

# **ANTARCTIC TREATY**

## **Final Report of the Twentieth Antarctic Treaty Consultative Meeting**

**Utrecht**

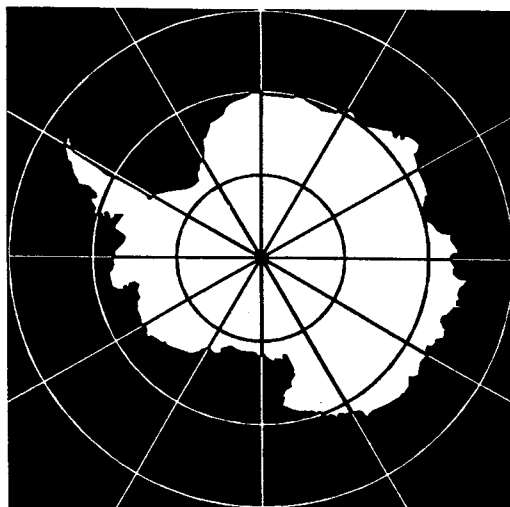
**29 April – 10 May 1996**

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MINISTER FOR FOREIGN AFFAIRS

The Hague, 6 May 1996

Dear participants,

Although I am regrettably unable to open your meeting as intended, I would like to take the opportunity of assuring you of my interest in your work.

The Netherlands attaches great significance to your continued efforts to preserve Antarctica intact. It is the only example of a large area where persistent endeavours by the international community have proved so successful. The collaborative nature of your work in this regard has also served the interests of peace and science.

Let me express the wish that you will be able to look back with satisfaction on this, the first ATCM to be held in the Netherlands, and that the Protocol on the protection of the Antarctic environment enters into force soon. I hope furthermore that you find not only the wisdom but also the patience to bring the negotiations on a liability annex to this Protocol ever closer to their conclusion.

Finally, I hope that you also find the opportunity to experience some of the many things which the Netherlands has to offer.

Hans van Mierlo  
Minister for Foreign Affairs of the  
Kingdom of the Netherlands

# Final Report of the XX

## Antarctic Treaty Consultative Meeting

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## Acronyms and Abbreviations

ASOC	Antarctic and Southern Ocean Coalition
ASMA	Antarctic Specially Managed Area
ASPA	Antarctic Specially Protected Area
ATCM	Antarctic Treaty and Consultative Meeting
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCAMLR	Convention on the Conservation of Antarctic Marine Living Resources
CCAS	Convention for the Conservation of Antarctic Seals
CEE	Comprehensive Environmental Evaluation
CEP	Committee for Environmental Protection
COMNAP	Council of Managers of National Antarctic Programmes
CRAMRA	Convention on the Regulation of Antarctic Mineral Resources Activities
EIA	Environmental Impact Assessment
EPICA	European Project for Ice Coring in Antarctic
GOSEAC	Group of Specialists on Environmental Affairs and Conservation
IAATO	International Association of Antarctica Tour Operators
IAEA	International Atomic Energy Agency
IEE	Initial Environmental Evaluation
IHO	International Hydrographic Organisation
IMO	International Maritime Organisation
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for the Conservation of Nature and Natural Resources
MARPOL	International Convention for the Prevention of Pollution from Ships
NSF	National Science Foundation
PATA	Pacific Asia Travel Association
SCALOP	Standing Committee on Antarctic Logistics and Operations
SCAR	Scientific Committee on Antarctic Research
SPA	Special Protected Area
SSSI	Site of Special Scientific Interest
TWEG	Transitional Environmental Working Group
UNEP	United Nations Environmental Programme
WG I/II	Working Group I/II
WMO	World Meteorological Organisation
WTO	World Tourism Organisation

# **Part I**

## **Final Report of the XX Antarctic Treaty Consultative Meeting**





## **Final Report of the XX 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 Utrecht from 29 April to 10 May 1996, 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, Bulgaria, Canada, Colombia, the Czech Republic, Denmark, Greece, Guatemala, Rumania, the Slovak Republic, Turkey, Switzerland and Ukraine).
- (3) A preparatory Meeting with Embassy Representatives was held in The Hague on 16 January 1996.
- (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 1992.
- (5) Pursuant to paragraph 25 of the Final Report of the XVII Antarctic Treaty Consultative Meeting, the Chairman of the Council of Managers of National Antarctic Programmes (COMNAP) was also invited to attend the Meeting to present a report on the activities of COMNAP on the same basis as Recommendation XIII-2.
- (6) Pursuant to Rule 38 of the Revised Rules of Procedure 1992, several international organisations having a scientific or technical interest in Antarctica were invited to designate experts to attend the XX ATCM and to assist in discussion of specific agenda items. The following organisations participated in the proceedings: ASOC, IAATO, IHO, IOC, IUCN, UNEP and WMO.
- (7) IMO, PATA, and WTO were also invited, but were unable to take part.
- (8) The Meeting was opened by Ms. Margaretha de Boer, Minister of Housing, Spatial Planning and the Environment, on 6 May 1996 during the Ceremonial Plenary.
- (9) Deputy Director of the Scientific Co-operation Department of the MFA, Jan Peter Bosman of the Delegation of the Netherlands, was elected Chairman of the Meeting. Mr. Bosman expressed his appreciation to the Delegations for electing him Chairman.
- (10) The Chairman proposed that Mr. Robert Jumelet be appointed Executive Secretary of the Meeting. The Delegations adopted this proposal.
- (11) In accordance with the decision taken at the XVIII ATCM, the Meeting was organised to reflect the objectives of the Protocol on Environmental Protection to the Antarctic Treaty, in

order to improve the way in which the Antarctic Treaty Consultative Mechanism works. It was agreed to establish three Working Groups. To this extend the Transitional Environmental Working Group (TEWG) met in the first week of the ATCM, and Working Groups I and II in the second.

(12) Following the suggestion of the Chairman, the Meeting elected Dr. Vincente Sanchez of Chile Chairman and Dr. Pietro Giuliani of Italy Vice-Chairman of the TEWG.

(13) Ambassador Jan Arvesen of Norway was elected Chairman of Working Group I, and Dr. Roberto Puceiro of Uruguay was elected Chairman of Working Group II.

(14) In addition to the three Working Groups, a Meeting of Legal Experts on Liability, headed by Professor Rüdiger Wolfrum of Germany, met during the first week of the XX ATCM and discussed the draft Liability Annex to the Protocol on Environmental Protection to the Antarctic Treaty.

(15) In order to save time and to follow the practice of previous Meetings, Delegations did not deliver opening statements. Instead, they provided the texts for circulation and inclusion in the Final Report. The texts of the opening statements are reproduced in Annex E.

