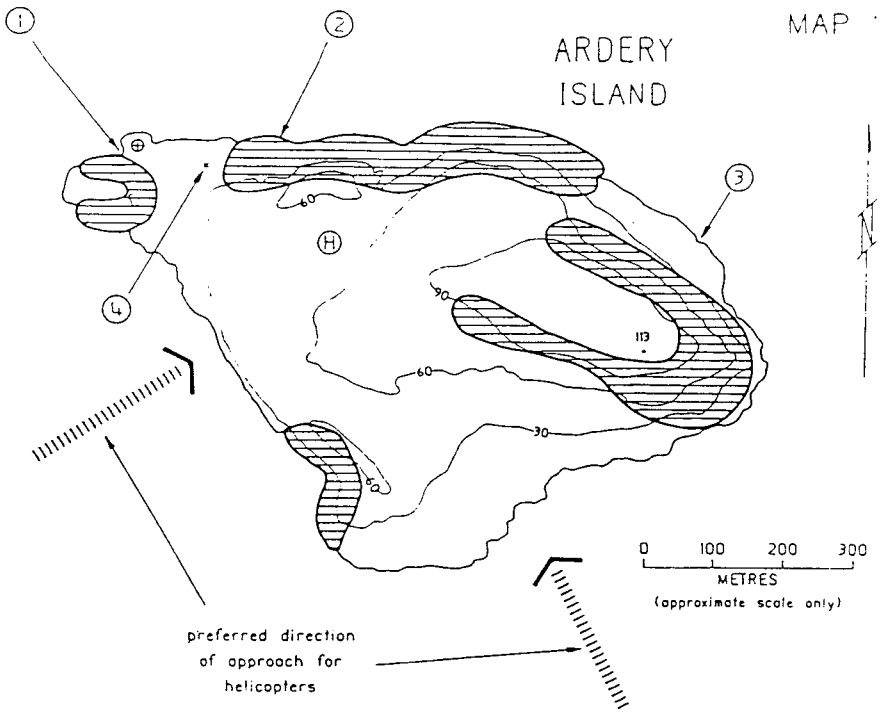
* visits to the Area should be kept to the minimum necessary to achieve the research and management objectives;

* access should be permitted where necessary to place or remove structures or equipments.

(j) Requirements for reports:

Each permit holder shall submit a report to the permit-issuing authority detailing the activities undertaken within the Area including a summary of research findings, and comments indicating measures taken to ensure compliance with conditions. Where appropriate, the report may make recommendations relevant to the management of the Area, in particular, as to whether the values for which the Area was designated are being adequately protected. The report should be submitted as soon as practicable after the visit to the Area has been completed.


110°30'E
Lilienthal Island
Berkley Island
Swain Group
MAP 'A'
WILKES STATION (CLOSED)
SSSI No 17
Newcomb Bay
Moraines
Shirley Island
SSSI No 16
CASEY STATION
WINDMILL ISLANDS
Beall Island
Laken
Hollin Island
66°20'S
66°20'S
Midgley Island
Warrington Island
Ardery Island
Odbert Island
Robinson Ridge
SPA
0 5 10 15
KILOMETRES



LEGEND

(1) Recommended landing: Robertson Landing

(2) Cave Landing

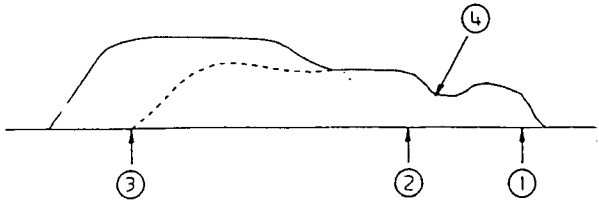
(3) Penney Landing

(4) Recommended location for Apple Hut - 8 rock anchors present. The northernmost is marked by a cairn of stones.

(H) Best helicopter landing for general purposes, but landing anywhere in the flat central areas of Ardery Island is possible

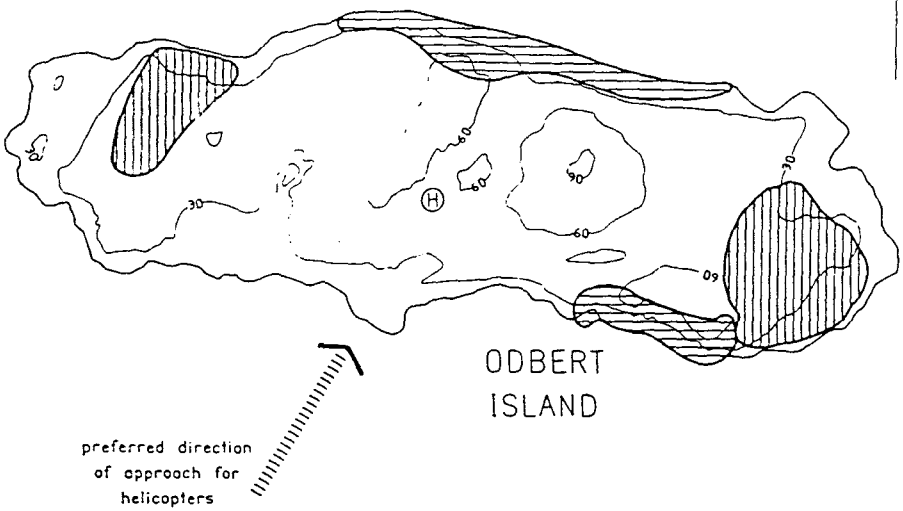
⊕ 3 rock anchors (for eg boat)

petrel colonies



Ardery Island as seen when approaching from the north.
(Numbers refer to those in map above)

MAP 'C'



ODBERT ISLAND

preferred direction of approach for helicopters

0 200 400 600
METRES
(approximate scale only)

LEGEND

petrel colonies

Adélie rookeries

Prefered helicopter landing site

SPECIALLY PROTECTED AREA (SPA) No 20

"NEW COLLEGE VALLEY", Caughley Beach, Cape Bird, Ross Island

1. GEOGRAPHICAL LOCATION

The site is in latitude 77°14'S, longitude 166°23'E, in the northern part of Cape Bird ice-free area. It lies between Northern Rookery and Middle Rookery and is about 250 m South of the Summer research station.

2. MANAGEMENT PLAN

i) Description of Area

Topography

The Area consists of the generally west-facing ice-free slopes lying between the cliff top above Caughley Beach and a line parallel to and about 100 m East of the edge of the Mount Bird Ice Cap, and between a line South of the main stream bed of "Keble Valley" and the South ridge of "New College Valley". It is surrounded to the North, South and East by Site of Special Scientific Interest No 10, and to the West terminates at the cliff tops above Caughley Beach. Its total area is about 10 ha.

The ground is largely covered by stones and boulders of volcanic origin which have been reworked by glacial action. There are a few glacial erratic boulders of different origin.

The major feature of the site is "New College Valley" which has been cut by the vigorousflows of meltwater received from the Mount Bird Ice Cap during Summer. Tributaries to this stream and two other smaller streams in the area are fed by melt from persistent summer snowdrifts and have eroded their own shallow gullies and channels.

Biological features

A general description of the vegetation is provided by Broady (1984/89) as part of a broad survey of vegetation at Cap Bird and two other ice-free areas on Ross Island. Longton (1973, 1974) classified the bryophyte community at Caughley Beach as the Bryum antarcticum Sociation in which B.antarcticum is dominant with occasional B.argenteum. It is not clear from the information presented whether the site examined was actually inside the SPA but, if not, it was certainly very close. Sketch maps of moss and algae stands within the SPA are provided by Broady (1984).

Stream vegetation includes luxuriant red-brown oscillatoriacean (Cyanobacteria) mats, rich epilithic green filaments and crusts of chlorophyte algae, and colonies of Nostoc (Cyanobacteria).

The more or less north-west-facing slopes of the main valley and smaller gullies support extensive moss stands as scattered small cushions and as confluent growths up to several square meters in extent (total cover, over 200 m^{o}). Often the plants and surrounding soil become covered with a white mineral encrustation if meltwater supply ceases during the Summer and vegetation and soils dessicate. The maximum development of moss is found along the borders of shallow channels taking meltwater from snow drifts. Also scattered cushions no more than 5 cm in diameter are found on

moist ground where melt percolations are not channelled but seep broadly over the surface. Bryophyte biomass at Caughley Beach (Longton, 1974) was estimated as 14 and 938 g dry weight per square metre for two stands, with 1.4% and 84.7% cover respectively.

The mosses are generally associated with abundant red-brown oscillatoriacean mats and occasionally with colonies of Nostoc. Other areas of soaked ground are dominated by either Nostoc colonies (approximately 100 m_) or oscillatoriacean mats (approximately 200 m_).

Skuas (Catharacta maccormicki) nest on the beach below the cliffs to the West of the site and frequently overfly and land within the SPA. Adélie penguins (Pygoscelis adeliae) from large nearby rookeries occasionally traverse the area. Nutrient enrichment of soils occurs from deposited guano as well as from windblown particulates from the large penguin rookeries to the North and South.

ii) Reason for designation

The area contains some of the most luxuriant stands on Ross Island of moss and algae vegetation and associated microflora and microfauna. Because of the susceptibility of this vegetation to damage from trampling, the designation of the area provides protection for its biota, so that the area may serve as a conservation reserve representative of the adjacent Site of Special Scientific Interest.

iii) Date of designation and originator

The site was established by Recommendation XIII-12 following its proposal to SCAR by New Zealand in October 1984.

iv) Access points

The site can be accessed only by passing through the adjacent SSSI. It is best reached by a route directly South-East from the summer research station to the North. Care should be taken to avoid any areas of vegetation along the way.

v) Entry permit requirement

Entry to the area is only in strict accordance with a current permit, issued by the participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served elsewhere or for site inspection (but see "Inspection and maintenance" below), and which will not jeopardise any aspect of the natural ecosystem or its biota within the area (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora, Article VIII). Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic station in which the activities were carried out.

vi) **Prohibition**

To avoid or minimize human impact it is forbidden to:

(a) drive any vehicle within the Area;

(b) land a helicopter within the Area;

(c) overfly the Area by an aircraft below 250 m above the highest point;

(d) incinerate, bury or otherwise dispose of any non-human and human waste within the Area; all such waste must be removed from the Area;

(e) leave depots of fuels, food, or any other supply within the Area;

(f) erect any form of building within the Area;

(g) use any sampling or other equipment within the Area which has not been sterilized using an acceptable method.

vii) **Pedestrian routes**

Every precaution must be taken to keep clear of visible vegetation and also waterlogged ground, whether this has visible vegetation or not. During Summer all these areas are easily damaged by trampling. Saturated ground, especially where situated on sloping terrain, is very prone to slip when traversed by foot and the

marking of deep footprints would be unavoidable. Routes should be taken which pass upslope of persistent summer snow drifts, especially during times of thaw. In this way saturated ground would be most easily avoided.

viii) Scientific research and samplimg

All activities must conform strictly with those specified in the permit to enter the Area. Only for exceptional purposes would sampling of vegetation be permitted as there are similar areas of vegetation in the adjacent SSSI, as well as outside the designated areas to the South of the site.

Persons permitted to enter the site should take all reasonable precautions to avoid introducing plants and micro-organisms from elsewhere. All sampling apparatus should be sterilized before use and boots should be thoroughly cleaned before entry.

ix) Inspection and maintenance

Inspection visits to the Area should be made once every year to assess the state of the site and to monitor any significant biological or environmental changes. However, entry to the site is not necessary for these visits as its state can be readily viewed from the surrounding SSSI. Also, as the site is small and contains rich terrestrial moss and algal vegetation, on site inspection visits could themselves cause damage.

3. BIBLIOGRAPHY

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BROADY, P.A. 1989. Broadscale patterns in the distribution of aquatic and terrestrial vegetation at three ice-free regions on Ross Island, Antarctica. Hydrobiologia,172: 77-95.

LONGTON, R.E. 1973. A classification of terrestrial vegetation near McMurdo Sound, continental Antarctica. Canadian Journal of Botany, 51:2339-46.

LONGTON, R.E. 1974. Microclimate and biomass in communities in the Bryum association on Ross Island, continental Antarctica. The Bryologist, 77: 109-22.

(Postscript: It is intended to place signs close to the boundaries on this site and to choose boundaries which more closely follow natural features. The latter requires a more detailed map than presently available. Action on both of these will be taken this coming Summer).

Recommendation XVII-3

ANTARCTIC PROTECTED AREAS

NEW HISTORIC SITES AND MONUMENTS

WOODEN PLAQUE AND ROCK CAIRN AT PENGUINS BAY

The Representatives,

Recalling Recommendations I-IX, V-4, VI-14, VII-9, XII-7, XIII-16 and XIV-8;

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 Recommendation recalled above:

Wooden plaque and rock cairn located at Penguins Bay, southern coast of Seymour Island (Marambio), James Ross Archipelago (64°16'00"S - 56°39'10"W). This plaque was placed on 10 November 1903 by the crew of a rescue mission of the Argentinian Corvette "Uruguay" in the site where they met members of the Swedish expedition led by Dr. Otto Nordenskjold.
The text of the wooden plaque reads as follows:

10.XI.1903 "Uruguay" (Argentine Navy) in its journey to give assistance to the Swedish Antarctic expedition.

In January 1990, a rock cairn was erected by Argentina in memory of this event in the place where the plaque is located.

Recommendation XVII-4

GLOBAL CHANGE RESEARCH AND INTERNATIONAL COOPERATION IN ANTARCTICA

The Representatives,

Recalling Articles II & III of the Antarctic Treaty and Article VI of the Protocol on Environmental Protection to the Antarctic Treaty, and Recommendation XV-14 on the promotion of international scientific cooperation;

Reaffirming the Declaration adopted at the XVIth Consultative Meeting on the occasion of the 30th anniversary of the entry into force of the Antarctic Treaty;

Noting the recognition in Agenda 21 of the United Nations Conference on the Environment and Development of the importance of Antarctica and the Southern Ocean for the study of global change processes;

Acknowledging the role that intensified coordination of national research programmes and increased international cooperation should play, such as SCAR's publication on "the role of Antarctica in global change";

Conscious as well that the development of an implementation plan for Antarctic research contribution to the International Geosphere - Biosphere Programme represents a significant step to be accomplished during the Decade of International Antarctic Scientific Cooperation (1991-2000) proclaimed by the XVIth ATCM;

Recommend to their Governments that they:

1. welcome the decision adopted by the Scientific Committee for Antarctic Research at XXII SCAR to establish a new group of specialists on global change and the Antarctic, in order to provide linkages and communications between national programmes, SCAR Working Group and other Groups of Specialists in areas of relevant Antarctic research;

2. encourage SCAR to articulate, in close cooperation with COMNAP, a management structure to implement a coordinated programme for global change research in the Antarctic and to contribute through the development of Regional Research Centres (RRC's) to the IGBP System for Analysis, Research and Training (START) and to other major regional and international programs on global change research;

3. support initiatives such as the proposal of the SCAR Working Group on Biology and the offer made by Chile to hold a workshop on the coordination of biological research on King George Island (Isla 25 de Mayo); the Cooperative geoscience of the South Shetland Islands (COGS) whose second workshop was sponsored by the National Institute of Polar Research of Japan; and similar initiatives to coordinate research in glaciology and solar-terrestrial studies;

4. note with appreciation the completion of SCAR's proposal for coordinated Antarctic research (the role of Antarctica in global change: part 2) to be published late in 1992 and the plan to implement a regional program of global change research in the Antarctic, through:

   i) continuing identification of high priority research needs in process studies, monitoring, and modelling;

ii) identifying other needs in the implementation of the programme, such as logistics, data management, etc;

iii) organising workshops and symposia to synthesise and discuss research results;

5. that the above mentioned regional programme of Global Change research in the Antarctic should be given a high scientific priority and supported to the greater extent feasible by Governments;

6. may consider applying to the Global Environmental Facility (GEF) and other acceptable funding mechanisms to support the proposed new group of specialists and their work.

PART III

ANNEXES

ANNEX A

OPENING ADDRESSES

LIST OF THE OPENING ADDRESSES

Opening addresses submitted by the following Consultative parties:

- Opening address by Emilio Colombo, Minister of Foreign Affairs of the Republic of Italy
- Opening address submitted by the Delegation of Australia
- Opening address submitted by the Delegation of Belgium
- Opening address submitted by the Delegation of Brazil
- Opening address submitted by the Delegation of Chile
- Opening address submitted by the Delegation of China
- Opening address submitted by the Delegation of Finland
- Opening address submitted by the Delegation of Germany
- Opening address submitted by the Delegation of India
- Opening address submitted by the Delegation of Japan
- Opening address submitted by the Delegation of Republic of Korea
- Opening address submitted by the Delegation of The Netherlands
- Opening address submitted by the Delegation of New Zealand
- Opening address submitted by the Delegation of Norway
- Opening address submitted by the Delegation of Peru
- Opening address submitted by the Delegation of South Africa
- Opening address submitted by the Delegation of Spain

- Opening address submitted by the Delegation of Sweden
- Opening address submitted by the Delegation of United Kingdom
- Opening address submitted by the Delegation of United States
- Opening address submitted by the Delegation of Uruguay

Opening addresses submitted by the following non-Consultative Parties:

- Opening address submitted by the Delegation of Denmark
- Opening address submitted by the Delegation of Greece

OPENING ADDRESS BY Mr EMILIO COLOMBO

MINISTER OF FOREIGN AFFAIRS OF THE REPUBLIC OF ITALY

I am very pleased to welcome, on behalf of the Italian Government, all the participants to the XVIIth Conference of the Antarctic Treaty Consultative Parties.It is a great pleasure for Italy to host for the first time the Meeting of the Consultative Parties of which our Country is member since 1987.

This pleasure is closely related to the importance we have given to the Treaty thanks to our experience of over 10 years as members.

It has been said that the Antarctic Treaty is "An original Treaty for an original Continent". I would like to spend a few words on the aspects of this originality that in our view has an important political meaning.

In 1959, a period when tension and suspicion prevailed on negotiations, a pool of Countries far-sightedly agreed on the need to save the Antarctic Continent from the conflictual mechanism of the Cold War, and made it a laboratory for cooperation, an instrument to replace antagonism with cooperation.

In this perspective, the essential aspect was the realism that those who conceived the Treaty showed in supporting the important ideal of Peace.

On the one hand, the main purpose was to avoid the Antarctic Continent to be considered " Res nullius", and on the other, to prevent it from becoming the core of rivalries and not of cooperation under the pressure of conflicting and converging terrirorial claims. The pragmatism suggested a wise solution still effective after over 30 years: to carry out in practice, not only in theory, the concept of " Res communis omnium ", with all the resulting responsibilities towards a " common good ". We have therefore focused on joining instead of separating, on cooperating to reach mutually shared goals.

The institutional approach considered the Treaty as a sort of basic standard, an " umbrella " both legal and political, to promote and harmonize understanding then materialized in Recommendations (almost two hundred) and specific Conventions based on the Treaty. Consequently, today we can refer to the " Antarctic Treaty System " rather than to a mere Antarctic Treaty.

The success of this approach has been proved by a great deal of tangible results. As a matter of fact, the " Best Card " of the Treaty is that the inspiring principles have been really achieved through concrete actions focused on two main field: Science and Environment. This reflects the two fundamental aspects of the " Antarctic Policy " agreed upon by the members: exploitation of the Continent for common goals and its preservation.

As for Italy, although it has no long Antarctic tradition, it has recently approved a significant research program including seven national campaigns, the costruction of a seasonal station and implementation of International cooperation activities.

Italy entered the Antarctic Treaty System in 1981, thus fully committing itself to the principles of the Treaty and the Environmental Protocol signed last year in Madrid.

Environmental Protection has always been one of the guidelines of Italian activities in Antarctica, a land of "Peace and Science" thanks to the Antarctic Treaty System.

Italy gives priority to cooperation as an instrument to pursue its policy in Antarctica. Significantly, the Italian Parliament approved a bill earmarking £390 billion - a considerable amount of money given the financial predicament - to finance the second five-year plan of the Italian "Antarctic Project". The Parliament, therefore, proved to be entirely in line with the Government by allocating 20% of the available funds for international cooperation.

The signing of the Antarctic Treaty in Washington at the end of the 1950's seemed to be a "Challenge in the field of cooperation" on a totally different international scene. Today, the resulting system has proved to be not only vital and stable, but also open to possible future developments.

The system has indeed reached an advanced stage of development and provides a successful model at a time when important international issues can be tackled at inter- and transnational level. These issues include the shortage of food reserves and water sources - significantly, it has been estimated that the Antarctic ice sheet contains 68% of the World's freshwater reserves - , the energy problem and environmental pollution. These problems can be solved through an increasing degree of cooperation on the basis of the Antarctic example.

This conference will discuss fundamental issues for the Antarctic Treaty System, namely tourism regulation in Antarctica, the creation of an Antarctic Treaty Secretariat and the setting-up of a Committee for Environmental Protection, which will be analysed in the next days.

I wish that the consensus of opinion which has always marked the Antarctic Treaty System will lead the Venice Conference to fruitful conclusions not only for Antarctica, but also for the cause of peace, which does not merely mean absence of war, but rather will and ability to cooperate to the advantage of mankind.

OPENING ADDRESS BY Mr CHARLES MOTT

HEAD OF THE DELEGATION OF AUSTRALIA

ATCM XVII is a challenging and important Meeting. We should consolidate our achievements so far and maintain momentum on the matters before us.

The twelve months since our Sixteenth Meeting have been busy. With the move to annual meetings we have been required to adjust to a shorter time frame in preparing for meetings, while being faced with significant work.

Parties have sought to make good their commitment to implement the provisions of the Environment Protocol as far as possible pending its entry into force. All Consultative Parties have signed the Protocol in the year that it was open for signature. Spain has ratified. Australia is delighted that such good progress has been made. We are well advanced in applying the provisions of the Protocol and its Annexes to our Antarctic activities. In addition, our Parliament considered last week the legislation which will lead to ratification. We are removing old Casey station in accordance with the Protocol.

Since we last met in Bonn, Parties have started a review of the conduct of tourist and non-governmental activity in Antarctica with a view to addressing this matter in a comprehensive way. We look forward to making progress on practical arrangements for applying the Protocol to such activities.

My Delegation will contribute to the discussion of ways in which we can provide administrative support for our work. We have long argued to establish a modest but efficient

Secretariat and will work for consensus on this question, including on location.

Following adoption of Protocol, the Treaty System is increasingly well regarded. There have been no further accessions since ATCM XVI, but several nations have indicated interest in acceding.

There is increasing recognition of the importance of Antarctica in contributing to the well-being of the global environment and to a better understanding of that environment. We must continue to accord priority to protection of the Antarctic environment, to science which can contribute to better understanding of the Antarctic and global environment and, more generally, to sharing the results of Antarctic research with the international scientific community. A major emphasis of Australia's Antarctic programme has been on climate change. This summer we will be continuing a series of oceanographic transects to contribute to the world ocean circulation experiment (WOCE). Our deep drilling programme is expected to reach bedrock at Law Dome this summer, yielding climate data as far back as 20,000 years. A major transverse around Lambert glacier will be undertaken over the next three years to obtain data on the change in the Antarctic ice-cap balance which may indicate changes to sea-level.

The cornerstone of our Antarctic policy remains an active and constructive participation in the Antarctic Treaty System of which the Consultative Meeting is the highest forum. To meet the expectations of the international community it is important that the ATCM demonstrate it is effectively fulfilling its enhanced role. High priority must also be given to pursuing organisational and administrative reforms which facilitate the smooth operation of the Treaty System.

OPENING ADDRESS BY MR. PHILIPPE GAUTIER

HEAD OF THE DELEGATION OF BELGIUM

Mr. Chairman,

First of all, I wish to thank you for hosting us in the wonderful town of Venice, as well as for the commitment undertaken in carrying out this task.

Mr Chairman,

The Antarctic Treaty has evolved and we have unquestionably entered a new stage of development in the last year. The Antarctic System has gained further significance by the adoption of Madrid Protocol, which has clearly showed the ability of the Contracting Parties to face this new challenge, namely the Environmental Protection.

Priority must be undoubtedly given to the ratification of this document, and I can assure you that Belgium will give its approval in the near future.

Mr Chairman,

The Madrid Protocol shows the firm intention to rationalize the Regulations presently in force within the Antarctic Treaty System. As a matter of fact, the new Regulations defined by the Protocol and its Annexes, require a re-examination of the existing Recommendations to assess their compliance with the Protocol itself.

Tourism regulation represents an important stake. After a two-days-informal meeting dealing with this issue, it is now clear that this problemme deserves a particular attention. Due to the increase in touristic activities in Antarctica, Belgium agrees upon adopting additional Regulations - in the form of an Annex - on tourism. These Regulations will complete the current measures foreseen under the Protocol.

Meanwhile, the setting-up of a Secretariat is our main goal and Belgium agrees upon organising a small Secretariat according to the real needs of the Antarctic Treaty.

The Protocol states in its Article 16 the commitment of the Member States to draw up one or more Annexes concerning the liability regime. However, it seems necessary to work out with no delay some practical Regulations regarding the liability matter in order to carry out the present work.

Mr Chairman,

The Delegation of Belgium would like to reassure you about our intention of eventually taking part in these proceedings and wish that the Venice Conference will be fruitful.

Thank you, Mr Chairman.

OPENING ADDRESS BY AMBASSADOR HENRIQUE R. VALLE

HEAD OF THE DELEGATION OF BRAZIL

Allow me at the outset to warmly congratulate you, Mr Ambassador, on my own behalf and that of my Delegation, upon your unanimous election to the post of Chairman of the XVIIth Antarctic Treaty Consultative Meeting. Your diplomatic skills are well known and we are certain that under your guidance this Meeting will reach meaningful results on the important Agenda before us. I would like to assure you, Mr Chairman, of our full cooperation. My Delegation will certainly draw inspiration from the thought provoking remarks made at the inauguration of this Meeting by the Foreign Minister of the Italian Republic, the Honourable Emilio Colombo, whose presence honoured us all.

This Consultative Meeting takes place one year after the Bonn Meeting, a departure from the old practice of holding meetings every two years. This new procedure is already an anticipation of the entry into force of the Madrid Protocol on Environmental Protection and only one example of how the operation of the Antarctic Treaty System will be affected by the historic Environmental Protocol, once it becomes effective. Brazil is taking appropriate actions which hopefully will result in a prompt ratification of the Protocol adopted on the 4th October last year.

Mr Chairman, we have a long and important Agenda which includes many items on which my Delegation would expect progress to be made at this Meeting. To begin with, my Delegation believes that the process of completion of the Environmental Protocol by starting work on a Liability Annex, foreseen by Article 16 of the Protocol, should be a matter of priority, however complex it may be. We also think that at this Consultative Meeting serious efforts should be made with a view of preparing the prompt functioning of the Committee for Environmental Protection as soon as the Madrid Protocol enters into force. My Delegation is ready to constructively participate in the discussion on the drafting

of the Rules of Procedure of the Committee, which we hope will be able to carry out the functions assigned to it in an efficient manner.

Mr Chairman, one of the ways in which the entry into force of the Protocol will bear upon the operation of the Antarctic Treaty Consultative Meeting is that it will probably make it necessary for the establishment of a small and cost-effective Secretariat, capable of assisting Parties in a range of issues, some new, relevant to the operation of the Protocol, and others of a more traditional nature, having to do with organizational and exchange of information issues. As Delegations are aware, Brazil has been one of those Countries which viewed the question of a Secretariat with some skepticism, for reasons of which all are aware. My Delegation is now ready to look into this possibility and hopes that a consensus solution be found.

Another item on our Agenda on which this XVIIth Consultative Meeting will have to focus its attention is the question of tourism and non-governmental activities in the Antarctic Treaty Area. We hope that some progress will be made following the meeting of the Working Group established by Recommendation XVI-13.

In short, Mr Chairman, my Delegation is aware of the importance of this meeting and believes that we should move forward on a number of significant items, for which my Delegation is willing to contribute in a constructive fashion.

Finally, I would like to thank the Italian authorities for their hospitality and the excellent facilities put at our disposal at this unique City.

Thank you.

OPENING ADDRESS BY AMBASSADOR OSCAR PINOCHET DE LA BARRA

HEAD OF THE DELEGATION OF CHILE

I am profoundly inspired by the organization of the XVIIth ATCM in Venice, the native town of so many great navigators and imaginative men who paved the way to the exploration of our planet.

Since the XVIth Meeting in Bonn, the Antarctic System has been proceeding towards a still vague and uncertain future.

We can, however, state that this is a unique experience in the history of mankind. Antarctica has been transformed into a Continent entirely devoted to peace and science, where nuclear tests, military bases and manoeuvres have been forbidden and where a group of Countries have relinquished their legitimate rights and aspirations to the advantage of the whole mankind.

In 1992, as Director of the Chilean Antarctic Institute, I attended various meetings in which different aspects of the management of Antarctica were analysed.

In Bariloche, Argentina, I became fully aware of the high professional level of SCAR in carrying out scientific investigation. On the occasion of the COMNAP and SCALOP sessions I had the opportunity to reflect upon the commendable work of those responsible for the increasing human presence and logistic activities in Antarctica. Recently, in Hobart, Australia, I committed myself to the noble goal of protecting marine life in one of the richest seas on Earth. This is especially significant since the Antarctic Ocean has been deprived of many of its resources and this outrage must not continue in the future.

Now that I am back in the context of the Consultative Meeting, our traditional Executive and Legislative Assembly,

I have focused upon the original model to choose to cooperate in the management of the extended area located beyond 60?S and covering 1/14th of the Earth surface, that is 34,000,000 square kilometers.

The Consultative Meetings are expected to be the cradle of the knowledge we have been acquiring in many years of experience. I wonder then, upon what the Venice autumn Meeting will focus. I think that two issues in particular will draw our attention, namely a change of attitude both towards future structures of the Protocol on Environmental Protection and its Annexes and the possible creation of the Antarctic Treaty Secretariat. Another outstanding subject will certainly be tourism.

At the Bonn Meeting the Chilean Delegation expressed its will to adopt the necessary measures enabling the Committee on Environmental Protection to become operative. Paragraph 31 of the Bonn Final Report established that the drawing up of the Committee's regulations would start during the Venice XVIIth ATCM. Chile, which has a long tradition in the protection of the fragile Antarctic environment, is not only ready to do so, but also to host in Santiago a Working Group which should analyse this document in order to guarantee the successful activity of the Committee.

The Chilean opposition to the creation of an Antarctic Treaty Secretariat is well known. Nevertheless, in view of the support that this proposal is likely to obtain from other Representatives, for the sake of cooperation Chile would accept it on condition that all the questions relating to the structure of the Treaty and the Protocol and to the siting of their organisms be solved.

As for tourism in Antarctica, Chile believes that its regulation is fundamental and urgent, hence the Chilean and other Delegations' efforts to establish the terms for an Annex to the Protocol. This instrument will serve this legitimate activity thereby guaranteeing the right of science to quietly develop its activities, the rights of

tourists and operators and, in particular, environmental protection and preservation: ice, sea, beaches, air, the rich fauna and delicate flora.

Antarctica is a common good and since it is also a Continent of peace, this peace is based on consensus. The system has taught us to be patient, which is our strength. We are fully aware that the resolutions we have adopted in the thirty years of the Antarctic Treaty's life are the best we could have passed. Sometimes, time seems to stop in Antarctica. It is mere appearance. What is real is that we are moving in full cooperation and harmony.

May be we have learnt the Antarctic wisdom.

OPENING ADDRESS BY MR YIN YUBIAO

HEAD OF THE DELEGATION OF CHINA

Mr Chairman,

please allow me, on behalf of the Chinese Delegation, to congratulate you on your election as the Chairman of the XVIIth Antarctic Treaty Consultative Meeting. In Venice, we are not only enjoying the fascinating scenes and delightful weather but also impressed by the meticulous arrangements made for the Meeting and the warm fraternity and hospitality accorded to the Delegates of the various Countries by the Italian Government and people. Here, we should like to express our heartfelt thanks.

Last year, we celebrated the 30th Anniversary of the entry into force of the Antarctic Treaty in Bonn and greeted the Anniversary with a precious gift, namely the adoption and signing of the Protocol on Environmental Protection to the Antarctic Treaty. The birth of the Protocol has opened up a new chapter for the development of the Antarctic environmental protection and has also proved to the world the effectiveness and validity of the Antarctic Treaty System.

The Rio Earth Summit held this year has revealed the human heightened awareness of the environment and reflected the acuteness of the global environmental issue as well. How man can seek sustainable development by changing his usual activities and strengthening international cooperation has become a grim subject confronting mankind. The drawing up of the Protocol on Environmental Protection to the Antarctic Treaty is an answer to this question given by the Contracting Parties to the Antarctic Treaty. We can say with pride that environmental protection in the sixth Continent has taken precedence in the world. In view of the important significance of Antarctica in the global Environment, this

achievement is undoubtedly our great contribution to the global environmental protection.

However, the conclusion of the Protocol does not mean the completion of our work. As a matter of fact, the drawing up of the Protocol to the Antarctic Treaty has brought the development of the Antarctic Treaty System into a new stage and put new tasks before all the Contracting Parties. The effective implementation of the Protocol and the necessary regulation of the operation of the Treaty System with a view to adapting the system to the new situation are a process that we have started since the Bonn Meeting. The present Consultative Meeting will be an important link in such a process. We hope that it will be able to achieve substantive progress in questions such as the establishment of permanent infrastructure and the examination of Recommendations so that the operation of the Treaty System will be more stable, smooth and effective.

Thank you, Mr Chairman.

OPENING ADDRESS BY AMBASSADOR ARTO TANNER

HEAD OF THE DELEGATION OF FINLAND

Mr Chairman,

On behalf of the Delegation of Finland, I would like to congratulate you on your election as Chairman of this XVIIth Antarctic Treaty Consultative Meeting.

I should also like to thank the Government of Italy for its generous hospitality and the efficient organization it has provided for this Meeting held in the beautiful City of Venice.

Mr Chairman,

We have many important issues on our Agenda for this Meeting. In this connection I would like to bring up some of the most essential to us.

First there is the question of establishing a Secretariat to the Antarctic Treaty System. Finland supports the establishment of a Secretariat provided that it is small and cost-effective and that the costs are shared between the Parties in a fair manner. We will consider this question in detail when the item is discussed. The functions of the future Secretariat are numerous, as presented in the various documents for this Meeting. We find that both for better coordination of research and environmental efforts, as well as for distribution of timely and adequate information, especially during the interim periods between ATCM meetings a focal point of information delivery is needed. In a world of limited economic resources an improved coordination is a key issue for better management of the work done in and for the Antarctic.

Regarding the conduct of operations within the Treaty Area, much effort has been given to ensure coordination as well as increase in safety of the operations. We note in particular that the work done by SCAR as well as by COMNAP is of great value and, due to close liaison and sharing of responsibilities between these organizations, the results are encouraging. However, much remains to be done. Therefore we strongly recommend the continuing support of ATCM for the development of this cooperation.

Regarding the question of tourism in the Antarctica, we are of the opinion that tourism should be allowed but it should be strictly regulated taking especially into consideration the protection of the vulnerable environment in the Antarctic Area. This is an apparent need for regulations concerning tourism and non-governmental operations in the Antarctica.

Special emphasis should be attached to the safety questions, especially to the safety regulations concerning the ships used to transport tourists.In this connection we wish to thank Chile, France, Germany, Italy and Spain for the excellent work they have done in preparing the draft for Annex VI to the Madrid Protocol.

Mr Chairman,

Concerning the various environmental and scientific issues relating to the Antarctic Treaty System, I would like to give some information on the Nordic cooperation in these matters.