(16) 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 Head of the Delegation of the United States of America in his capacity as Representative of the Depositary Government of the Antarctic Treaty
    - ii) the Chairman of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)
    - iii) the Head of the Delegation of Australia in his capacity as Representative of the Depositary Government for the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR)
    - iv) 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)

- v) the President of the Scientific Committee on Antarctic Research (SCAR)
  - vi) the Chairman of the Council of Managers of National Antarctic Programmes (COMNAP)
- b) in relation to the article III(2) of the Antarctic Treaty
  - c) relevance of developments in the Arctic and the Antarctic
6. Protocol on Environmental Protection to the Antarctic Treaty
    - a) Implementation
    - b) Liability Annex
    - c) Relation with other environmental treaties
  7. Operation of the Antarctic Treaty System
    - a) Organizational Aspects (including Secretariat)
    - b) Operation of TEWG
    - c) Examination of Recommendations
    - d) Exchange of Information
  8. Questions related to the Exercise of Jurisdiction in Antarctica
  9. Tourism and Non-Governmental Activities in the Antarctic Treaty Area
  10. Inspections under the Antarctic Treaty
    - a) Inspections during 1995/96 and those planned for 1996/97
    - b) Inspection Checklists
  11. Data Management
  12. Antarctic Infrastructures, Technology and Operations
  13. Antarctic Science: Major New Initiatives
  14. Cultural and Aesthetic Values of the Antarctic (proposed by Chile)
  15. Education and Training
  16. Safety Issues

- a) Contingency Planning
- b) Fuel Handling
- 17. Environmental Protection Measures and their effectiveness
- 18. Application and Implementation of EIA procedures
- 19. Specific Environmental Protection Measures (included in item 17)
- 20. The Antarctic Protected Area System
  - a) Proposals for Revised and New Management Plans
  - b) Site Inspections
  - c) Means for Evaluating Possible Gaps in the System
- 21. Collection, Archiving, Exchange and Evaluation of Environmental Information
- 22. Environmental Monitoring and the State of the Antarctic Environment
- 23. Preparation of the XXI Consultative Meeting
  - a) Date and place of the XXI ATCM
  - b) Invitations of International and Non-Governmental Organizations
  - c) Preparation of the Agenda of the XXI ATCM
- 24. Any other Business
- 25. Adoption of the Report
- 26. Closing of the Meeting

(17) In accordance with the suggestion made at the XIX ATCM and with the Chairman's suggestion:

- a) discussion of items 1 to 5b, and 23 to 26 took place during the plenary session;
- b) the remaining items were remitted to three working groups:
  - i) Transitional Environmental Working Group (TEWG) discussed items 17, 18, 20, 21 and 22;
  - ii) Working Group I (WG I) discussed items 5c, 6, 7, 8, 9 (partly), 10 (as far as related to port state control) and 14;

- iii) Working Group II (WG II) discussed items 9 (partly), 10 (except for parts related to port state control), 11, 12, 13, 15 and 16.

## **Item 5**

### Operation of the Antarctic Treaty System: Reports

#### a) Reports under Recommendation XIII-2

(18) Pursuant to Recommendation XIII-2, the Meeting received reports from the following organisations:

- a) the Head of the Delegation of the United States of America in his capacity as Representative of the Depositary Government of the Antarctic Treaty;
- b) the Chairman of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR);
- c) the Head of the Delegation of Australia in his capacity as Representative of the Depositary Government for the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR);
- d) the Head of the Delegation of the United Kingdom in his capacity as Representative of the Depositary Government of the Convention for the Conservation Antarctic Seals (CCAS);
- e) the President of the Scientific Committee on Antarctic Research (SCAR);
- f) the Chairman of the Council of Managers of National Antarctic Programmes (COM-NAP).

(19) The Head of the Delegation of the United States, Mr. R. Tucker Scully, presented a report in his capacity as Representative of the Depositary Government of the Antarctic Treaty. He reported on the current status of the Antarctic Treaty. In the period that has elapsed since the XIX ATCM, Turkey acceded to the Treaty on 24 January 1996. With regard to the Protocol on Environmental Protection to the Antarctic Treaty, six Consultative Parties (Belgium, Brazil, India, Poland, Republic of Korea and South Africa) and one non-Consultative Party (Greece) have ratified the Protocol since the XIX ATCM, bringing the total to 22 out of the 26 Consultative Parties. He noted that 10 out of the 22 Consultative Parties have approved Recommendation XVI-10, relating to Annex V of the Protocol, under Article IX of the Antarctic Treaty (Annex F).

(20) The report of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) was presented, on behalf of its Chairman, by its Executive Secretary, Mr. Esteban de Salas. The report is appended in Annex F.

- (21) The Head of the Australian Delegation, Mr. Paul O'Sullivan, in his capacity as Representative of the Depositary Government of the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR), presented a report. The report is appended in annex F.
- (22) 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 in Annex F.
- (23) The report of the Scientific Committee on Antarctic Research (SCAR) was presented by its President, Professor Antonio C. Rocha Campos. Delegations expressed their gratitude to SCAR for the vital work it has done on behalf of the ATCM. The SCAR report is appended in Annex F.
- (24) The report of COMNAP was presented by its Chairman, Prof. Dr. Anders Karlquist. The report is appended in Annex F.
- (25) The Meeting expressed its appreciation for the reports which made an important contribution to the understanding of developments affecting the Antarctic Treaty system. The presentations also provided an opportunity for delegates to make general observations on the operation of the Treaty system.

**b) Reports in Relation to Article III (2) of the Antarctic Treaty**

- (26) The Meeting also received reports from a number of experts representing international organisations having a scientific or technical interest in Antarctica who had been invited to attend and to assist in the discussion of specific agenda items.
- (27) The Representative of the Antarctic and Southern Ocean Coalition (ASOC), Mr. James Barnes, presented a report to the meeting on the activities of ASOC in relation to Antarctica (Annex G).
- (28) The Representative of the International Association of Antarctica Tour Operators (IAATO), Mr. John Spletstoeser, presented a report to the Meeting on the activities of IAATO in relation to Antarctica.
- (29) The Representative of the International Hydrographic Organisation (IHO), Commodore Egon Bakker reported on the recent activities of the IHO Permanent Working Group (PWG) on Antarctica. The report is appended in Annex G.
- (30) The Representative of the Intergovernmental Oceanographic Commission (IOC), Dr. Jan Stel, reported on the activities of the IOC in relation to Antarctica.
- (31) The Representative of the International Union for the Conservation of Nature and Natural Resources (IUCN), Ms. J. Dalziell presented a report on the activities of the IUCN in relation to Antarctica (Annex G).

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

**c) Relevance of developments in the Arctic and the Antarctic**

(33) Various countries congratulated Canada on its successful chairmanship of the Arctic Environmental Protection Strategy (AEPS) and the productive Third Ministerial Meeting of the AEPS, which was held in Inuvik, Canada, from 19 to 21 March 1996. This Meeting was attended by a representative from the Netherlands in its capacity as Host of the XX ATCM. The statement by the Netherlands as the next ATCM's Host Government and the report of the third Ministerial Conference were distributed at the XX ATCM (XX ATCM/INF 26). The hope that co-operation between the Arctic countries would soon culminate in the formal establishment of the Arctic Council was expressed.

(34) The Meeting emphasised the desirability of information exchange between the Antarctic and Arctic Processes. The Meeting was pleased to note that since 1994 - the year in which this item was placed on the ATCM agenda - much had been done to ensure co-ordination in this area. It supported the view of the Netherlands that the most appropriate means of achieving effective exchange of information was via the AEPS Host Government. It noted that seven of the eight Arctic States are also Parties to the Antarctic Treaty.

(35) The Meeting therefore agreed that the established procedure for ensuring the timely exchange of information on Arctic and Antarctic issues should be continued and expanded. To that end, the Meeting agreed that the Government of Norway, as Host Government of the next Ministerial Meeting of the Arctic Environmental Protection Strategy, should ensure that the Final Report, as well as other relevant documents of the XX and XXI ATCMs, be made available to the Ministerial Meeting, and requested that relevant documents from the next AEPS Ministerial Meeting as well as other important Arctic Meetings be made available to participants at the XXII ATCM.

(36) Emphasis was placed on the need to bear in mind that, as far as co-ordination was concerned, the political and legal context governing activities in the Arctic and the Antarctic differed considerably.

(37) Furthermore, the Meeting believed that exchange of information should not be confined to the exchange of information on issues referred to in paragraph (5). It noted the considerable range of technical and scientific projects being undertaken in the Arctic and recommended that the exchange be broadened to address these issues. Accordingly, the Meeting recommended that in considering any further agenda items on this issue, their environmental, technical, scientific or logistic aspects be dealt with as well as their political and administrative aspects. The agenda item could be entitled:

**"Relevance of developments in the Arctic and the Antarctic."**

## **Item 6**

### **Protocol on Environmental Protection to the Antarctic Treaty**

#### **a) Implementation**

(38) The Meeting was encouraged by the fact that 22 of the 26 Consultative Parties had now ratified the Protocol. The remaining four Consultative Parties indicated that while the rapid entry into force of the Protocol is desirable, it is difficult for them to give an exact timeframe for ratification.

(39) Given the desirability of exchanging information on the implementation of the Protocol within national legal systems, Chile and the United Kingdom were thanked for the information (XX ATCM/WP 19, XX ATCM/INF 6 and XX ATCM/INF 7, respectively). Various other Delegations provided a verbal summary of the way in which national implementing legislation pertaining to the Protocol had been enacted.

#### **b) Liability Annex**

(40) Professor Wolfrum of Germany summarised the deliberations of Group of Legal Experts on liability which met during the first week of the ATCM. The discussion of the Group proceeded on the basis of the "Fifth Offering" submitted by Professor Wolfrum and a draft submitted by the United States Delegation on "Annex VI" to the Protocol on Environmental Protection to the Antarctic Treaty (XX ATCM/INF 43). Professor Wolfrum stressed that substantial progress had been made during the intersessional meeting in Brussels, which was held from 27 through 30 November 1995, and during the first week of the XX ATCM. He noted, as on a previous occasion, that, in future meetings, the participation of experts with direct relevant scientific, technical and logistic experience on Antarctica would be most desirable.

(41) The Meeting expressed its sincere gratitude to the Government of Belgium for hosting an intersessional meeting of the Group of Legal Experts in November 1995 and to Professor Wolfrum for his untiring efforts to resolve pending issues concerning liability.

(42) In order to continue the work on an Annex on liability to the Protocol, Germany submitted a proposal (XX ATCM/WP 31). The Meeting took note of the work of the Group of Legal Experts on liability, and extended the mandate of the Group of Legal Experts based on Recommendation IV-24. The Meeting agreed to convene an intersessional Meeting of the Group of Legal Experts before the XXI Consultative Meeting, and another meeting during the XXI Consultative Meeting. The basis for discussions during those meetings will be further Offerings of the Chairman of the Group of Legal Experts, the draft submitted by the United States (XX/ATCM/INF 43), as well as drafts which might be submitted by other Delegations. The Meeting urged that Governments arrange for legal experts to be accompanied by experts having direct relevant scientific, technical and logistic experience on Antarctica. The results of the meetings of the Group of Legal Experts will be reported to, and considered by, the XXI Consultative Meeting.

(43) Several Delegations raised the question whether it would be appropriate for the Group of



Legal Experts to work on the basis of all four official languages of the Antarctic Treaty. This was felt to be necessary by these Delegations in view of the importance of the work of the Group of Legal Experts and the fact that the outcome of its work should be a binding instrument which would in any case have to be concluded in the four languages.

(44) Some Delegations expressed the opinion that, as a first step, all documents relating to the Group of Legal Experts, chaired by Professor Wolfrum, should be translated into the four languages.

(45) Reservations were expressed on this subject by other Delegations. It was their opinion that translation of all documents of the Group of Legal Experts as well as simultaneous interpretation of its debates would impose too heavy a burden on the Government hosting its meetings. They noted that so far, the Group of Legal Experts had worked well without any translations.

(46) A third group of Delegations was of the opinion that the Group of Legal Experts should continue to work using one language until some point in the future, when formal negotiations would make it necessary to proceed on the basis of the four Antarctic Treaty languages.

(47) The Meeting agreed that further consideration on the matter of interpretation and translation in the Group of Legal Experts should be given at the XXI ATCM with a view to reaching an appropriate decision.

**c) Relation with other Environmental Treaties**

(48) The Meeting expressed its sincere appreciation for the two Working Papers under this item: XX ATCM/WP 10 Rev.1, submitted by the United Kingdom, and XX ATCM/WP 30, submitted by Chile. These Working Papers addressed the question of the relationship between, on the one hand, the Protocol on Environmental Protection to the Antarctic Treaty and other treaties of the Antarctic Treaty system, and, on the other hand, other international agreements of a global or regional scope.

(49) Some Delegations emphasised the need to bear in mind that consideration of the application to the Antarctic of general Conventions on environmental protection could raise questions relating to Article IV of the Antarctic Treaty.

(50) The Meeting agreed to draw the attention of the Group of Legal Experts on liability to paragraphs 49 and 50 (XX ATCM/WP 10 Rev.1), expressing the fact that in certain cases existing international instruments relating to liability might not cover liability for damage to the Antarctic environment.

(51) The Meeting recognised the value of the two Working Papers for the consideration of the issue by each Consultative Party, and decided to include this item in the Agenda of the next Antarctic Treaty Consultative Meeting, with a view to having a further exchange of views on that occasion.