The Finnish and Swedish research stations in the Antarctica are in close cooperation. For example, a common environmental impact analysis and a management plan of the stations is being drafted and is planned to be published in 1993. Common research programs, such as FINNARP and SWEDARP have been organized at the stations, and the results have been published in 1991. Finland, Norway and Sweden are cooperating in transportation of the

expeditions to their Antarctic stations. Finland started the agreed system last season. In coming season, Norway is responsible for transportation. The Nordic scientists participating in the expeditions have developed cooperation in scientific research.

Mr Chairman,

Finally I would like to attract attention to a question relating closely to Antarctic cooperation.

The Antarctic cooperation has recently entered a very active stage. The political changes in the North have opened up completely new opportunities for this cooperation.

In 1989 Finland took the initiative to commence cooperation between the eight Arctic Countries for the protection of the Arctic environment. This cooperation, which is now called the "Rovaniemi Process", is well under way. The work is based on a comprehensive action programme, adopted in the ministerial conference in Rovaniemi, capital of Finnish Lapland. It will be followed up next year at Nuuk, Greenland, on ministerial level.

Last year the Government of Canada made an important proposal for broad cooperation in economic, social, cultural and other fields between the Arctic Eight. Canada proposed that an Arctic Council be established as a political umbrella between the Governments concerned.

Norway has launched an initiative to promote cooperation in the most northern parts of Europe between Denmark, Finland, Iceland, Norway, Russia and Sweden, and to establish the so called Barents region for this purpose cooperation.

International activity has intensified in order to develop the Northern Sea Route as a viable alternative for sea transport in the North.

In addition to multilateral initiatives, bilateral cooperation has considerably increased in the Arctic areas. Also, at non-governmental level the circumpolar cooperation has lately intensified. I only mention the establishment of the Northern Forum as a cooperative body for the leaders of the northern regional governments, the International Arctic Science Committee and the cooperation among the indigenous people.

Mr Chairman,

The conditions in the Antarctic area are in many ways similar to those in the Arctic area. Therefore there is a need for bipolar comparison and exchange of information concerning both environmental and scientific questions. Relating to this question our Delegation will distribute a short presentation on the Arctic Monitoring and Assessment Program (AMAP) as an INFO paper relating to the Agenda item 9.

Thank you, Mr Chairman.

OPENING ADDRESS BY AMBASSADOR DIETRICH GRANOW

HEAD OF DELEGATION OF GERMANY

Mr Chairman,

Speaking as the Chairman of the last Consultative Meeting, with the memory still fresh in my mind, I would like to wish you good luck and success in this important function to which you have been elected. At the same time, on behalf of my Government, I would like to thank the Italian Government for agreeing to host this XVIIth Consultative Meeting. We know very well how much work and commitment must have followed the decision to organise such a conference in little more than 12 months. We are most pleased and grateful, not only that it has been complete success, but also that we can meet here in Venice, the city in the lagoon, a dream destination for almost all Germans.

Mr Chairman,

Thanks to the signing of the Protocol on Environmental Protection, 1991 was a particularly important and successful year for the Antarctic Treaty System. We were able to clearly show our critics that we take our common responsibility for the sixth Continent very seriously and are capable of taking firm measure for its protection. We must not decrease these effects; our credibility depends upon them.

For this reason the German Delegation sees the main emphasis of this conference in the following themes:

1. The implementation of the Protocol on Environmental Protection signed in Madrid, within which we place special emphasis upon the questions concerning

   - the ratification of the agreement;

- creation and functioning of a Committee for the Environmental Protection

- creation of a liability regime, according to Article 16 of the Protocol;

2. Decision to create a small and cost-effective Secretariat

3. Study of the most suitable means to regulate touristic and non-governmental activites in the Antarctic Area.

Mr Chairman,

Events happening near us nowadays are undoubtedly more exciting than problems concerning the Antarctic Continent administration. Consequently, it is clear that these issues are the main concern of our politicians and draw the attention of the press. We should take advantage of this lack of public attention in order to work and make significant progresses. In a short time, natural catastrophes and the reports on the damages cuased by the dangerous widening of the ozone hole over the South Pole, will draw again public attention. The glorious history of the City of Doges will inspire us to create something important for Antarctica that will last for the next 10 years. I wish you good luck and success in carrying out this task.

Thank you

OPENING ADDRESS OF SHRI J.V.R. PRASADA RAO

HEAD OF THE DELEGATION OF INDIA

Mr Chairman,

My delegation takes this opportunity to congratulate you on being elected as Chairman of this XVIIth Antarctic Treaty Consultative Meeting and assures you of our full cooperation in getting fruitful results out of the deliberations in this important Meeting.

India would be completing a decade of participation in Antarctic Research as a Consultative Party and can look back with satisfaction for its contribution not only towards attempting to understand the intricate processes that determine the relevance of Antarctica to global climate and environment, but also in its preservation and protection. It has tirelessly worked along with other Consultative Parties in evolving the Protocol on Environmental Protection to the Antarctic Treaty 1991, and has become one of its signatories on 2 July 1992. We also look forward to an early ratification of the Protocol which will pave the way for its effective implementation.

In keeping with the spirit of the Protocol we are already proceding ahead with implementation of some of the important provisions relating to environmental impact assessment. The scientific programme for Antarctic Research has been reviewed by a team of experts in Antarctic sciences and a long term scientific programme has been evolved with greater stress on understanding the impact of Antarctica on global processes. Our Government's concern for the preservation of the Antarctic environment is borne out of the fact that the relevant scientific programmes are allowed to continue at an increased level of activity in spite of severe constraints on governmental spending within the country.

The Meeting of Experts on Environmental Monitoring in Antarctica which was held in Buenos Aires from 1-4 June 1992 has addressed itself to the identification of the nature and possible significance of adverse impacts on the value of Antarctica as set forth in Article 3 of the Protocol on Environmental Protection to the Antarctic Treaty which might require monitoring. The Recommendations of the Group of Experts, are given at the end of every chapter of the report and the summary at the last highlights the important ones. No doubt these Recommendations are going to be discussed in great detail in this Meeting. One very important aspect on which my Government would like to give stress is that environmental management programmes should be so designed by the State Parties that they are scientifically defensible, practicable and cost-effective. Implementation of monitoring programmes should not result in diminishing the ability of the State Parties to undertake basic research in Antarctica as a region dedicated to peace and science, thus reducing the overall value of Antarctic science to address questions of global relevance.

Tourism is another important aspect which should be handled very carefully. Unrestricted entry of tourists into Antarctica is going to pose serious management problems to the member countries of the Antarctic Treaty System and would also endanger the fragile Antarctic Environment. We hope that the working Group on Tourism and Non-Governmental Activities which met on 9-10 of this month was able to address itself to this problem of common concern to all Antarctic Treaty Parties.

In the years to come we are going to lay greater stress on Inter-Governmental Cooperation in both scientific and logistic fields in Antarctica. We have already started interacting with some of the member countries for evolving joint programmes of scientific research in Antarctica. The Indian station Maitri is situated in an area with far lesser number of research stations than in other areas of the Continent. We would, therefore, like to make the facilities also available for visits of scientists from other member

countries for pursuing specific collaborative programmes of scientific research.

We hope that the deliberations in this important Meeting would lead to greater awareness not only among the member countries but the world community at large about the importance of Antarctica towards preservation and protection of global environment.

Thank you, Mr Chairman.

OPENING ADDRESS BY MR AKIRA MATSUI

HEAD OF THE DELEGATION OF JAPAN

Mr Chairman,

On behalf of the Japanese Delegation,I, first of all, would like to extend to you my warmest congratulations on your appointment as Chairman of the XVIIth Antarctic Treaty Consultative Meeting. I am confident that under your able guidance this session will attain its intended goals.

I would also like to express my appreciation to the Foreign Minister of Italy, H. E. Mr Emilio Colombo for the warm welcome which he kindly extended to us. I should like to express my Delegation's most profound gratitude to the Government of Italy for hosting this Consultative Meeting. I am sure that this Meeting here in this beautiful city of Venice will add new lustre to the history of Antarctic Treaty Consultative Meetings and that it will long remain in the memories of all participants.

Mr Chairman,

During the last year, we had intensive negotiations for the establishment of the Protocol on Environmental Protection to the Antarctic Treaty and finally achieved to reach consensus on a package formula acceptable to all Consultative Parties. I believe that the consensus we reached last year is no doubt a fruitful result of strenuous efforts by the Consultative Parties and it manifested the effective function of the Antarctic Treaty Consultative Meeting.

It is of utmost importance for the Consultative Parties to maintain this well established function in the future.

Mr Chairman,

At this Meeting, the Consultative Parties are faced with many important problems to be solved. There are a lot of important issues on the Agenda, but the Japanese Government attaches a great importance on the following three issues:

1. Establishment of the Secretariat for the Treaty System

2. Tourism and non-Governmental activities in Antarctica

3. Committee for Environmental Protection

As to the issue of the Secretariat, the Japanese Government welcomes general support shown by the other Parties since last Consultative Meeting. It is desired to create a small and cost-effective Secretariat. I am confident that every Antarctic Treaty Party recognizes the need for the early establishment of Committee for Environmental Protection as well as the examination of tourism and non-Governmental activities in Antarctica for further consolidation of the Protocol.

There may be some difficult problems included in these issues. I, however,believe that the Parties can overcome these problems with the spirit of cooperation which we have demonstrated since the early stage of the Antarctic Treaty System.

Mr Chairman,

The Government of Japan has already determined to play a positive role in international endeavour to overcome the difficult issues such as global environmental problems. In this context, the Japanese Delegation would like to take this opportunity to reiterate those measures for the protection of the Antarctic environment should be strenghtened further. Based upon this recognition, Mr

Chairman, I would like to assure you that my Delegation is ready to make every effort to make this Meeting successful.

Thank you.

OPENING ADDRESS BY AMBASSADOR KI-CHOO LEE

HEAD OF THE DELEGATION OF THE REPUBLIC OF KOREA

Mr Chairman,

On behalf of the Delegation of the Republic of Korea, I would like to extend to you my warmest congratulations on your election as Chairman of the Seventeeth Antarctic Treaty Consultative Meeting. I would also like to express our warm thanks to the Government of the Italian Republic for presenting us with such a magnificent setting for our Meeting.

Mr Chairman,

My Delegation strongly believes that this Consultative Meeting represents a further reinforcement of the Treaty System and serves well in pursuing its objectives in the interest of mankind: to protect Antarctica as a natural reserve, devoted to peace and science. Last year, as all of us are aware, the Protocol on Environmental Protection to the Antarctic Treaty, was successfully adopted at the 16th Consultative Meeting held in Bonn. I trust that the Protocol, with its Annexes, will be fully in the interest of all human beings. The provisions of the Protocol advance basic goals of protecting the environment of Antarctica, preserving the unique opportunities the pristine Continent offers for scientific research of global significance, and maintaining it as a zone of peace. Its conclusion symbolizes an important step in stregthening the Antarctic Treaty and the unique form of international cooperation it has fostered.

Being confirmed that all of 26 Consultative Parties have signed the Protocol, I hope that ratifications will soon follow with the spirit of cooperation among Consultative Parties in order to have the Protocol entered into force at an earliest date.

Mr Chairman,

At this Consultative Meeting, we have many important tasks to strengthen the Antarctic Treaty System, such as the creation of a permanent Secretariat and the implementation of a wide range of environmental protection measures enunciated in the Protocol. Faced with these imperative tasks, we must give a positive impetus to resolve different views and consolidate our tradition of cooperation among the Parties. I firmly believe that this Consultative Meeting will take another meaningful step in that direction.

Mr Chairman,

My Delegation sizes this opportunity to reiterate our commitment to the provisions of the Treaty and the Protocol. I believe that there is no need in going into detail here on the activities of the Republic of Korea in Antarctica. However, I feel that a brief mention should be made of our recent Antarctic expeditions; our research team has installed a high-resolution Fabry-Perot interferometer system at King Sejong Station in January 1989 and has since investigated the natural temperatures and winds in the Antarctic thermosphere which was the first experiment of its kind in the region of the Antarctic Peninsula; three weeks from now a sixth research team will leave for King George Island to pursue extensive work in atmospheric sciences, biological oceanography, terrestrial geology, and marine geology and geophysics.

In closing, Mr Chairman, I assure you my Delegation's full support in your august endeavour to make this Meeting a successful one.

Thank you.

OPENING ADDRESS BY MR PIETER VERBEEK

HEAD OF THE DELEGATION OF THE NETHERLANDS

To discuss the fate of a Continent so wild and unexplored, in a city, so rich in history and civilization, certainly is bringing two extremes together. Our fate, Mr Chairman, we entrust for the coming ten days to your wisdom and leadership, expressing our gratitude to your Government for their splendid hospitality.

At this 17th Antarctic Treaty Consultative Meeting three issues will demand most of our time: questions related to the implementation of the Environmental Protocol, the regulation of Antarctic tourism and the establishment of a small Antarctic Treaty Secretariat.

In the Netherlands we have been working very hard over the past year to prepare the ratification of the Protocol and the - so far - five Annexes thereto. Also, the entire 30-year corpus of Recommendations has been analyzed to determine where national legislation is required. We expect that the whole package consisting of a national Antarctica law, a number of related specific legislative measures and the Protocol itself and its Annexes can be submitted for approval to the Cabinet at the beginning of next year. Subsequently, the Parliament approval process necessary for ratification can be anticipated to take about one more year.

The Netherlands Delegation would hope that the Environmental Protocol will enter into force no later than 1994. Assuming that such an expectation would be realistic, given the importance assigned by all of us to an early entry into force we should start at this Meeting with the preparation of rules of procedure and other practical modalities for the Committee for Environmental Protection. The Netherlands have stated already at the previous ATCM in Bonn its willingness

much as possible the provisions of the Protocol Annexes on a provisional basis;accordingly my Delegation would favour the inclusion in the Agenda of the next ATCM of those issues which in future would be discussed by the Environmental Protection Committee.

The question of preparing an Annex on liability, foreseen in Article 16 of the Protocol, was addressed by my Delegation at the 16th ATCM. At the present Meeting we will circulate a working document which identifies a number of key questions to be studied in preparing such an Annex. We consider this Annex an important element of the environmental protection regime, and at the same time do not wish to underestimate the intrinsic difficulty of the issues involved. Consequently, there seems to be a good case not to postpone this task any longer. We would favour the establishment of a legal working group to start work in 1993 and are willing to assist in drafting a mandate for such a group.

Article 15 of the Protocol on Environmental Protection - regarding emergency response action - prescribes that the Parties should prepare response actions to environmental emergencies and that they should cooperate in the formulation and implementation of such contingency plans. We are aware that in some countries the private sector is considering to develop specific actions to assist the Parties in the implementation of such contingency plans. My Delegation will follow with interest the further development of such ideas.

The regulation of Antarctic tourism has received at numerous occasions the attention of the ATCM. So far a number of specific Recommendations have been adopted and, of course, the Environmental Protocol is fully applicable also to all tourist and NGO activities in Antarctica. The question now is whether this is sufficient from the point of view of substance and sufficient from the point of view of presentation. My Delegation considers that there would be great merit from the practical and presentational point of view if we could refer for all practical purposes to one

simple document containing all rules and regulations on Antarctic tourism, which were adopted by the ATCM. Concerning the substantive question our point of departure is the expectation that Antarctic tourism will increase considerably in the coming decades. Such an increase might have adverse effects on the environment and might hinder the execution of our scientific programmes in Antarctica. Both of these consequences, of course, are to be avoided, which would seem to require the adoption of additional rules to control and regulate Antarctic tourism.

A third issue, which we should try to resolve at this Meeting, is the establishment of a small Antarctic Treaty Secretariat. Some months ago the Netherlands has circulated in capitals an informal document containing our views on the possible modalities and their implications. We were grateful for all the comments and constructives reactions. From those reactions we have concluded not only that the establishment of a Secretariat is now enjoying general support, but also that Parties seem to agree that such a Secretariat should not in any way diminish the authority of ATCM, but on the contrary should have as its main function to support the effective functionning of the consultative mechanism. My Delegation, clearly, is in favour of an early decision on this matter, if not at this Meeting then as soon as possible thereafter, but in any case in 1993.

Finally, a few words on a cooperative action which the Netherlands and Argentina are preparing and about which we have informed you in capitals: the salvage operation regarding the remaining oil and other potential pollutants from the sunken ship Bahia Paraiso. This operation is about to start. In the coming days the Netherlands and Argentine Delegations are to give you a further briefing at an appropriate moment. Additional copies of the Environmental Impact Assessment study, which was prepared by indipendent Netherlands and Argentine experts and which was conveyed recently to you in capitals, are available those interested.

Thank you.

OPENING ADDRESS BY MR. COLIN KEATING

HEAD OF THE DELEGATION OF NEW ZEALAND

Mr Chairman,

Congratulations on your election to Chair this Seventeeth Antarctic Treaty Consultative Meeting.

Through you, Mr Chairman, may I thank the Government of Italy for the opportunity to meet in this beautiful and ancient city of Venice.

Mr Chairman,

Signature of the Protocol on Environmental Protection to the Antarctic Treaty by every Consultative Party is an historic achievement. We achieved consensus on building legal rules under which the Antarctic environment will be protected. The joint commitment, by States active in Antarctica, to the Protocol has contributed to the system of international relations which binds States together for the greater benefit of all people of the world. This was a fundamental contribution to world order.

Our next priority is for the Protocol to enter into force. The task before each of us is to adjust our national law and practices in Antarctica to make them consistent with the Protocol. We need to make the Protocol work in practice and to embody our obligations to protect the Antarctic environment, contained in the Protocol, in effective national legislation.

New Zealand has an explicit commitment to that process. We are examining our national Antarctic practices and operations in light of the obligations contained in the Protocol. We have already implemented, on a provisional

basis, an informal process to apply the Protocol standards to environmental assessment of all New Zealand's activities in Antarctica. We will be working with the tourist industry and with others to develop consistent practices for their activities in our area as well.

Ratification of the Protocol on Environmental Protection to the Antarctic Treaty is a national priority for New Zealand. But it will not be done lightly. Domestic legislation is being developed to provide the legal framework against which activities will be regulated in accordance with the Protocol and the Antarctic Treaty System.

Concluding the Protocol was an historic achievement. It brought to conclusion a long period of intense negotiation. The measures to protect the Antarctic environment contained in the Protocol apply to all activities in Antarctica, both governmental and non-governmental.

Looking ahead, Mr Chairman, to our work here in Venice, there are important issues yet to be resolved. In particular, we need to consider whether tourism, a well established and growing part of Antarctic life, requires any additional legal measures further to those set out in the Protocol.

New Zealand believes that the Protocol applies to all activities: There may be value in developing and consolidating practical guidance for tourist operators in the Continent. We will certainly approach this discussion with an open mind. In this connection we welcome the participation of representatives of the tourist industry in discussions about this area of increasing activity in Antarctica.

Secondly, Mr Chairman, we wish to carry forward preparatory work for the Committee for Environmental Protection and to give some thought to its possible Rules of Procedure and other operational matters. The Antarctic Treaty System has experience in the CCALMR context of the sound operation of a committee set up to provide expert advice to Parties to the Convention for the Conservation of Antarctic Marine Living Resources. This might be an appropriate model for the Committee for Environmental Protection. New Zealand will table a document on this subject.

Thirdly, Mr Chairman, I want to refer to the commitment made at the time of adopting the Protocol in Madrid last October to elaborate rules and procedures relating to liability for damage arising from activities taking place in the Antarctic Treaty Area. We are under no illusion about the difficulty which this commitment involves. The liability rules about responsibility for environmental degradation developed in the context of CRAMRA were extraordinarily complex and took many years to negotiate. Even then, what was agreed was not complete. Some details remained to be spelt out in a Protocol.

New Zealand believes it is important to move forward on this question of liability for activities in Antarctica. But also, it is important to be realistic about the nature of the task.

Fourthly, Mr Chairman, I want to draw attention on the fact that we have a new system of protected areas to implement under Annex V of the Protocol. There is work to be done in updating and reviewing the areas designated by past Consultative Meetings as Specially Protected Areas and Sites of Special Scientific Interest.

In the Antarctic Area to the South of New Zealand there are plain deficiencies in the existing areas and in their

management plans which need a thorough consideration. In this context New Zealand welcomes cooperation with other States with bases and activities in our area with a view to designating an Antarctic Specially Managed Area in accordance with Article 4 of Annex V to the Protocol

Fifthly, Mr Chairman, this Meeting must take progress on the question of an Antarctic Treaty Secretariat. Establishing a Secretariat to support the Treaty System infrastructure has become a pressing need. New Zealand has long supported the establishment of a small cost-effective Secretariat. As a minimum we would like to reach agreement, and referendum, at this Meeting on the practical framework for a Secretariat that will establish a firm basis for costings of member states' contributions.

Mr Chairman,

It is a great achievement that we have now reached an annual cycle for Consultative Meetings. There is increasing work to be done with the implementation of the Protocol on Environmental Protection to the Antarctic Treaty.

Against the background of the Antarctic Treaty System's long tradition of effective consensus decision making, we are confident we can make good progress on the issues before us.

In conclusion, Mr Chairman,

I would like to take this opportunity to record for colleagues here present that since we last met there has been an important development in New Zealand relating to Antarctica operations. I refer to the completion and opering of the International Antarctic Centre in the southern city of Christchurch. The Centre has been developed by the Christchurch city authorities with support from the New Zealand Government. It houses the headquarters for the New Zealand Antarctic Programme. It is also the administrative

and logistic centre for the United States Antarctic Programme and houses the liaison office for the Italian Antarctic Programme.

Major features of the Centre also include the "International Center for Antarctic Information and Research". This has been established as a cooperative effort involving several governments and scientific bodies as a state of the art data management facility. It is designed to fulfil the role of a Regional Antarctic Science and Environmental Data Centre as envisaged in current SCAR proposals.

Mr Chairman, New Zealand has already become a major centre for international cooperation in Antarctica and an increasing number of Antarctic scientific expeditions are transiting through New Zealand. We would be pleased to facilitate further such cooperation and to this end my Delegation is circulating a background publication on the new facility in Christchurch.

Thank you, Mr Chairman

OPENING ADDRESS BY AMBASSADOR JAN ARVESEN

HEAD OF THE DELEGATION OF NORWAY

The Norwegian Delegation is pleased to inform the XVIIth Consultative Meeting that the Norwegian Government has by now completed the preparatory part of the ratification process with respect to the Madrid Protocol on Environmental Protection. An informal request has been submitted to the Norwegian Parliament with a view to obtaining the Parliament's consent to ratify the Protocol. It is to be expected that the Parliament will consider this matter in the near future and that the Parliament's consent will be forthcoming. Thus, it could be anticipated that Norway will deposit her instrument of ratification with regard to the Protocol early next year.

An important issue that my Delegation would hope we could reach consensus here in Venice is the establishment of a small, but efficient Antarctic Treaty Consultative Meeting Secretariat.

Questions relating to tourism in Antarctica will be one of the main items on this ATCM's Agenda. The significant increase in number of tourists travelling in the Antarctic gives reason for concern as to their possible negative impact on research as well as on the environment of the Continent. In the view of the Norwegian Delegation tourism in Antarctica must be regulated and controlled. Such regulation and control should be carried out on the basis of the Antarctic Treaty including the Madrid Protocol and its Annexes. One of the major tasks of this ATCM would be to analyze and consider whether the provisions of the Protocol (including the Annexes) and Recommendations in force provide for adequate regulation of tourism, or whether an additional set of rules are required. Tourism represents a major challenge to the Antarctic Treaty System. We are, inter

alia, faced with commercial activities that are undertaken by non-governmental operators. It is important, however, to ensure that any possible new regulations on tourism in Antarctica are drafted in a way compatible with the basic principles of the Antarctic Treaty.

The foundation for international cooperation in Antarctica established through the Antarctic Treaty has over the years become of increasing importance. International cooperation is imperative for further progress in some of the great challenges with which Antarctic science is presently faced, such as the ozone problem, the greenhouse effect and the sea level question. Multinational cooperation in logistics implies substantial advantages, both with respect to costs as well as environmental impact and exchange of knowledge.

This week the first of two expedition vessels for the 1992/93 Nordic expedition left Oslo. This expedition consists of 62 scientists, primarily from Finland, Sweden and Norway, but also from several other countries. We are very pleased in this manner to continue the tradition of multinational Antarctic research expeditions that was initiated by the Norwegian-led expedition to the Maudheim expedition in 1949/52.

Thank you.

OPENING ADDRESS BY MR LUIS DE ARRIZ PORRAS

HEAD OF THE DELEGATION OF PERU

The XVII ATCM is the first of a series of regular and annual meeting; this is due both to the increase of material to be examined and decided on and to the dynamic of ratification of the Protocol of Madrid and its Annexes.

We start a new phase. I think that now we can apply the decision taken by all the Parties that designated Antarctica as a natural reserve devoted to peace, cooperation and science. Venice is the ideal place of ancient sea traditions and of scientific research to hold such a meeting.

In this connection I would like to expose three issues.

Firstly, Peru approved the Protocol on Environmental Protection and its Annexes. Before the end of this year we will register in Washington, DC the legal instrument which will allow the ratification of the Protocol and its four Annexes and the fifth one that we approved in Bonn in October.

Secondly, the National Antarctic System achieved its approval and the Antarctic Institute is its seat. The law, that we hope will enter into force within this year, will allow the permanent planning of the Peru activity in Antarctica and the systemic organisation and coordination of the bodies which make up the National Commission. Furthermore it will allow us to have a better institution in order to develop in cooperation with the international scientific community our activities in the 6th continent. The active and permanent interest of Peru in Antarctica is reaffirmed by the above mentioned actions and by our regular activity.

Thirdly, besides the economic and financial difficulties of our country we keep on operating in Antarctica and we take advantage by international cooperation, as we expressed in Bonn in 1991.

Thus, during the Austral Summer, 1992-1993, the Peru activity in Antarctica has a double objective; the bi-national cooperation with Argentina and the cooperation with the Geographic Institute of Peru and the National Science Foundation of United States.

These two activities represent a project of worldwide scientific interest: the beginning of the installation and functionning of an atmosphere radar type MST that can detect the mystery on the ozone hole over Antarctica.

In the Madrid Protocol we face the issue of liability which is rather complex and still to be solved, but is could be useful to create a working group of experts, capable of giving advice to Governments in view of the XVIIth ATCM.

The question of tourism in Antarctica has deserved a new Annex to the Protocol submitted by Chile. The Peruvian National Commission has studied the project and approved it with some modifications which will be added at a suitable time.

We have already decided that our Meeting will be held each year but we still have to fix the period and the date of the XVIIIth ATCM since the Japanese proposal has been accepted and Tokyo will be the seat of the XVIIIth Consultative Meeting.

In order to have an annual recurrence we have to agree that the sessions will be hold during the last quarter of the year, i.e. within October and November. This date is suitable for many countries and also for Peru and it meets the Japanese requirements.

Peru proposes that the next Consultative Meeting will be held within October and November 1993 and in the same period in the future.

As to the creation of Antarctic System Secretariat, already discussed in the XVIIth Meeting, Peru hold the position expressed there: it should be an administrative body, of information and coordination, small and cost-effective with permanent funtions; it should control and give information, manage the archives and update the Handbook in the four languages of the System.

As to its financing, a pondered and diversified system should be followed as it happens in United Nations and in other international organisations.

Similarly we state that this financing is for the Secretariat functioning only and that the costs of the meeting should continue to be charged to the host country.

Its location should be neither in a Super Power nor in a country claiming soverignty, not even in a country depositary of seat of the Secretariat of whatever organism, meeting or agreement of the System.

To avoid any problem the Secretariat will hold its seat in the remaining Governments.

After having defined the above mentioned aspects we therefore appoint the Secretariat aiming at reaching: indipendence, capabilities and experience, without playing nationalisms.

Finally, in closing I reaffirm the interest of Pery in Antarctica, which is based on geographic, historical and environmental reasons and on its international traditions which are strengthened by our international traditions.

Noting that the Peruvian activity towards the 6th Continent will be based more and more on be-national, regional and international cooperation.

Peru thinks that cooperation in all its aspects is the only way we should follow to operate in Antarctica.

In this view, we look to the XVIIth ATCM as the milestone in the permanent stregthening and improvement of the Treaty System, a joint action of the countries with which we share the responsibility in Antarctica.

OPENING ADDRESS BY MR NAUDE' STEYN

HEAD OF THE DELEGATION OF SOUTH AFRICA

Mr Chairman,

The South African Delegation is very pleased and honoured to be able to attend this Meeting here in Venice, with its unique charm and historical setting offering the ideal conditions for the deliberations which follow in the days ahead. We wish to thank the Government of Italy for hosting this XVIIth Antarctic Treaty Consultative Meeting.

It also gives me great pleasure, to congratulate you on behalf of the South African Delegation on your election as Chairman of this Meeting, which we trust will be a successful one. South Africa is looking forward to contributing towards the continuation and enhancement of the Antarctic Treaty System.

It is hoped that this Antarctic Treaty Consultative Meeting will lead to the establishment of a small Treaty Secretariat. We believe that such a Secretariat would act as an efficient and effective channel of communication and cooperation between all Treaty Parties.

Mr Chairman,

Scientific Research has been undertaken for many years in Antarctica. The South African Delegation wishes to express its appreciation to the Scientific Committee on Antarctic Research for its sterling contribution in promoting research and disseminating research findings for the benefit of all.

Discussions on Environmental monitoring by ATCM-Parties is a relatively recent development and it has now become imperative that scientific guidelines be established.

National Antarctic programmes as well as the international scientific community involved in Antarctica face the difficult challenge of designing and implementing Environmental Monitoring programmes anticipated in response to the Protocol. One of the most important aspects involved in developing such programmes will be financial considerations.

The expanding needs in the field of research and monitoring calls for increased cooperation between Treaty Parties in the scientific and logistical fields. South Africa considers it important to access these opportunities carefully as and when they present themselves.

In conclusion, we look forward to contribute toward the achievement of the objectives set at this Meeting.

Thank you, Mr Chairman.

OPENING ADDRESS BY DON INIGO DE PALACIO ESPANA

ON BEHALF OF THE DELEGATION OF SPAIN

Mr Chairman,

The Spanish Delegation would like to express its most sincere congratulations to you on your election to the Chairmanship of the Consultative Meeting which is opening today and enjoys the unmatched beauty of a setting like Venice. We would also like to say a word of thanks to the Italian Government and we are certain that under its auspices the Meeting will achieve the greatest success.

In Bonn last year we recalled the 30th Anniversary of the enforcement of the Antarctic Treaty. The Antarctic System received the highest official recognition with the adoption of the Madrid Protocol which also marked a very fruitful and promising stage of development. At present it is undergoing a new consolidation process which will contribute to greater stability and cooperation within the international system.

Spain ratified the Protocol in July and wishes that it be enforced as soon as possible so that its provisions can be applied to the Antarctic Treaty Area. Indeed, these provisions do not only benefit the Antarctic environment but also the whole system. Spain reiterates its will to voluntarily implement the agreed measures thereby sharing the spirit of the Madrid Meeting.

It is in this spirit, which is the clear expression of our countries' desire to cooperate, that Spain wishes to share with the Representatives of numerous States a few considerations on some of the most significant tasks lying before us during the present Consultative Meeting.

After the last Consultative Meeting, Spain has attached the greatest importance to the additional regulation aimed at completing provisions included in the Madrid Protocol and its Annexes relating to Tourism and Non-Governmental activities. All these Regulations are to be implemented unreservedly in compliance with Recommendation XVI-13. In carrying out this commitment, Spain is honoured to join its partners and share their concern about this subject which has led them to the drawing up of an Annex to the Protocol on Environmental Protection.

In cooperating with its partners, Spain has always been guided by legal, political and practical principles. At the legal level, Spain believes that a new Annex regulating Tourism and Non-governmental activities is a step forward in the process of codification set forth in the Protocol and existing Annexes. These instruments have been improved by the fruitful contribution of past activities which aimed at setting new legally binding principles perfectly in line with present environmental requirements in Antarctica. At present the codification and completion of provisions on Tourism and Non-governmental activities are particularly timely.

Therefore Spain maintains that priority must be given to the clarification of provisions and harmonisation of the Contracting Parties' national legislations which may be adopted under the terms of the Protocol, so as to guarantee legal protection.

From the political point of view, Spain believes that special attention is to be paid to factors having a potential environmental impact on Antarctica, which, as far as Tourism and Non-governmental activities are concerned, has seen the increasing interest of the world public opinion. Furthermore, we are convinced that by adding another Annex to the Madrid Protocol its positive impact and the newly introduced system will be strengthened.

Finally, from the practical point of view, Spain is convinced that a new Annex will clarify duties and practical requirements with reference to organizers of tourist activities, indipendent visitors and non-governmental organizations thereby facilitating their important tasks. It will also provide a useful instrument for the functioning of national administrative system which, under the terms of the Protocol, are responsible for the issues covered by this document.

Mr Chairman, at this new and promising stage of development, the Antarctic System stands before the challenge of a greater institutionalization. Indeed, plans for the creation of a permanent Secretariat already exist. The new organism is to serve the Parties by managing the increasing number of issues stemming from the system's greater complexity.

Spain is fully aware of the need to preserve the suitable equilibrium of the system. In the light of the present division of competences within the System, the Secretariat shall find its rightful place by ensuring a free voice to all cultures which enrich the Treaty and have not been granted yet the recognition they undoubtedly deserve.

The Spanish Delegation would also like to express its willingness to tackle the various aspects of this issue. Among them, priority must be given to the siting of the Secretariat and its staff, since decisions on its meetings and financial repercussions may be easily taken during open and frank discussions. As for the Secretariat's future, efforts must be made to resettle the above-mentioned equilibrium by contributing to the achievement of a constructive agreement.

To conclude, Mr Chairman, favouring the progress of the preparatory work of the Committee on Environmental Protection is fundamental, as already underscored by Spain during the Bonn Consultative Meeting. This applies both to its future Rules of Procedure and its organizational aspects which will be outstanding Agenda item during the present Meeting.

Spain will support any initiative aimed at strengthening the institutional nature of the Committee on Environmental Protection, the cornerstone of the Madrid Protocol to the Antarctic Treaty.

Mr Chairman, let me once again express the satisfaction and gratitude of the Spanish Delegation for the extraordinary opportunity to enjoy the hospitability of Italy, a nation with which we have shared a long tradition of friendship and history.

Thank you.

OPENING ADDRESS BY MR JAN ROMARE

HEAD OF THE DELEGATION OF SWEDEN

On behalf of the Swedish Delegation, I am pleased to congratulate you on your election as Chairman of this Meeting. May I also, through you, extend our thanks to the Italian Government for its generous hospitality in this beautiful city.

In the realm of international politics the Antarctic Treaty System is unique. Although its raison d'etre has been put in doubt, the Treaty System has never appeared to be seriously threatened. This, in part, is probably because it has made reality of several of the common goals of mankind so vainly sought in many other parts of the world: peace, demilitarization and environmental protection. The Parties to the Treaty System, furthermore, have been careful about protecting its original ideals and principles while feeding it over the years with new content, thus keeping it vital. It is a long-term effort of international cooperation that invites respect.

The Antarctic Treaty System demonstrated its vitality last year in the adoption of the Protocol on Environmental Protection. In the view of the Swedish Delegation, it is important that the Protocol is fully implemented in anticipation of its entry into force and that arrangements can be agreed for the Committee for Environmental Protection to start operating without unnecessary delay.

We also believe that it is important to start working on the elaboration of Rules and Procedure for an Annex on liability as set out in Article 16 of the Protocol.