## Item 7

### Operation of the Antarctic Treaty System

#### a) Organisational Aspects (including Secretariat)

(52) The Contact Group on Organizational Aspects of the Establishment of an Antarctic Treaty Secretariat convened under the chairmanship of Professor Wolfrum in Utrecht on 3 May 1996. Professor Wolfrum gave a brief report of the discussion which took place. A document drawn up by Professor Wolfrum entitled "Legal Status, Privileges and Immunities of the Antarctic Treaty Secretariat" formed the basis of the Contact Group's discussion. This discussion focused on the question of what instruments (e.g. a Protocol or a Measure), were necessary for the establishment of a Secretariat, and on the question of whether the Secretariat should enjoy privileges and immunities in the Host State only or also in all the other ATCPs. No agreement could be reached on the subjects in question yet. However, the Chairman of the Contact Group expressed confidence that an agreement could be reached if the necessary political will existed to do so, since the issue did not raise complicated legal problems.

(53) Professor Wolfrum indicated that he would draw up and distribute a new document, based on the discussion, six weeks after the XX ATCM. This document could contain the following elements:

- Status of the Secretariat (legal personality under national or international law);
- Functions of the Secretariat;
- Staff;
- Contributions to the Budget;
- Privileges and Immunities.

(54) With regard to privileges and immunities, the document would comprise two alternatives, namely:

- a) Privileges and immunities for the Secretariat in the Host Country only;
- b) Privileges and immunities for the Secretariat in all Consultative Parties.

(55) The Parties would subsequently be requested to make their views known within six weeks. Professor Wolfrum could then distribute an amended version of the document for the XXI ATCM. Professor Wolfrum expressed the hope that this discussion could be concluded during the XXI ATCM.

(56) Professor Wolfrum's proposals as set out above met with the approval of the Meeting and were agreed to.

(57) Under the same agenda item, the Meeting considered a Working Paper submitted by Chile

(XX ATCM/WP 20) concerning the circulation of documents by the host Government before and after the Consultative Meetings, until such time as the Secretariat would be established.

(58) Many Delegations referred to the Guideline concerning pre-sessional document circulation and document handling at the XX ATCM, which was agreed to by the XIX ATCM (this Guideline appears in Annex D to the Final Report of the XIX Consultative Meeting). They expressed their satisfaction with the Guideline as it had been implemented by the Host Government of the XX Antarctic Treaty Consultative Meeting.

(59) A number of Delegations nevertheless emphasised that the Guideline should be looked at critically and that improvements could still be made. In this respect mention was made of the great number of Information Papers which had been made available during the Meeting.

(60) The Meeting agreed to extend the Guideline's application to the preparation and conduct of the XXI Consultative Meeting.

(61) The Meeting also acknowledged that it would be useful to provide guidance to the Host Government on document handling after the Consultative Meeting. The Meeting supplemented the Guideline with the following paragraphs to that effect:

7. The Host Government should, within three months of the end of the Consultative Meeting hosted by it, or, where this is not practicable, as soon as reasonably possible afterwards, circulate through diplomatic channels:
  - the Final Report of that Meeting, in the official languages;
  - a comprehensive list of that Meeting's officially circulated Working and Information Papers.
8. The Host Government should provide any Party to the Antarctic Treaty with copies of documents mentioned in the previous paragraph at the request of that Party.

(62) The Guideline on Pre-Sessional and Post-Sessional Document Circulation and Document Handling at the XXI ATCM is attached to this Report in Part III, Annex D.

(63) The Meeting considered an Information Paper submitted by Australia (XX ATCM/INF 32) pointing out errors in transcription of the Rules of Procedure in the 1994 edition of the Handbook of the Antarctic Treaty system.

(64) It was agreed that the Host Government of the next ATCM should circulate a corrected version of the Rules of Procedure at that ATCM. This should be appended to the Final Report of that Meeting.

#### **b) Operation of the TEWG**

(65) "Operation of the TEWG" was the subject of a Working Paper submitted by Chile (XX ATCM/WP 21). The Working Paper recalled the background of the establishment of the TEWG

and the discussions at previous ATCMs, notably as regards the idea of holding intersessional Meetings. Building on these previous discussions, Working Paper 21 proposed that the TEWG should enhance its efforts through the establishment of sub-groups aimed at designing and planning the future Committee's work.

(66) In introducing the Working Paper, Chile emphasised the success of the second Meeting of the TEWG in Utrecht, where the pragmatic approach in particular was seen as very positive. The establishment of an open-ended contact group, co-ordinated by New Zealand, which was agreed in the TEWG, tied in well with the spirit of Working Paper 21. As a result, Chile was of the opinion that it was no longer necessary to discuss the draft Decision laid down in that Working Paper. It was decided instead that states concerned would send New Zealand the names of their respective experts.

(67) Furthermore, the temporary role of the TEWG was emphasised. As it was quite conceivable that the Protocol would enter into force before the XXI ATCM, it had to be borne in mind that a start would be made on setting up the Committee for Environmental Protection (CEP) at that ATCM. In that case priority ought to be accorded to the operation of the CEP, for example by adopting its Rules of Procedure, the election of officers and its work programme. These matters should be taken into account under this and other agenda items.

#### **c) Examination of Recommendations**

(68) Discussion of this agenda item proceeded on the basis of Working Papers (XX ATCM/WP 4 and XX ATCM/WP 4 Rev.1), submitted by the Netherlands. When introducing these Working Papers, the Netherlands made clear the fact that it was a study which did not affect in any way the status of Recommendations adopted in the past. The aim of the document was to clarify the intended effect of the many Recommendations that had been adopted from the first up to the XVIII ATCM, notably in the light of Decision 1 (1995), taken at the XIX ATCM in Seoul. To this end all Recommendations had been examined in light of Decision 1 (1995). In the opinion of the Netherlands, the study was particularly important from the point of view of making it clear which Recommendations might still require approval by Consultative Parties.

(69) Many Delegations expressed their appreciation for the considerable and extremely useful task undertaken by the Netherlands. However, it was necessary to bear in mind the fact that there was no easy way of uniformly classifying Recommendations, one reason being that the approval procedures and the attendant requirements in the various Consultative States differ. Accordingly, the list ought not to be given official status. It was nevertheless a useful guide for determining which Recommendations adopted before the XIX ATCM still require approval by Consultative Parties.

(70) In view of the foregoing paragraph, the Meeting agreed to attach the list to the Final Report of the XX ATCM. The list is included in Part III, Annex C.

#### **d) Exchange of Information**

(71) The Meeting considered an Information Paper submitted by Argentina and Australia on

Proceedings of the International Symposium on the Future of the Antarctic Treaty system (XX ATCM/INF 36). Attention was drawn by one Delegation to the many different provisions in the Antarctic Treaty system requiring information exchange on a wide variety of subjects. This Delegation invited reflection on the scope of the obligations to exchange information as compared to the practical purpose served by these obligations.

(72) The Meeting agreed to take up this question once the Secretariat had been established.

### **Item 8**

#### Questions Related to the Exercise of Jurisdiction in Antarctica

(73) The Chairman reminded the Meeting of the discussion which this agenda item had received during the XVIII ATCM, and of the agreement of that ATCM to defer further discussion of this subject to the XX ATCM, so that all Parties would have sufficient time to elaborate ways and means of approaching the question in order to find an acceptable solution.

(74) The Meeting agreed that the Delegations had not yet had sufficient time to duly consider the issue, and decided to omit the item from the Agenda of the following Consultative Meetings until a request was made by a Consultative Party to reinclude it.

### **Item 9**

#### Tourism and Non-Governmental Activities in the Antarctic Treaty Area

(75) While considering its paper (XX ATCM/INF 61), Brazil expressed its concerns on the disruption of its scientific research at Ferraz station and the growing risk of accidents due to the increasing number of visits by tourists. Another Delegation suggested that these risks could be minimized by reducing, in consultation with the different tour operators, the number of visits allowed to the station. Some Delegations noted that tourism can have positive benefits, creating advocates for science and environmental protection in the Antarctic.

COMNAP presented a paper (XX ATCM/INF 39) outlining safety, contingency planning and medical concerns based on direct experience with tour operators in the field. Several Delegations commended COMNAP for the practical interaction with tour operators. The Meeting encouraged continuing efforts by COMNAP to draw the attention of tour operators to their potential impact on science and logistics.

(76) The Delegation of New Zealand drew the Meeting's attention to the proposed forms for advance notification and post-season reporting (XX ATCM/INF 13) which were submitted as a follow-up to the discussions held during the XIX ATCM, and from Resolution 3 (1995). Several Delegations and IAATO supported the initiative. The Meeting agreed to adopt the forms for a trial period of one year and IAATO offered to provide comment on the use of the form to the next ATCM. New Zealand agreed to adapt the forms for general use and distribute them to other Parties.

(77) An Information Paper submitted by the United Kingdom (XX ATCM/INF 15 and Amendment) was also greatly appreciated for the updated picture it provided of trends in Antarctic tourism. The Meeting noted the reported increase in the number of shipborne tourists going to Antarctica and that the number of sites being visited by tourists, including more remote sites in the interior of Antarctica, was also increasing. The information was supplemented by an Information Paper submitted by IAATO (XX ATCM/INF 96). This document contained the provisional data on tourism for the 1995/96 season, as well as an assessment for the 1996/97 season. The Meeting was, however, particularly interested in IAATO's prediction that the number of tourists for next season would, according to the provisional figures, decline somewhat. The Meeting also noted the trend whereby tour operators were including new sites in their itineraries, as was stated in the papers submitted by New Zealand and Argentina (XX ATCM/INF 14 and 29, respectively).

(78) ASOC urged tour operators to apply a precautionary approach and not to add new sites until in-depth studies have been carried out regarding the impact of these visits.

The Meeting recalled the discussions held during the XIX ATCM about the possible environmental impact of tourism, and referred to paragraph 61 of the XIX ATCM report, particularly on the possibility that the SCAR/COMNAP workshop on environmental monitoring could provide guidance on programmes aimed at determining the potential environmental impact of this activity.

(79) The Meeting welcomed the papers submitted by the United States (XX ATCM/INF 102), and by the United States and the United Kingdom (XX ATCM/INF 100), describing on-going efforts to determine whether small teams of researchers on tour ships and other vessels could be a cost-effective way to gather the information required to assess and determine how best to avoid the potential adverse effects of tourism on the Antarctic environment. The Meeting encouraged Parties to consider cooperating in such programmes.

(80) The United States highlighted in its paper (XX ATCM/INF 37) that members of a search and rescue party organized by the United States were placed at a great personal risk in their efforts to rescue a Norwegian private expedition, and that Norway had reimbursed fully the costs of the rescue. Norway noted that this shows the necessity of having sufficient insurance or guarantees for search and rescue expenses that might be needed in connection with activities in Antarctica.

(81) Australia submitted a paper on the 1995–1996 Australian tourist overflights of Antarctica (XX ATCM/INF 34).

(82) The Meeting expressed its great appreciation for the Working Paper introduced by New Zealand (XX ATCM/INF 1). Information Paper 1 was an internal working document confined in scope to tourism from New Zealand or tourists resident in New Zealand, and to tourism in the Ross Sea area. The document described how New Zealand intends to deal with its responsibilities in respect of tourism. The document described a national legal framework for tourism, notably in the Ross Sea area, opting for an integrated approach to the Antarctic region and New Zealand's sub-Antarctic islands. Information Paper 1 tied in directly Information Paper 2, submitted by New Zealand (XX ATCM/INF 2), since it described New Zealand's national Environmental Impact Assessment procedure.

(83) The Meeting agreed that management and regulation of tourism was best achieved by effective implementation of the Protocol and its Annexes (through domestic implementing legislation). However, the Meeting recognised that complete regulation of Antarctic tourism could not be achieved with elements of the tourist industry not subject to effective enforcement by Treaty Parties. It was noted that a number of tourist vessels operating in Antarctica flew the flag of non-Treaty Parties and that tour operators were not necessarily based in the territory of Parties to the Protocol.

(84) In this regard, the Meeting stressed the importance of effective self-regulation by the tourist industry. To this end, the Meeting urged IAATO to:

- (a) ensure that its members conform fully to the provisions of the Protocol;
- (b) disseminate ATCM Recommendations and other texts relevant to tourism;
- (c) produce further guidelines and codes of conduct where appropriate;
- (d) encourage all tour companies operating in Antarctica to become members of the Association.

(85) Furthermore, the Meeting called upon non-Consultative Parties with a particular interest in, or responsibility for, tourist companies operating in Antarctica to ratify the Protocol and its Annexes at the earliest opportunity and to introduce any necessary domestic enabling legislation to ensure compliance.

(86) One Delegation pointed out that the Environmental Impact Assessments carried out for tourist activities varied widely in terms of both quality and scope. In the opinion of the Meeting, this gave cause for concern; the highest standard should be aimed for.

(87) ASOC noted the information about future tourism activities and urged all non-governmental operators to start producing Environmental Impact Assessments consistently now as the best way to be prepared when the Protocol comes into force. ASOC also urged the Parties to use all possible means to encourage compliance with the provisions of Annex I, for instance by making station visits conditional upon such compliance.

## **Item 10**

### **Inspections under the Antarctic Treaty**

- a) Inspections during 1995/1996 and those planned for 1996/1997

(88) The United States Delegation informed the Meeting that it had submitted a final report on the inspections it had carried out under Article VII of the Antarctic Treaty between 9 February and 11 March 1995 (XX ATCM/INF 129). A draft of this paper was circulated at the XIX ATCM held in Seoul (XIX ATCM/INF 96).