I am pleased to inform the Meeting that the Swedish process for ratification of the Protocol is far advanced. We expect to ratify it by the end of this year and to have our legislation in force by July 1, 1993. At the same time we intend to approve Recommendations adopted at previous Consultative Meetings.

Sweden favours the establishment of a small, cost-effective Secretariat. The adoption of the Protocol on Environmental Protection has obviously added to the need for the services that a Secretariat could give us.

The vitality of the system is not necessarily promoted by the production of new texts and regulations. The reverse may also be true. The Recommendations that have been adopted over the years have already grown into a confusing pile of texts which need sorting out. We appear to have reached a stage where there is an increasing need to critically assess new proposals with regard to their contributions in the overall context.

As the Swedish Delegation pointed out at last year's Meeting in Bonn, there is also a need to revise and streamline the flow of informatiom. It is our hope that a Secretariat, once it has been established, will, along with its other duties, help to improve that situation.

Thank you.

OPENING ADDRESS BY DR MICHAEL G. RICHARDSON

HEAD OF THE DELEGATION OF THE UNITED KINGDOM

Thank you Mr Chairman,

May I on behalf of the UK Delegation express thanks to the Italian Government for hosting our XVIIth ATCM in this beautiful city and may I thank the Foreign Minister Emilio Colombo for his kind words of welcome.

This Consultative Meeting marks a milestone in the three decade history of the Treaty System. For the first time we see Treaty meetings moving from their traditionally biennial calendar to an annual timetable. This is a welcome move which reflects the Parties commitment to implementation of the Environmental Protocol. As well as the procedural need to meet once a year to assess the environmental impact assessment of activities and developments in Antarctica, our coming together more frequently must inevitably enhance the degree of cooperation between nations which is a fundamental cornerstone of the Antarctic Treaty.

Mr Chairman, my Delegation sees the interim implementation of the Protocol as of the highest priority in the hopefully short time before the ratification process is completed. Two points need our attention. Firstly, the intervening period we must make the procedures of the Protocol work to greatest effect. We will need to adopt a pragmatic attitude to ensure that practical solutions can be found to handle the work of the Committee for Environmental Protection. This will require the Committee Rules of Procedures to be drawn up and for some interim modus operandi to be designed to allow the tasks and functions foreseen for the CEP to be undertaken by the ATCM. Secondly, we must ensure that we do not inadvertently impede those processes of implementation and ratification. We have a great deal to achieve and achievement may be slowed if we attempt to take too much on board too fast.

Clearly, we have a commitment under the Protocol to continue nagotiations for at least one further Annex - on liability. But we must ensure that what will undoubtedly be prolonged negotiations do not divert us from the prime objective of ratification.

The UK believes there are two issues of particular importance facing us at this XVIIth ATCM: attention to the question of Antarctic tourism and commencement of discussions on an Antarctic Treaty Secretariat. We believe that a solution to the issue of tourism can be found. The Protocol and its Annexes already provide a comprehensive set of rules and regulations which govern all activities in Antarctica, including tourist activities. If further measures to supplement these provisions are necessary than they must be fully consistent with the Environmental Protocol. On the matter of the Secretariat we would like to see some positive results achieved at our meeting. The UK has long believed that the introduction of a Secretariat is overdue. Our work becomes more complex with each passing Consultative Meeting. Without some institutional framework to coordinate our efforts we believe the Treaty's smooth operations will begin to show signs of strains. We will need to pull together a number of elements in our negotiations on a Secretariat. We look forward to assisting in that process.

Thank you Mr. Chairman.

OPENING ADDRESS OF MR. R.TUCKER SCULLY

HEAD OF THE DELEGATION OF THE UNITED STATES

On behalf of the United States Delegation, I would like to extend warmest congratulations to you on your election as Chairman of the Seventeeth Antarctic Treaty Consultative Meeting (ATCM XVIIth), and we are confident that, under your guidance, this Meeting will be successful. Our thanks also go to the Government of Italy for hosting us in Venice, this magical city which springs like a fountain from the Laguna Veneta.

As the Antarctic Treaty enters its fourth decade of operation, it has maintained itself as a modern-day Magna Carta - conserving 10% of Earth as a natural reserve, devoted to peace and science. And to this end, we must continue the serious work begun with the adoption of the Protocol on Environmental Protection to the Antarctic Treaty. We believe that early entry into force and effective implementation of the Protocol is the highest priority for the Parties to the Antarctic Treaty. We are pleased to report that all Antarctic Treaty Consultative Parties have now signed the Protocol, and that Spain has deposited the first instrument of ratification. My government has made progress toward ratification of the Protocol, with our U.S. Senate now having given its advice and consent to ratification.

Entry into force of the Protocol will increase the requirements for coordination among the Parties to the Antarctic Treaty, particularly in the areas of information exchange and availability. It highlights the need for moving rapidly to establish a Secretariat to support the institutional mechanisms of the Antarctic Treaty and the Protocol. We must take care to ensure that such a Secretariat should be small and cost-effective, but we believe that its time has come.

Mr Chairman, the United States is pleased that there are indications that there may be general agreement on establishment of a Secretariat of this nature. Here in Venice, we should concentrate on reaching agreement about those steps, both substantive and procedural, which will give birth to the Secretariat, and to ensure that it is in place by the time the Protocol enters into force.

Mr. Chairman, there are other important items on our Agenda. Tourism and non-governmental activities in Antarctica - perhaps visitation to Antarctica is a better word - is prominent among them. On this item, as well as regards the others on our Agenda, we are prepared to examine the need for measures additional to those provided for in the Protocol. The Protocol builds on the Antarctic Treaty to provide a comprehensive system for protection of the environment and scientific values which all of us share. In the United States view, we must concentrate on those activities which will facilitate the rapid entry into force and implementation of the Protocol, and avoid steps which could slow down or complicate that process.

This is the essential element of our approach to ATCM XVII. Again, we are delighted to be in this enchanting city on the occasion of this first Antarctic Treaty Consultative Meeting in Italy. Like others we feel entirely at home.

Thank you.

OPENING ADDRESS BY Mr MARIO AGUERRONDO

HEAD OF THE DELEGATION OF URUGUAY

Mr. Chairman,

On behalf of the Uruguayan Delegation I would like to thank the Italian Government for the excellent hospitality showed in welcoming us to Venice, a city famous for its artistic and historical heritage. I would also like to extend my warm congratulations to you on your election, confident that your experience and professional qualities will contribute to bring this Meeting to a successful conclusion.

We believe that the XVIIth Consultative Meeting inaugurates a new stage in the evolution process of the Antarctic Treaty System, after having successfully celebrated the 30th Anniversary of the Treaty and succeeded in approving the Protocol on Environmental Protection.

Undoubtedly, a rapid analysis of the work carried out during the passed thirty years provides significant details on the positive results obtained. The Parties succeeded in transforming Antarctica into a Continent free from tensions and conflicts. Furthermore, a new international framework for cooperation relating to activities carried out in Antarctica, with special reference to those contributing to scientific progress, has been set up.

Moreover, the signing of the Protocol on Environmental Protection and the Parties' implementation of the measures envisaged by it - although in many cases ratification processes have not been accomplished yet - showed that the Antarctic Treaty can evolve and take important decisions, thereby providing a suitable response to international concern about the subject.

This meeting is therefore an excellent opportunity not only to pass in review the achievements of our work and analyse our present problems, but also to look to the future and set new, more ambitious objectives.

In this respect, we believe that this Consultative Meeting focuses on very significant issues. Among them the creation of suitable means for the implementation of the Protocol must be given priority.

Another aspect which needs to be further defined is the possible creation of a Permanent Secretariat allowing to fulfil the fundamental tasks relating to the implementation of the Treaty.

Furthermore, we deemed it necessary to propose that the issue of jurisdiction over Antarctica be discussed by the Consultative Parties as an instrument to improve the legal system set up by the Treaty and fill the gaps resulting from the increased number of activities carried out by States or individuals in Antarctica.

These and other equally outstanding issues are challenges which prompt us to work and find effective solutions on the basis of the Parties' consensus to favour the development and expansion of our system and to protect mankind.

Thank you, Mr. Chairman.

OPENING ADDRESS BY MR J.R. LILJE JENSEN

HEAD OF THE DELEGATION OF DENMARK

Mr Chairman,

on behalf of the Delegation of Denmark, I am pleased to congratulate you on your election as Chairman of the Seventeenth Antarctic Treaty Consultative Meeting. We are also grateful to the Government of Italy for its hospitality in organising the Meeting in the historic City of Venice.

This Meeting will have to address several important issues, in particular those related to the Protocol on Environmental Protection to the Antarctic Treaty adopted in Madrid in 1991.

Consequently, my Delegation would like to emphasise those issues more relevant to the completion and implementation of the Protocol.

Denmark reiterates its statement on the occasion of the adoption of the Protocol that Rules and Procedure for a liability regime should be elaborated at the earliest possible date. Admittedly, we realize that this is a complex matter, and we do not expect an Annex on liability to be completed at this Meeting. However, we suggest that the work be initiated, taking into account existing rules as well as rules in preparation in international law, that should be subject to a comprehensive study.

The operation of the Committe for Environmental Protection should be anticipated as far as possible at this Meeting, allowing the Committee to begin its important task not later than 1993, indipendent of the date of the XVIIIth ATCM that may not take place until 1994.

Concerning the regulation of tourism and non-governamental activities in Antarctica we have studied the proposals made available to this Delegation before the Meeting.

Obviously, those activities must be regulated, but Denmark is not quite convinced that an Annex on tourism and non-governamental activities would be necessary to ensure adequate protection of the environment. In principle the provisions of the Protocol should apply to all activities, not requiring the addition of a formal Annex. We do, however, admit that the complex problems involved would have to be addressed in detail, specifically identifying the need for further regulation, and we strongly recommend that such matters of substance be dealt without prejudice to the formal issue, which is less important and should not block the access to an agreement on substance. Subsequently, a decision might be taken with respect to the preference for an Annex or a different approch.

Finally, my Delegation would like to focus on the Secretariat, which should be small and cost-effective. This Consultative Meeting should discuss the functions, the appointment, of Head and staff, as well as the financing of the Secretariat. The services of the Secretariat should be extended to the Committee for Environmental Protection as well, which would consequently need no separate organisational support.

Even if it may not be possible at this Meeting to reach conclusions related to all of these important issues, we trust that we shall take off from here in the right direction.

Thank you, Mr Chairman.

OPENING ADDRESS BY AMBASSADOR EVANGELOS FRANGOULIS

HEAD OF THE DELEGATION OF GREECE

Mr Chairman,

First of all I would like to congratulate you on your election as Chairman of the XVIIth Antarctic Treaty Consultative Meeting.

May I also through you, Mr Chairman, express my gratitude to the Italian Government for hosting this XVIIth Consultative Meeting here in the beautiful city of Venice and also my thanks for its warm hospitality.

Mr Chairman,

During the XVth Antarctic Consultative Meeting in Paris and also during the XIth Special Consultative Meeting in Vina del Mar and in Madrid, the Delegation of Greece has proposed views of its own and supported views of other Delegations which have been included in the Protocol on Environmental Protection of Antarctica. Greece can be happy for this outcome. The above Protocol signed in Madrid on 4.10.1991 among others also by Greece will reinforce the Antarctic Legal System and will open up a new chapter for the development of the Antarctic Environmental Protection. Greece has already translated this Protocol into Greek and has already submitted it for ratification to the Parliament.

Mr Chairman,

The designation of the Antarctic Treaty areas as a natural reserve devoted to peace and science where exploitation and exploration is prohibed and the environment is subjected to a comprehensive building regime of Protection, will further strengthen the importance of safeguarding the environment and protecting the integrity of the ecosystem of Antarctica and its seas surrounding this Continent.

Mr Chairman,

Greece believes that it is in the interest of all nations to preserve Antarctica and its waters for peaceful purposes only and to guard against their becoming the scene or object of international discord.

Mr Chairman,

During the Venice Meeting the Delegation of Greece gives emphasis to the following issues:

1. Formation of a small cost-efficient permanent Secretariat for the purposes of the Antarctic Treaty System;

2. Formulation of a liability regime according to Article 16 of the Madrid Protocol;

3. Formation and functionning of the Committee for Environmental Protection;

4. Establishment of a tourism policy in the framework of the Madrid Protocol, regardin tourism activities in the Antarctic Treaty Area.

Mr Chairman,

My Delegation would like to hope that during this Meeting we shall be able to reach a consensus regarding these themes.

Thank you, Mr Chairman.

ANNEX B

REPORTS ON THE OPERATION OF THE ANTARCTIC TREATY SYSTEM

STATEMENT BY THE CCAMLR OBSERVER AT THE XVIIth ATCM

CCAMLR is pleased to accept the invitation of the Antarctic Treaty Parties to attend the XVIIth ATCM and welcomes the opportunity to inform Consultative Parties of developments in its work.

NEW MEMBERSHIPS AND ACCESSIONS

2. Since the last Antarctic Treaty Consultative Meeting, Bulgaria has acceded to the Convention. A list of Members and Acceding States is appended.

CURRENT LEVEL OF FISHING AND MANAGEMENT MEASURES

Nineteen Conservation Measures and one Resolution were adopted at the last CCAMLR meeting held in Hobart (Australia) from 26 October to 6 November 1992, more than have been adopted at any other meeting of the Commission.

KRILL

3. Krill is the most important species being fished in the Convention Area with a total catch in the 1991/92 season reported at around 288 000 tons, 19% less than in 1990/91. Most of this taken in the South Atlantic, in the Antartic Peninsula region, from around the South Orkney Island and from around South Georgia.

4. At its 1991 meeting the Commission imposed a limit to the total catch of krill from the South Atlantic and in 1992 refined this limit to apply to smaller statistical areas of the South Atlantic . The Commission also adopted a catch limit for krill in the Prydz Bay area in the Southern India Ocean. In refining the scientific basis for this decision the Scientific Committee of CCAMLR was greatly assisted by information from the BIOMASS programme which was held during 1980's and for which SCAR was a major sponsor.

5. Estimates of the global sustainable yield of krill vary greatly, but compared to the most conservative estimates the current level of catch is rather small. There is concern, however, that because fishingis concentrated in a few relatively small areas it could be having an impact on krill predators which forage within these areas. The measures adopted by the Commission to regulate krill fishery endeavour to take account of these concerns.

FINFISH

6. All commercial finfish species are now subject to CCAMLR regulations. In some areas fishing is prohibited, in others catch limits, mesh size regulations and restricted seasons apply. Some experimental small-scale fishing has been allowed in limited areas for the purposes of gathering data to assess populations of relatively unknown stocks.

NEW AND DEVELOPING FISHERIES

7. An important principle with regard to the management of new and developing fisheries is that their development should be directly linked with the process of elaborating scientific advice and management procedures. The Commission last year adopted a conservation measure that requires Members planningto initiate a New Fishery to submit information which would allow an assessment of the likely impact of a fishery and the subsequent adoption of any necessary regulations to apply before that fishery is allowed to develop.

8. During the 1991/92 season a new fishery for Antarctic crabs was introduced in the CCAMLR. This fishery was started in full accordance with this conservation measure and, based on information from the past fishing season, regulations to control a development of this fishery have been adopted.

9. In the next season a new fishery for Patagonian toothfish will be in waters off the South Sandwich Islands in accordance with regulations imposed by CCAMLR.

SCIENTIFIC RESEARCH EXEMPTION PROVISION

10. The Commission has recognised that fishing for research purposes while essential, could interfere with efforts to conserve marine living resources including the recovery of depleted species and population. Accordingly the Commission has adopted a conservation measure and a resolution directed to ensuring that fishing for research purpose is designated and carried out so as to minimise possible adverse effects on harvested and related species, while providing information needed for essential assessment and monitoring purposes.

MARINE MAMMALS AND BIRDS

11. The Scientific Committee has undertaken a second comprehensive review of the status and trends of marine mammal and bird population in the CCAMLR Area. The first review was undertaken in 1987. The current review is based on specialistic advice provided by the SCAR group of Specialists on Seals and the SCAR Subcommittee on Bird Biology.

PREVENTION OF INCIDENTAL MORTALITY OF SEABIRDS DURING FISHING OPERATIONS.

12. The conservation measures have been adopted, directed at reducing the incidental mortality of seabirds during fishing operations.

13. The first conservation measure addressed the problem of seabirds being caught on batred hooks during the setting of longlines used for fishing Patagonian toothfish. The measure specifies that longlines should be set at night and that a special streamline be used designed to discourage birds from taking the baits.

14. The second conservation measure aims at eliminating the use of net monitor cables used in trawl fisheries. These cables connect the ship to devices mounted on the trawl that monitor net position in relation to the targeted fish aggregations. From the 1992/93 season Members will deploy cables only in accordance with a specified method and from the 1994/95 season the use of such cables is prohibited.

15. Awareness of the potential harmful effects of marine debris in the Southern Ocean is increasing. The Commission received reports from Australia, Chile, Brazil, Korea, Russia, UK and USA, describing steps that had been taken to minimise the impact on Antarctic marine living resources caused by entanglement in and ingestion of persistent marine debris of human origin. These reports showed that instances of entanglement of seals and seabirds had diminished over recent years and that the ingestion of plastic materials by seabirds was currently low.

CCAMLR SYSTEM OF INSPECTION

16. During the 1991/92 season Inspectors operating under the CCAMLR System of Inspection carried out inspections of nine vessels. The System has been in operation for three seasons.

CCAMLR SCHEME OF INTERNATIONAL SCIENTIFIC OBSERVATION

17. The Commission has successfully developed and adopted a Scheme of International Scientific Observation as required under Article XXIV of the Convention. The Scheme is designed to gather and validate scientific information essential in assessment of the status of populations of Antarctic marine living resources and in assessing the impact of fishing on these populations. The Scheme is applied equally to harvesting and research vessels and will be kept under review as experience in its operation is attained.

PROTECTION OF CEMP SITES

18. The Commission has adopted a conservation measure providing for the protection of sites where colonies of seabirds and seals are being monitored as part of the CCAMLR Ecosystem Monitoring Programme(CEMP). The measure provides for the introduction of a management plan for each site, specifying, in particular, conditions of access and activities that are prohibited. The procedure involves consultation with the Antarctic Treaty Consultative Parties and SCAR.

19. The Commission at its 1992 meeting adopted a conservation measure according protection to the Seal Island CEMP site, South Shetland Islands. Monitoring studies of seals and birds at this site is being coordinated by US scientists as part of CEMP. The Management plan for the Site was referred to the Antarctic Treaty Consultative Parties and to SCAR before final adoption by CCAMLR.

20. Volume 4 of the CCAMLR Statistical Bulletin covering the years 1982 to 1991 is now available. Volumes 1,2, and 3 contain all data for the years 1970 to 1990.

21. A new, considerably revised edition of CCAMLR Standard Methods for Monitoring Studies is being published. This edition comes in a new ring-bird format and contains all methods adopted by the CCALMR Scientific Committee for monitoring predator and environmental parameters in accordance with the CCAMLR Ecosystem Monitoring Programme (CEMP): Methods for monitoring prey parameters are still under development and will be published in a future edition.

22. A new volume of the CCAMLR Scientific Papers has now been published. This volume comprises 24 scientific papers prepared for meeting of the Scientific Committee and its working groups during 1990/91 on krill, fish ecosystem monitoring, marine mammals and birds.

23. The Commission has decided on a new annual publication, a collected volume of CCAMLR Scientific Abstracts which will consist of abstracts of all scientific papers submitted to CCAMLR.

24. Most of the CCAMLR publications are produced in English, French, Russian and Spanish and all are available on request from the Secretariat.

OBSERVERS AND INTERNATIONAL COOPERATION

25. Last year the Commission responded to a request from the Secretariat of the United Nations Conference on Environment and Development (UNCED) concerning the role of CCAMLR in conserving Antarctic Marine Living Resources. The information was sought in relation to preparation of background documents for the World Conference on Environment and Development.

26. CCAMLR was represented at a "Technical Consultation on High Seas Fishing" organised by FAO and UN and held in Italy from 7 to 15 September 1992. The Chairman of the CCAMLR Scientific Committee observed that the papers prepared for the Technical Consultation demonstrated a very limited level of awareness of CCAMLR. The Commission noted that FAO had undertaken to draft a "code of conduct" on responsible fishing practices in consultation with other international organisations. The Commission agreed that CCAMLR should follow closely the development of the "code of conduct".

27. At the first meeting of Experts on Environmental Monitoring in Antarctica which was held in Argentina from 1 to 4 June 1992, CCAMLR was represented by its Chairman. The Commission noted in particular that the Meeting recommended that environmental monitoring under the Antarctic Treaty and the New Protocol to the Antarctic Treaty on Environmental Protection should be closely coordinated where appropriate, with activities within CCAMLR.

MEMBERSHIP OF THE COMMISSION FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES

Argentina
Australia
Belgium
Brazil
Chile
European Economic Community
France
Germany
India
Italy
Japan
Korea
New Zealand
Norway
Poland
Russian Federation
South Africa
Spain
Sweden
United Kingdom
United States

States that have acceded to the Convention but are not Members of the Commission are:

Bulgaria
Canada
Finland
Greece
Netherlands
Peru
Uruguay

REPORT SUBMITTED TO THE XVIIth ANTARCTIC TREATY CONSULTATIVE MEETING BY THE DEPOSITARY GOVERNMENT OF THE CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS (UNITED KINGDOM) IN ACCORDANCE WITH RECOMMENDATION XIII-2, PARAGRAPH 2 (d).

1. This report covers events regarding the Convention for the Conservation of Antarctic Seals (CCAS) from October 1991 to the present. Events prior to October 1991 were reported to the XVth and XVIth Antarctic Treaty Consultative Meetings (see Annex B of the respective Final Reports).

2. On April 1992, an Instrument of Accession to CCAS was lodged with the Depositary Government by the Government of Italy. The date on which the provisions of the Convention came into force in respect of the Government of Italy was 2 May 1992. A list of countries which were original signatories of the Convention, and of countries which have subsequently acceded, is attached (Annex A to this report).

3. On 7 October 1992, the Depositary Government sought, by Diplomatic Note to all Contracting Parties, their views on the desirability of holding a meeting in 1993 under Article 7 of the Convention to review the operation of the Convention. The Depositary Government will in due course be in touch further with all ContractingParties on this matter.

4. States which are signatories to CCAS or which have acceded to the Convention, or which have been invited to so accede, have been kept informed of developments involving the Convention by receiving copies of the relevant diplomatic correspondence.

CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS

London, 1 June - 31 December 1972
(The Convention entered into force on 11 March 1978)

State	Date of signature	Date of Deposit Ratification or Acceptance (A)
Argentina	9 June 1972	7 March 1978
Belgium	9 June 1972	9 February 1978
New Zealand	9 June 1972	Not Ratified
Norway	9 June 1972	10 December 1973
South Africa	9 June 1972	15 August 1972
Union of Soviet Socialist Republics*	9 June 1972	8 February 1978
United Kingdom	9 June 1972	10 September 1974
United States of America	28 June 1972	19 January 1977
Australia	5 October 1972	1 July 1987
France	19 December 1972	19 February 1975
Chile*	28 December 1972	7 February 1980
Japan	28 December 1972	28 August 1989

ACCESSIONS

State	Date of Deposit of Instrument of Accession
Poland	15 August 1980
Germany, Federal Republic of*	30 September 1987
Canada	4 October 1990
Brazil	11 February 1991
Italy	2 April 1992

* Declaration of Reservation

\+ The instrument of ratification included the Channel Islands and the Isle of Man

SCAR REPORT TO XVII ATCM

VENICE, ITALY

NOVEMBER 1992

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Appendix 1: XXII SCAR Recommendations

SCAR XXII-1 on Protection of Geological Specimens
SCAR XXII-2 on Scientific Cooperation in the South Shetland Islands
SCAR XXII-3 concerning Arrivals Heights SSSI
SCAR XXII-4 on the Re-introduction of Indigenous Species
SCAR XXII-5 on Hydrographic Charting
SCAR XXII-6 on Management Plans for Protected Areas

Appendix 2: SCAR Executive Committee

Appendix 3: Membership of SCAR

Appendix 4: List of Acronyms

Appendix 5: List of Annexes

Annex 1 Environmental Monitoring in Antarctica: a discussion document prepared by COMNAP and SCAR, May 1992

Annex 2 SCAR Code of Conduct for Use of Animals for Scientific Purposes in Antarctica

SCAR REPORT TO XVII ATCM
VENICE, ITALY
NOVEMBER 1992

OPENING ADDRESS BY DR R M LAWS, PRESIDENT OF THE SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH

SCAR is very happy to be represented at this Meeting. 1991 was a landmark year for the Antarctic Treaty System and now it is important to consolidate the progress made. SCAR welcomes the Protocol on Environmental Protection to the Antarctic Treaty and urges the Parties to ratify so that it may come into effect as soon as possible.

I would like to remind Delegates that SCAR is the sole organisation that can draw on the experience and expertise of an international mix of scientists across the complete spectrum of Antarctic science. It is therefore, the obvious source of advice on a wide range of scientific questions, particularly concerning the Antarctic environment, and it is well-placed to provide answers. SCAR urges the Parties to establish the Committee on Environmental Protection as soon as possible and intends to cooperate in its work to the fullest extent possible. SCAR also whishes to emphasise the need for the establishment of an Antarctic Treaty Secretariat and the provision of funds.

The XXII SCAR meeting was held in San Carlos de Bariloche, Argentina, during June 1992. Seven Permanent Working Groups and three Groups of Specialists, COMNAP and SCALOP held meetings, reported to the SCAR Delegates on progress and developments in their fields, and recommended initiation of several new programmes. Ecuador was elected to Full Membership, and Estonia and Pakistan to Associate Membership, bringing the total membership to 25 Full Members, 5 Associate Members and 7 ICSU Union Members. Cooperation between SCAR and COMNAP has grown. The Chairman of COMNAP attends meeting of the SCAR Executive Committee and there were joint meetings between the two Executive Committees; it is planned to continue with such meetings

annually. Other areas of cooperation and developing, for example in the joint paper on Environmental Monitoring in Antarctica, and on data coordination and management.

The initiation, promotion and coordination of scientific research by SCAR continues over a very wide range of scientific activities, but I am able to draw attention to a few recent developments only.

Research in Antarctic contributes greatly to understanding environmental changes worlwide and a new SCAR Group of Specialists on Global Change and the Antarctic has been established to implement the SCAR plan, developed in recent years. The membership of this group covers ten major fields of interest and will be the priority SCAR programme over the next decade. Because of the diversity of the research, divided into six core programmes, this SCAR programme is likely to become the largest exercise SCAR has yet undertaken, equivalent in scale to several BIOMASS Programmes. The involvement of National Operators in the planning and implementation is essential. Preliminary discussions with COMNAP have identified how best to achieve this. However, substantial extra funding will be necessary to ensure its success.

SCAR has continued to be active in providing advice to the Antarctic Treaty on environmental and conservation matters, through the Group of Specialists on Environmental Affairs and Conservation, GOSEAC. On such matters, SCAR has also developed its links with IUCN, the World Conservation Union, and together they have established a successful series of environmental workshop. The first of these, on "Protection, Research and Management of sub-Antarctic Islands" was held in Paimpont, France, 27-29 April 1992. The second, on "Antarctic Protected Areas" was held in Cambridge, UK, 29 June - 2 July 1992. This workshop considered the Protected Areas system, design and management, managing tourism and protecting historical features, data management systems and international legal and policy issues, in relation to Annex V of the Protocol on Environmental Protection to the Antarctic Treaty. The recommendations of the Workshop have been approved by the President of SCAR and the Director-General of IUCN, but SCAR has yet to formally adopt them. The third workshop in the series, on "Education and Training", will be held in Italy during April 1993.

the Committee on Environmental Protection of the Antarctic Treaty will assume responsibility for initiating monitoring programmes. If scientists are not fully involved in the design of monitoring programmes, such programmes could set unnecessarily comprehensive objectives and implementation of them is likely to divert resources from basic science. So SCAR was happy to respond to the invitation from the Treaty to provide advice. Prior to the Antarctic Treaty First Meeting of Experts on Environmental Monitoring, June 1992, SCAR and COMNAP collaborated in producing a joint paper: "Environmental Monitoring in Antarctica: a Discussion Document". This was welcomed and much of its contents was incorporated into the report of the Meeting of Experts, at which SCAR contributed to the discussion. Thus, SCAR has maintained its input of advice to the Treaty and has ensured that monitoring will have a strong scientific basis.

Antarctic Treaty Recommendation XIII-5 invited SCAR to provide advice on how to improve the comparability and accessibility of Antarctic scientific data. There was an initial response in the Report of XX SCAR and this issue has been further developed at XXII SCAR, with proposals for a practical plan of action (as called for by Treaty Recommendation XV-16), now submitted to this Consultative Meeting.

I hope I have said enough to indicate that SCAR continues to be active in providing advice to the Antarctic Treaty, particularly on environmental affairs and the protection and management of the Antarctic environment. But this involves allocation of funds for these activities from a very limited budget. The annual running costs of the proposed Antarctic Data Management System, ($ 200k) would be almost as much as the total SCAR budget ($250), and the Global Change Programme will cost much more; in addition there are many other worthwhile programmes that merit support. SCAR still seeks additional funds to enable it to continue its work on a wide front, both in basic and applied science and in management, but my requests to the ATCPs for extra funding to enable SCAR to carry out the applied science function have met with silence; and even Recommendation XII-8 (1983) is not yet in force.

SCAR REPORT TO XVII ATCM

VENICE, ITALY

NOVEMBER 1992

1. INTRODUCTION

The major event of the SCAR calendar since XVI ATCM was the XXII SCAR meeting held in San Carlos de Bariloche, Argentina, during June 1992. During the first week of the meeting seven of the eight Permanent Working Groups, three of the five Groups of Specialists, COMNAP and SCALOP held meetings and reported to the SCAR Delegates during the second week.

The Groups of Specialists on - Environmental Affairs and Conservation and on Southern Ocean Ecology met in April and September 1992 respectively; only the Working Group on Human Biology and Medicine has not met this year. The groups reviewed progress and developments in their specific fields and made recommendations to SCAR (see Appendix 1).

Delegates heard submissions from representatives of Ecuador, Estonia and Pakistan in support of their applications for membership of SCAR. It was agreed that Ecuador should transfer to Full Membership of SCAR and Estonia and Pakistan should be admitted to Associate Membership.

SCAR now comprises 25 full Members and 5 Associate Members of which Estonia and Pakistan are not, as yet, signatories to the Antarctic Treaty (see Appendix 2 & 3).

2. ANTARCTICA AND GLOBAL PROCESSES

The Report of XVI ATCM encouraged SCAR to continue research into understandingAntarctica and its role in global processes. Such topics has been actively investigated by several national programmes in Antarctica and SCAR recognised the importance of coordinating these programmes in its publication "The role of Antarctica in global change".

Since then SCAR has sponsored a workshop held in Bremerhaven, Germany, in September 1991 to develop these ideas into an implementation plan. A new book describing this plan is currently in press and will be available in 1993.

A direct resulting of the preparation of the implementation plan has been the establishment by the delegates at XXII SCAR of a new SCAR Group of Specialist on Global Change and the Antarctic. The terms of reference of this new Group of Specialists are:

1. To provide linkages and communication between the national programmes, SCAR, Working Groups of Specialists on relevant research in the Antarctic, and provide help to integrate and coordinate these programmes, thus acting as an information clearing house for global change research in the Antarctic.

2. To provide liaison between SCAR and the major international programmes on global change, including the International Geosphere-Biosphere Programme (IGBP) and the World Climate Research Programme (WCRP).

3. To plan and implement a regional programme of global change research in the Antarctic, through:

   i. continuing identification of high-priority research needs in process studies, monitoring and modelling;

   ii. identifying other needs in the implementation of the programme such as logistics, data management, etc; and

   iii. organising workshops and symposia to synthesise and discuss research results.

4. To recommend to the SCAR Executive a management structure to implement a coordinated programme on global change research in the Antarctic including the mechanism to provide an interface with COMNAP, the desirability of creating a position of a coordination scientist, and the need to establish Regional Research Centres (RRC's).

The Convener of the Group of Specialist will be Professor C.R. Bentley and the membership is being selected to provide expertise in the following disciplines:

Seaice (physical science)	Stratospheric chemistry
Sea ice (biological sciences)	Biogeochemical cycles
Oceanography	Detectio of change
Palaeoenvironmental record	Data management
Mass balance of ice sheets	Numerical modelling

In addition there will be two or three ex officio members to ensure widespread coordination and information flow.

COMNAP Executive Representative
Regional Research Centre Representative
Project Scientist (if appointed)

SCAR has placed a high scientific priority on this progamme and will be seeking additional specified funding to ensure the successful operation of the Group of Specialists. The programme will not be a part of the ICSU IGBP but it is intended that the SCAR programme will integrate with, and make a major contribution to, the work of the IGBP and other international programmes on global change.

3. COMNAP - SCAR COOPERATION

The report of XVI ATCM also encouraged COMNAP and SCAR cooperation in scientific and logistic matters in Antarctica. Cooperation between COMNAP and SCAR has been on-going since the establishment of the latter in 1988. Initially the Chairman of COMNAP was invited to meetings of the SCAR Executive Committee and a representative of SCAR participated in meeting of COMNAP. The relationship has been further strengthened by the participation of the Chairman of COMNAP as a non-voting observer at meetings of SCAR Delegates and to the Chairman of SCALOP is accorded the same status at these meetings as the Chief Officers of SCAR subsidiary groups (Working Groups and Groups of Specialists). Furthermore, it has been agreed that the Executive Committees of COMNAP and SCAR shall hold annual joint meeting to discuss matters of mutual interest. These arrangements are designed to ensure the maximum communication and cooperation between the two organisations for the benefit of Antarctic science and operations.
It is anticipated that this will be most effective in the coordination of major international scientific programmes.

cooperation between the two organisations has also been achieved in more practical matters. Prior to the Antarctic Treaty Group of Experts Meeting on Environmental Monitoring in Antarctica, held in Buenos Aires, Argentina in June 1992, both COMNAP and SCAR developed position papers intended for submission to the meeting. However, the importance of a joint COMNAP-SCAR voice on this subject was recognised and as a result the two papers were combined into a single discussion document which was tabled at the meeting. The Chairman of the meeting welcomed this document and many of the principles and practices contained therein were incorporated into the report of the Group of Experts. A resumé of the joint paper "Environmental Monitoring in Antarctica: a discussion document prepared by COMNAP and SCAR" is attached at Annex 1.

A further example of COMNAP - SCAR cooperation is described below under section 6 on Antarctic data.

The Terms of Reference of the COMNAP-SCAR ad hoc planning group of Antarctic Data Management are as follows:

1. To provide a framework or action plan for the coordination and management of Antarctic data in the context of SCAR's past and future activities, taking account of ATCMs requirements (especially under new Protocol on Environmental Protection to the Antarctic Treaty) and the role and contribution of international data centres.

2. Establish a suitable point of contact within each SCAR country for the exchange of information and consider the best mechanism for liaison with discipline-based groups.

3. To consider convening a workshop with the following objectives:

   i. To define the requirements for coordinating information management within COMNAP-SCAR;

   ii. To define a framework to provide this coordination which would also replace the former and ad hoc group on the Coordination of Antarctic Data;

   iii. To define the requirements for a series of directories of relevant Antarctic data. This would include a directory of base-line environmental monitoring data;

   vi. To produce initial directories of such data and to define a mechanism for maintenance and distribution;

   v. To produce initial estimates of the resources required to develop and maintain these directories and to identify sources of funding;

   vi. To identify areas for coordination between Antarctic and other data systems, for example, the IGBP Data and Information System.