(89) No inspections under Article VII of the Antarctic Treaty were reported by any Party since the XIX ATCM.

The Delegation of Norway stated that an inspection would be carried out from the vessel MV POLAR QUEEN during the 1996/97 austral season.

## **b) Inspection Checklists**

(90) The Delegation of Italy tabled a document on a checklist for inspection of remote camps (XX ATCM/WP 6) as a follow-up to the offer it had made at the XIX ATCM.

Bearing in mind that Resolution 5 (1995), approved at the XIX ATCM, includes four checklists for permanent stations, abandoned stations, vessels and waste disposal sites respectively, and believing that a remote camp is very difficult to define, the Meeting concluded that it was not necessary to have another checklist for remote camps. However, it was suggested that a text be added to the end of Checklist A, agreed under Resolution 5 (1995), which would provide general guidance to observers who might inspect remote camps and associated facilities. The Meeting therefore agreed Resolution I (1996).

(91) The Meeting noted the suggestion in the Final Report of the XIX ATCM (paragraph 80) that the consolidation of individual checklists into an inspection manual would be useful. The Meeting agreed to merge the checklists agreed in Resolution 5 (1995) with the text added to Resolution I (1996) into a single separate publication. However, in the light of a proposal made by the Netherlands to review Checklist B in the context of the existing shipping provisions contained in Annex IV to the Protocol at the next ATCM, the Meeting agreed to postpone consideration of this publication until the next ATCM.

(92) The Delegation of Brazil submitted a Information Paper (XX ATCM/INF 87) on its own use of inspection checklists by its national Antarctic programme.

(93) Under this item, the Meeting also examined a Working Paper submitted by the Netherlands (XX ATCM/WP 9) on the inspection of ships by port states in order to ensure compliance with the requirements of MARPOL 73/78 and Annex IV to the Protocol, on the prevention of marine pollution.

The Meeting expressed its gratitude to the Netherlands for preparing this paper. According to some Delegations, the possibility that, in principle, some form of harmonised inspection by port states might serve a useful purpose should not be excluded. All Delegations agreed, however, that this issue raised a great many intricate and sensitive questions, and further consideration of this subject could be undertaken only after the governments of all Consultative Parties would have had the occasion to study the issue in depth.

(94) The Meeting furthermore took note of a Working Paper presented by Chile (XX ATCM/WP 17), describing Chilean domestic experience with inspections of ships setting out to the Antarctic. It was agreed that the making available of experience by individual states on conducting inspection of ships in ports was useful and could provide assistance to states in determining their national policies on the matter.



It was noted that port state control would be dealt with under agenda item 6.e of the preliminary agenda.

(95) Several Delegations expressed the opinion that this matter should be discussed under a different agenda item, since inspections by port states would be of a different nature than inspections under Article VII of the Antarctic Treaty, to which this item referred. It was accordingly decided to discuss this subject again at the XXI ATCM.

## **Item 11**

### **Data Management**

(96) The Meeting welcomed the work carried out by SCAR and COMNAP in preparing the Antarctic Master Directory (AMD) and in developing the Antarctic Data Directory System (ADDS), which are expected to be operational by 1997 (XX ATCM/INF 46).

(97) Several Delegations expressed their appreciation to the four Parties (New Zealand, France, Italy and the United States) that had contributed funding to begin the project, and welcomed the initiatives by New Zealand and France (XX ATCM/INF 16) aimed at organizing technical exchanges to promote software development.

(98) The Meeting encouraged the Parties to complete preparations of National Data Directories (NDDS) as soon as possible and become actively involved in preparing and contributing data set descriptions to the AMD.

The Meeting asked SCAR and COMNAP to report to the XXI ATCM on progress on AMD and ADDS.

(99) The Meeting welcomed the Information Paper presented by COMNAP describing AMEN (the Antarctic Managers Electronic Network) (XX ATCM/INF 40). According to this paper, 26 of the 30 COMNAP members can currently access AMEN through Internet. Since 1995, a homepage on the World Wide Web (WWW) has been added to the network. Attention was drawn by COMNAP to the many advantages of using the WWW, an important part of which is the reduced cost per unit of information exchanged or accessed.

(100) The Russian Delegation introduced a paper concerning a proposal for an Antarctic station handbook (XX ATCM/INF 78). Several Delegations welcomed this suggestion. However, a number of Delegations were concerned that a handbook of this kind might duplicate information already provided in the Annual Exchange of Information under Article VII of the Antarctic Treaty. Others felt it might be difficult to keep such a handbook up to date. The Meeting noted that this kind of information, including images, could best be presented in an electronic format on the WWW so that it could easily be updated.

The Meeting asked COMNAP to examine this issue further, and report to the XXI ATCM with advice on how to ensure that the Advance Exchange of Operational Information, including details on research stations, can easily be made available on the Internet.

One Delegation suggested that this exchange of information should also include information on available hydrographic charts as well as the best available technologies used to ensure compliance with the Protocol.

(101) The Delegation of Peru submitted a paper on improvements in transmitting and receiving meteorological information in the Antarctic (XX ATCM/INF 94).

## **Item 12**

### **Antarctic Infrastructure, Technology and Operations**

(102) The Meeting welcomed a paper submitted by WMO on automatic observing systems in support of Antarctic meteorology (XX ATCM/INF 23) which referred to the increasing importance of automatic observations due to the fact that the conventional staffed surface and upper air observational network is static or diminishing. The surface automatic observational systems described were Automatic Weather Stations (AWS), drifting buoys deployed in the seasonal sea ice zone under the International Programme for Antarctic Buoys (IPAB), and Upward Looking Sonar (ULS) for measuring sea ice thickness. It was suggested that nations with small Antarctic programmes could make a significant, but relatively low cost, contribution to science by funding Automatic Weather Stations, especially sea ice buoys, that could be deployed for them by other nations operating ships or aircraft in Antarctica.

Some Delegations sought further technical information and an indication of costs of such work.

The Delegation from the United Kingdom provided additional information on meteorological observations from four Automated Geophysical Observatories (AGOs) located south of Halley Research Station.

The Russian Delegation indicated that their national Antarctic programme is closely examining the available technology in order to provide automatic surface meteorological observations at Vostok research station.

(103) The Delegation of Australia submitted a paper about the Antarctic Meteorological Centre (AMC) at Casey (XX ATCM/INF 25). It was noted that a broad range of meteorological services is supplied by the AMC for a number of purposes, including information for shipping and aircraft operations. It was noted that an Internet-based broadcast system is planned to be installed in the 1996/97 season.

The Delegation of Uruguay submitted a paper on a meteorological satellite receiving station operated by its national programme in Antarctica (XX ATCM/INF 75).