The planning group held its first meeting in Washington DC, USA, in late September 1992 and the report of the meeting has been submitted to XVII ATCM as a Working Paper. A critical conclusion of the planning group was that the annual running cost of the proposed Antarctic Data Management System ($220k) would almost equal the total annual SCAR budget ($250k). This is clearly non supportable from SCAR's current income.

4. PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY

SCAR has welcomed the adoption by the Treaty Parties of the new Protocol on Environmental Protection to the Antarctic Treaty and looks forward to its early entry into force. In particular, SCAR hopes that the terms of reference and membership of the Committee on Environmental Protection (CEP) will be determined soon so that it may begin work. This will enable lines of communication to be established between the CEP and SCAR and allow more efficient and effective operation by SCAR on environmental matters.

5. ANTARCTIC PROTECTED AREAS

The "Handbook on Management Plans for Protected Areas" being prepared by SCAR, and referred to in the Report of XVIth ATCM, is approaching final draft when it will be reviewed by the SCAR Group of Specialists on Environmental Affairs and Conservation. Once the "Handbook" has been approved by SCAR it will be forwarded to the next ATCM.

At the XXII SCAR meeting, approval was given to draft Management Plans for the following existing Specially Protected Areas:

SPA No. 1, Taylor Rookery;
SPA No. 2, Rookery Islands;
SPA No. 3, Ardery Island and Odbert Island;
SPA No. 20, New College Valley;

Attention is drawn to the proposed Management Plans for existing SPAs Nos 1,2 and 3 which have been drafted according to Articles 3 and 5 of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty (ie as if these SPAs had already been redesignated as Antarctic Specially Protected Areas, ASPAs).

SCAR National Committees were asked to pass these to their Governments for onward transmission to XVIIth ATCM.

In late June 1992, SCAR and IUCN jointly sponsored a Workshop on Antarctic Protected Areas which was held in Cambridge, UK. Both the President of SCAR, Dr R M Laws, and the Director-General of IUCN, Dr M W Holdgate, participated in the Workshop which developed a list of 22 Recommendations. These Recommendations have been submitted separately to XVIIth ATCM as a Working Paper. It should be noted that, whereas these Recommendations have been approved by the President of SCAR and the Director-General of IUCN, they have not, as yet, been adopted by these organisations.

6. ANTARCTIC DATA

The question of Antarctic data has been raised on several occasions at previous ATCMs (Recommendations XIII-5 and XV-11) and most recently by the Group of Experts meeting in Buenos Aires (Recommendation Nos 2,3 and 9). This is a matter of major concern for Antarctic scientists as well as for Antarctic Treaty Parties. An important initiative in this field was taken by the ANTOSTRAT project of the SCAR Group of Specialists on Cenozoic Palaeoenvironments of the High Southern Latitudes with the proposal to establish a Seismic Data Library System. This system is coming into operation but, like so many initiative, progress is being hampered by a shortage of funding. However, SCAR notes Recommendation XVI-12 to support the SDLS and will continue to do so.

The SCAR ad hoc group established in 1989 to advise on the coordination of Antarctic data suffered several setbacks but its principal difficulty was a failure to raise sufficient funding to hold a meeting. Progress by correspondence was not effective. Therefore, at XXII SCAR the Delegates agreed to disband the group and to establish a new group in conjunction with COMNAP.

The Terms of Reference of the SCAR-COMNAP ad hoc planning group on Antarctic Data Management are as follows:

1. To provide a framework or action plan for the coordination and management of Antarctic data in the context of SCAR's past and future activities, taking account of ATS requirements (especially under the new Protocol on Environmental Protection to the Antarctic Treaty) and the role and contribution of international data centres.

2. Establish a suitable point of contact within each SCAR country for the exchange of information and consider the best mechanism for liaison with discipline-based groups.

3. To consider convening a workshop with the following objectives:

   i. To define the requirements for coordinating information management within SCAR-COMNAP;

   ii. To define a framework to provide this coordination which would also replace the former ad hoc group on the Coordination of Antarctic Data;

   iii. To define the requirements for a series of directories of relevant Antarctic data. This would include a directory of base-line environmental monitoring data;

   iv. To produce initial directories of such data and to define a mechanism for maintenance and distribution;

   v. To produce initial estimates of the resources required to develop and maintain these directories and to identify sources of funding;

vi. To identify areas for coordination between Antarctic and other data systems, for example, the IGBP Data and Information System;

The planning group held its first meeting in Washington DC, USA, in late September 1992 and the report of the meeting has been submitted to XVIIth ATCM as a Working Paper. A critical conclusion of the planning group was that the annual running costs of the proposed Antarctic Data Management System ($ 200k) would almost equal the total annual SCAR budget ($ 250k). This is clearly not supportable from SCAR's current income.

7. ANTARCTIC DIGITAL TOPOGRAPHIC DATABASE

SCAR Delegates also noted with appreciation the report of the Working Group on Geodesy and Geographic Information regarding the progress being made in the preparation of a digital topographic database of the Antarctic. This database has been developed with the cooperation of several SCAR nations incorporating the most recently available data in the following categories: coastlines and grounding lines; contours and elevations; glacier margins and flowlines; rock outcrops, cliffs and moraines; lakes; faunal concentrations; stations, facilities and traverses; and place-names. The data are not comprehensive in all categories but the database will be continuously maintained and up-dated.

The database will be issued as a composite package on a CD-ROM by Environmental Systems Research Institute of California together with a copy of its Arc View operation software. A copy of the package will be distributed to each SCAR National Antarctic Mapping Centre or National Committee and the copyright of the database has been invested in SCAR. The distribution is planned for early 1993, subject to final testing and manufacturing constraints.

8. HYDROGRAPHIC CHARTING IN ANTARCTIC WATERS

The SCAR Working Group on Geodesy and Geographic Information, addressed this question at its meeting in June 1992 and proposed that there should be liaison with hydrographic organisations and other users on needs, programmes and standards, and that a register of Antarctic tide gauges should be developed and maintained. SCAR has, through COMNAP, already gathered the information on tide gauges and this has been passed to IOC for inclusion in its GLOSS programme. The SCAR Delegates welcomed these proposals and adopted Recommendations SCAR XXII-5 (see Appendix 1).

9. METEOROLOGICAL SERVICES IN THE ANTARCTIC

The Report of XVIth ATCM noted that meteorological services in the Antarctic need to be improved with the support of SCAR and national agencies and that coordination of national services should continue with the assistance of WMO, SCAR and COMNAP. SCAR continues, through its National Committees, to maintain close contact with WMO and COMNAP on these matters.

10. AIR SAFETY IN ANTARCTICA

SCAR will continue to help improve air safety in Antarctica. Much of such help will stem from improved meteorological services as noted at section 9 above. Additionally, SCAR will provide additional data, as appropriate, to COMNAP for incorporation in the "Antarctic Flight Information Manual".

11. CODE OF CONDUCT FOR USE OF ANIMALS FOR SCIENTIFIC PURPOSES

The SCAR Working Group on Biology appointed a sub-group, under the Chairmanship of Professor A S Blix, to develop a

Code of Conduct for Use of Animals for Scientific Purposes in Antarctica. The sub-group reported at XXI SCAR and the proposed Code of Conduct was adopted by SCAR for forwarding through National Committees to governments for introduction at the next ATCM. The text of the Preamble and the Code of Conduct are attached at Annex 2.

XXII SCAR RECOMMENDATIONS

Recommendation SCAR XXII-1

On Protection of Geological Specimens

RECALLING the commitment to environmental protection under the Antarctic Treaty;

RECOGNISING the increasing frequencies of non-scientific activities in Antarctica; and

RECOGNISING further the consequent possible loss of scientifically valuable geological specimens;

MINDFUL of possible consequences of identifying the location of such geologicalspecimens through formal site protection;

NOTING the likelihood of further discoveries of such specimens;

SCAR recommends that:

1. Geologicalspecimens, such as fossils, minerals, meteorites, volcanic bombs and ventifacts in Antarctica should be collected for scientific or educational purposes and not for commercial gain;

2. Geological samples collected from Antarctica for these purposes should be properly curated in institutions accessible to the scientific community and, wherever possible, should be publicly displayed.

Recommendation SCAR XXII-2

On Scientific Cooperation in the South Shetland Islands

NOTING the numerous national research activities in the South Shetland Islands;

SCAR urges COMNAP and National Committees to give support to initiatives to coordinate any research and facilities within the area including the fields of biology, glaciology and solar-terrestrial studies, as recommended in the following three Recommendations: Biology XXII-4, Glaciology XXII-4 and SCAR XXII-2.

Recommendation SCAR XXII-3

Concerning arrival Heights SSSI

WHEREAS Arrival Heights (Site of Special Scientific Interest No. 2) was designated as an SSSI because "... this area is an electromagnetically and natural 'quiet site' offering ideal conditions for the installation of sensitive instruments forrecording minute signals associated with upper atmosphere programmes"; and

WHEREAS the Management Plan for Arrival Heights SSSI notes that "...no RF transmitting equipment other than low power transceivers for local essential communication may be installed within the site ", and that "... every precaution should be taken to ensure that electrical equipment is adequately suppressed and correctly installed to keep man-made electrical noise to an absolute minimum"; therefore

NOTING that recent measurements indicate contamination of the Arrival Heights SSSI by electromagnetic radiation emitted from power lines and from RF sources outside the boundaries of the SSSI; and

Delegates also noted:

- the GEOSEAC request for the identification of large areas of the polar ice sheet as pristine glaciological ASPAs;

- the request by the Working Group on Glaciology for more knowledge prior to agreeing such action; and

- a suggestion that the Working Group on Geodesy and Geographic Information could collect information on previous oversnow activities.

Delegates agreed that further clarification was necessary and suggested that the three groups should consult further together on appropriate action.

Recommendation SCAR XXII-4

On the Re-introduction of Indigenous Species

NOTING that well-meaning attempts have been made to rehabilitate indigenous seals and seabird, especially penguins, that have been held in captivity, to Subantarctic islands and to the Antarctic continent;

NOTING further that such re-introductions serve no conservation purpose and run the risk of introducing pathogens;

SCAR, therefore, urges National Committees to discourage such practices.

Recommendation SCAR XXII-5

On Hydrografiphic Charting

RECOGNIZING that accurate and complete hydrographic charts are essential for the safety of human life at sea and for the protection of the environment from pollution arising from navigation accidents; and

OBSERVING that there are serious deficiencies in hydrographic charts of Antarctica waters;

SCAR encourages, through COMNAP and National committees, that:

All nations operating in Antarctic waters include hydrographic surveying and nautical charting in their national programmes of activities.

Recommendation SCAR XXII-6

On Management Plans for Protected Areas

SCAR Recommends that:

National Committees should pass to their Governments the Draft Management Plans for SPA No 1, Taylor Rookery; SPA No 2, Rookery Islands; SPA No 3, Ardery Island and Odbert Island; and SPA No 20, New College Valley; for adoption as Management Plans for these areas at XVIIth ATCM.

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MEMBERSHIP OF SCAR
(October 1992)
NATIONAL MEMBERS

Full members:

Argentina				3	February 1958
Australia				3	February 1958
Belgium				3	February 1958
Chile				3	February 1958
France				3	February 1958
Japan				3	February 1958
New Zealand				3	February 1958
Norway				3	February 1958
South Africa				3	February 1958
Russia (formerly USSR)				3	February 1958
United Kingdom				3	February 1958
United States of America				3	February 1958
Germany, Federal Republic of				22	May 1978
Poland				22	May 1978
India				1	October 1984
Brazil				1	October 1984
China				23	June 1986
Sweden	(24	March	1987)	12	September 1988
Italy	(19	May	1987)	12	September 1988
Uruguay	(29	July	1987)	12	September 1988
Spain	(15	January	1987)	23	July 1990
Netherlands	(20	May	1987)	23	July 1990
Korea, Republic of	(18	December	1987)	23	July 1990
Finland	(1	July	1988)	23	July 1990
Ecuador	(12	September	1988)	15	June 1992

Associate Members:

Peru	14	April	1987
Switzerland	16	June	1987
Colombia	23	July	1990
Estonia	15	June	1992
Pakistan	15	June	1992

Dates shown are those of admission to membership, dates shown in brackets are those of original admission to Associate Membership.

ICSU SCIENTIFIC UNION MEMBERS

IGU	International Geographical Union
IUBS	International Union of Biological Sciences
IUGG	International Union of Geodesy and Geophysics
IUGS	International Union of Geological Sciences
IUPAC	International Union of Pure and Applied Chemistry
IUPS	International Union of Physiological Sciences
URSI	Union Radio Scientifique Internationale

LIST OF ACRONYMS

ANTOSTRAT	Antarctic Off-Shore Acoustic Statigraphy Project
ASPA	Antarctic Specially Protected Area
ATCM	Antarctic Treaty Consultative Meeting
CD-ROM	Compact disc - Read Only Memory
CEP	Committee on Environmental Protection
COMNAP	Council of Managers of National Antarctic Programmes
GLOSS	Global Sea-Level Observing System
GEOSEAC	Group of Specialists on Environmental Affairs and Conservation
ICSU	International Council of Scientific Unions
IGBP	International Geosphere-Biosphere Programme
IOC	Intergovernmental Oceanographic Commission
RRC	Regional Research Centres
SCALOP	Standing Committee on Antarctic Logistics and Operations

SCAR	Scientific Committee on Antarctic Research
SDLS	Seismic Data Library System
SES	Satellite Earth Station
SPA	Specially Protected Area
SSSI	Site of Special Scientific Interest
STAR	(Working Group on) Solar-Terrestrial and Astrophysical Research
WCRP	World Climate Research Programme
WMO	World Meteorological Organisation

LIST OF ANNEXES

Annex 1 "Environmental Monitoring in Antarctica: a discussion document" prepared by SCAR and COMNAP

Annex 2 SCAR Code of Conduct for Use of Animals for Scientific Purposes in Antarctica

ENVIRONMENTAL MONITORING IN ANTARCTICA:

A DISCUSSION DOCUMENT

prepared by

SCAR and COMNAP

May 1992

This document was submitted to the Antarctic Treaty First Meeting of Experts on Environmental Monitoring in Antarctica, held in Buenos Aires, Argentina, 1-4 June 1992.

Annexed here are the Contents pages, the Foreword and the Summary. The whole document is available as a separate.

CONTENTS

A SCIENTIFIC FRAMEWORK FOR

ENVIRONMENTAL MONITORING IN ANTARCTICA

AN OPERATIONAL FRAMEWORK FOR ENVIRONMENTAL MONITORING IN ANTARCTICA

9. ELEMENTS OF THE OPERATIONAL FRAMEWORK

9.1 Impacts of activities requiring monitoring

9.1.1 Impacts to Terrestrial and Freshwater System

9.1.2 Impacts to Marine Systems

9.1.3 Impacts to Atmospheric Systems

9.2 Work and Data to Detect and Monitor Impacts and to Separate Natural Variability

9.3 Practical Methodologies and Technologies for Monitoring

9.3.1 Philosophy

9.3.2 Experience

9.3.3 Survey

9.3.4 Coordination

9.4 Data System and Management

FOREWORD

The Chairman of the Council of Managers of National Programmes (COMNAP) and the President of the Scientific Committee on Antarctic Research (SCAR) have agreed on the preparation of a joint submission of a discussion document for consideration by the Meeting of Experts on Environmental Monitoring recommended by the XV Antarctic Treaty Consultative Meeting (ATCM) and endorsed by XVIth ATCM.

The discussion document was prepared in three meetings. A SCAR ad hoc Group on Environmental Monitoring was convened by the SCAR Executive Committee and met in Cambridge, UK, 24-26 February 1992. The paper developed now forms sections 3-8 of this document. This paper was tabled at the meeting of the COMNAP subgroup on Environmental Impact Assessment and Monitoring held in Washington DC, USA, 2-5 March 1992. At this meeting a separate paper was developed which forms sections 1-2 and 9-10 of this document. The two papers were then reviewed by the SCAR Group of Specialists on Environmental Affairs and Conservation (GOSEAC) at its meeting in Paimpont, France, 22-25 April 1992. GOSEAC revised the SCAR contribution to the document and proposed the restructuring of the document in its present form.

It is the view of COMNAP and SCAR that environmental monitoring is important to ensure compliance with the thoughtful recommendations of the Antarctic Treaty and the provisions of the Protocol on Environmental Protection to the Antarctic Treaty. Nevertheless, discussion should be focused only on what is essential and necessary. Unfettered monitoring activity will consume substantial resources, diminish by competition the ability of nations to undertake cutting-edge scientific research in a region dedicated to peace and science, and could be used as a substitute for basic research thus reducing the overall value of Antarctic science to address questions of global relevance in the service of humankind.

SUMMARY

1. The need for scientific monitoring in the Antarctic is identified and its value to both basic and applied research is recognised.

2. A data directory of existing Antarctic environmental data is required.

3. To maximise the value of Antarctic monitoring data, agreement among national operators on adoption of internationally recognised protocols for data and sample collection and analysis is required. Measurement techniques must be internationally agreed, with any chemical analyses firmly related to inter-laboratory standards and verifiable detection limits.

4. Monitoring programmes should be designed around testable scientific hypotheses, utilising existing knowledge, and models, of system processes wherever possible.

5. Monitoring programmes should be designed to help managers discern when environmental impact of change is due to natural environmental variability and when such impact or change is due to human activity in Antarctica; and, the selection of variables to be monitored could be based on assessment of importance and magnitude of expected impact to, change in, environmental quality attributes.

6. All monitoring programmes should be subject to regular independent scientific review and have termination dates.

7. Countries would be expected to make data publicly available and provide a primary evaluation of the environmental significance of any changes or trends.

8. The monitoring studies will initially define baselines against which the effects of continuing activities, such as scientific stations, must be assessed. In this respect it would be useful to establish the pollution "footprint" of existing stations. In addition they will contribute to improved environmental decision making by management, and to a basic understanding of the Antarctic environment.

9. The monitoring requirements for the environmental impact assessment process can be organised under, and contribute data to, the system outlined here.

10. Monitoring programmes are expensive, require long-term commitment to provide adequate data sets and should be funded with funds distinct from those allocated for basic scientific research.

SCAR CODE OF CONDUCT FOR

USE OF ANIMALS FOR SCIENTIFIC PURPOSES IN ANTARCTICA

PREAMBLE

RECOGNISING that Man has a moral obligation to respect all animals and to have due consideration for their capacity for suffering and memory;

ACCEPTING nevertheless that Man in his quest for knowledge has a need to use animal where there is a reasonable expectation that the result will provide a significant advance in knowledge or be of overall benefit for animals;

RESOLVED to limit the use of animals for experimental and other scientific purposes, with the aim of replacing such use wherever practical, in particular by seeking alternative measures and encouraging the use of these alternative measures;

DESIRING to adopt provisions in order to protect animals used in those procedures which may possibly cause pain, suffering, distress or lasting harm and to ensure that where unavoidable they shall be kept to a minimum;

SCAR has adopted a Code of Conduct which is based on the international guiding principles for biomedical research involving animals as developed by the Council for International Organisation of Medical Sciences.

CODE OF CONDUCT

I. The advancement of biological knowledge and the development of improved means to the protection of the health and well-being both of man and of the animals require recourse to experimentation on intact live mammals and birds of a wide variety of species.

II. Methods such as mathematical models, computer simulation and in vitro biological systems should be used wherever appropriate.

III. Animal experiments should be undertaken only after due consideration of their relevance for human or animal health and the advancement of biological knowledge.

IV. The animals selected for an experiment should be of an appropriate species and quality, and the minimum number required to obtain scientifically valid results.

V. Investigators and other personnel should never fail to treat animals as sentient, and should regard their proper care and use and the avoidance or minimisation of discomfort, distress, or pain as ethical imperatives.

VI. Investigators should assume that procedures that would cause pain in human beings cause pain in other mammals and in birds.

VII. Procedures with animals that may cause more than momentary or minimal pain or distress should be performed with appropriate sedation, analgesia, or anaesthesia in accordance with accepted veterinary practice. Surgical or other painful procedures should not be performed on unanaesthetised animals paralysed by chemical agents.

VIII. Where waivers are required in relation to the provisions of Article VII, the decisions should not rest solely with investigators directly concerned but should be made, with due regard to the provisions of articles IV, V and VI by a suitably constituted review body. Such waivers should not be made solely for the purposes of teaching or demonstration.

STATUS OF ANTARCTIC TREATY RECOMMENDATIONS

(SUBMITTED BY THE UNITED STATES OF AMERICA)

The attached list shows the Depositary Government's record of the current status of Antarctic Treaty Recommendations

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 Thirteenth Meeting (Brussels 1985)	10 Recommendations adopted at Fourteenth Meeting (Rio de Janeiro 1987)	22 Recommendations adopted at Fifteenth Meeting (Paris 1989)	13 Recommendations adopted at Sixteenth Meeting (Bonn 1991)		
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina	All	All	All			
Australia	All	All	All			
Belgium	All					
Brazil (1983)+	All	All				
Chile	All except 8 - 14					
China (1985)+	All	All				
Ecuador (1990)+						
Finland (1989)+						
France	All	All				
Germany (1981)+	All except 10 to 13	All	All except 3,4,8,10,11,22			
India (1983)+						
Italy (1987)+						
Japan	All	All				
Korea, Rep. (1989)+						
Netherlands (1990)+						
New Zealand	All	All	All	All		
Norway	All	All				
Peru (1989)+						
Poland (1977)+	All	All	All			
South Africa	All	All				
Spain (1988)+						
Sweden (1988)+						
U.S.S.R.	All	All				
U.K.	All					
Uruguay (1985)+	All	All				
U.S.A.	All	All				

+ Year attained Consultative Status. Acceptance by that State required to bring into force Recommendations of meetings from that year forward.

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 (Wellington (1972)	14 Recommendations Adopted at Eighth Meeting (Oslo 1975)	6 Recommendations Adopted at Ninth Meeting (London 1977)	9 Recommendations Adopted at Tenth Meeting (Washington 1979)	3 Recommendations Adopted at Eleventh Meeting (Buenos Aires 1981)	8 Recommendations Adopted at Twelfth Meeting (Canberra 1983)
	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(1983)+	All except 5	All	All	All	All	All
Chile	All	All	All	All	All	All
China(1985)+	All except 5	All	All	All	All	All
Ecuador(1990)+						
Finland (1989)+						
France	All	All	All	All	All	All
Germany (1981)+	All except 5	All except 1, 2 & 5	All	All	All	All
India(1983)+	All	All	All	All except 1 & 9		
Italy(1987)+	All except 5	All	All	All except 1 & 9		
Japan	All	All	All	All	All	All
Korea, Rep. of (1989)+						
Netherlands (1990)+						
New Zealand	All	All	All	All	All	All
Norway	All	All	All	All	All	All
Peru (1989)+						
Poland(1977)+	All	All	All	All	All	All
South Africa	All	All	All	All	All	All
Spain (1988)+	All	All	All	All except 1 & 9	All except 1	
Sweden (1988)+						
U.S.S.R.	All	All	All	All	All	All
U.K.	All	All	All	All	All	All
Uruguay(1985)+	All	All	All	All	All	All
U.S.A.	All	All	All	All	All	All

+ Year attained Consultative Status. Acceptance by that State required to bring into force Recommendations of meetings from that year forward.

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 (Canberra 1961)	10 Recommendations adopted at Second Meeting (Buenos Aires 1962)	11 Recommendations adopted at Third Meeting (Brussels 1964)	28 Recommendations adopted at Fourth Meeting (Santiago 1966)	9 Recommendations adopted at Fifth Meeting (Paris 1968)	15 Recommendations adopted at Sixth Meeting (Tokyo 1970)
	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(1983)+	All	All	All	All	All	All except 10
Chile	All	All	All	All	All	All
China(1985)+	All	All	All	All	All	All except 10
Ecuador(1990)+						
Finland (1989)+						
France	All	All	All	All	All	All
Germany (1981)+	All	All	All except 8	All except 1-11 and 13-19*	All except 5* & 6	All except 9, & 10
India(1983)+	All	All	All except 8***	All except 18	All	All except 9 and 19
Italy(1987)+	All	All	All	All	All	All
Japan	All	All	All	All	All	All
Korea, Rep. of (1989)+						
Netherlands (1990)+						
New Zealand	All	All	All	All	All	All
Norway	All	All	All	All	All	All
Peru (1989)+						
Poland(1977)+	All	All	All	All	All	All
South Africa	All	All	All	All	All	All
Spain (1988)+	All	All	All	All	All	All
Sweden (1988)+						
U.S.S.R.	All	All	All	All	All	All
U.K.	All	All	All	All	All	All
Uruguay(1985)+	All	All	All	All	All	All
U.S.A.	All	All	All	All	All	All

*IV-6, IV-10, IV-12, and V-5 terminated by VIII-2
*** Accepted as interim guideline
+ Year attained Consultative Status. Acceptance by that State required to bring into force Recommendations of meetings from that year forward.

RECOMMENDATIONS OF ANTARCTIC CONSULTATIVE MEETINGS
NOT YET IN FORCE

CONSULTATIVE MEETING	RECOMMENDATION NUMBER	COUNTRIES WHICH HAVE YET TO APPROVE TO BRING RECOMMENDATIONS INTO FORCE
XII (1983)	XII-1 - 15	India.
XIII (1985)	XIII-10,11,12 & 13	Germany
	XIII-1 - 16	India
XIV (1987)	XIV-1 - 10	Belgium, Chile, India, Italy United Kingdom
XV (1989)	XV-1 - 22	Belgium, Brazil, Chile, China, Finland, France, Germany,
	XV-3,4,8,10,11,22 (Germany)	India, Italy, Rep.of Korea, Japan, Norway, Peru, South Africa, Spain, Sweden, USSR, UK, USA, Uruguay.
XVI (1991)	XVI-1 - 13	Argentina, Australia, Belgium, Brazil, Chile China, Ecuador, Finland, France, Germany, India Italy, Japan, Rep of Korea, Netherlands, Norway, Peru, Poland, South Africa, Spain, Sweden, USSR, UK Uruguay, U.S.A.

Department of State,

Washington,

WANG SELTDEP 19

REPORT OF THE CONVENOR OF THE INFORMAL GROUP OF TREATY PARTIES IN THE UNITED NATIONS
(Top 5 a - V)

It is a pleasure for me to be here today and to report to you on the developments in the question of the Antarctica that have taken place at the UN since last year's 16th Consultative Meeting in October. The treatment of this topic in the UN context again produced two resolutions both of which were adopted by vote.

The resolution dealing with the Antarctic Treaty System as a whole passed in the 46th General Assembly with 101 votes in favour, none against and seven abstentions. 52 Delegations declared that they were not participating in the vote. This result was similar to the one in the preceding year, 1990. It is noteworthy, however, that the group of states not participating in the vote grew from 45 to 52 states in 1991 an that we find among them all the new UN-Members States.

The second resolution concerning South Africa was passed with 107 votes in favour, none against and six abstentions and 48 states declaring that they were not participating in the vote. In this case, as well, the number of states expressly not voting increased from 37 states in 1990 and included all new UN members and three African states who had previously voted for the resolution (2) or abstained (1). One Delegation voted for both resolutions even though the country it represented had just become a member of the Antarctic Treaty.

As far as the substance is concerned last year's resolution on the participation of South Africa in the meeting of the Antartica Treaty Consultative Parties no longer speaks of

"racist apartheid regime" but of "apartheid monitory regime". Apart from this change of words there is little in the resolution that substantially differs from the text of previous years.
It is regrettable that the numerical majority in the UN General Assembly chose to leave out language that would have appropriately reflected the positive development in South Africa. There was apparently a certain disagreement in the African group itself as to whether the basically unaltered text of resolution was still opportune and timely.

Last year's resolution dealing with the Antarctic Treaty System as a whole contains no surprises. It basically consists of wording already found in the 1990 resolution. In operative paragraph 4, however, the 1991 resolution not only calls upon the Antarctic Treaty Consultative Parties to deposit information and documents covering all aspects of Antarctica with the Secretary - General.

It also request the Secretary - General to submit a report "on his evaluation thereof" to the 47th General Assembly. In the light of this requests it remains to be seen what effect the Secretary General's report will have on debate in the 47th General Assembly on the question of Antarctica.

I want to refrain here from going into more detail, from pointing out all the changes in the 1991 Antarctica resolution from previous texts. Suffice it to say that while the wording in last year's resolution mostly familiar it is undoubtedly due to a concerted effort of the Antarctic Treaty Parties in New York that much more negative texts could be avoided.

The constructive influence of the Antarctic Treaty Parties was even more apparent in the preparation for UNCED, especially during the lengthy and tedious work on the formulation of Agenda 21 in the Preparatory Committee. An agreement was reached to include an article 117 bis in the UNCED' agenda 21 document which reads as follows:

"In recognition of the value of Antarctica as an area for the conduct of scientific research, in particular essential to understand the global environment, states carrying out such research activities in Antarctica should, as provided for in art. roim 3 of the Antarctic Treaty, continue to:

(a) ensure that data and information resulting from such research is freely available to the international community, and

(b) enhance access of the international scientific community and specialised agencies of the UN to such data and information including the encouragement of periodic seminars and symposia."

In the view of the Antarctica Treaty States as well as Malaysia and others, this reference in the Agenda 21 treated the question of Antarctica in the UNCED context exhaustively. This common understanding was honored by all sides. During the Rio Conference there was basically no mentioning of the so-called question of Antarctica apart from the wording of the article in Agenda 21 just cited. There is no doubt that the agreement reached in the Preparatory Commission of UNCED on the treatment of Antarctica removed an obstacle that stood in the way of a successful Rio Conference. The positive role of the Antarctic Treaty Parties in this context was expressly recognised by a number of Delegations representing countries of the Group of 77 as well as the UNCED-Prepcom chairman.

It remains to be seen whether the successin the UNCED context will have a positive bearing on the upcoming deliberations of Antarctica in the First Committee and, later, in the plenary of this General Assembly. So far Malaysia has not presented draft resolutions. It seems that, like in previous years, texts will not be produced until shortly before the question of Antarctica is discussed in

the First Committee. But even if we should be faced with draft resolution which differ little from last year's texts, we will again do our best to change and improve the wording. We will continue striving for consensus resolution that appropriately reflect the proven and highly successful Antarctic Treaty System which after all, is over any state who wishes to join it.

In agreeing on a common answer to two circular notes of the Secretary-General of 25 February 1992, the Antarctic Treaty Parties at the end of may this year again demonstrated their ability to convincingly state their position in the context of last year's General Assembly Antarctic Resolutions. In the more substantive answer to the Secretary General's Antarctic Treaty System as a whole, the Antarctic Treaty Parties not only described their common position but also pointed to the consensus reached on the treatment of Antarctica during the Rio Conference.

REPORT OF THE COUNCIL OF MANAGERS OF NATIONAL ANTARCTIC PROGRAMMES TO THE XVII ANTARCTIC TREATY CONSULTATIVE MEETING

Council of Managers of National Antarctic Programmes

REPORT TO THE XVIIth ATCM

CONTENTS PAGE

LIST OF ANNEXES

1. INTRODUCTION

1.1

This report to the XVIIth Antarctic Treaty Consultative Meeting is submitted on behalf of COMNAP by its Chairman pursuant to the agreement noted in the final report of the XVIth ATCM, which recognised COMNAP as a component of the Antarctic Treaty System under the terms of Recommendation XIII-2.

1.2

The various national programmes of science and support activities in Antarctica are conducted in accordance with the purposes and principles of the Antarctic Treaty and reflect the diversity, cohesion, and relevance that are hallmarks of the Treaty System. As of 1992 the Treaty has been strengthened by the adoption of the Protocol on Environmental Protection. Since the national programmes have traditionally been conducted so as to be consistent with the recommendations and measures adopted by the Consultative Parties, even before they come into force, the managers of national programmes, through the continuing activities of their Council (COMNAP), have shifted the emphasis of their agenda to the implementation of the Protocol.

1.3

The COMNAP and its Standing Committee on Antarctic Logistics and Operations (SCALOP) held their annual meetings 8 through 12 June 1992 in Bariloche, Argentina in conjunction with SCAR XXII. The fifth Symposium on Antarctic Logistics and Operations was also conducted there by SCALOP. The additional major activities of COMNAP and SCALOP since the time of the last report to the ATCM have been carried out through the work of several subgroups and the secretariat. Highlights include meetings and resulting documentation generated by the COMNAP Subgroup on environmental matters

and by the SCALOP subgroup on oil spill prevention and response. In addition, during this period, there was another in the series of regional meetings of the South American national programme managers; this one hosted by Ecuador, with waste management its major topic. Meanwhile, the Proceeding of the Fourth Symposium on Antarctic Logistics and Operations were published by Brazil and the SCALOP subgroup met to select the papers and plan the presentation of the Fifth Symposium.

1.4

Since ATCM XVI there have been important developments in the procedures for cooperation and joint efforts by COMNAP and SCAR. A prime example is the coordinated activity of the two organisations in producing the joint Discussion Document on Environmental Monitoring in Antarctica (section 2, below). Another example is the procedure that has been established for joint meetings, at least annually, of the SCAR Executive with the COMNAP Executive (composed of the chairman, past chairman, chairman-elect, SCALOP chairman, and executive secretary). These joint meetings, inaugurated at Bariloche in June, have already demonstrated a realistic and effective way forward with planning for international global change research, as well as the potential for synergistic enhancement in the advice and response developed by each group in its relationship to the ATCM.

1.5

In summary, the major function of COMNAP is the effective sharing of information; and the greatest common concern is the timely and efficient implementation of the measures already adopted as well as those under discussion by the Treaty consultative process (See Annex 1). At present a primary concern is the study of the implementation of the measures contained in the Protocol on Environmental Protection.

2. ENVIRONMENTAL ASSESSMENT AND MONITORING

2.1 REVISED PRACTICAL GUIDELINES FOR ANTARCTIC ENVIRONMENTAL ASSESSMENT

In June 1991, COMNAP sponsored a workshop in Bologna, Italy, to develop the first edition of the Practical Guidelines for Antarctic Environmental Assessment. The first edition of the Practical Guidelines was submitted by COMNAP in its 1991 report to the XVIth ATCM. Subsequently, on October 4,1991, the Protocol on Environmental Protection was accepted by the Treaty Parties, and in the report of the XVIth ATCM it was noted that COMNAP intended to review and revise the draft guidelines to ensure consistency with the Protocol and its EIA Annex. A meeting of the COMNAP subgroup was convened in Washington and on March 4, 1992 produced the Revised Practical Guidelines, which were then approved by COMNAP at its meeting in June 1992 and are included as Annex 2 to this report.

2.1.2

The goal of the Practical Guidelines is to provide the Managers of National Antarctic Programmes with an explicit and concise mechanism for the implementation of environmental assessment procedures; Article 8 and Annex 1 of the Protocol on Environmental Protection to the Antarctic Treaty call for such procedures. They are needed to disclose and to evaluate potential environmental impacts that may be associated with Antarctic scientific activities and the logistic operations that support that science. An additional purpose of these guidelines is to assure that the development of such mechanisms and associated procedures is fully coordinated among the national Antarctic programmes so as to be comparable, effective and justifiable. Also, it is hoped that they could serve as an aid to non-governmental organisations proposing activities in Antarctica. The Revised Practical Guidelines have been prepared to assist operators in their efforts to implement the provisions of

the Protocol and its Annex as rapidly and completely as possible, and are considered to be in a continuing process of review and evolution as more experience is gained in environmental assessment.

2.1.3

The Practical Guidelines are meant to provide insights into the types of information that should be gathered for, and analysed in, environmental assessments to support environmental decisionmaking. They are meant to encourage flexibility and creativity in the preparation of such environmental documents as Initial Environmental Evaluations (IEEs) and Comprehensive Environmental Evaluations (CEEs) as defined in Annex I of the Protocol. They are not meant to constraint the format of environmental documents prepared by national programmes. Such flexibility and creativity is necessary given the inherent differences, in terms of the type and scale, that are evident among Antarctic activities and Antarctic environments.