The Delegation of Brazil submitted a paper on the utilization of some equipment in its station in order to improve the protection of the Antarctic environment (XX ATCM/INF 60).

(104) The Delegations of Germany and Russia presented their paper on the dismantling of Georg Forster Station and the clean-up of Schirmacher Oasis (XX ATCM/INF 82).

The Meeting welcomed this work as a remarkable achievement by the two Parties bearing in mind the distances involved in transporting waste from the station to the coast, and the large quantities of materials removed. It was recognised that Germany and Russia had also carried out an EIA of the removal work, and Russia is undertaking environmental monitoring.

The Meeting agreed that the co-operation between the two countries was a model example which could be usefully followed by other Parties.

The Delegation of the United Kingdom thanked the Brazilian Antarctic Programme for completely removing the abandoned British base, Base G, from Keller Peninsula, Admiralty Bay, King George Island.

### **Item 13**

#### **Antarctic Science: Major New Initiatives**

(105) France, Italy and Japan presented papers on the *Concordia* project and the European Project on Ice Coring in Antarctica (EPICA) (XX ATCM/INF 17) and deep ice core drilling at Dome Fuji station (XX ATCM/INF 65), respectively. The Meeting noted that exchange of information between these last two projects would be interesting and useful.

(106) The Meeting welcomed the overview of international scientific programmes introduced by SCAR (XX ATCM/INF 69, XX ATCM/INF 71, XX ATCM/INF 72). The agreement on a Memorandum of Understanding had led to the development of closer links between SCAR, the World Climate Research Programme (WCRP) and the International Geosphere-Biosphere Programme (IGBP), highlighting the clear links between Antarctic regional studies and global programmes. SCAR has now been recognised as the Antarctic regional co-ordinator for these international programmes. The establishment of a SCAR Global Change Programme Office was reported; it would be responsible for international co-ordination and dissemination of information within SCAR. Current programmes are now focused on two major themes concerned with palaeo-environmental records from ice cores and Antarctic ice-sheet mass balance. Two new programmes were under discussion: Antarctic Sea Ice Processes, Ecosystem and Climate (ASPECT) and Antarctic Ice Margin Evolution (ANTIME). Another recent proposal concerned the possibility of an aircraft-based radar survey of ice thickness for the whole of the continental perimeter of Antarctica. SCAR also stated its willingness to report to the next ATCM on biological diversity, in particular marine biological diversity.

(107) Attention was drawn by the Meeting to the value of the newly published proceedings of two SCAR/IUCN workshops which provide current syntheses of sub-Antarctic island conservation and environmental education respectively. SCAR reported on progress made by the Antarctic Pack Ice Seals programme (APIS), Coastal and Shelf Ecology of the Antarctic Sea Ice Zone (CS-EASIZ), Biological Investigations of Terrestrial Antarctic Systems (BIOTAS), Antarctic Geospace Observatory Network (AGONET), and on the workshop on the reported sub-glacial lake at Vostok Station. Details of the planned drilling at Cape Roberts were reported: over the next two Antarctic seasons, the intention is to extract cores from the floor of the Ross Sea spanning the period 40–200 million years ago. This programme has links with the new pro-

posals for sites for the Ocean Drilling Programme (ODP). Concern was expressed by some Delegations about the logistic costs of some of these major programmes.

(108) Further investigations of the subglacial Lake Vostok were reported by Russia (XX ATCM/INF 83), which had undertaken detailed seismic and radio-echo sounding investigations as suggested by the SCAR workshop. The importance of this multi-disciplinary project was recognised by the Meeting, which encouraged international co-operation in the future investigation undertaken in this project. SCAR reported that the workshop had stressed that before any sampling of the lake could be considered, both technical developments and an Environmental Impact Assessment would have to be undertaken. Several Delegations considered that the value of future studies could be compromised if the lake were to be accidentally polluted as a consequence of planned ice coring above it. The Meeting urged Russia to take the necessary steps to ensure that the planned ice coring is stopped at a safe distance above the reported lake so that there is no risk of polluting it.

The United Kingdom drew attention to the extensive discussion regarding this project as an example of the value of discussing major science issues at the next ATCMs.

(109) The Meeting welcomed the WMO report on the Antarctic ozone current status (XX ATCM/INF 22), which indicated that the extent and depth of the 1995 ozone hole over Antarctica were similar to those of recent years, but that the hole persisted longer into December. The value of ozone sounding to observe the vertical profile of ozone at sub-Antarctic islands was emphasized.

Peru submitted a paper on the evaluation of the composition of the troposphere and stratosphere (XX ATCM/INF 93), conducted on the basis of previous WMO suggestions.

(110) Finally, several Information Papers on the major science initiatives being undertaken by national Antarctic programmes were presented by the Delegations of Australia (XX ATCM/INF 41), Belgium (XX ATCM/INF 54), Peru (XX ATCM/INF 92 and 95), Bulgaria (XX ATCM/INF 122 and 123), and the United Kingdom (XX ATCM/INF 131).

(111) The Delegation of Peru informed the Meeting about the results of a study on environmental radioactivity in the Antarctic which had started during the last austral summer season (XX ATCM/INF 91). Peru offered to establish an Antarctic programme for environmental radiological monitoring with the participation of other interested Parties.

#### **Item 14**

##### **Cultural and Aesthetic Values of the Antarctic**

(112) Chile introduced Working Paper 23 (XX ATCM/WP 23) stressing the symbolic value of Antarctica. The purpose of the Working Paper was to raise the question how the cultural and aesthetic values of the Antarctic could be highlighted.

The Working Paper also contained a draft Resolution to that end.

(113) There was consensus that the issues raised in the Working Paper are of great importance,

a fact which is also reflected in various parts of the Protocol. Therefore, a Resolution was adopted. Resolution II (1996) is attached to this Final Report.

(114) It was generally recognised that the special value of Antarctica could be promoted by educating young people and by the work of artists.

(115) As regards the possible role to be played by the Parties, several delegates indicated their support for measures to actively promote trips by writers and artists in general. Some delegates suggested, however, that in order to focus attention on the cultural and aesthetic values, writers and artists should be included in national expeditions. In so doing, the Parties should concentrate particularly on those forms of artistic and cultural expression which would convey the beauty of Antarctica to people who had not been there.

(116) ASOC noted that in the discussions on practical matters such as monitoring, liability and Environmental Impact Assessment, factors such as intrinsic, aesthetic and wilderness values were too often considered too complex; ASOC expressed the hope that future discussion of this agenda item would contribute to a better understanding of how to deal with these values, as required by the Protocol (notably Article 3(1) and Annex I, Article 3).