2.1.4

The document elaborates upon the Protocol's requirements, and is designed to provide practical and useful information to the national operators who must prepare environmental documents. Topics in revised form (to that reported to XVI ATCM in 1991) include:

* Description of the proposed activity
* Description of the existing environment
* Description of methods and data
* Analysis of expected impacts
* Alternatives

- Mitigation measures
- Monitoring
- Unavoidable impacts
- Potential impacts on research and other uses
- Gaps and Uncertainties

There are also general suggestions, and a diagram showing the timetable for the environmental assessment process.

2.2 ENVIRONMENTAL MONITORING

Treaty Recommendation XV-5 called for a Group of Experts Meeting on Environmental Monitoring. The Treaty Parties at the XVIth ATCM at Bonn, Germany, refocused on the need to implement Recommendation XV-5, and in particular, on the need to convene a Meeting of Experts under the terms of Recommendation IV-24. SCAR and COMNAP were asked to participate, and together prepared a paper in May, 1992, called "Environmental Monitoring in Antarctica - A Discussion Document". The COMNAP-SCAR paper was the first such joint effort of these organisations.

The purpose of joint paper was to contribute to the work of the Meeting of Experts by offering an analysis of the terms of reference and the broad topic of monitoring from a scientific as well as from an operational and management point of view based on the collective expertise and experience of COMNAP and SCAR. The paper was one of the key documents used by the Meeting of Experts on Environmental Monitoring, which met in Buenos Aires, Argentina, June 1-4,1992.

2.2.1

It is the view of COMNAP and SCAR that environmental monitoring is important to ensure compliance with the recommendations of the Antarctic Treaty and the provisions of the Protocol on Environmental Protection to the Antarctic Treaty. COMNAP already has a number of subgroup assigned to areas of environmental importance such as environmental impact assessment and environmental monitoring (Annex I to the Protocol), waste management (Annex III), oil spill prevention and response (Annex IV), alternative energy, and siting of stations. In addition, members of COMNAP are already supporting environmental monitoring efforts, for purposes of both basic research and for measuring environmental impacts.

2.2.2

The Antarctic Treaty has proved an outstanding model of international cooperation. Article 6 of the Madrid Protocol on Environmental Protection calls for cooperation of the parties in the specific area of the planning and conduct of environmental activities. The scope, magnitude, and expense of the environmental tasks have to be balanced against the support provided by the Antarctic operators for important and globally-relevant scientific research and in accordance with the priority accorded to their research as underscored in the Protocol (Article 3.3). International cooperation in environmental monitoring is, therefore, imperative.

2.2.3

COMNAP and SCAR may contribute to the environmental monitoring effort using mechanisms that exist and can be exploited. SCAR has been studying actively man's impact on the Antarctic environment for some time. There is a definite need to coordinate and make effective the logistic support for such programmes. Because of heightened environmental

awareness worldwide and the expanded scope and complexity of the activities required of operators in Antarctica, they must strive for collective continuity and must act in a manner consistent with uniform interpretation and prompt cooperation in the sharing of expertise and technology.

2.2.4

The COMNAP-SCAR paper may be summarised as follows:

* The need for scientific monitoring in the Antarctic is identified and its value to both basic and applied research is recognised.

* A data directory of existing Antarctic environmental data sets is required.

* To maximise the value of Antarctic monitoring data, agreement among national operators on adoption of internationally recognised protocols for data and sample collection and analysis is required. Measurement techniques must be agreed internationally, with any chemical analyses firmly related to inter-laboratory standards and verifiable detection limits.

* Monitoring programmes should be designed around testable scientific hypotheses, utilising existing knowledge, and models, of system processes wherever possible.

* Monitoring programmes should be designed to help managers discern when environmental impact or change is due to natural environmental variability and when such impact or change is due to human activity in Antarctica; and, the selection of variables to be monitored could be based on assessment of importance and magnitude of expected impact to, or change in, environmental quality attributes.

* All monitoring programmes should be subject to regular independent scientific review and have termination dates.

* Countries would be expected to make data available publicly and provide a primary evaluation of the environmental significance of any changes or trends.

* The monitoring studies will initially define baselines against which the effects of continuing activities, such as scientific stations, must be assessed. In this respect it would be useful to establish the pollution "footprint" of existing stations. In addition theywill contribute to improved environmental decision making by management, and to a basic understanding of the Antarctic environment.

* The monitoring requirements for the environmental impact assessment process can be organised under, and contribute data to, the system outlined here.

* Monitoring programmes are expensive, require long-term commitment to provide adequate data sets and should be supported with funds distinct from those allocated for basic scientific research.

2.2.5

A major emphasis of the approach to be taken must be placed on international cooperation as an extended interpretation of Article 6 of the Protocol. The national managers as well as the international scientific community in Antarctica face the difficultchallengeof designing and implementingthe environmental monitoring programmes anticipated in response to the Protocol. In the context of resources, organisation and international cooperation, some of the topics already discussed include:

* Consideration of financial costs is foremost to real progress in any of these areas.

* Personnel represents a vital long-term resource not easily or quickly acquired.

* In order to develop expertise in the Antarctic dimension of environmental monitoring, long term education and training programmes, involving academic communities and industry, must be undertaken.

* National operators and responsible officials must anticipate the evolution of Antarctic environmental monitoring programmes that will be internally and internationally consistent and compatible. They must foresee and avoid significant gaps and overlaps or duplications.

* Standardisation in terms of hardware, calibration of instruments, and data processing must not be overlooked. Most importantly there must be commonly developed and agreed procedural protocols.

* Environmental monitoring programme personnel must use effective communications to assure the required consistency, standardisation and compatibility in real time. There should be a proper networking arrangement suitable to the cooperative management of the automated data processing that will surely be involved.

3. MARINE POLLUTION

3.1 Background

3.1.1

During the last four years COMNAP and SCALOP have accorded high priority to addressing the issue of marine pollution in Antarctic waters. Compared with most other areas of the world oceans the waters of the Antarctic are not threatened by the bulk crude carriers and other hazards of major shipping lanes. By far the greatest risk is posed by the use of fuel oils. Nearly all of the relatively small number of ships regularly operating south of 60? carry only lighter diesel fuels. From an analysis of fuel transport and storage activities in Antarctica, it has been concluded that the activities which present the greatest threat are:

* the carriage of cargo fuels and bunkers by ships;

* the transfer of cargo fuels from ship to shore; and

* the storage and transfer of fuels at stations and bases

3.1.2

At the 1991 meetings in Bologna, the SCALOP Subgroup on Oil Spill Prevention and Response put forward a series of recommendations for consideration by COMNAP/SCALOP. Members were invited to provide written comments on a number of the recommendations prior to final consideration at the 1992 COMNAP/SCALOP meetings in Bariloche, Argentina. At Bariloche the Standing Committee and subsequently COMNAP, endorsed the recommendations, which are briefly outlined in the following sections.

3.2 PREVENTION MEASURES

3.2.1

The majority of the recommendations developed by the SCALOP Subgroup on Oil Prevention and Response and adopted by COMNAP at the 1992 meeting in Bariloche are directed towards preventing or reducing the impact of oil spills. The measures include:

* adoption of a minimum standard of at least one season of ice navigation experience for officers on vessels under charter or in support of Antarctic operations;

* agreement to use light, non-persistent fuel oils whenever practicable;

* adoption of recommended procedures for fuel transfer at stations and bases (Annex 3);

* adoption of recommended procedures for spill prevention and containment of fuel oil at stations and bases (Annex 4); and

* identification of priorities for hydrographic charts in conjunction with national authorities and the International Hydrographic Organisation (IHO).

3.3 CONTINGENT PLANNING

3.3.1

To assist national operators with the task of developing contingency plans, the SCALOP Subgroup has developed a document entitled "Guidelines for Oil Spill Contingency Planning" (Annex 5). This document was produced following study of a large number of papers, reports and other publications on oil spill pollution and response with particular reference to cold regions.

3.3.2

In developing the Guidelines, the Subgroup held meetings in Washington, DC in May 1991 and April 1992 at which members were accompanied by experts on marine pollution from several countries. In addition some members of the Subgroup have consulted with the marine safety authorities in their own country on specific issues. Thus the Subgroup has had available to it a considerable body of advice and information.

3.3.3

The contingency planning strategy is based on the development of Facility Plans and, where applicable, Multi-Operator Plans. Facility Plans are required for individual station or bases, whereas Multi-Operator Plans are to be developed for geographic areas where it is effective and feasible for two or more operators to pool and deploy response equipment and supplies.

3.3.4

The "Guidelines for Oil Spill Contingency Planning" were adopted by COMNAP at the 1992 meeting in Bariloche where it was also agreed that national operators would develop Facility Contingency Plans, at least to draft stage, by 31 December 1992. The plans are to be circulated among operators prior to the 1993 COMNAP/SCALOP meetings. COMNAP also adopted a recommendation which requires that vessels operating under charter or in support of Antarctic operation have on board a shipboard oil pollution contingency plan by 31 March 1995. This action is consistent with Article 12 of Annex IV of the Protocol and is to be undertaken with reference to current IMO guidelines for implementation of MARPOL 73/78.

3.4 CONSULTATION WITH IMO AND IHO

3.4.1

In March 1992 a meeting was held between representatives of the SCALOP Subgroup on Oil Spill Prevention and Response and the Chairman of the Marine Environmental Protection Committee (MEPC) of the International Maritime Organisation (IMO). The purpose of the meeting was to establish liaison with the MEPC and facilitate the exchange of information and advice. The MEPC was provided with copies of the various procedures developed by the SCALOP Subgroup on Oil Spill Prevention and Response. The Subgroup will continue to liaise with the MEPC in developing additional guidelines on other matters including recommended response equipment and standardisation. Individual SCALOP Subgroup members are also maintaining contact with their national MEPC Representative to further facilitate the exchange of advice and information.

3.4.2

With regard to hydrographic matters, in October 1991 a representative of COMNAP was invited to attend a meeting of the International Hydrographic Organisation (IHO) Working Group on Cooperation concerning Hydrographic Surveying and Nautical Charting in Antarctica. The meeting was convened to discuss a response to ATCM Recommendation XV-19 regarding hydrographic charting in Antarctic waters. The Working Group meeting agreed to recommend to the IHO XVIth Conference the setting up of a new permanent Working Group on Hydrographic Cooperation on the Antarctic. Terms of reference for this Working Group were developed and COMNAP/SCALOP will continue to be represented at the meetings.

3.5. PROPOSED MEETING OF EXPERTS

3.5.1

ATCM Recommendations XV-4 requires, inter alia, that "a Meeting of Experts be convened to consider and provide advice on the establishment of contingency plans for marine pollution response...". Such a meeting has not yet been convened. However, during the last four years, COMNAP and SCALOP have taken action to develop procedures and commence the implementation of contingency plans for stations/bases and vessels as outlined above.

3.5.2

At the ATCM in Bonn it was "agreed to encourage SCALOP to convene a Meeting of Experts in close consultation with the MEPC of the IMO" to consider the following items:

i) review of the work carried out by SCALOP on the prevention of oil pollution and the development of oil spill contingency plans in Antartica and their application to non-governmental activities;

ii) assessment of the environmental effects of marine dumping and the disposal of sewage and food wastes into the sea in the Antarctic Treaty Area, and review the best practicable means to prevent or reduce such pollution;

iii) investigation of the best practicable means to monitor marine pollution in the Antarctic, particularly as regards compliance with Annex IV of the Protocol and the proposed amendments for the designation of the Antarctic Treaty Area as a "Special Area" under Annexes I, II and V of MARPOL 73/78, as well as the establishment of baseline surveillance programs to quantify actual levels of marine pollution in the Antarctic Treaty Area.

3.5.3

As noted in paragraph 3.4.1, SCALOP has established liaison with the MEPC of the IMO to facilitate the exchange of information and advice. With regard to Item ii) and iii) of the above tasks, the Subgroup concluded that these would best be considered, in the first instance, by the Meeting of Experts on Environmental Monitoring and any operational matters emerging from this meeting be subsequently referred to SCALOP. The June 1992 Meeting of Experts on Environmental Monitoring in Buenos Aires considered Items ii) and iii) and agreed to refer them to SCAR for consideration and expert advice.

3.5.4

At the 1992 meetings in Bariloche, COMNAP and SCALOP concluded that with regard to the proposed Meeting of Experts:

i) the matters of polar vessel classification for new construction and the setting of minimum standards for vessels to be used in the Antarctic should be referred by the ATCM to the International Maritime Organisation for consideration; and

ii) the question of a liability regime to apply in the event of a pollution incident should be considered by the ATCM in the context of the Protocol to the Antarctic Treaty on Environmental Protection and its Annex IV on Marine Pollution; while

iii) the topics of Antarctic oil spill contingency planning and response equipment should continue to be developed by COMNAP/SCALOP.

The question of liability in the event of oil spill incidents in Antarctic waters needs to be addressed and resolved as a matter of priority. Resolution of this issue is fundamental to establishing effective response action in the event of serious, environmentally threatening, oil spill incidents.

4. SUPPORT FOR SCIENCE AND RELATIONS WITH SCAR

COMNAP continues to endorse its fundamental role, as exercised by individual national operators, to support and implement scientific programmes in Antartica. In order to make effective this support COMNAP engages actively in liaison with SCAR and encourages interaction with SCAR working groups and groups of specialists in the formulation of programmes which require logistics considerations. Furthermore, in the development of its ambitious plans for global change research SCAR has recognised that there will need to be substantial cooperation with national operators in providing logistics and operational support, and has opened a strong dialogue with COMNAP. Mechanisms to achieve this are being developed actively. The Standing Committee on Antarctic Logistics and Operations (SCALOP) is responsible for engineering and technical issues and holds a symposium every two years. Many of the technical developments discussed within SCALOP and at the symposia are relevant to the support of scientific projects and it is recommended that there is increased interaction between SCAR scientists and the technical representatives of SCALOP in the possible formulation of joint symposia. The Executives of COMNAP and SCAR have agreed to meet on an annual basis in order to share areas of common concern in the support of science. A joint meeting was held in Bariloche, Argentina in June 1992.

4.1 ANTARCTIC SCIENTIFIC DATA MANAGEMENT.

Recognising the important, if not central, role of effective data coordination for Antarctic scientific investigations in general, for the developing global change programme of SCAR in particular and for the implementation of monitoring and related projects in compliance with ATCM Recommendations and the Environmental Protocol, COMNAP and SCAR have agreed to cooperate on establishing a common approach to data management. They have, therefore, agreed to set up quickly a joint ad hoc planning group on Antarctic Data Management with the principal objective of providing a framework for coordination and management of Antarctic data in the context of SCAR's past and future activities and taking account of ATCM requirements and the role and contribution of international data centres. It is likely that this activity will establish directories and lists of relevant Antarctic data holdings amongst Antarctic nations and those held elsewhere.

5. AREA PROTECTION AND MANAGEMENT

5.1

Following the careful evaluation by the ATCPs at their meeting in Bonn (ATCM XVI) of the Antarctic protected area system and the revision of the existing categories to two - Antarctic Specially Protected Areas (ASPAs) and Antarctic Specially Managed Areas (ASMAs), COMNAP has considered how it may assist the ATCPs in implementing the new system. COMNAP considers that new protected areas and their associated management plans should be proposed by a national authority (or jointly between those of more than one nation) after consultation with relevant scientists and the COMNAP representative(s). Although not specifically requested under Article 6 (Designation Procedures) of Annex V of the Protocol, the above proposal for the initial stages is advisable in order to ensure that the site not only fulfills the criteria for designation, but also that its establishment and management are logistically feasible.

5.2

Once designated, a protected area becomes the responsibility of the proposer nation(s) with regard to the implementation and operation of its management plan. For most types of ASPAs and ASMAs this involves both scientific and logistic commitment although some management plans (e.g. Historic Sites and Monuments, see Article 8) may be wholly a responsibility of Antarctic operators. COMNAP has initiated a series of actions which will be developed over the next year and offered to the ATCM to assist in the implementation of the Antarctic Treaty's requirements, these are to:

* Propose a design for a standard sign and boundary marker posts for protected areas.

* Consider and coordinate arrangements for the installation of protected area signs and boundary markers.

* Propose a format for a standard permit form.

* Propose a format for a standard "Report on visit to ASPA" (for the Annual Treaty Exchange of Information).

* Coordinate and, through individual operators, arrange for occasional (3 to 5 year) inspection and maintenance visits to protected areas.

* Prepare and distribute multi-lingual educational and information material, including a proposal for a basic "Protected Areas Guide and Code of Conduct".

6. TOURISM AND NON-GOVERNMENTAL ACTIVITIES

6.1

The earlier effort by COMNAP in this area produced a "Visitors' Guide to the Antarctic" which has been translated into several languages with multiple copies circulated to many ships and stations. At their meeting in 1992, however, the national programme managers concluded that while individual views were spread over a wide range, there were serious mutual concerns. A new subgroup was formed and, having met, reported on the following significant issues:

* the impact on science,
* impact on the environment,
* potential liability,
* interference with routine operations,
* contingency response, and
* the prospects for formulation and enforcement of regulations.

6.2

COMNAP anticipates the opportunity to introduce and participate in the discussion of these concerns at the Treaty meeting on tourism to be convened in Venice on 9 November 1992. Further, in view of the possibility that the Consultative Parties may prepare a proposed Protocol Annex on Tourism, COMNAP has charged its subgroup with the task of developing a plan for a Workshop on Tourism and Non-Governmental Activities to be conducted by COMNAP in 1993.

7. AIR SAFETY IN ANTARCTICA

7.1

The Council of Managers has reviewed the progress of implementation of ATCM Recommendation XV-20, taking note of the report of XVI ATCM. This is the work of a subgroup of SCALOP. The initial progress was reported in 1991. The subgroup met on 11 and 12 June 1992 in Bariloche, Argentina. The Antarctic Flight Information Manual (AFIM) was published in September 1991 and, pursuant to XVI ATCM, a copy sent through diplomatic channels to each of the Treaty Parties.

* National operators report that the AFIM has proven very useful and has become an important operator's reference. Two amendments have already been issued, and the numbers of copies distributed through the national programmes have been adjusted to suit the needs of operating units and sites.

* AFIM Amendment 2 included the data contributed by Adventure Network International, the non-governmental tourist operator using an aviation facility in Antarctica.

* The AFIM is being improved to include the use of area maps to show the position of obstructions and significant terrain relative to the air facilities. A list of restricted areas based on the Antarctic Protected Area System is to be included.

* There are established procedures and a common VHF frequency for the use of Traffic Information Broadcast by Aircraft (TIBA) in Antarctica. SCALOP Members agreed to remind air operators that TIBA is to be used in the uncontrolled air space of Antarctica.

* The flight notification procedure initiated in 1991 has been revised in accordance with ICAO Annex 2, and renamed the Antarctic Flight Plan. With appropriate introductory and instructional material it will be added as an appendix to the AFIM.

7.2 On going and future work of the SCALOP subgroup includes:

* Measures to facilitate the use in Antarctica of the ICAO Table of Standard Cruising Levels (ICAO Annex 2) and the associated use of GRID direction reference in areas of latitude higher than 70°.

* There is an ongoing study of aviation safety in the Antarctic, with special attention to the Peninsula area; progress to be reviewed at the next meeting of the SCALOP subgroup.

8. WASTE MANAGEMENT

8.1

In its report to the XVIth ATCM in 1991 COMNAP summarised the work by SCALOP that was started in 1989. The programme managers have used the Waste Management Report format that was developed by SCALOP and included in the 1991 report to exchange information pertaining to the annual operating cycle ending in September 1990 and again, following minor revision during the meeting at Bologna, in 1991.

8.2

At the meeting in Bariloche in 1992 the SCALOP subgroup further revised the format of the Waste Management Report to incorporate the provisions of the Protocol and its Annex III. The revised format, presented here as Annex 6, is submitted to the ATCM for consideration that it be used in fulfilling the annual reporting requirement of the Protocol Annex III Article 9 that waste management be added to the Treaty exchange of information. Meanwhile, COMNAP has distributed the revised format to national programme managers for their use as part of the annual advance operational exchange at the start of 1992/93 operating season. In summary, the operators will use the revised format to report waste management activities and planning for the period 1 October 1991 to 30 September 1992 and include it in their annual advance operational exchange in 1992; for future years waste management reporting is to be part of the annual Treaty exchange.

9. INSPECTIONS

The COMNAP has taken note of the ATCM discussions of the role of inspections in Antarctic Treaty System. The inspections serve an important political role that is likely to become increasingly intensified and broadened during the coming years, particularly in view of the new environmental protection protocol being implemented. The national operators take a considerable operational and financial responsibility for providing logistic support to the inspection teams. COMNAP recognised with satisfaction the ambition among Treaty Parties to arrange joint inspections and to provide for more efficient exchange of information, e.g. related to environmental management. The managers are interested, on a practical level, in assisting the Treaty Parties in developing the inspection operations further.

10. ANTARCTIC METEOROLOGY AND TELECOMMUNICATIONS

10.1 Relations with WMO

10.1.1

Since 1990 individual national Antarctic programme managers have been encouraged to liaise directly with their respective national meteorological service officials and WMO representatives. This direct liaison, to consider SMO plan and operational requirements for weather and sea ice analysis and forecasting in Antarctica, was emphasised again at the 1992 COMNAP meeting.

10.1.2

Direct contact has also been maintained by the COMNAP Secretariat with the Chairman of the WMO Executive Council Working Group on Antarctic Meteorology, Dr Neil Streten. Dr Streten was invited to participate in the 1992 meeting of COMNAP, where he circulated a paper and made an illustrated presentation. The problems, from the WMO perspective, in meteorological services in support of operations in Antarctica were identified, and six suggested ways for COMNAP to work toward improvements were presented. The ongoing interests by COMNAP in this area stem from the obvious concerns for safe and efficient air, ship and science support operations, as well as special requirements applicable to potential oil spill clean up and other contingency operations. These matters, and continued liaison with WMO, remain on the COMNAP agenda.

10.2 Revision of SCARCOM

10.2.1

Following the report of a project that was started by SCALOP in 1991, COMNAP has approved and adopted a plan to revise the Antarctic Telecommunications Guidance Manual of 1983 (SCARCOM). The purpose is to implement a more direct, effective and timely procedure for the exchange of operational telecommunications information. The revised manual retains the original two-part format. Part I, summarising the history of Antarctic telecommunications together with the relevant ATCM and WMO material, is to be reviewed, updated and condensed. The format for Part II, the Operator's Handbook, has been revised and simplified and is to be used beginning in September 1993 by national managers in their annual advance exchange of operational information. The title of the manual is changed to Antarctic Telecommunications Operator's Manual (ATOM).

11. SITING OF STATIONS AND FACILITIES

11.1

At their meetings in 1990, 1991 and 1992, the members of COMNAP discussed the various aspects of the issue of siting of new stations and facilities in Antarctica. The bases of these discussions included considerations involving science, logistics and the environment as described in the reports of the XIIIth, XIVth and XVth ATCMs.

11.2

The terms of ATCM Recommendation XV-17 were recalled again at Bariloche and a subgroup met in separate sessions. The group, chaired by the representative from Chile, included members from Brazil, China, Netherlands and Russia.

11.3

The subgroup proposed a COMNAP discussion document (DP 92-17) with more comprehensive guidelines that should be applied before establishing a new station or facilities in Antarctica. This document should be the bases for more discussion and consultation, before it is formally proposed to the ATCM. An information copy of this discussion document is at Annex 7.

12. SYMPOSIA

12.1

The Fifth Symposium on Antarctic Operations and Logistics was held at Bariloche, Argentina in conjunction with XXII SCAR and the annual COMNAP and SCALOP meetings. The previous symposia in the series were held in Sao Paulo in 1990, Leningrad in 1982, Tokyo in 1968 and Boulder, Colorado in 1962.

12.2

The Bariloche Symposium was highly successful and provided a stimulating exchange of ideas on a range of operational matters. An average of 60 to 70 persons attended the various sessions over a two and a half day period. Twenty-seven papers were presented with the major emphases on environmental management, marine pollution, the management of people, communications and transport systems. The proceedings will be published and available for distribution by June 1993.

12.3

It is clear that the Symposium is an important element in the work of COMNAP and SCALOP especially in view of the accelerating pace of operational developments and new technology. Planning has commenced for the Sixth Symposium which will be held in conjunction with XXIII SCAR, meeting in Italy in 1994. The international steering committee is considering several topics to be emphasised in its call for papers:

* Use of Alternative Energy Sources in Antarctica

* Environmental Protection and Operational Technologies

* Antarctica as a Space Analogue

* Management of Human Resources in Antarctica

* New Technological Developments in Support of Science

In addition, the Symposium Subgroup will be considering the possibility of running parallel sessions on specialised topics such as data management and satellite communications technology.

13. ANNUAL INFORMATION EXCHANGE AND REPORTS

The SCALOP subgroup met in Bariloche in June 1992 to continue its review of the various annual reports and information exchanges within the Antarctic Treaty System, with special attention given to those intended for or requiring preparation by the operators.

13.1

The annual advance exchange of operational information will continue at the SCALOP level and is revised to include the annual update of the Antarctic Flight Information Manual and, effective in 1993, the annual update of Part II of the Antarctic Telecommunications Operator's Manual (see paragraph 10.2).

13.2

As noted in paragraph 8.2, COMNAP proposes that the annual Waste Management Report be incorporated into the Treaty Exchange effective in 1993.

13.3

COMNAP proposes for consideration by the ATCM the recommendation of the SCALOP subgroup that the Antarctic Treaty Exchange of Information and the Modifications to Exchange of Information be consolidated into a single report document due at the completion of each annual operating season.

13.4

The subgroup is continuing its work to develop a booklet "Guidelines to Antarctic Information Exchange", and to examine possible ways to consolidate and improve the overall quality and efficiency in this area.

14. CONCLUSION AND PROSPECTS

This report to the XVIIth ATCM by the Council of Managers of National Antarctic Programmes marks the end of its fourth year, and the year in which COMNAP was formally recognised as an important component of the Antarctic Treaty System. As shown by the contents of this report the efforts of the national operators as a group have concentrated on science support and the range of topics dependent upon the management and conduct of operations and logistics in Antarctica. In their deliberations all of the members of COMNAP share primary concerns for safety and efficiency in their individual programmes, but have increasingly taken the collective approach to develop methods for the implementation of measures for the protection of the Antarctic environment and other ATCM Recommendations.

The activities of COMNAP have been made possible by the willing and constructive participation by the responsible managers from the nations party to the Treaty. Members of the Council and its Standing Committee have contributed actively to the annual meetings, the symposia, the subgroups, the workshops and the work of the Secretariat. Clearly the success of the COMNAP experience has benefited as well from the fact that individual managers frequently also serve in respective national Delegations to SCAR and/or the ATCM.

In its future activities COMNAP will move in the direction of current trends: environmental protection and implementation of the Protocol, and expanding methodology in support of science and international cooperation. An important feature of these trends is the collaboration with SCAR, for example, in the design for planning the technical and logistic support of the six core projects of the SCAR programme for Antarctic global change research. A significant prospect for the future to increase the effectiveness of COMNAP and the Antarctic Treaty System is the possible development of a modern Antarctic programme managers' information and communications network.

It is the view of COMNAP that the Antarctic Treaty System is moving toward increased integration of its components while respecting the role and responsibility of each of them. The system continues to demonstrate the benefit to all mankind of preserving a continent for peaceful purposes and the value of international cooperation in scientific research aimed at understanding the complex relationships between the planet Earth and human activities.

THE COMNAP/SCALOP PROCESS

The Council of Managers of National Antarctic Programmes (COMNAP) along with its subgroup the Standing Committee on Antarctic Logistics and Operations (SCALOP) were established in Hobart in 1988 after a series of informal meetings held in 1986 and 1987. COMNAP meets once per year, including the biennial sequence of meetings at the same time and place as the Delegates' meetings of SCAR.

The objectives of the Council are:

* To review, on regular bases, operational matters and exchange information.

* To examine, discuss and seek possible solutions to common operational problems.

* To provide a forum for discussion in order to frame better, and in a timely, efficient and harmonious manner:

  (i) national responses to common issues directed to national Antarctic operators, in particular requests from and Recommendations of the ATCM.

  (ii) appropriate input to SCAR responses to questions involving science and operations/logistics.

* To review, with appropriate SCAR Working Groups and Groups of Specialists, projected programmes requiring major international collaboration on operations/logistics and to provide appropriate advice to the SCAR Executive.

* To respond to request by the ATCM and SCAR for information, advice and comment.

* To create subgroups as necessary, of which one will be a Standing Committee on Antarctic Logistics and Operations (SCALOP) and which will replace the SCAR Working Group on Logistics upon its termination.

The work of COMNAP is undertaken through:

i) its formal plenary meetings;

ii) specifically organised symposia on timely and relevant topics (e.g. Antarctic Logistics and Operations Symposia held in 1990 and 1992, and to be held in 1994. These have included such items as waste disposal techniques, alternative energy sources, shipping, telecommunications, air operations, etc.);

iii) workshops (e.g. Antarctic Environmental Impact Assessment Workshop, Bologna 1991); and

iv) a number of subgroups assigned to important agenda items (e.g. waste management, air safety, marine pollution, alternative energy, tourism, environmental matters, siting of stations, and reporting procedures). There have also been a number of regional meetings of Managers of National Antarctic Programmes. Reports and recommendations are received by COMNAP for discussion, acceptance and subsequent implementation by the national Antarctic operators.

THE ANTARCTIC ENVIRONMENTAL ASSESSMENT PROCESS

PRACTICAL GUIDELINES

Bologna - Italy June 20, 1991

Revised, Washington, D.C., March 4, 1992

THE ANTARCTIC ENVIRONMENTAL ASSESSMENT PROCESS:

PRACTICAL GUIDELINES

CONTENTS

PRACTICAL GUIDELINES

1. INTRODUCTION

1.1

The goal of this document is to provide the Managers of National Antarctic Programmes with an explicit and concise mechanism for the implementation of environmental assessment procedures; provision should be made for its continual review. Article 8 and Annex I of the Protocol on Environmental Protection to the Antarctic Treaty call for such procedures. The procedures are needed to disclose and to evaluate potential environmental impacts that may be associated with Antarctic scientific activities and the logistic operations that support that science. An additional purpose of these guidelines is to assure that the development of such mechanisms and associated procedures is fully coordinated among the national Antarctic programmes so as to be comparable, effective and justifiable. Also, it is hoped that these guidelines could serve as an aid to non-governmental organisations proposing activities in Antarctica.

1.2

The environmental assessment guidelines that follow are meant to provide insights into the types of information that should be gathered for, and analysed in, environmental assessments (see Appendix A for definition) to support environmental decisionmaking. The guidelines are intended to introduce a measure of comparability in the environmental assessment process used by national operators. The guidelines are meant to encourage flexibility and creativity in the preparation of such environmental documents as Initial Environmental Evaluations (IEEs) and Comprehensive Environmental Evaluations (CEEs) as defined in Annex I of the Protocol. They are not meant to constrain the format of environmental documents prepared by national programmes. Such flexibility and creativity is necessary given the inherent differences, in terms of type and scale, that are evident among Antarctic activities and Antarctic environments.

2. THE ENVIRONMENTAL ASSESSMENT PROCESS

Section 2.1 below reiterates the Protocol's IEE and CEE requirements, and provides citations to the appropriate Protocol provisions. These requirements do not, however, provide much practical guidance to those who must prepare environmental documents. Section 2.2 elaborates upon the Protocol's requirements, and is designed to provide practical and useful information to the national operators who must prepare environmental documents.

2.1 ASSESSMENT DOCUMENTATION

An environmental document (either an IEE or a CEE) must be prepared for all proposed activities that may have at least a minor or transitory impact on the Antarctic environment (EIA Annex, Articles 2 and 3). The environmental document should provide sufficient information to allow environmental decisionmaking that is consistent with the environmental principles enumerated in Article 3 of the Protocol.

An IEE is required for proposed activities that may have a minor or transitory impact on the Antarctic environment (EIA Annex, Article 2). A CEE must be prepared if the potential environmental impacts are more than minor or transitory (EIA Annex, Article 3).

An IEE must contain sufficient detail to assess whether the proposed activity may have more than a minor or transitory impact [EIA Annex, Article 1 (1)], and must specifically include the following information:

i. a description of the proposed activity, including its purpose, location, duration and intensity [EIA Annex, Article 2(1)(a)], (See Section 2.2.1 below for elaboration); and

ii. consideration of alternatives to the proposed activity and any impacts that the proposed activity may have on the Antarctic environment, including cumulative impacts in light of existing and known planned activities and existing information on such activities [EIA Annex, Article 2 (1)(b)] (See Sections 2.2.4, 2.2.5, and Appendix A below for elaboration).

A CEE must include the following information:

i. a description of the proposed activity including its purpose, location, duration and intensity [EIA Annex, Article 3(2)(a)] (See Section 2.2.1 below for elaboration);

ii. a description of the initial environmental reference state, and a prediction of the future environmental state in the absence of the proposed activity [EIA Annex, Article 3(2)(b)] (See Section 2.2.2 below for elaboration);

iii. a description of the methods and data used to forecast the potential impacts of the proposed activity [EIA Annex, Article 3(2)(c)] (See Section 2.2.3 below for elaboration);

iv. an estimate of the nature, extent, duration and intensity of the likely direct potential impacts of the proposed activity [EIA Annex, Article 3(2)(d)] (See Section 2.2.4 and Appendix A below for elaboration);

v. a consideration of the potential indirect effects of the proposed activity [EIA Annex, Article 3(2)(e)] (See Section 2.2.4 and Appendix A below for elaboration);

vi. a consideration of potential cumulative impacts of the proposed activity in light of existing activities and other known planned activities and available information on those activities [EIA Annex, Article 3(2)(f)] (See Section 2.2.4 and Appendix A below for elaboration);

vii. a description of all reasonable alternatives to the proposed activity, including the alternative of not proceeding, and the potential consequences of those alternatives [EIA Annex, Article 3(2)(a)] (See Section 2.2.5 below for elaboration);

viii. identification of measures, including monitoring, that could be employed to minimise, mitigate or prevent potential impacts of the proposed activity, detect unforeseen impacts, provide early warning of any adverse effects, and carry out prompt and effective response to accidents [EIA Annex, Article 3(2)(g)] (See Sections 2.2.6 and 2.2.7 below for elaboration);

ix. identification of unavoidable potential impacts of the proposed activity [EIA Annex, Article 3(2)(h)] (See Section 2.2.8 below for elaboration);

x. consideration of the potential effects of the proposed activity on the conduct of scientific research and on other existing uses and values [EIA Annex, Article 3(2)(i)] (See Section 2.2.9 below for elaboration);

xi. identification of gaps in knowledge and uncertainties encountered in compiling required information [EIA Annex, Article 3(2)(j)] (See Section 2.2.10 below for elaboration);

xii. a non-technical summary of the information included in the CEE [EIA Annex, Article 3(2)(k)]; and

xiii. to the name and address of the person or organisation that prepared the CEE and, in draft CEEs, the address to which comments should be directed [EIA Annex, Article 3(2)(l)].

2.2 ELABORATION OF ASSESSMENT DOCUMENTATION REQUIREMENTS

2.2.1 Description of the proposed activity

Each description of a proposed activity should be sufficient to allow an evaluation of the activity's impact upon the environment. It should include an explanation of:

i) the purpose of and the need for the proposed activity;

ii) the principal characteristics of the proposed activity and features of the activity that might cause impact on the environment;

iii) the relation of the proposed activity to relevant previous activities.

It is important to give such detail as:

- description of the activity's location and geographic area (to include indication of access routes and any maps)

- construction requirements (e.g., types of materials, technologies)

- transportation requirements (e.g., types and numbers of vehicles)

- size of any installation, including area, weight, volume, or other appropriate measures

- construction phase inputs (e.g., energy, transportation and personnel) and outputs (e.g., emissions, wastes)

- operational phase inputs (e.g., energy, transportation and personnel and outputs (e.g., emissions, wastes)

- the timing of the activity (including range of calendar dates for installation time, and overall duration and periods [austral seasons] of operation of the activity)

- disposition of wastes that are generated

Decommissioning of activity

Consideration should be given at the time of planning to disposition of the subject activity or facility when it has fulfilled its purpose.

2.2.2 Description of the existing environment (e.g.,the initial reference state, or the baseline environment or conditions).

A description of the environment in which the activity is to be performed should describe the state before the beginning of the activity. Maps, charts, photographs and other visual media should be used.

This description should include:

- the physical characteristics (e.g., topography, bathymetry, geology, geomorphology, soils, hydrology, meteorology, and ice conditions)

- the biota (e.g., inventories of plant and animal species, populations and communities and other important features such as presence of breeding grounds). Furthermore describe any dependent and related populations (e.g., bird nesting area related to feeding area)

- existing environmental processes (e.g., sea ice cycles, ecosystem dynamics, phytoplankton production and decomposition). Important temporal and spatial characteristics should be described.

It is important to ensure that description reflect the geographical extent of the activity under consideration (i.e., for an island, ice-free area or a lake give a general description as well as a more detailed site-specific description).

2.2.3 Methods and Data

The approaches, strategies, methods, techniques or procedures, and the types of data or information (e.g., qualitative, quantitative, empirical or anecdotal) used in the assessment process need to be fully disclosed. Such disclosure will be useful in supporting the rigour and defensibility of the assessment process and will provide the basis for any subsequent re-assessment that may be necessary. This description should attempt to identify gaps or deficiencies in the types of methods or data expected to be useful in succeeding assessments, and may serve the purpose of "forcing" the development of such methods or data.

2.2.4 Analysis of expected impacts

The expected nature of the impacts as well as their extent, duration, intensity and probability -- resulting from the proposed activity described in 2.2.1 on the environment described in 2.2.2 -- should be described.

The analysis of the environmental impact should be performed using state-of-the-art methodologies and making recourse to appropriate expertise, experience, empirical evidence, results from previous studies and monitoring. The analysis should also cover direct effects, indirect effects, and cumulative effects. (See Appendix A for definitions of these effects).

2.2.5 Alternatives

Reasonable alternatives to a proposed activity should be examined in concert with the analysis of impacts of the proposed activity to enable a decisionmaker to compare the environmental consequences of all alternatives being considered, including the proposed activity.

The respective consequences of the alternatives, both for the environment and for scientific activities, should be considered during the evaluation. Examples of alternatives include the use of different locations or sites for the activity, use of different technologies, use of pre-existing facilities.

The alternative of not proceeding with the proposed activity (i.e., the no-action alternative) should be included in any analysis of environmental impacts to provide appropriate context for understanding the impacts of the proposed activity. For example, natural changes in biota or climate that have been verified through empirical investigation or generally-accepted principles should be described.

2.2.6 Mitigations measures

Appropriate measures should be considered whenever possible to mitigate the effects of environmental impacts (e.g. adjusting the timing of a proposed activity to take into account sensitive periods of affected biological populations or ecological processes). These measures may apply either to the activity itself to reduce the impact, or to the consequences of the impacts to minimise the environmental harm. The effectiveness of these measures may be verified through an appropriate monitoring programme, specified in the document.

2.2.7 Monitoring

Procedures must be put in place, including appropriate monitoring of key environmental impacts, to assess and verify the impact of activities that were the subject of a CEE. [Protocol, Article III (d) and (e), EIA Annex, Article 5 (1)]. The procedures should be designed to provide a regular and verifiable record of the impacts of the activity in order to enable assessments to be made of the extent to

which such impacts are consistent with the provisions of the Protocol. [EIA Annex, Article 5(2)]. In addition, monitoring activities should be designed so as to be capable of fulfilling the following decisionmaking needs;

- provide baseline data against which actual impact may be assessed over time and in space to verify the assessment and identify unforeseen effects;

- assist in evaluating the effectiveness of any mitigating measures; and

- where appropriate, provide information on the need for suspension, cancellation or modification of an activity.

Monitoring should be planned in relation to the duration and intensity of the expected impacts of the activity. For example, a short-term phase of monitoring may be required during the mobilisation or actual construction work for a new facility. Long-term monitoring may be required during the operational lifetime of the facility and during the natural restoration time.

Monitoring should be scientifically justifiable, and include quality control and quality assurance of measurements.

2.2.8 Unavoidable impacts

It is reasonable to expect that certain activities will entail unavoidable environmental impacts, regardless of the alternative is chosen. When, during the assessment process, such impacts are discovered, they must be disclosed in the environmental document.

2.2.9 Potential impacts on research and other uses

The evaluation should include both the consideration and comparison of impacts on the different environmental components affected and on the science programme.

The assessment should include an evaluation of all relevant information contained or referenced therein. Value judgments should be explicitly disclosed in the assessment.

The specific benefits accruing from the proposed activity should be set out specifying their relevance to Antarctic research.

The acceptability of significant negative impacts on the natural environment has to be evaluated against the benefits of a different nature, such as the direct scientific goals or science support activities.

2.2.10 Gaps and uncertainties

The assessment process receives substantial support from existing bodies of knowledge (i.e., empirical, theoretical or anecdotal data and information). Nonetheless these bodies of knowledge may be incomplete or may be surrounded by varying degrees of uncertainty. It is critical to identify explicitly into the assessment where such incompleteness or uncertainty exists; and it is important to disclose how the existence of the incompleteness or uncertainty has been factored into the assessment process. This disclosure can be expected to be useful in assessment, and may serve the purpose of "forcing" the acquisition of more complete knowledge.

The use of quantitative models, based on well-defined hypotheses as well as that information that does exist, will be extremely useful in deducing information where data does not exist or cannot be generated.

Significantly, where gaps in knowledge and uncertainty exist, expert judgment and experience can and should be used in the assessment process. Use of this judgment and experience must be disclosed explicitly in the assessment documentation.

2.3 GENERAL SUGGESTIONS

The use of clear and accurate diagrams, maps, and other illustrative materials is encouraged. The collection and documentation of information from the earliest stages of the planning process (including means for information storage and retrieval), the qualification of personnel performing environment-related studies and measurements, and analytical methods should be the object of quality control and quality assurance programmes. The following suggestions may be useful:

i. Construct a matrix or table setting out advantages and impacts (disadvantages) of various elements of the proposed activity drawing upon the descriptions in earlier sections of the assessment.

ii. For CEEs, managers should consider arrangements to assess the accuracy of the CEE predictions after the activity is concluded.

Use of these guidelines marks one point where the importance of judgment and experience in the environmental assessment process becomes apparent. Such factors as timing,

information needs and available resource (e.g., personnel,funds) must be considered in implementing these procedures as they may influence the type and amount of effort needed to bring an assessment document to a point where it is adequate for decisionmaking. These guidelines are meant to encourage interaction that leads to beneficial project modifications.

It is not possible to quantify all aspects of the environmental assessment process (e.g., aesthetic, historical and human values). Therefore, subjective evaluation will be a valid component of the overall process.

Constraints on completeness will vary with projects. Recognition of this will be valuable in evaluation procedures.

Resources required for the preparation of an environmental assessment should be considered during the planning of any project and the costs involved accepted as a valid part of that project.

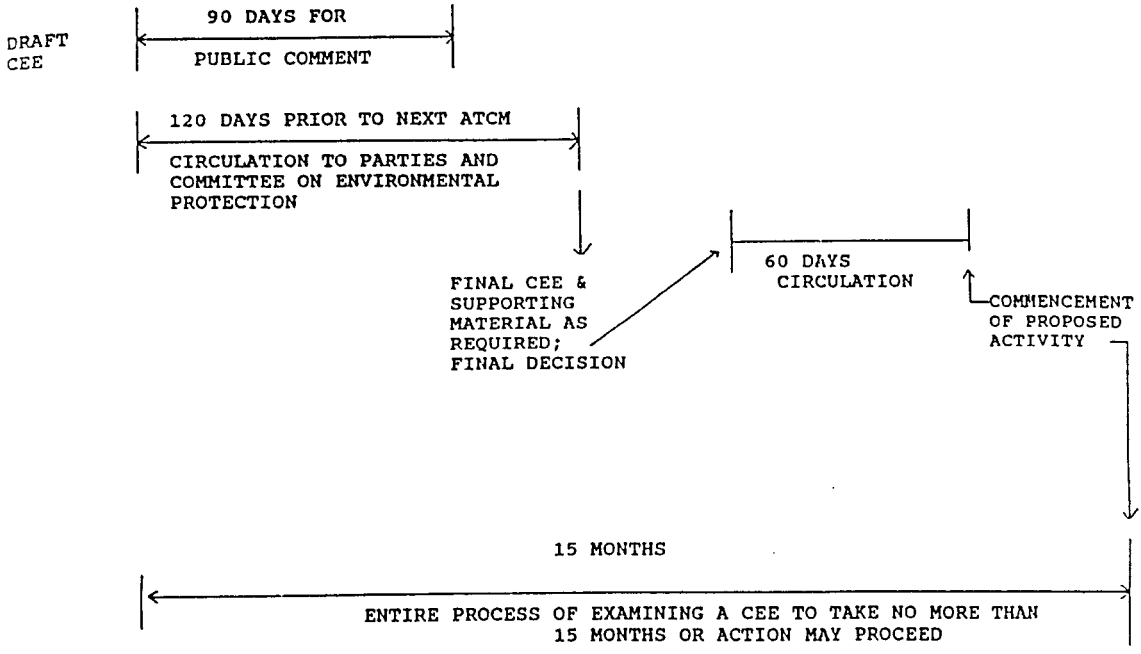
Where activities are planned jointly by more than one member of COMNAP, those involved shall nominate one of their number to coordinate the environmental assessment process [Protocol, Article 8(4)].

2.4 TIMETABLE FOR THE ENVIRONMENTAL ASSESSMENT PROCESS

The environmental assessment process should be initiated at the earliest planning stage of an activity to enable adequate information gathering and baseline evaluations including necessary field studies. The environmental assessment should be completed before the final decision to start the activity is taken.
Any IEE should be sent, at an early stage, to any national programme potentially affected by the activity. Both IEEs and CEEs should be sent to the Executive Secretary of COMNAP for circulation as necessary.

The Protocol requires that draft CEEs be made publicly available and be circulated to all parties to the Protocol and to the Committee on Environmental Protection, for comment [EIA Annex, Article 3(3)and 3 (4)]. The comment period must be at least 90 days, and the draft CEE must be provided to the Committee on Environmental Protection at least 120 days before the next ATCM [EIA Annex, Article 3(4)]. While national operators are not necessarily responsible for circulation of these documents to the Protocol parties or to the Committee, they should be aware of the Protocol's requirements so that their environmental documents are prepared in a timely manner. The Protocol's timetable for circulation of draft and final CEEs is show at figure 1.

Figure 1 - TIMING OF CIRCULATION OF CEEs BASED ON PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY



2.5 AUDIT ARRANGEMENTS

Managers should consider the value of establishing audit arrangements to support their environmental assessment procedures.

APPENDIX A

Practical Definitions and examples (for the purpose of this document):

Cumulative Impact.

Effects, impacts, or consequences that may come from similar or varied sources but, that are additive, antagonistic or synergistic in their effect, impact or consequence. An example follows:

* a significant increase in the number of vehicles in an ecologically sensitive area

Direct Effect.

Any first order effect, impact or consequence that may be associated with an activity. An example follows:

* acute toxicity (mortality) in marine birds; or in intertidal limpets; or in pelagic krill caused by exposure to toxic constituents of petroleum products spilt at sea.

Environment

The combination of physical media (i.e., air, land, and water), the biota (i.e., living organisms), and the physical, chemical, biological and ecological processes that are evidenced as ecological systems (i.e., ecosystems). This definition includes those environments that are relatively undisturbed as well as those that have experienced prior natural or anthropogenic disturbances. Environments may be characterised on local, regional o continental scales; and they may contain individual landscape elements and ecosystems or combinations of landscape elements and ecosystems.

Environmental Assessment

A process for gathering, analysing and interpreting information on proposed activities and on environmental resources and qualities that allows determination of the impacts of those activities on those resources and qualities. It is a part of the overall activity planning process that helps decisionmakers to understand, prevent or mitigate the environmental consequences of their decisions. It is a process that relies on application of formal procedures to available information and is a process that often must depend upon judgment and experience when certain information is unavailable. The entire process is strengthened when use of such judgment and experience is acknowledged explicitly in the assessment.

Impact

Any change, effect, deviation or consequence whether short or long-term that accrues from the development, initiation, conduct, operation, or maintenance of an activity.

Indirect Effect

Any second order effect, impact or consequence that may be causally associated with an activity. An example follows:

* particulate emissions from combustion leading to melting of ice or snow that subsequently causes loss of ice or snow algal habitat.

Initial Environmental Reference State

The character, overall, of site of a proposed activity as evidenced by such information as is available from scientific or monitoring studies, physical geographic descriptions, or knowledge about the biota and the environmental processes existing at the site. The site so characterised may be in a relatively undisturbed state or may have been subjected to prior impacts (both natural and anthropogenic).

Mitigation

The use of practice, procedure or technology to minimise or to prevent impacts associated with proposed activities.

Monitoring

The purposeful measurement of the qualities or quantities of physical media,biota, or biological and ecological processes to characterise an environment or any of its physical, chemical or biological components over time and space in their natural or impacted states. To be effective, the goals of monitoring studies must be stated and understood explicitly; and, there must be careful planning to assure that experimental designs, sampling and statistical techniques adequately support data interpretations. Also, there is the need to provide adequate mechanisms for quality control and quality assurance of analytical techniques and equipment used in monitoring studies.

Recommended Procedures for

Fuel Oil Transfer at Stations and Bases

Preface

This document outlines the procedures to be followed, within the competence of individual national operators, when transferring fuel oils between ships and shore facilities, or between individual storages at stations or bases in Antarctica.

The document was prepared under the direction of the Standing Committee on Antarctic Logistics and Operations (SCALOP) by the SCALOP Subgroup on Oil Spill Prevention and Response. The Subgroup was established by SCALOP in June 1990 with Representatives from Australia, Canada, Germany, Norway, South Africa, United Kingdom and United States of America.

This document was approved by the Council of Managers of National Antarctic Programmes (COMNAP) at its meeting in June 1992.

Dr. Mario Zucchelli
Chairman COMNAP

Recommended Procedures for Fuel Oil Transfer at Stations and Bases

1. Introduction

1.1 The transfer of fuel oils from resupply vessels to shore based storage facilities, and between individual storage facilities on stations or bases, are potentially hazardous operations. It is incumbent on national antarctic operators to ensure that procedures are in place, and are implemented, to minimise the risk of oil spillage and environmental pollution during such fuel transfer operations.

1.2 The procedures outlined in this document cover the documentation, operation,inspection and maintenance of fuel transfer facilities and the training requirements for operational staff. Individual national antarctic operators may deem it necessary to supplement these minimum requirements to satisfy national standards, or to meet specific operational needs.

2. Procedures

Documentation

2.1 Personnel who are responsible for, or are required to undertake, fuel oil transfer operations are to be provided with clear and comprehensive documentation prescribing the procedures to be followed, and precautions to be observed, in conducting fuel transfer operations.

2.2 The documentation is to include up-to-date layout drawings or diagrams indicating storage tanks, reticulation systems, pumps, valves and safety devices.

2.3 All tanks, valves and pumps are to be allocated unique identity numbers which are to appear on the layout drawings and in a prominent place on installed equipment. The written procedures are to make reference to the identity numbers.

Training

2.4 All personnel who are responsible for, or required to undertake, fuel oil transfer operations are to receive instruction or training in the operation of the equipment, spillage prevention and other measures.

2.5 The above personnel will also receive training on oil spill contingency planning procedures and duties.

Operations

2.6 Fuel transfer equipment must be inspected for serviceability prior to the commencement of pumping operations.

2.7 Except during fuel transfer operations, all isolation valves on storage tanks are to be closed.

2.8 When transferring fuel oil between ships and shore facilities or fuel farms and remote holding tanks (e.g., at power houses), personnel must be stationed at both locations to monitor the transfer operation and must also maintain regular contact via VHF radio or similar. The fuel transfer pipes must be monitored for leaks during transfer operations.

2.9 During fuel transfer operations only one tank shall be active (i.e., valve open) except at the overlap period when switching from the access tank to the next tank. Such operations must be continuously monitored.

2.10 All staff responsible for, and associated with, fuel transfer operations are to take whatever action is deemed appropriate to minimise and avoid the risk of fuel spills.

2.11 If personnel have any doubts about the adequacy of existing procedures and systems, these must be brought to the immediate attention of the responsible authority.

2.12 Records of all fuel transfers and spillages shall be maintained by personnel on site and the national operating authority.

Inspection

2.13 All fuel storage tanks are to be visibly inspected on a weekly basis, and as soon as possible following adverse weather, to check the integrity of the storage systems and associated plumbing. In addition, all storage tanks are to be checked monthly to verify contents.

2.14 Bulk storage tanks shall be thoroughly inspected on an annual basis. A record of these inspections including the internal cleaning of tanks shall be maintained at the station.

Maintenance

2.15 All pumps, valves and associated equipment are to be maintained in good working order.

2.16 Any defective fixtures or fittings shall be replaced or repaired as soon as is practicable.

Recommendations for Spill Prevention and Containment of Fuel Oil at Stations and Bases

Preface

This document outlines recommendations to be followed, within the competence of individual national operators, for the design of fuel storage facilities at Antarctic stations and bases with particular reference to measures for spillage prevention, containment, detection and recovery.

The document was prepared under the direction of the Standing Committee on Antarctic Logistics and Operations (SCALOP) by the SCALOP Subgroup on Oil Spill Prevention and Response. The Subgroup was established by SCALOP in June 1990 with Representatives from Australia, Canada, Germany, Norway, South Africa, United Kingdom and United States of America.

This document was approved by the Council of Managers of National Antarctic Programmes (COMNAP) at its meeting in June 1992.

Dr. Mario Zucchelli
Chairman, COMNAP

Recommendation for Spill Prevention and Containment of Fuel Oil at Stations and Bases

1. Introduction

1.1. Fuel oils are used at Antarctic stations and bases for a variety of operational needs including power generation and the fueling of vehicles and aircraft. The spillage of fuel oils as a result of equipment failure, accidental damage or human error poses a potential environmental threat. It is therefore incumbent on national Antarctic operators to design, install and operate fuel oil storage facilities to minimise such risks.

1.2 The design recommendations outlined in this document are intended to minimise the possibilities of fuel spillage to the environments. The recommendations apply to new and, where practicable, existing installations. The design philosophy incorporates:

* spillage prevention:

* spillage containment;

* spillage detection;

* spillage alert; and

* spillage recovery.

2. Design Recommendations

Spillage Prevention

2.1 Installation shall be sited and designed to minimise the deleterious effects of the environment, such as from ice build-up on valves and fittings.

2.2 Installations shall be sited to minimise damage from operational activities such as heavy vehicular traffic and where this is not practicable the installation shall be protected by means such as bollards, guards and signs.

2.3 Tanks, valves and fittings shall be of first grade materials, suitable for petroleum products and site specific climatic conditions.

2.4 Lever operated ball valves shall preferably be used which give clear visual indication of the "open" and "shut" positions.

2.5 Manufacture, fabrication and site construction of facilities shall be inspected, tested beyond application conditions if possible, and approved for use by a competent authority.

2.6 The installation shall avoid undue complexity so as to reduce the risk of human error through confusion or misunderstanding.

2.7 Tanks shall be piped for top fill and top draw off.

2.8 All tanks shall be numbered and have the maximum capacity clearly marked. All valves shall be tagged or numbered to facilitate clear and unambiguous description in operating procedures.

2.9 Adjacent tanks shall be fitted with overflow equalising connections between them, where practicable.

2.10 Tanks shall have calibrated dip-sticks, continuous level monitoring gauges, or other means of assessing the quantity of fuel stored.

2.11 Fuel pumps for bulk handling shall have a lockable switch or other appropriate mechanism to prevent accidental pumping.

2.12 The delivery pump shall have an emergency stop switch or other appropriate mechanism located in a prominent, accessible position. Alternatively, a master valve shall be fitted immediately downstream of the pump to facilitate emergency.

Spillage Containment

2.13 The containment facility shall have the capacity to contain the contents of at least the largest tank should a spill occur plus an allowance for snow, ice or water accumulation.

2.14 Containment may take various forms including, for example:

(i) bounding around the installation or around individual tanks;

(ii) remote bounding with interconnection drainage from the tank installation;

(iii) double skin tanks, horizontal or vertical, with the outer skin being the containment; or

(iv) flexible bladders within a containment structure.

Spillage Detection

2.15 Installations shall have, where practicable, sensors to detect fuel spillage. This may be in the form of electronic fuel sensors fitted in appropriate locations; for example between the walls of double skin tanks or in the sump of the containment structure. Low level sensors in tanks may serve to indicate loss from a tank.

Spillage Alert

2.16 Audible and/or visual alarms shall be installed in locations which are frequented regularly, or are obvious during fuel transfer operations

2.17 All bulk storages shall, where practicable, have a high level alarm which is audible and/or visible to an operator. Such alarms shall signify a potential overflow before the tank reaches capacity.

Spillage Recovery

2.18 Installations shall have the capacity to store any recovered fuel up to quantities at least matching the capacity of the largest tank. This provision may be met by additional storage capacity such as a spare tank, or by underfilling tanks to provide the reserve storage by transfer pumping.

Guidelines for

Oil Spill Contingency Planning

Preface

This document provides guidance to national Antarctic operators on the recommended format for, and the information to be included in, oil spill contingency plans for facilities and geographic areas of Antarctica.

The document was prepared under the direction of the Standing Committee on Antarctic Logistics and Operations (SCALOP) by the SCALOP Subgroup on Oil Spill Prevention and Response. The Subgroup was established by SCALOP in June 1990 with Representatives from Australia, Canada, Germany, Norway, South Africa, United Kingdom and United States of America.

This document was approved by the Council of Managers of National Antarctic Programmes (COMNAP) at its meeting in June 1992.

Dr. Mario Zucchelli
Chairman, COMNAP

CONTENTS

Guidelines for Oil Spill Contingency Planning

1. Introduction

1.1 The need to develop and implement measures to alleviate and combat the pollution of Antarctic waters has been the subject of several Recommendations adopted at Antarctic Treaty Consultative Meetings (ATCMs) in recent years. At the 1989 ATCM, RecommendationXV-4 specifically called on the Governments of Treaty Parties to establish contingency plans for marine pollution response in Antarctica, including plans for vessels carrying oil.

1.2 The need to develop contingency plans for response to marine pollution incidents is also requirement of Annex IV of the "Protocol to the Antarctic Treaty on Environmental Protection".

1.3 This COMNAP document defines a recommended format and specifies the information to be included in oil spill plans which are to be prepared by national antarctic operators for facilities or larger geographic areas in Antarctica.

2. Tiered Approach To Contingency Planning

2.1 Most oil spills in Antarctica are likely to be small and confined to a station or base and the adjoining waters. In the event that the spill is beyond the station or base capability, or is likely to affect a larger area, an enhanced response may be necessary involving support from other national operators.

2.2 This tiered response to oil spill incidents requires the development of compatible contingency plans for individual facilities and, where appropriate, contingency plans for larger geographic areas encompassing a number of operators, as defined below:

Facility Plans

These are to be developed for individual stations or bases and their local environs, where appropriate. The plans will be prepared by individual national operators responsible for the management of a specific facility.

Multi-Operator Plans

These are to be developed to encompass a geographic area where a coordinated and compatible response by two or more national operators is feasible. This will apply where it is effective and feasible to pool and deploy response equipment and supplies.

3. Format of Plans

3.1 The recommended format for Facility and Multi-operator contingency plans are given in the Appendix. The plans are to be divided in two parts plus annexes as follows:

Part I: Strategic Information

This is descriptive policy document providing background information including a description of the facility and an evaluation of oil spill scenarios.

Part II: Operational Response

This describes the recommended procedures for the development of an operational response to oil spills. The format of the Operational Plan corresponds to the expected chronological order of events. The text of this document should be supplemented, to the maximum extent, with decision tree diagrams or checklists to simplify and speed interpretation. In particular the Operational Plan, Chapter 6, shall be in the form of tree diagrams or checklists.

Annexes

These include detailed reference information relating to specific aspects of the contingency plans, e.g. Communications, Health and Safety, Training, etc.

3.2 It is recommended that all national operators adopts the formats specified in this document. This will enable the plans to be easily understood and assist with the integration and compatibility of the facility plans with multi-operator plans, where applicable. Plans should be complete in themselves and not involve reference to other supporting documents which may cause delays. Plans should preferably be produced in loose leaf form to facilitate regular update.

4. **Plan Effectiveness**

4.1 The International Tanker Owners Pollution Federation consider that the adequacy of contingency plans may be assessed against the following ten question:

(1) Has there been a realistic assessment of the nature and size of the possible threat, and of the resources most at risk, bearing in mind the probable movement of any oil spilled?

(2) Have priorities for protection been agreed, taking into account the viability of the various protection and clean-up options?

(3) Has a strategy for protecting and cleaning the various areas been agreed and clearly explained?

(4) Has the necessary organisation been outlined and the responsibilities of all those involved been clearly stated with no "grey areas" - will all who have a task to perform be aware of what is expected of them?

(5) Are the levels of equipment, materials and manpower sufficient to deal with the anticipated size of spill? If not, have back-up resources been identified and, where necessary, have mechanisms for obtaining their release and entry to the country been established?

(6) Have temporary storage sites and final disposal routes for collected oil and debris been identified?

(7) Are the alerting and initial evaluation procedures fully explained as well as arrangements for continual review of the progress and effectiveness of the clean-up operation?

(8) Have the arrangements for ensuring effective communication between shore, sea and air been described?

(9) Have all aspects of the plan been tested and nothing significant found lacking?

(10) Is the plan compatible with plans for adjacent areas and other activities?

Format of Title Page

* FORMAT CONTINGENCY PLAN

OR
* MULTI OPERATOR CONTINGENCY PLAN

OR
NAME OF FACILITY OF MULTI OPERATOR AREA

Council of

Managers of National Antarctic Programmes

°Date

* Chose titles according to plan type
§ State name of facility or multi-operator
° Date of plan

FORMAT OF CONTINGENCY PLANS

PART I: STRATEGIC INFORMATION

Facility Plan

1 INTRODUCTION

1.1 Background

- Define the requirement, authority and applicability of plan in relation to the national program, relevant national agencies and other countries.
- Describe relevant Antarctic Treaty obligations and related national legislation or requirements.

1.2 Purpose

- Describe the objectives of the plan which are to reduce loss and damage resulting from oil spills by:
  - identifying the potential risks,
  - describing response actions,
  - outlining available resources, and
  - defining functions and responsibilities, etc.

1.3 Scope of Plan

- Define facility/area covered by the plan and the boundaries.
- Describe involvement of other countries participating in the plan where applicable.

1.4 How to Use the Plan

- Explain how the plan is structured and how it is designed to be used.

Multi-Operator Plan

1 INTRODUCTION

1.1 Background

- Define the requirement, authority and applicability of plan in relation to the national program, relevant national agencies and other countries.
- Describe relevant Antarctic Treaty obligations and related national legislation or requirements.

1.2 Purpose

- Describe the objectives of the plan which are to reduce loss and damage resulting from oil spills by:
  - identifying the potential risks,
  - describing response actions,
  - outlining available resources, and
  - defining functions and responsibilities, etc.

1.3 Scope of Plan

- Define the geographic area covered by the plan.
- Nominate the operators participating in the plan.

1.4 How to Use the Plan

- Explain how the plan is structured and how it is to be used.

Facility Plan

PART I: STRATEGIC INFORMATION

1 INTRODUCTION
- 1.1 Background
- 1.2 Purpose
- 1.3 Scope of Plan
- 1.4 How to Use the Plan

2 SPILL RISK ENVIRONMENT
- 2.1 Facility Description
- 2.2 Oil Stored at Facility
- 2.3 Oil Transfer Operations

3 SPILL RISK ASSESSMENT
- 3.1 Migration Pattern of Spills
- 3.2 Sensitive Locations
- 3.3 Spill Scenarios

PART II: OPERATIONAL RESPONSE

4 FACILITY ORGANIZATION
- 4.1 Response Organization Structure
- 4.2 Facility Organization

5 RESPONSE NOTIFICATION
- 5.1 Initial Assessment
- 5.2 Initial Notification

6 OPERATIONAL PLAN
- 6.1 Response Team Deployment
- 6.2 Personnel Safety
- 6.3 Response Strategies
- 6.4 Communications
- 6.5 Spill Surveillance
- 6.6 Environmental Assessment
- 6.7 Clean-up Methods
- 6.8 Restoration

Multi-Operator Plan

PART I: STRATEGIC INFORMATION

1 INTRODUCTION
- 1.1 Background
- 1.2 Purpose
- 1.3 Scope of Plan
- 1.4 How to Use the Plan

2 SPILL RISK ENVIRONMENT
- 2.1 Geographic Description of Area
- 2.2 Oil Transported in Area

3 SPILL RISK ASSESSMENT
- 3.1 Mitigation Pattern of Spills
- 3.2 Sensitive Locations
- 3.3 Spill Scenarios

PART II: OPERATIONAL RESPONSE

4 MULTI-OPERATOR ORGANIZATION
- 4.1 Response Organization Structure
- 4.2 Area Response Infrastructure

5 RESPONSE NOTIFICATION
- 5.1 Initial Assessment
- 5.2 Initial Notification

6 OPERATIONAL PLAN
- 6.1 Request for Assistance
- 6.2 Joint Response Operations
- 6.3 Personnel Safety
- 6.4 Response Strategies
- 6.5 Communications
- 6.6 Spill Surveillance
- 6.7 Environmental Assessment
- 6.8 Clean-up Methods

Facility Plan

2 SPILL RISK ENVIRONMENT

2.1 Facility Description

- Describe in detail the physical layout of facility including buildings, access ways, storage facilities, reticulation systems, etc.
- Describe oil storage facilities and capacities including piping/pumping systems, mobile oil transfer equipment and safety control devices eg relief valves, emergency shutdown systems, alarms, etc.
- Describe existing containment measures and firefighting systems, site electric supplies, mobile/portable generator capacity and waste disposal systems.

2.2 Oil Stored at Facility

- Describe typical quantities and location of oil stored on site giving seasonal variations.
- Provide specifications of products and define characteristics, eg toxicity, persistence, flammability.

2.3 Oil Transfer Operations

- Describe the normal methods and frequency of receiving and transferring oil on site.
- Describe how oil products are used.

3 SPILL RISK ASSESSMENT

3.1 Migration Patterns of Spills

- Describe potential migration paths of spilled oil during transfer operations or from storage facilities.

Multi-Operator Plan

2 SPILL RISK ENVIRONMENT

2.1 Geographic Description of Area

- Describe main geographic features of the area including the location of stations.
- Describe natural hazards in area based on hydrographic, sea ice and weather data.

2.2 Oil Transported in Region

- Identify vessels transiting or visiting the area and the quantity of oils carried onboard.
- Determine and plot shipping routes and transit frequency.
- Define specifications of oil products carried on vessels and define characteristics, eg toxicity, persistence, flammability.

3 SPILL RISK ASSESSMENT

3.1 Migration Patterns of Spills

- Describe potential migration paths of oil spills as a result of marine accidents at high risk locations.

Facility Plan

3.2 Sensitive Locations

- Identify environmentally sensitive locations within the geographic boundaries of the plan with reference to seasonal variations.
- Define priorities for protection.

3.3 Spill Scenarios

- Describe the most probable and worst case spill scenarios taking into account oil storages, transfer operations, refuelling points, vehicle suitability, etc.
- Describe possible seasonal and local climatic impacts.
- Describe terrain and accessibility to potentially threatened areas.

Multi-Operator Plan

3.2 Sensitive Locations

- Identify environmentally sensitive locations within the geographic boundaries of the plan with reference to seasonal variations.
- Define priorities for protection.

3.3 Spill Scenarios

- Describe the most probable and worst case spill scenarios.
- Describe possible seasonal and local climatic impacts.
- Describe terrain and accessibility to potentially threatened areas.

PART II: OPERATIONAL PLAN

Facility Plan

4 FACILITY ORGANIZATION

4.1 Response Organization Structure

- Describe the management structure of the facility and the report/authority hierarchy for spill response.
- Describe the roles and responsibilities of response team members.
- Describe the management linkages and command structure between the facility and the responsible national authority for spill response.
- Describe linkages with other countries participating in the plan, where applicable.
- Make reference to Annex S as source of relevant telephone numbers.

Multi-Operator Plan

4 MULTI-OPERATOR ORGANIZATION

4.1 Response Organization Structure

- Describe arrangements for the assumption of the lead role by one of the participating operators in the event of a spill.
- Describe the command structure and liaison arrangements for joint response.
- Make reference to Annex S as source of relevant telephone numbers.

Facility Plan

4.2 Facility Organization

- Describe typical seasonal staffing levels of facility including scientific, trades, administrative, etc.
- Describe the availability of specialist support personnel including medical, firefighting, SAR.
- Identify specialist scientific expertise at facility or in the national agency in such fields as marine biology, chemistry, environmental monitoring.

5 RESPONSE NOTIFICATION

5.1 Initial Assessment

- Facility manager, or responsible officer, to assess initial report of spill and take immediate action to protect safety of life and property, and halt or minimize further spill where possible.

5.2 Initial Notification

- As soon as practicable, and not necessarily before mobilizing response team, advise national authority of incident, stating:
  - Time of spill
  - Source of spill
  - Identity of material spilled
  - Cause of spill, if known
  - Estimate of amount spilled and likelihood of further spillage and amount
  - Resources under threat, if any.
- Advise details of spill to other operators, where applicable and necessary.

Multi-Operator Plan

4.2 Area Response Infrastructure

- Describe the availability of specialist support personnel in the area including medical, SAR, aircraft, shipping and specialist scientific expertise in such fields as marine biology, chemistry, environmental monitoring.

5 RESPONSE NOTIFICATION

5.1 Initial Assessment

- On receipt of spill information, the responsible officer or authority is to assess the initial report and determine whether response action is necessary or possible.

5.2 Initial Notification

- As soon as practicable, and not necessarily before mobilizing response team, advise appropriate authority of incident, stating:
  - Time of spill
  - Source of spill
  - Identity of material spilled
  - Cause of spill, if known
  - Estimate of amount spilled and likelihood of further spillage and amount
  - Resources under threat, if any.
- Advise details of spill to other operators participating in the plan.

Facility Plan

6 OPERATIONAL PLAN

6.1 Response Team Deployment

- Subject to weather and safety considerations, mobilize response team and appropriate equipment.
- Adopt appropriate response strategy to halt or minimize further spill, contain existing spill and protect threatened resources to the extent possible.

6.2 Personnel Safety

- Ensure that safety equipment is issued and used in accordance with H&S Plan.
- Alert medical personnel of operations so that appropriate preparations can be made.

6.3 Response Strategies

- Outline response action for the most probable and worst case spill scenarios.
- Describe seasonal effects on oil spill response actions.
- Identify the available equipment options, eg booms, skimmers, absorbents etc, to contain spill and/or protect resources.

6.4 Communications

- Establish a communications/command post to ensure that contact can be maintained with response team and other support personnel.
- Provide regular update on spill response progress to national authority.

6.5 Spill Surveillance

- Use aircraft, where available, or other safe means to determine extent of offshore spills and the trajectory.
- Estimate track of spill and identify threatened resources.

Multi-Operator Plan

6 OPERATIONAL PLAN

6.1 Request for Assistance

- Define the procedures to be followed to activate response assistance from other operators participating in the plan.
- Identify national and commercial resources that may be available to supplement available area resources and possible logistics support.

6.2 Joint Response Operations

- Describe command structure and liaison/coordination arrangements for joint response operations.

6.3 Joint Response Operations

- Ensure that safety equipment is issued and used in accordance with H&S Plan.
- Alert medical personnel of operation so that appropriate preparations can be made.

6.4 Response Strategies

- Outline response action for the most probable and worst case spill scenarios.
- Describe seasonal effects on oil spill response actions.
- Identify the available equipment options, eg booms, skimmers, absorbents etc, to contain spill and/or protect resources.

6.5 Communications

- Describe procedure for setting up a central communications/command post to facilitate coordination with response team and the operators participating in the response action.
- Define the frequency and content of reports between command post and participating operators and national authorities.

Facility Plan

- Advise national authority and other countries, where appropriate, of spill trajectory.

6.6 Environmental Assessment

- Undertake ongoing assessment of environmental impacts.

6.7 Clean-Up Methods

- Liaise with national authority and on-site experts, if available, to determine appropriate restoration measures.

7 WASTE DISPOSAL

7.1 Storage of Waste

- Identify storage facilities or temporary arrangements suitable for storing recovered oil and oily wastes.

7.2 Disposal of Waste

- Outline arrangements for disposal or transport of oil or oily wastes.
- Ensure that transport arrangements comply with relevant national and international regulations.

Multi-Operator Plan

6.6 Spill Surveillance

- Use aircraft, where available, or other safe means to determine extent of offshore spills and the trajectory.
- Estimate track of spill and identify threatened resources.
- Advise operators participating in the plan, and other countries where their operations may be affected, of spill trajectory.

6.7 Environmental Assessment

- Undertake ongoing assessment of environmental impacts.

6.8 Clean-Up Methods

- Liaise with relevant national authorities and on-site experts, if available, to determine appropriate clean-up techniques for contaminated shorelines, snow, ice, etc.

6.9 Restoration

- Liaise with relevant national authorities and on-site experts, if available, to determine appropriate restoration measures.

7 WASTE DISPOSAL

7.1 Storage of Waste

- Identify storage facilities or temporary arrangements suitable for storing recovered oil and oily wastes.

7.2 Disposal of Waste

- Outline potential arrangements for disposal or transport of oil or oily wastes.
- Ensure that transport arrangements comply with relevant national and international regulations.

Facility Plan

7 WASTE DISPOSAL
- 7.1 Storage of Waste
- 7.2 Disposal of Waste

8 DEMOBILIZATION
- 8.1 Personnel Decontamination
- 8.2 Equipment Decontamination/ Maintenance

9 POST SPILL MONITORING

10 REPORTING

Multi-Operator Plan

7 WASTE DISPOSAL
- 7.1 Storage of Waste
- 7.2 Disposal of Waste

8 DEMOBILIZATION
- 8.1 Personnel Decontamination
- 8.2 Equipment Decontamination/ Maintenance

9 POST SPILL MONITORING

10 REPORTING

ANNEXES

ANNEX A : FACILITY AREA MAP (OR AREA MAP)
ANNEX B : SPILL RISK ASSESSMENT MAP
ANNEX C : COMMUNICATION PLAN
ANNEX D : RESPONSE TEAM ORGANIZATION
ANNEX E : RESPONSE EQUIPMENT AND MATERIALS
ANNEX F : HEALTH AND SAFETY PLAN
ANNEX G : TRAINING PLAN
ANNEX H : PUBLIC RELATIONS/MEDIA PLAN
ANNEX J : COST ACCOUNTING PLAN
ANNEX K : DOCUMENTATION PLAN
ANNEX L : DISPERSANT USE
ANNEX M : IN-SITU BURNING
ANNEX N : BIOREMEDIATION USE
ANNEX P : BIRD AND MAMMAL CLEANING
ANNEX Q : EQUIPMENT AND PERSONNEL CLEANING
ANNEX R : DEFINITIONS AND ABBREVIATIONS
ANNEX S : COMMUNICATIONS CONTACT NUMBERS

Facility Plan

8 DEMOBILIZATION

8.1 Personnel Decontamination

- Provide facilities and materials for personnel decontamination.
- Arrange for screening of personnel by facility medical staff.

8.2 Equipment Decontamination/ Maintenance

- Arrange cleaning of equipment and identify maintenance needs.

9 POST SPILL MONITORING

- Liaise with national authority to determine need for post spill monitoring program.
- Arrange for comprehensive post-spill photographic record of affected areas.

10 REPORTING

- Prepare report on oil spill incident outlining the cause, extent of spill, response action, effectiveness of action, known environmental impact, damage or loss of assets or resources, debrief outcome, costs, further action.

Multi-Operator Plan

8 DEMOBILIZATION

8.1 Personnel Decontamination

- Provide facilities and materials for personnel decontamination.
- Arrange for screening of personnel by facility medical staff.

8.2 Equipment Decontamination/ Maintenance

- Arrange cleaning of equipment and identify maintenance needs.

9 POST SPILL MONITORING

- Liaise with other participating operators to determine need for, and implementation of post spill monitoring program.

10 REPORTING

- Prepare report on oil spill incidents in conjunction with national participants outlining the cause, extent of spill, response action, effectiveness of action, known environmental impact, damage or loss of assets or resources, debrief outcome, costs, further action.

Facility Plan

A FACILITY AREA MAP

- Map illustrating the extent of facility covered by contingency plan.

B SPILL RISK ASSESSMENT MAP

- Map identifying potential spill risk sources, spill migration paths and sensitive locations.

C COMMUNICATION PLAN

- Identify staff positions responsible for execution of the Communication Plan.
- Identify communication systems and frequencies available for local communication with response teams in remote locations and with reconnaissance aircraft/helicopters and surface units.
- Describe external communication assets, including telefax, computer modem and other satellite and relay station telephone capabilities.

D RESPONSE TEAM ORGANIZATION

- Identify members of the response team by position description.
- Define each members role and responsibilities.

Multi-Operator Plan

A AREA MAP

- Map illustrating area covered by contingency plan.

B SPILL RISK ASSESSMENT MAP

- Map identifying potential spill risk sources, spill migration paths and sensitive locations.

C COMMUNICATION PLAN

- Identify communication systems and frequencies available for communication with each of the stations participating in the plan and the respective national authorities.
- Describe external communication assets, including telefax, computer modem and other satellite and relay station telephone capabilities.
- Describe reporting requirements and procedures, including sample message formats.

D RESPONSE TEAM ORGANIZATION

- Identify the position and responsibilities of the response coordinator for each of the stations participating in the plan.
- Describe the response team organization and command structure for each of the stations participating in the plan.

Facility Plan

E RESPONSE EQUIPMENT AND MATERIALS

- Identify staff positions responsible for equipment storage and readiness.
- Identify all local assets of containment, cleanup, waste storage and disposal equipment and their location on site.
- Describe when and how to use the various types of equipment and materials.
- Describe how to clean and maintain the equipment.
- Identify other response resources/capabilities available from other sources, national Government agencies, contractors, other countries.
- Describe how to request additional equipment and predicted time to receive.

F HEALTH AND SAFETY PLAN

- Identify local medical support resources.
- Describe how to request addition medical assistance.
- Identify potential personnel hazards relating to materials which could be spilled in the area, operating the response equipment and weather/elements exposure.
- Describe Health and Safety training requirements for personnel handling oil products.
- Describe use of the Material Safety Data Sheet (MSDA) by response team personnel.
- Identify local assets of protective clothing and equipment and describes when and how to use.
- Describe medical evacuation procedures.

Multi-Operator Plan

E RESPONSE EQUIPMENT AND MATERIALS

- Identify regional assets for containment, cleanup, waste storage and disposal and their location.

F HEALTH AND SAFETY PLAN

- Identify medical and evacuation support assets in the area.
- Describe how to request additional medical assistance.
- Identify potential personnel hazards relating to materials which could be spilled in the region.

Facility Plan	Multi-Operator Plan
G TRAINING PLAN	G TRAINING PLAN
• Define training requirements for all members of response team.	• Define training requirements for response coordinators with regard to area response activities.
• Define training requirements for response administrators and advisors at national organization headquarters.	
• Describe plan for field messing.	
• Describe plan for response team personnel rotation.	
H PUBLIC RELATIONS/MEDIA PLAN	H PUBLIC RELATIONS/MEDIA PLAN
• Identify staff positions responsible for executing the Public Relations/Media Plan.	• Identify methods by which media advice will be coordinated between countries participating in response action.
• Provide format for initial and follow-on written press releases.	
• Identify all media personnel who may be in the local area and their location.	
J COST ACCOUNTING PLAN	J COST ACCOUNTING PLAN
• Identify staff positions responsible for execution of the Cost Accounting and Documentation Plan.	• Provide format for recording actions taken during spill incident and cleanup.
• Identify costs which should be tracked and how they should be recorded.	• Identify costs which should be tracked and how they should be recorded.
• Identify sources of funding and how to request.	
K DOCUMENTATION PLAN	K DOCUMENTATION PLAN
• Provide format for recording actions taken during spill incident and cleanup to facilitate after action reporting requirements and the consideration of lessons learned.	• Provide format for recording actions taken during spill incident and cleanup to facilitate after action reporting requirements and the consideration of lessons learned.
L DISPERSANT USE	L DISPERSANT USE
• Describe policy on use of dispersants and decision making process, if applicable.	• Describe policy on use of dispersants and decision making process, if applicable.

Facility Plan

M IN-SITU BURNING

- Describe policy on in-situ burning and decision making process, if applicable.

N BIOREMEDIATION USE

- Describe policy on bioremediation use and decision making process, if applicable.

P BIRD AND MAMMAL CLEANING

- Describe the effects of oil on birds and mammals.
- Define methods of cleaning, including cleaning materials and equipment.

Q EQUIPMENT AND PERSONNEL CLEANING

- Describe materials available and procedures for cleaning personnel of oil contamination.
- Describe procedures for cleaning and checking serviceability of response equipment.

R DEFINITION AND ABBREVIATIONS

- Define acronyms, technical terms and abbreviations which are used in the plan.

S COMMUNICATIONS CONTACT NUMBERS

- List telephone/fax/telex numbers and names of personnel involved in response action within the facility and the national authority headquarters, including national agencies which can provide assistance.
- List contact numbers, where applicable, of other national operators participating in plan or which may be able to provide assistance.

Multi-Operator Plan

M IN-SITU BURNING

- Describe policy on in-situ burning and decision making process, if applicable.

N BIOREMEDIATION USE

- Describe policy on bioremediation use and decision making process, if applicable.

P BIRD AND MAMMAL CLEANING

- Describe the effects of oil on birds and mammals.
- Define methods of cleaning, including cleaning materials and equipment.

Q EQUIPMENT AND PERSONNEL CLEANING

- Describe materials available and procedures for cleaning personnel of oil contamination.
- Describe procedures for cleaning and checking serviceability of response equipment.

R DEFINITION AND ABBREVIATIONS

- Define acronyms, technical terms and abbreviations which are used in the plan.

S COMMUNICATIONS CONTACT NUMBERS

- List telephone/fax/telex numbers and names of personnel involved in response action at each station and in the respective national authorities of countries participating in the plan.

Annex 6

Council of

Managers of National Antarctic Programmes

STANDING COMMITTEE ON ANTARCTIC LOGISTIC AND OPERATIONS

Format for

Waste Management Report

(Revised)

Explanatory notes for the Exchange of Information on Waste Management

General Notes

1. This report is to be completed at or near the end of each annual cycle in September.

2. The Exchange Information should preferably becompleted in the English language.

3. Waste is a material that is no longer usable or for which there is no intention to use.

4. Parts 1 through 4 cover Antarctic waste management activities and an inventory of past activities. A copy of Part 5 must be completed for <u>each</u> fixed site or field camp.

Detailed Notes

5. **Part 1 - General:**

   The official named should be the person who has responsibility for waste management activities and will be the first point of contact for any inquiries.

6. **Part 2 - Training of expedition members:**

   Tick appropriate boxes in questions 1, 2 and 3. Many Operators will need to tick several "Yes" boxes to fully answer question 1.

7. Part 3 - Waste Management Plans for each fixed site, field camps generally and for each ship:

Question 3 seeks information on ways by which Operators are actively trying to reduce the amount of waste generated by their Antarctic operations. A new initiative should only be mentioned in its first year of operation.

8. Part 4 - Inventory of Past Activities:

Indicate if the inventory information is not fully complete because information has not yet been compiled.

9. Definition of terms used in this table are:

Past activity - an area only becomes a "past activity" when it is not part of current or planned future operations. If an area is not a past activity but is an unoccupied building, hut or cache it should be mentioned under Item XI ("Description of unoccupied refuges"), see ATCM Recommendation III-2 of the Treaty Exchange information. If you are ensure whether the site is part of future operations list it as a past activity.

Past activities should be listed to the maximum extent which is feasible. Additional past activities not previously listed in the WMR, may included in the WMR of the following years, as the information on them becomes available. The full list of past activities shall not be repeated each year.

Type or activity - examples include abandoned station or field camp sites, abandoned fuel caches, traverses, crashed aircraft, landfill sites, work sites, etc.

Field camps need only be reported when there is the potential for significant impact or where there is anticipated cumulative impact resulting from regular use.

Level of activity - show what level of activity occurred at the side (the average number of persons if the site was a field camp) to indicate the human impact on that location.

Remnants - indicate date last visited, remaining facilities, debris or contaminants (e.g. radio-isotopes which may still be detectable) of any kind. Details of fuel caches should show type of container and fuel e.g. 50 x full 200 litre steel drums of petrol, 5 x empty 200 litre steel petrol drums.

10. **Part 5 - Individual Waste Management Summary:**

One table should be completed for each vessel, fixed site, and for field sites in general (i.e., only one table for all field camps regardless of number) used by an Operator. Tick the appropriate boxes and add explanatory comments if necessary (see note 12). If more than one disposal option is ticked for one waste please show the approximate percentage of waste disposed of by each option in the relevant columns or in the "Comments" column.

Wastes are categorised on the bases of the nature of waste rather than by disposal options. An Operator may choose not to dispose of some combustible wastes (group 3) by burning because they do not have the proper equipment as required by the Treaty Recommendation XV-3.

11. A "fixed site" is any facility which has occupied or is intended to occupy, either intermittently or continuously the same location for more that two years;

"field sites in general" comprise all other temporary (e.g.,tent based) facilities; a "vessels" is a ship used in Antarctic activities other than small boats that are part of a fixed site or of vessels.

12. Remarks in the "Comments" column of the table should include:

a: whether incinerator emissions are monitored and how;

b: whether incinerator emissions are filtered (for particles) or "scrubbed" (for chemicals) and how; and

c: whether wastes are separated as part of their disposal.

13. Information on the quantities of wastes is encouraged

The format and headings for presenting the Exchange Information on Waste Management are attached.

WASTE MANAGEMENT REPORT FOR PERIOD

1 OCTOBER 19..... TO 30 SEPTEMBER 19.....

PART 1 GENERAL

Country: .....

Waste management official: .....

Job title: .....

.....

Postal address: .....

Telephone number: .....

Facsimile number: .....

Telex number: .....

Electronic mail number: .....

PART 2 TRAINING OF EXPEDITION MEMBERS

1) Is training given to expedition members on waste management?:

	Yes	No
prior to leaving for Antarctica	( )	( )
while in Antarctica	( )	( )
written material available	( )	( )

2) Are expeditions advised of any PVC products being provided?

Yes	No
( )	( )

3) Are expeditions advised that pesticides, polychlorinated biphenyls (PCBS), non-sterile soil or polystyrene beads, chips or similar forms of packaging shall not be sent to the Antarctic?

Yes	No
( )	( )

PART 3 WASTE MANAGEMENT PLANS FOR EACH FIXED SITE, FIELD CAMPS GENERALLY, AND FOR EACH SHIP

1) Programmes for cleaning up existing waste disposal sites and abandoned work sites:

2) Current and planned waste management arrangements, including final disposal:

3) Current and planned arrangements for analysing the environmental effects of wastes and waste management:

4) Other effort to minimise any environmental effects of wastes and waste management:

PART 4 - INVENTORY OF PAST ACTIVITIES

Detail of past activities are given in the attached annex.

PART 5 - INDIVIDUAL WASTE MANAGEMENT PLANS

Details of waste management procedures for each fixed site, field camp and ship are given in the attached annex(es).

PART 4 - INVENTORY OF PAST ACTIVITIES

Name	Position (Lat, Long)	Extent of area (m^2)	Type of Activity	Period of Occupation From	To	Average Level of Activity	Remnants & Date Last Visited	Disposal Plans & Dates

PART 5- INDIVIDUAL WASTE MANAGEMENT SUMMARY

Name of Fixed site/Field Camps in general/Vessel ..... Position (Lat, Long) ..... Location Category - Coastal ice free ☐ Inland ice free ☐ Coastal ice sheet ☐ Inland ice sheet ☐ Ice shelf ☐ Vessel ☐

(For field camps give total number of sites) .....

Number of days occupied .....
(For vessels, give number of days in Antarctic Treaty area)

Average daily population - Summer .....
Winter .....

GROUP 1 - SEWAGE & DOMESTIC LIQUIDS

TYPE	DISPOSAL METHODS								Quantity * (Optional)	Comments
	Removed from Treaty area	Removed to ..... station	Sea or sea ice	Ice pit	Maceration	RDC	Incineration (describe type)	Other		
Sewage									L	
Grey water									L	
Sewage treatment (eg RBC) residue									L	

GROUP 2 - OTHER LIQUID CHEMICALS & WASTES (INCLUDING FUELS & LUBRICANTS)

TYPE	DISPOSAL METHODS			Quantity * (Optional)	Comments
	Removed from Treaty area	Removed to ..... station	Other		
Photographic chemicals				L	
Other liquid chemicals				L	
Fuels				L	
Lubricants				L	
Heavy metals and/or harmful persistent compounds				L	
Other liquid wastes (please list)				L	

* Quantities : L = Litres, CM = Cubic Metres, Kgs = Kilograms, No. = Number

GROUP 3 - COMBUSTIBLE WASTES

TYPE	DISPOSAL METHODS: Removed from Treaty area	Landfill	Removed to ..... station	Sea or sea ice	Open burn	Basic incinerator	High temp incinerator	Other	Quantity * (Optional)	Comments
Paper products									CM	
Untreated wood									CM	
Treated wood									CM	
Food scraps									CM	
PVC									CM	
Polyurethane & polystyrene foams									CM	
Other plastics									CM	
Rubber									CM	
Cultures of micro-organisms									Kgs	
Other (please list)										

Note - show in "Comments" column whether combustion emissions are controlled or monitored and provide details separately.

GROUP 4 - OTHER SOLID WASTES

TYPE	DISPOSAL METHODS: Removed from Treaty area	Landfill	Removed to ..... station	Sea or sea ice	Ice pit	Remains on site	Other	Quantity (Optional)	Comments
Glass								CM	
Aluminium								CM	
Other metals								CM	
Batteries								Kgs	
Non-liquid chemicals								Kgs	
Fuel drums (empty)								No.	
Incinerator residue								CM	
Other solid wastes (detail)									

* Quantities : L = Litres, CM = Cubic Metres, Kgs = Kilograms, No. = Number

GROUP 5 - RADICACTIVE WASTES

TYPE (Please list Isotopes)	DISPOSAL METHODS		Quantity (Optional)	Comments
	Removed from Treaty area	Other		
			L	
			L	
			L	
			L	
			L	
			L	
			L	

* Quantities : L = Litres, CM = Cubic Metres, Kgs = Kilograms, No. = Number

Annex 7

DP 92-17 (REV)
COMNAP/SCALOP
BARILOCHE
11 June 1992
Original: English

Siting of New Stations and Facilities

(In Accordance with XV-17)

Objectives

1. In recommendation XV-17 it is stated that when new stations or facilities are planned, measures should be taken to avoid excessive concentration; such measures imply a process of consultation with other countries, coordination and cooperation with them and this should go on in all stages of each project, covering not only scientific but also logistic aspects.

2. The need for a better understanding of the role of Antarctica within the global system results in a constantly growing need to generate new scientific knowledge. This has to lead to a more efficient use of the present infrastructure, based upon scientific needs.

3. In spite of the large size of Antarctica, there are several constraints to select suitable sites for new scientific stations. Ease of ship access including good anchorage and favorable ice conditions, the possibility for constructing a runway, topography and presence of seal or bird colonies, are some of the factors that influence the site selection. These conditions usually affect the cost of construction and continued operation.

Guidelines

In agreement with these objectives the following guidelines must be applied before establishing a new station or facilities in Antarctica.

1. Available knowledge

a. Information on scientific and logistic requirements for the site. Existing management plans.

b. Existence of scientific programmes (including environmental monitoring) in such a place.
Relation to SCAR and other international scientific programmes. List of previous and on going scientific project.

c. Existing scientific information

- scientific publications
- scientific datasets available
- knowledge of ecosystems involved
- contact with scientist working in this area

2. Logistic Information

a. General Information

- number of buildings
- number and type of vehicles
- type and amount of energy to be used
- number and winter and summer personnel

- availability of maps of the site
- amount and type of waste to be produced

b. Information of the space required for the new station

- possibility of using the existing facilities in the area
- distance to possible harbor and/or runway

c. Water, fuel and other supplies

- requirements for water, fuel and other supplies needed
- distance and accessibility to water resource and fuel storage

d. Possible logistic cooperation with other stations by air, sea and overland.

3. Environmental information

a. Identification of possible environmental impacts

b. Study of risks and possibilities for contingency plans

- fire
- oil spill
- evacuation of personnel
- emergency refuges

c. Possible impacts caused by accidents

d. Information of environmental monitoring, if possible

4. Scientific plans

a. Research planned

- name and objectives of projects
- type and periodicity of measurements
- equipment to be used
- monitoring objectives
- usage of hazardous materials

b. Exchange of scientific information

- type of information
- communication system

c. Scientific cooperation with existing station

- personnel contact
- joint scientific programme

d. Implementation of ATCM requirements and recommendations

5. Recognition of the proposed site

a. Preparation and improvement of maps

b. To check and improve information prepared

c. Visit of other stations

6. Decision making process

a. Planning of site and environmental assessment

b. Evaluation and consultation

c. Preparation of final documents

COUNCIL OF MANAGERS OF NATIONAL ANTARCTIC PROGRAMMES
OFFICERS

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USA	(M)	Dr	Peter E. Wilkniss
	(S)	Mr	Erick Chiang
URUGUAY	(M)	Gen	Mario J. Aguerrondo
	(S)	Mr	Delco Almada

ANNEX C

REPORTS IN RELATION TO

ARTICLE III (2) OF THE ANTARCTIC TREATY

REPORT BY THE WORLD METEOROLOGICAL ORGANISATION (WMO) IN RELATION TO ARTICLE III (2) OF THE ANTARCTIC TREATY

Since XVIth ATCM WMO activities related to Antarctica were as follows:

- Publication of the WMO Third Long Term Plan (1992-2001) which inter alia defines the role of WMO in Antarctic activities (Annex 1).

- An experts meeting on Antarctic telecommunications was held in Geneva in late October 1991 which reviewed current practices, noted a generally satisfactory level of performance and made Recommendations for future improvements.

- WMO was represented at a Meeting of COMNAP at which deficiencies of the Antarctic meteorological observation network and suggestions for its improvement were discussed as were the characteristics, limitations and development of meteorological services to aviation and shipping in Antarctica and the resulting logistic implications.

- Discussions were held with SCAR Working Groups inter alia on the evolution of an experiment aimed at improving the understanding of numerical modelling of Antarctic weather and climate.

- WMO Executive Council discussed Antarctic matters at its Meeting in June 1992 and noted inter alia the importance of further ozone and other atmospheric composition studies in Antarctica, progress in Antarctic telecommunications and services, and the proposed closer cooperation of WMO with IOC in Southern Ocean research.

Information papers will be circulating on specific matters which may assist ATCM in consideration of Agenda Items 14 and 15.

WMO ANTARCTIC ACTIVITIES

purposes and scope

The purpose of WMO Antarctic Activities is to coordinate meteorological activities in the Antarctic. This includes coordination of the relevant aspects of the implementation of the World Weather Watch and other WMO programmes, as well as cooperation with other international organisations, such as the Antarctic Treaty Consultative Meeting (ATCM), the Scientific Committee on Antarctic Research (SCAR) of the International Council of Scientific Unions, the Intergovernmental Oceanographic Commission (IOC) and the Joint Scientific Committee (JSC), which have activities in the Antarctic.

Current status

The Antarctic continent with its surrounding seas forms an area of increasing meteorological and environmental interest in respect of both scientific and operational activities. The current basic synoptic network for the Antarctic comprises 39 stations on land. Some of them are carrying out environmental monitoring of carbon dioxide, ozone and other trace constituents to determine their effect on global change. In addition, there are about 40 automatic weather stations operated by the USA, Australia and other countries. As regards mobile ship stations, the number of ship reports received from collecting centres in the Antarctic has increased substantially. The use of drifting buoys in surrounding seas has been steadily increasing in recent years.

In addition to normal meteorological functions, special data processing is carried out by four stations in Antarctica. The collection of observational data at Antarctic collecting stations is achieved by using mainly HF transmission. These data are inserted into the GTS increasingly by means of satellites. Observational data and processed information are exchanged directly between Antarctic stations either over point-to-point circuits or via HF radio broadcasts. Data are also received at Antarctic stations via HF radio broadcasts operated by centres located outside Antarctica and by satellite.

Planned activities

The planned Antarctic activities comprise:

- Coordination of the implementation of observation programmes of surface, upper-air and other meteorological observations in the Antarctic;

- Promotion of the development of the most appropriate scheme for collection and dissemination of meteorological data within and outside the Antarctic;

- Promotion of the development of weather forecasting and warning services in the Antarctic and its surrounding sea areas;

- Study of problems relating to instruments and methods of observation peculiar to the Antarctic;

- Promotion and coordination and operational activities in relation to environmental monitoring, including climate change;

- Coordination with other groups or bodies such as ATCM, SCAR, IOC, JSC. WMO's technical commissions, etc. with regard to aspects of Antarctic meteorology of particular relevance to their activities.

WMO ANTARCTIC ACTIVITIES: MAIN LONG-TERM OBJECTIVES

i) To promote and coordinate the implementation and operation of the basic elements of the WMO Programme to meet the requirements for both meteorological services and research activities in the Antarctic;

ii) To promote and coordinate Antarctic activities to meet the requirements for environmental monitoring and climate change.

REPORT FROM THE INTERNATIONAL HYDROGRAPHIC (IHO) TO THE XVIIth ANTARCTIC TREATY CONSULTATIVE MEETING (ATCM) VENICE, ITALY, 16 NOVEMBER 1992

Background

Recommendation XV-19 of the XVth Antarctic Treaty Consultative Meeting concerned cooperation in hydrographic charting of Antarctic waters. That Recommendation resulted in the IHO convening a Working Group in Bonn in October 1991. The very positive discussions at that Meeting resulted in the formulation by the International Hydrographic Bureau (IHB) of Proposal 29 (see Appendix 1) at the International Hydrographic Conference in May 1992 in Monaco, which was passed overwhelmingly. As a result, the IHO has now established a Permanent Working Group (PWG) on Cooperation in Antarctica with the terms of reference agreed at the Conference. The PWG held its inaugural meeting in the library of the Arsenale, Venezia, Italy on 13 November 1992. A list of attendees is at Appendix 2. [A brief description of the aims, objectives and structure of the IHO is at Appendix 3.]

Achievements of the meeting

The IHB tabled a new, up-to-date, version of the IHO catalogue of Surveys and Charts in Antarctica, now renamed Special Publication (SP) 59. The Meeting agreed that IHO Member States (MS) will provide reports each year to the IHB for collation into an annual update to this publication.

It was further agreed that this catalogue will be extended to include planned, as well as completed, surveys and

charts. This will then provide the basis for discussions at future meetings. In particular, it will facilitate discussion on areas of possible overlap or duplication, potential for collaboration, and priorities for hydrographic surveys. The overall aim is to achieve greater coordination and more effective disposition of the limited hydrographic surveying resources that are available.

There was also agreement on the need for further cooperation in nautical charting in Antarctica. The objective of the PWG is to build a consistent series of charts, draw to a common specification. Production responsibilities should be equitably shared, and the reproduction material made freely available to all nations wishing to print charts is ensured. Again the aim is to avoid duplication of effort and to spread the limited hydrographic resources as widely as possible.

The IHO already has an established mechanism for achieving this goal in other parts of the world in the form of the International Chart Series (INT charts). The PWG has agreed to extend this series into Antarctica.

The start of the process is to examine the requirements of all nations. COMNAP tabled a valuable contribution to this with a detailed report on the requirements of some nations' operators.

IHO MS will collect further national requirements and render these to the IHB by January 1993. The adequacy of the existing IHO chart specifications will also be examined in the particular context of Antarctica, and it was also agreed to consider scientific research needs.

From the statement of requirements and the catalogue of existing charts, the IHB will coordinate the development of a draft scheme for discussion at the next Meeting of the PWG in July 1993.

As a start, the UK has offered for adoption by all nations

several small scale charts at 1.10M and 1:3.5M which fit in with an existing INT scheme at these scales.

The Meeting received valuable input from SCAR and COMNAP. There is undoubtedly a great need to maintain close liaison with both these non-IHO bodies. It is hoped that both organisations will participate in the future work of the PWG, and that the ties will be strengthened.

Concluding Remarks

In compiling this Report for presentation to the XVIIth ATCM, the IHO PWG wishes to stress its very positive commitment to ensuring cooperation between the IHO MS in relation to surveying and charting in Antarctica. It was now both established the mechanism and confirmed the will to effect this. The reporting and consultative procedures established should ensure that Antarctic mariners ultimately benefit from an INT chart scheme.

The IHO therefore believes that it has responded to the Recommendation which emanated from the XVth ATCM. The IHO also wishes to point out that the benefits of its action will only be realised if those IHO MS involved in surveying and charting of Antarctic waters are allowed to continue these activities.

Hydrographic surveying and charting are, by their nature, extremely expensive undertakings and, in an age of constrained budgets, are likely to be seen as soft options for budget reduction. They should rather be viewed as a low cost insurance policy. The improved chart coverage which will result will undoubtedly contribute to the safety of life at sea. In this way charts also play their part in helping to prevent incidents which could result in adverse environmental impact. Many of the nations in the ATCM also play their part in helping to prevent incidents which have a hydrographic surveying and charting capability, and many of these exercise that capability in Antarctica.

The ATCM therefore has a further role to play in ensuring that the need for continued funding of these activities is brought to the attention of individual national governments.

In this context the IHO notes Recommendation SCAR XXII-5 relating to hydrographic surveying and nautical charting, a Recommendation which the IHO wholeheartedly supports. The pressures on Antarctic waters are clearly increasing as tourist traffic, for example, builds up year by year. This increase in maritime traffic must also increase the potential for adverse incident. Only by ensuring that hydrographic surveying and charting activities continue apace, can the international community seek to minimise that potential in Antarctica.

International Hydrographic Conference 1992 - Proposal 29

Establishment of Permanent Working Group on cooperation concerning hydrographic surveys and charting in Antarctica.

Submitted by: IHB

References:
1. IHO CL 48/1991 of July 1991
2. Report on Meeting on Hydrographic Cooperation in the Antarctic, 9-10 October 1991, Bonn, Germany.

1. It is proposed to establish a Permanent Working Group on Cooperation concerning Hydrographic Surveys and Charting in Antarctica.

2. The Working Group will have the following Terms of Reference:

   a) Examine INT Chart standards with respect to their application to Antarctica.

   b) Develop an INT Chart scheme, or a scheme of charts agreed to by members, covering all Antarctic waters (South of 60 degrees South).

   c) Examine the status and quality of hydrographic surveys, and encourage the publication of source reliability diagrams on all published charts of Antarctica.

d) Identify the needs for improved surveys and charts (taking account of advice from COMNAP and other organisations on predicted shipping and other needs).

e) Develop cooperative approaches to meeting the needs/priorities for surveys and charting.

f) Establish and maintain liaison with the IHO/IOC GEBCO organisation concerning Antarctic bathymetric data collection and charting.

g) Maintain appropriate liaison with relevant scientific organisations, including SCAR (Geodesy and Geographic Information Working Group), IOC and COMNAP.

h) Develop an annual report of the status and plans for hydrographic surveys, including updating and amplifying SP 55, Appendix 1.

Attendees at the Inaugural Meeting of the IHO Permanent Working Group on Cooperation in Antarctica, Venice, Italy, 13 November 1992.

Chairman	Mrs Barbara A. Bond (Director, UK Hydrographic Office)
IHB	Rear Admiral G. Angrisano (IHO Directing Committee)
Argentina	Dr Carlos A. Rinaldi (1)
Australia	Mr Ken Burrows (Hydrographic Service)
Chile	Captain Carlos de Toro (Defence General Staff)
Germany	Dr Hans-Werner Schenke [also representing GEBCO (*)] (Alfred Wegener Institute)
Greece	Dr E. Gounaris (Ministry of Foreign Affairs)
Italy	Captain F. Spanio (Hydrographic Service LT Cdr. Lusiani)
Norway	Mr Arne Hausken (Hydrographic Service)
South Africa	D.J. Jan Schalkwyk (National Antarctic Programme)

UK	Mr Duncan Wardle (also Secretary to the Meeting) (Hydrographic Office)

Observers

SCAR	Dr P. Clarkson
COMNAP	Dr H. N. Fowler

(1) Dr Rinaldi was unable to attend the Meeting due to his commitments in the ATCM forum. He presented his apologies in writing to the Chairman beforehand and was subsequently briefed by the IHB Director on the substance of the discussions.

(*) General Bathymetric Chart of the Oceans.

The International Hydrographic Organisation (IHO)

The IHO is an inter-governmental consultative and technical organisation established in 1921 which has its headquarters (the International Hydrographic Bureau) in the Principality of Monaco. The IHO currently comprises 58 Member States.

The objectives of the IHO are to bring about:

a) the coordination of the activities of national hydrographic offices;

b) the greatest possible uniformity in nautical charts and documents;

c) the adoption of reliable and efficient methods of carrying out and exploiting hydrographic surveys;

d) the development of the sciences in the field of hydrography and the techniques employed in descriptive oceanography.

The International Hydrographic Bureau (IHB) in Monaco is located in a building kindly provided by the Principality: it has a staff of 14, plus 4 technical assistants and a Directing Committee consisting of the President and two Directors. Director II is Rear Admiral Giuseppe Angrisano and he is presently charged with responsibility for surveying and charting activities in Antarctica.

IHO MEMBER STATES

(as at September 1992)

Algeria *
Argentina
Australia
Bahrain *
Belgium
Brazil
Bulgaria *
Canada
Chile
China
Colombia *
Croatia *
Cuba
Cyprus
Democratic People's Republic of Korea
Denmark
Dominican Republic
Ecuador
Egypt
Fiji
Finland
France
Germany
Greece
Guatemala
Iceland
India
Indonesia
Iran
Italy
Jamaica *
Japan
Malaysia
Mauritania *
Monaco
Morocco *
Netherlands

New Zealand
Nigeria
Norway
Oman
Pakistan
Papua New Guinea
Peru
Philippines
Poland
Portugal
Republic of Korea
Republic of South Africa
Russian Federation
Qatar *
Singapore
Spain
Sri Lanka
Suriname
Sweden
Syrian Arab Republic
Thailand
Tonga *
Trinidad and Tobago
Turkey
United Arab Emirates
United Kingdom of Great Britain & Northern Ireland
United States of America
Uruguay
Venezuela
Yugoslavia
Zaire

(*) Membership pending

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IHB DIRECTING COMMITTEE

President: Rear Admiral Christian ANDREASEN U.S. NOAA (Retd.)

Directors: Mr Adam J. KERR, Canada
Rear Admiral Giuseppe ANGRISANO, Italian Navy

ASOC REPORT

report submitted pursuant to Article III (2) under agenda item 5 of ATCM

During the past year ASOC member groups continued to participate in, and to monitor the components of, the Antarctic Treaty System. We have also attended meetings of SCAR and have participated in the joint work of SCAR and IUCN, which is discussed in SCAR's report. ASOC member groups will be working with and supporting SCAR regarding the crucial scientific work it is helping to coordinate on global change, and congratulate SCAR scientists for their area of research.

One principal ASOC focus has been ratification of the new Protocol and its annexes, and development of implementing legislation in various countries. ASOC has prepared new public information materials about the Protocol, which have been widely disseminated to citizens around the world. We have informally discussed the status of ratification with officials in many countries.

Based on those discussions, we are concerned at the slow pace toward ratification and legal implementation of the Protocol and its annexes. So far, only one country - Spain - has ratified the agreement. We congratulate Spain, although noting that implementing legislation has not yet been approved. Our surveys during the past few months indicate that several other Governments intend to ratify late this year or next year, but it will be many years, at this rate, before the Protocol is legally binding. We look forward with great interest to the reports of the Parties at this ATCM on their progress toward ratification and implementation.

Also, at present there appear to be no plans to negotiate a liability annex, which is required according to the terms of the Protocol itself. In our view, it is the major gap remaining in the comprehensive protection framework.

We urge the Governments to commit themselves to ratify the Protocol by the end of 1993 or early 1994, to quickly enact the legislation and regulations necessary to give effect to the Protocol and its annexes, and to start negotiating a liability annex.

It is also crucial for the member Governments to move quickly to set up key institutions such as a Secretariat and the Committee for Environmental Protection, which constitute the essential machinery for the Protocol to operate successfully. We hope there is progress on these institutions at this meeting.

Turning to another important aspect of ensuring comprehensive protection in the Antarctic, we note that one ASOC member, Greenpeace, is releasing at this ATCM its new inspection report on Government bases and scientific research stations in the Antarctic. This is the latest in a series of inspection reports compiled by Greenpeace in the last six years, covering most bases in the Antarctic. The reports provide a realistic picture of present operating practices by some Treaty Parties. This is the sort of environmental inspection that Governments arguably should be carrying out.

In this context, ASOC recommends that Governments take steps to set up an Inspectorate, which would provide objective, regular, and consistent information about compliance with the Protocol and other pertinent rules and regulations of

the Antarctic Treaty System. We have put this proposal forward before, and know that there is support for the concept. We hope that this can be discussed either formally or informally at this meeting.
During the course of this ATCM, ASOC will be circulating information papers on several agenda items, including some of the topics just mentioned. We also will have some information papers on related items, namely ozone depletion, and will be discussing with Delegates the pending proposal for a whale sanctuary in the Antarctic. We note the overlapping memberships of the Antarctic Treaty Parties and the international conventions on ozone and whaling. This encourages us to believe that truly comprehensive protection can be achieved in the Antarctic, through complementary measures.

The scientific research carried out in the Antarctic continues to provide the best evidence of what is happening to the ozone layer. Other research is indicating the possibly severe implications for life in the Antarctic of the ozone hole that covers a huge portion of the region. The base of the food chain, phytoplankton, appears to be harmed, which is of profound concern. The Fourth Meeting of Parties to the Montreal Protocol begins in Copenhagen later this month. We would hope that this ATCM could send a formal message of its concern to the Montreal Protocol Meeting.

The proposal for creation of a whale sanctuary in the Southern Ocean, currently pending before the International Whaling Commission, would greatly assist in achieving the objectives of the new Protocol to the Antarctic Treaty. We urge every Antarctic Treaty member to support this proposal at the next IWC Meeting, in May 1993.

ANNEX D

DRAFT RULES OF PROCEDURE

ACCORDING TO PARAGRAPH 36

OF THE FINAL REPORT (PART I)

COMMITTEE FOR ENVIRONMENTAL PROTECTION
DRAFT RULES OF PROCEDURE

Part I. Representatives and experts

Rule 1

Each Party to the Protocol on Environmental Protection to the Antarctic Treaty ("The Protocol") shall be a Member of the Committee on Environmental Protection ("The Committee") and shall appoint a representative (with suitable scientific, environmental or technical competency) who may be accompanied by other experts and advisers.
Each Member of the Committee shall notify the Secretariat(*), as early as possible before each meeting of the Committee, the name of the representative and before or, at the beginning of, the session the name of any experts and advisers.

Part II. Observers and Consultation

Rule 2

Observer status in the Committee shall be open to any Contracting Party to the Antarctic Treaty which is not a Party to the Protocol.

Rule 3

The Committee shall invite the President of the Scientific Committee on Antarctic Research and the Chairman of the Scientific Committee for the Conservation of Antarctic

Marine Living Resources, or their nominated Representatives, to participate as observers at its sessions. The Committee may also, with the approval of the Antarctic Treaty Consultative Meeting, invite such other relevant scientific, environmental and technical organisations which can contribute to its work, to participate as observers at its sessions.

Rule 4

a) Observers may submit documents to the Secretariat for distribution to Members of the Committee as information documents. Such documents shall be relevant to matters under consideration in the Committee.

b) Unless a Member of the Committee requests otherwise, such documents shall be available only in the languages and in the quantities in which they were submitted.

c) Such documents shall only be considered as Committee documents if so decided by the Committee.

Rule 5

The Committee shall, as appropriate, consult with the Scientific Committee on Antarctic Research, the Scientific Committee for the Conservation of Antarctic Marine Living Resources and other relevant scientific, environmental and technical organisations.

The Committee may seek the advice of experts as may be required on an ad hoc basis.

Part III. Meetings

Rule 6

The Committee shall meet at least once a year, immediately before the Antarctic Treaty Consultative Meeting and at the same location.

The Committee may meet between annual sessions in order to fulfil its functions and as agreed by the Antarctic Treaty Consultative Meeting.

Rule 7

When the Committee is meeting immediately before the Antarctic Treaty Consultative Meeting the Rules of Procedure for the preparation for the Agenda of the Antarctic Treaty Consultative Meeting shall apply.

In other cases the Chairman shall prepare a preliminary Agenda for each such Session of the Committee. The Secretariat shall distribute the preliminary Agenda to all Members of the Committee no later than 100 days prior to the beginning of the session. In the event of emergencies or unforeseen developments it shall be distributed as early as possible.

The Secretariat, in consultation with the Chairman of both the Committee and of any subsidiary body, shall prepare and distribute a preliminary Agenda before each session of any subsidiary body.

Rule 8

Members of the Committee proposing supplementary items for the preliminary Agenda shall inform the Secretariat thereof no later than 30 days before the beginning of the session and accompany their proposal with an explanatory memorandum.

Part IV. Conduct of Business

Rule 9

The Committee shall endeavour to provide advice and recommendations to the Antarctic Treaty Consultative Meeting based on consensus.

Where consensus cannot be achieved the Committee shall set out in its report all views advanced on the matter under consideration.

Decisions on procedural matters shall be taken by a simple majority of those members present and voting.

Part V. Chairman and Vice-Chairmen

Rule 10

The Committee shall elect a Chairman and two or more Vice-Chairmen. The Chairman and the Vice-Chairman shall be elected for a period of [...] years.

The Chairman and Vice-Chairmen shall not be re-elected to their post for more than one additional term. The Chairman and Vice-Chairmen shall not be representatives of the same Party.

Rule 11

Amongst other duties, the Chairman shall have the following powers and responsibilities:

a) convene, open, preside at, and close each session of the Committee;

b) make rulings on points of order raised at sessions of the Committee provided that each representative retains the right to request that any such decision be submitted to the Committee for approval;

c) approve a provisional agenda for the session after consultation with Representatives and the Secretariat;

d) sign, on behalf of the Committee, the reports of each session for transmission to the Parties and observers attending the session, and other interested persons, as official documents of the proceedings; and

e) present the report on each session of the Committee to the Antarctic Treaty Consultative Meeting.

In the event of situations requiring urgent action, including response action in environmental emergencies, the Chairman shall consult with the Parties to the Protocol on means for addressing the issue.

Rule 12

Whenever the Chairman is unable to act, the Vice-Chairman shall assume the powers and responsibilities of the Chairman.

Rule 13

In the event of the office of the Chairman falling vacant between meeting, the Vice-Chairman shall exercise the powers and responsibilities of the Chairman until a new Chairman is elected.

Rule 14

The Chairman and Vice-Chairmen shall commence the fulfilment of their obligations at the conclusion of the session of the Committee at which they have been elected, with the exception of the first Chairman and Vice-Chairmen who shall take office immediately upon their election.

Part VI. Subsidiary Bodies

Rule 15

The Committee shall establish (with the approval of the Antarctic Treaty Consultative Meeting) such subsidiary bodies as it deems necessary for the performance of its functions and determine their composition and terms of reference.

Subsidiary bodies shall operate on the basis of the Rules of Procedure of the Committee as applicable.

Part VII. Administrative Facilities

Rule 16

As a general rule the Committee, and any subsidiary bodies, shall make use of the administrative facilities of the host Government at their sessions.

Part VIII. Languages

Rule 17

The official and working languages of the Committee shall be English, French, Russian and Spanish.

Part IX. Records and Reports

Rule 18

The Committee shall present a report on each of its sessions to the Antarctic Treaty Consultative Meeting. The report shall cover all matters considered at the session and shall reflect the views expressed. The report shall be circulated to the Parties and to observers attending the session, and shall thereupon be made publicly available.

Rule 19

The Secretariat shall present as soon as possible to the Members of the Committee brief records of each session, of every meeting of any subsidiary bodies, and of reports, advice and recommendations.

(*) FOOTNOTE: "The Secretariat" referred to in these Rules of Procedure means the Secretariat of the Antarctic Treaty.

ANNEX E

ELEMENTS FOR THE ANTARCTIC TREATY SECRETARIAT ACCORDING TO PARAGRAPH 49 OF THE FINAL REPORT (PART I)

ELEMENTS FOR THE ANTARCTIC TREATY SECRETARIAT

I

FUNCTIONS OF THE SECRETARIAT

The Secretariat will perform the functions in support of the Antarctic Treaty Consultative Meeting (ATCM) and the Committee for Environmental Protection which are entrusted to it by the ATCM. In particular it will:

1. provide advice and assistance to the host Governments of the ATCMs and other Meetings held under the Antarctic Treaty and the Protocol on Environmental Protection to the Antarctic Treaty (the Protocol) in respect of arrangements for, and reports of,such Meetings;

2. provide administrative assistance to the Committee for Environmental Protection in respect of the functions entrusted to that Committee by the Protocol;

3. facilitate communication and exchange of information amongstContracting Parties and components of the Antarctic Treaty System;

4. maintain the records of the ATCMs and of other Meetings held under the Antarctic Treaty and the Protocol;

5. facilitate the availability of information about the Antarctic Treaty System.

II

STAFF COMPLEMENT OF THE SECRETARIAT

1. In order to carry out its functions, the Secretariat shall be composed initially of an Executive Secretary, two additional professional staff, and up to six administrative and support staff.

2. The Antarctic Treaty Consultative Meeting (ATCM) shall appoint the Executive Secretary according to such procedures and on such terms and conditions as the ATCM may determine.

3. The term of office of the Executive Secretary shall be four years. He/she shall be eligible for re-appointment but, unless the ATCM decides otherwise, for no more than one additional four year term.

4. The ATCM shall authorise the appointment of the professional staff indicated in paragraph 1 above. The Executive Secretary shall appoint, direct and supervise such staff according to such rules, procedures and on such terms and conditions as the ATCM may determine. The initial appointment of the professional staff shall be subject to consultation between the Executive Secretary and the Antarctic Treaty Consultative Parties.

III

SECRETARIAT COSTS

1. The budget of the Secretariat shall be financed by contributions from the Antarctic Treaty Consultative Parties, provided that this shall not preclude any other Party from making a voluntary contribution to the budget.

2. For a period of three years after the establishment of the Secretariat, each Antarctic Treaty Consultative Party shall make a contribution to the budget as specified in the footnote below (*). During such period the Antarctic Treaty Consultative Meeting shall consider, as a matter of priority and with a view to ensuring equitable sharing, contributions to the budget and make provisions accordingly.

(*) Go to the following page

(*) FOOTNOTE

Argentina	1/26
Australia	1/26
Belgium	1/26
Brazil	1/26
Chile	1/26
China	1/26
Ecuador	1/26
Finland	1/26
France	1/26
Germany	1/26
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Japan	1/26
Korea Rep. of	1/26
Netherlands	1/26
New Zealand	1/26
Norway	1/26
Peru	1/26
Poland	1/26
Russia	1/26
South Africa	1/26

Spain	1/26
Sweden	1/26
United Kingdom	1/26
United States	1/26
Uruguay	1/26

IV

LEGAL STATUS OF THE SECRETARIAT

The Secretariat and its staff shall enjoy, in the territory of its host State, such legal capacity as may be necessary to perform their functions and enjoy the privileges and immunities set out in Annex I to this Recommendation in agreement with the host State.

ANNEX F

REVISED RULES OF PROCEDURE

[1992]

ACCORDING TO PARAGRAPH 64

OF THE FINAL REPORT (PART I)

1. Meetings held pursuant to Article IX of the Antarctic Treaty shall be known as Antarctic Treaty Consultative Meetings. Contracting Parties entitled to participate in those Meetings shall be referred to as "Consultative Parties"; other Contracting Parties which may have been invited to attend those Meetings shall be referred to as "non-Consultative Parties".

2. The Representatives of the Commission for the Conservation of Antarctic Marine Living Resources and the Scientific Committee on Antarctic Research, invited to attend those Meetings in accordance with Rule 30, shall be referred to as "observers".

Representation

3. Each Consultative Party shall be represented by a delegation composed of a Representative and such Alternate Representatives, Advisers and other persons as each State may deem necessary. Each non-Consultative Party which has been invited to attend a Consultative Meeting shall be represented by a Delegation composed of a Representative and such other persons as it may deem necessary, within such numerical limit as may from time to time be determined by the host Government in consultation with the Consultative Parties. The Commission for the Conservation of Antarctic Marine Living Resources and the Scientific Committee on Antarctic Research shall be represented by the Chairman and President respectively or other persons appointed to this end. The names of members of Delegations shall be communicated to the host Government prior the opening of the Meeting.

4. The order of precedence of the Delegations shall be in accordance with the alphabet in the language of the host Government, all delegations of non-Consultative Parties following after those of Consultative Parties, and all delegations of observers following after non-Consultative Parties.

Officers

5. A Representative of the host Government shall be the Temporary Chairman of the Meeting and shall preside until the Meeting elects a Chairman.

6. At its inaugural session, a Chairman from one of the Consultative Parties shall be elected. The other Representatives of Consultative Parties shall serve as Vice-Chairman of the Meeting in order of precedence. The Chairman normally shall preside at all plenary sessions. If he is absent from any session or part thereof, the Vice-Chairman, rotating on the basis of the order of precedence as established by Rule 4, shall preside during each such session.

Secretariat

7. The Secretary shall be appointed by the Meeting on the proposal of the Chairman. The Secretary shall be responsible for providing secretarial services, and shall carry out such other tasks as the Meeting may require or direct.

Sessions

8. The opening plenary session shall be held in public, other sessions shall be held in private, unless the Meeting shall determine otherwise.

Committees and Working Groups

9. The Meeting, to facilitate its work, may establish such committees as it may deem necessary for the performance of its functions, defining their terms of reference.

10. The committees shall operate under the Rules of Procedure of the Meeting, except where they are inapplicable.

11. Working groups may be established by the Meeting or its committees.

Conduct of Business

12. A quorum shall be constituted by two-thirds of the Representatives of Consultative Parties participating in the Meetings.

13. The Chairman shall exercise the powers of this office in accordance with customary practice. He shall see to the observance of the Rules of Procedure and the maintenance of proper order. The Chairman, in exercise of his functions, remains under the authority of the Meeting.

14. Subject to Rule 27, no Representative may address the Meeting without having previously obtained the permission of the Chairman and the Chairman shall call upon speakers in the order in which they signify their desire to speak. The Chairman may call a speaker to order if his remarks are not relevant to the subject under discussion.

15. During the discussion of any matter, a Representative of a Consultative Party may rise to a point of order and the point of order shall be decided immediately by the Chairman in accordance with the Rules of Procedure. A Representative of a Consultative Party may appeal against the ruling of the Chairman. The appeal shall be put to a vote immediately, and the Chairman 's ruling shall stand unless over-ruled by a majority of the Representatives of Consultative Parties present and voting. A Representative of a Consultative Party rising to a point of order shall not speak on the substance of the matter under discussion.

16. The Meeting may limit the time to be allotted to each speaker, and the number of times he may speak on any subject. When debate is thus limited and a Representative has spoken his allotted time, the Chairman shall call him to order without delay.

17. During the discussion of any matter, a Representative of a Consultative Party may move the adjournment of the debate on the item under discussion. In addition to the proposer of the motion, Representatives of two Consultative Parties may speak in favour of, and two against, the motion, after which the motion shall be put into the vote immediately. The Chairman may limit the time to be allowed to speakers under this Rule.

18. A Representative of a Consultative Party may at any time move the closure of the debate on the item under discussion, whether or not any other Representative has signified his wish to speak. Permission to speak on the closure of the debate shall be accorded only to Representatives of two Consultative Parties opposing the closure, after which the motion shall be put to the vote immediately. If the Meeting is in favour of the closure, the Chairman shall declare the closure of the debate. The Chairman may limit the time to be allowed to speakers under this Rule. (This Rule shall not apply to debate in committees).

19. During the discussion of any matter, a Representative of a Consultative Party may move the suspension of the adjournment of the Meeting. Such motions shall not be debated, but shall be put to the vote immediately. The Chairman may limit the time to be allowed to the speaker moving the suspension of adjournment of the Meeting.

20. Subject to Rule 15, the following motions shall have precedence in the following order over all other proposals or motions before the Meeting:

a) to suspend the Meeting;

b) to adjourn the Meeting;

c) to adjourn the debate on the item under discussion;

d) for the closure of the debate on the item under discussion

21. Decisions of the Meeting on all matters of procedure shall be taken by a majority of the Representatives of Consultative Parties participating in the Meeting, each of whom shall have one vote.

Languages

22. English, French, Russian and Spanish shall be the official languages of the Meeting.

23. Any other Representative may speak in a language other than the official languages. However, in such cases he shall provide for interpretation into one of the official languages.

Recommendations and Final Report

24. The Recommendations formulated by the Meeting shall be approved by the Representatives of all Consultative Parties presented and shall be set forth in the Final Report.

25. The Final Report shall also contain a brief account of the proceedings of the Meeting. It will be approved by a majority of the Representatives of Consultative Parties present and shall be transmitted by the Secretary of the Meeting to all Governments of all Consultative Parties which have been invited to take part in the Meeting, for their consideration.

Non-Consultative Parties

26. Representative of non-Consultative Parties, if invited to attend a Consultative Meeting, may be present at:

a) all plenary sessions of the Meeting and

b) all formal Committees or Working Groups, comprising all Consultative Parties, unless a Representative of a Consultative Party requests otherwise in any particular case.

27. The relevant Chairman may invite a Representative of a non-Consultative Party to address the Meeting, Committee or Working Group which he is attending, unless a Representative of a Consultative Party requests otherwise. The Chairman shall at any time give priority to Representatives of Consultative Parties who signify their desire to speak, and may, in inviting Representatives of non-Consultative Parties to address the Meeting, limit the time to be allotted to each speaker and the number of times he may speak on any subject.

28. Non-Consultative Parties are not entitled to participate in the taking of decisions.

29. a) Non-Consultative Parties may submit documents to the Secretariat for distribution to the Meeting as information documents. Such documents shall be relevant to matters under consideration at the Meeting.

b) Unless a Representative of a Consultative Party requests otherwise such documents shall be available only in the language or languages in which they were submitted.

Antarctic Treaty System Observers

30. The observers referred to in Rule 2 shall attend the Meetings for the specific purpose of reporting on:

a) in the case of the Commission for the Conservation of Antarctic Marine Living Resources, developments in its area of competence.

b) in the case of the Scientific Committee on Antarctic Research:

i) the general proceedings of SCAR;

ii) matters within the competence of SCAR under the Convention for the Conservation of Antarctic Seals;

iii) such publications and reports as may have been published or prepared in accordance with Recommendations IV-19 and VI-9 respectively.

32. Following the presentations of the pertinent Report, the relevant Chairman may invite the observer to address the Meeting at which it is being considered once again, unless a Representative of a Consultative Party requests otherwise. The Chairman may allot a time limit for such intervention.

33. Observers are not entitled to participate in the taking of decisions.

34. Observers may submit their Report and/or documents relevant to matters contained therein to the Secretariat, for distribution to the Meeting as working papers.

Agenda for Consultative Meetings

35. At the end of each Consultative Meeting, the host Government of that Meeting shall prepare a preliminary agenda for the next Consultative Meeting. If approved by the Meeting, the preliminary agenda for the next Meeting shall be annexed to the Final Report of the Meeting.

36. Any Contracting Party may propose supplementary items for the preliminary agenda by informing the host Government for the forthcoming Consultative Meeting no later than 180 days before the beginning of the Meeting; each proposal shall be accompanied by an explanatory memorandum. The host Government shall draw the attention of all Contracting Parties to this Rule not later than 210 days before the Meeting.

37. The host Government shall prepare a provisional agenda for the Consultative Meeting. The provisional agenda shall contain:

a) all items on the preliminary agenda decided in accordance with Rule 35 and

b) all items the inclusion of which has been requested by a Contracting Party pursuant to Rule 36.

No later than 120 days before the Meeting, the host Government shall transmit to all the Contracting Parties the provisional agenda, together with explanatory memoranda and any other papers related thereto.

Experts from International Organisations

38. At the end of each Consultative Meeting, the Meeting shall decide which international organisations having a scientific or technical interest shall be invited to designate an expert to attend the forthcoming Meeting in order to assist it in its substantive work.

39. Any Contracting Party may thereafter propose that an invitation be extended to other international organisations having a scientific or technical interest in Antarctica to assist the Meeting in its substantive work; each such proposal shall be submitted to the host Government for that Meeting not later than 180 days before the beginning of the Meeting and shall be accompanied by a memorandum setting out the basis for the proposal.

40. The host Government shall transmit these proposals to all Contracting Parties in accordance with the procedure in Rule 37. Any Consultative Party which wishes to object to a proposal shall do so not less than 90 days before the Meeting.

41. Unless such an objection has been received, the host Government shall extend invitations to international organisations identified in accordance with Rules 38 and 39 and shall request each international organisation to communicate the name of the designated expert to the host Government prior to the opening of the Meeting. All such experts may attend the Meeting during consideration of all items, except for those items relating to the operation of the Antarctic Treaty System which are identified by the previous Meeting or upon adoption of the Agenda.

42. The relevant Chairman, with the agreement of all the Consultative Parties, may invite an expert to address the Meeting he is attending. The Chairman shall at any time give priority to Representatives of Consultative Parties or non-Consultative Parties or observers referred to in Rule 30 who signify their desire to speak, and may in inviting an expert to address the meeting limit the time to be allocated to him and the number of times he may speak on any subject.

43. Experts are not entitled to participate in the taking of decisions.

44. a) Experts may, in respect of the relevant agenda item, submit documents to the Secretariat for distribution to the Meeting as information documents.

    b) Unless a Representative of a Consultative Party requests otherwise, such documents shall be available only in the language or languages in which they were submitted.

Amendments

45. These Rules of Procedure may be amended by a two-thirds majority of the Representatives of Consultative Parties participating in the Meeting. This Rule shall not apply to Rules 24, 26, 28, 33, 38, 39, 40, 41 and 43, amendment of which shall require the approval of the Representatives of all Consultative Parties present at the Meeting.

ANNEX G

PRELIMINARY AGENDA OF THE

XVIIIth ANTARCTIC TREATY CONSULTATIVE MEETING

PRELIMINARY AGENDA OF THE XVIIIth ANTARCTIC TREATY CONSULTATIVE MEETING

1. Opening of the Meeting

2. Election of Officers

3. Opening Addresses

4. Adoption of Agenda

5. Operation of the Antarctic Treaty System: Reports

a) under Recommendation XIII - 2:

i) the Chairman of the Commission for th Conservation of Antarctic Marine Living Resource (CCAMLR);

ii) the Head of the Delegation of the United Kingdo in his capacity as Representative of th Depositary Government of the Convention fo the Conservation of Antarctic Seals (CCAS);

iii) the President of the Scientific Committee o Antarctic Research (SCAR);

iv) the Head of the Delegation of the United States o America in his capacity as Representative o the Depositary Government of the Antarctic Treaty ;

v) the Convenor of the Informal Group of Treaty Parties in the United Nations;

vi) the Council of Managers of National Antarctic Programs (COMNAP);

b) in relation to Article III (2) of the Antarctic Treaty

6. Protocol on Environmental Protection to the Antarctic Treaty

a) Implementation

b) Committee for Environmental Protection

c) Liability Annex

7. Operation of the Antarctic Treaty System

a) Organizational Aspects. Secretariat

b) Public Availability of Documents

c) Examination of Recommendations

d) Exchange of Information

8. Inspections under the Antarctic Treaty

9. **Environmental Monitoring and Data**

   a) Environmental Monitoring of the Impacts of Human Activities in the Antarctic;

   b) Global Change;

   c) Data Management.

10. **Implementation of Environmental Impact Assessment Procedures**

11. **The Antarctic Protected Area System**

12. **International Antarctic Scientific and Logistic Cooperation**

13. **Tourism and non-Governmental Activities in the Antarctic Treaty Area**

14. **Antarctic Meteorology and Telecommunications**

15. **Marine Hydrometeorological Services to Navigation in the Southern Ocean**

16. **Questions Related to the Exercise of Jurisdiction in Antarctica**

17. Preparation of the XIXth Consultative Meeting

a) Date and Place of the XIXth Consultative Meeting

b) Invitations of International and non-Governmental Organisations

c) Preparation of the Agenda of the XIXth Consultative Meeting

18. Any Other Business

19. Adoption of the Report

20. Closing of the Meeting

ANNEX H

NATIONAL CONTACT POINTS

NATIONAL CONTACT POINTS

(For purposes described in Recommendation XIII-1)

I. CONSULTATIVE PARTIES

ARGENTINA

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

   Direccion de Antartida
   Ministerio de Relaciones Exteriores y Culto
   Reconquista 1088 10ma PISO
   Buenos Aires - Argentina

   Tel: (+54) 1.311.1801
   Fax: (+54) 1.312.3539

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

   Instituto Antartico Argentino
   Cerrito 1248
   (1010) Buenos Aires - Argentina

   Tel: (+54) 1.812.1689
   Fax: (+54) 1.812.2039

AUSTRALIA

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

   Department of Foreign Affairs and Trade
   Administrative Building
   PARKES
   ACT 2600 - Australia

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

Australian Antarctic Division
Channel Highway
Kingston
Tasmania 7050 - Australia

BELGIUM

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

MINISTERE DES AFFAIRES ETRANGERES
SERVICES du DROIT de la MER et de l'ANTARCTIQUE
Rue Belliard, n. 65
1040 Bruxelles - Belgium

Tel: (+32) 2.238.26.95

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

PROGRAMMATION de la POLITIQUE SCIENTIFIQUE
SERVICES DU PREMIER MINISTRE
Rue de la Science, n. 8
1040 Bruxelles - Belgium

Tel: (+32) 2.238.34.11
Fax: (+32) 2.230.59.12
Telex 24501 PROSCI B

BRAZIL

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

   DMAE (Divisao do Mar de Antartica e do Espaco)
   Anexo Palacio ITAMARATY, 7° Andar, Sala 722
   Esplanada dos Ministerios
   BRASILIA - D.F.
   Brazil 70.000

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

   SECIRM
   Ministerio da Marinha
   Esplanada dos Ministerios, Bloco n.4° Andar
   BRASILIA - D.F.
   Brazil 70.000

CHILE

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

   Ministerio de Relaciones Exteriores
   Direccion de Politica Especial (DIPESP)
   Morande 441 Segundo Piso
   Santiago - CHILE

   Tel: 562.698.03.01 - 698.25.01 anexo 252
   Fax: 562.699.42.02 - 698.12.72

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

Ministerio de Relaciones Exteriores de Chile
Instituto Antartico Chileno (INACH)
Luis Thayer Ojeda 814 _ Providencia
Santiago - CHILE

Tel: 562.231.01.05 - 231.63.27
Fax: 562.232.04.40
Telex: 346261 INACH CK

CHINA, PEOPLE'S REPUBLIC OF

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

GUO KUN
Director, Chinese Antarctic Administration
No 1 FUXINGMENWAI Ave.
BEIJING 100860 - China

Tel: (+86) 1.801.16.13
Fax: (+86) 1.801.16.13
Telex: 22536 NBO CN

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

DONG ZHAOQIAN
Director, Polar Research Institute of China
451 SHANGCHUAN Rd
PUDONG, SHANGHAI - China

Fax: (+86) 1.884.74.00

EQUADOR

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

   Ministro Méntor Villagomez
   Director Soberania Marittima
   Ministerio de Relaciones Exteriores
   Av. 10 de Agosto y Carrion
   QUITO - Ecuador

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

   Direccion de Intereses Maritimos
   Ministerio de Defensa Nacional
   La Recoleta
   QUITO - Ecuador

FINLAND

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

   Ministry for Foreign Affairs
   Political Department
   P.O. Box 176
   SF-00161 Helsinki - Finland

   Tel: (+358) 0.13.41.51
   Fax: (+358) 0.13.41.52.85
   Telex: 124636 UMINSF

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

Polar Commission of Finland
Ministry of Trade and Industry
P.O. Box 230
SF-00171 Helsinki - Finland

Tel: (+358) 0.160.37.24
Fax: (+358) 0.160.37.05
Telex: 125849 INTAF SF

FRANCE

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

Territoire des Terres Australes et Antarctique Françaises (T.A.A.F.)
34, Rue des Renaudes
75017 Paris - France
Tel: 47.66.93.23

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

Ministère des Affaires Etrangères
Direction des Affaires Juridiques
37, Quai d'Orsay
75007 Paris - France

Tel: 47.53.53.31 -ext. 4386/5331
Fax: 47.53.94.95

GERMANY

For purposes set out in paragraphs 3 and 5 of Recommendation XIII-1:

Alfred Wegener Institute fur Polar und Meeresforschung
(AWI)
Columbusstrasse
Postfach 120161
2850 Bremerhaven
Federal Republic of Germany

Tel: 0471.48.31-0
Fax: 0471.48.31-149
Telex: 238695 POLAR D

INDIA

For purposes set out in paragraphs 3 and 5 of Recommendation XIII-1:

J.V.R PRASADA RAO
Joint Secretary
Department of Ocean Development
Government of India
Block XII C.G.O. Complex
New Delhi 110003 - India

Fax. (+91) 11.436.07.79
Telex: 31.61535 DOD-IN

ITALY

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

Ministero degli Affari Esteri
Direzione Generale delle Relazioni Culturali (DGRC)
Uff. VII
P.le Farnesina 1
00100 Roma - Italy

Tel: (+39) 6.36.91.40.57
Fax. (+39) 6.32.23.795

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

ENEA - Progetto Antartide
S.P. Anguillarese, 301
00060 Roma A.D. - Italy
Ing. M. Zucchelli

Tel: (+39) 6.30.48.49.39
Fax: (+39) 6.30.48.48.93

JAPAN

For purposes set out in paragraphs3 and 5
of Recommendation XIII-1:

Shigeo IWATANI
Director, Scientific Affairs Division
United Nations Bureau, Ministry of Foreign Affairs
P Address, 2-2-1 Kazumigaseki
Chiyoda-ku, Tokio - Japan

Tel. 3580.3311

KOREA, REPUBLIC OF

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

   Director
   International Legal Affairs Division
   Treaties Bureau
   Ministry of Foreign Affairs
   77 Sejongno, Chongno-ku
   SEOUL - Republic of Korea

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

   Polar Research Centre
   Korea Ocean Research and Development Institute
   Ansan P.O. Box 29
   SEOUL, 425-600 - Republic of Korea

NETHERLANDS

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

   Ministry of Foreign Affairs
   Department DRW/WN
   P.O. Box 20067
   2500 EB The Hague - Netherlands

   Tel: (+31) 70.348.49.71
   Fax. (+31) 70.348.44.12

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

Netherlands Marine Research Foundation
Laan Van Niern Oost Indie 131
2593 BM The Hague - Netherlands

Tel: (+31) 70.344.07.80
Fax: (+31) 70.383.21.73

NEW ZEALAND

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

The Director
Antarctic Policy Division
Ministry of External Relations and Trade
Private Bag
Wellington - New Zealand

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

The Director
New Zealand Antarctic Programme
P.O. Box 14-091
Christchurch - New Zealand

NORWAY

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

Royal Ministry of Foreign Affairs
Polar Section
Post Office Box 8114 DEP
0032 Oslo - Norway

Tel: (+47) 2.34.33.61 Fax: (+47) 2.34.95.80/81
Telex: 71004

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

Norwegian Polar Research Institute
Post Office Box 158
1330 Oslo Lufthavn - Norway

Tel: (+47) 2.12.36.50
Fax: (+47) 2.12.38.54
Telex: 74745

PERU

For purposes set out in paragraphs3 and 5 of Recommendation XIII-1:

Comision Nacional de Asuntos Antarticos
Ministerio de Relaciones Exteriores
Palacio Torre Tagle (Ucayali No 361)
Lima (1) - Peru

POLAND

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

Mr JANUSZ STANCZYK
Director of the Legal and Treaty
Department Ministry of Foreign Affairs
AL SZUCHA 23
Warszawa - Poland

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

Professor KRZYSZTOF BIRKENMAJER
Chairman Committee on Polar Research
Polish Academy of Sciences
Palac Kultury: Nauki 2507
00-901 Warszawa - Poland

RUSSIAN FEDERATION

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

   Ministry of Foreign Affairs
   International Law Department
   Mòscow, Imolenkaya, Sq 32-34
   Sennaya
   RUSSIA

2. For purposes set out in paragraph 5 of Recommendation XIII-1:

   Artic and Antarctic Research Institute
   St. Petersburg
   Bering Str., 38
   RUSSIA

SOUTH AFRICA

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

   Department of Foreign Affairs
   Route H DOW
   Private Bag X 152
   Pretoria 0001 - South Africa

2. For purposes set out in paragraph 5 of Recommendation XIII-1:
   Department of Environment Affairs
   Antarctic and Islands Section
   Private Bag X 447
   Pretoria 0001 - South Africa

SPAIN

1. For purposes set out in paragraph 3 of Recommendation XIII-1:

   Ministerio Asuntos Exteriores
   S.G. Cooperacion Cientifico-Tecnica
   Jose Abascal, 41
   28003 Madrid - Spain

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