## **Item 15**

### **Education and Training**

(117) Several papers on the training programmes developed by national operators for personnel travelling to Antarctica were presented by New Zealand, Chile, Brazil and South Africa (XX ATCM/INF 9, 31, 55 and 107 respectively). The use of an instruction manual and a code of conduct for visitors to Antarctica was described by Argentina and New Zealand (XX ATCM/INF 86 and 68, respectively). In addition, IAATO presented papers describing an expedition leader's Handbook and a slide presentation on Recommendation XVIII-1 (XX ATCM/INF 99 and 101 respectively).

The Meeting agreed that there is merit in providing information to the public about Antarctica. Papers were presented by Australia and Brazil as to how they provide such information (XX ATCM/INF 33 and 55 respectively). Several Delegations recognised the importance of retaining education and training as an agenda item.

(118) The Meeting welcomed the suggestions presented by SCAR and IUCN (XX ATCM INF/70 and 53, respectively). The Meeting recognized the value of having "layman's guides" to the Protocol prepared in various languages to ensure that visitors to Antarctica are aware of the intent and general provisions of the Protocol. It was noted that such guides might not accurately identify legal obligations embodied in the Protocol and national laws. This could be made clear in the layman's guides by adding a disclaimer to the text.

(119) The Meeting recognized the need to facilitate public access to Antarctic Treaty documentation, and noted that this could be achieved in various ways. The Meeting acknowledged that the identification of one national depository library, as recommended by SCAR and IUCN, may, in some cases, prove not to be the best way to achieve this.

(120) The Meeting encouraged IUCN to update and expand its initial inventory of environmental education and training, and present this at the next ATCM. The Delegation of the United Kingdom offered to consult with interested Parties, and work with SCAR and IUCN to produce substantive proposals in this field for discussion at the next Meeting.

(121) The Meeting welcomed the developments presented by IAATO on medical screening of Antarctic tourists (XX ATCM/INF 77). IAATO thanked COMNAP for its constructive expressions of concern about tourism.

## **Item 16**

### **Safety Issues**

(122) On this item, papers were presented by Chile on maritime safety in Antarctica (XX ATCM/INF 24), by Belgium on oil spill modelling in the Weddell Sea (XX ATCM/INF 47), by Brazil on contingency planning (XX ATCM/INF 56) and by IAATO on medical emergency contingency plans (XX ATCM/INF 76). Several Delegations made technical comments on some of these papers.

## **Items 17/19**

### **Environmental Protection Measures and their Effectiveness**

(123) The Meeting welcomed the Information Paper submitted by Brazil (XX ATCM/INF 35) setting out technical aspects of station operations in Antarctica. It believed that such information exchange was important if ways of minimizing environmental impacts were to be sought. The Meeting urged that more Parties to the Treaty provide information as to how they have introduced additional technical measures to address the requirements of the Protocol. The Meeting noted that experience from the Arctic could also be of value.

(124) The United Kingdom suggested that in relation to the information exchange required by Article 13 of the Protocol, would require consideration both of its technical aspects and its administrative aspects. The technical information could in the future be provided to the TEWG whilst that of a legal administrative nature can remain under agenda item 6.

(125) Referring to paragraph 118 of the Final Report of the XIX ATCM, the introduction of non-native species was brought to the attention of the Meeting. Concerns were also raised about the introduction of non-native species in ballast water and the introduction of non-native species of grasses. Solutions for safer operations should be identified to minimise these introductions as there is evidence that non-native species survive better than expected. Parties to the Antarctic Treaty were encouraged again to take this up and make thorough checks of their facilities in Antarctica. In this respect, reference was also made to an Information Paper tabled by Japan (XX ATCM/INF 66).

(126) The Meeting noted with appreciation the report from COMNAP on Best Available Tech-

niques (XX ATCM/WP 11) and endorsed its findings. It requested COMNAP to keep this issue under regular review and to provide further reports when appropriate in the light of changing technologies which might be applicable to Antarctica. This information could be very helpful to assess future EIA reports.

## **Item 18**

### **Application and Implementation of EIA procedures**

(127) Working papers (XX ATCM/WP 1, 8, 11, 25, 27, 28) were tabled by New Zealand, Italy, COMNAP, the United States, South Africa and Uruguay, respectively.

(128) New Zealand presented a Working Paper (XX ATCM/WP 1) on follow-up procedures relating to changes in the Cape Roberts CEE. The changes were outlined and the Delegation commented that the process followed had been valuable in the implementation of the CEE. Concerning the planned drilling operations, the question was raised what consideration had been given to the potential effects on the seabed and the benthic communities. The Delegation of New Zealand responded that the CEE addressed the question of impacts on the seabed and set out the monitoring requirements during the drilling programme. New Zealand stated its intention to report to future ATCMs on the results of such work. New Zealand also informed the Meeting about the Information Paper (XX ATCM/INF 3) on its experience and practice with preliminary environmental assessment of science proposals.

(129) South Africa was congratulated on being open and transparent in its paper (XX ATCM/WP 27) on the construction of the new SANAE IV station, describing the detail of conforming to its CEE. This follow-up process carried out by South Africa was a valuable example and a learning exercise and such reporting should be employed by those carrying out CEEs. One Delegation expressed concern about the reported open burning during the 1995/96 construction at the old SANAE III station. It was recognised that open burning would be phased out in accordance with Article 3 of Annex III to the Protocol. This activity at SANAE was however undertaken on the basis of safety considerations in accordance with Article 12 of Annex III to the Protocol and only after a supplementary IEE. The fact that the area had been thoroughly cleaned up immediately after the open burning was also mentioned.

(130) The Meeting agreed that it was important to find mechanisms which provide feedback from the work accomplished by different countries on environmental impact assessments. The Meeting suggested that post-analyses of environmental assessments should become standard practice, and that Parties should report on the results of these analyses to the ATCM as to how they have implemented those measures.

It was recognised that a mechanism to consider these reports needed to be developed.

(131) The IEEs submitted by New Zealand tour operators (XX ATCM/INF 4 and 5) were welcomed. The Meeting took the view that IAATO should be encouraged to assist its members to produce EIAs.

(132) As requested by Resolution 6 (1995) an Information Paper (XX ATCM/INF 19), containing a list of IEEs produced by Australia, United Kingdom, New Zealand, Chile and South

Africa, was tabled by the Secretariat. The United States introduced a Working Paper (XX ATCM/WP 25) which provided a list of environmental assessments (IEEs) prepared by the United States in 1995. The Meeting noted that only a small number of Parties had provided lists, required by Resolution 6 (1995), of IEEs and CEEs prepared by or submitted to them since the last ATCM. Attention was drawn to the fact that provision of such lists in respect of IEEs would be an obligation on Parties under Article 6(1) of Annex I to the Protocol when it entered into force. The Meeting stressed that all Parties should comply with Resolution 6 (1995) and submit an annual return, including nil returns, of IEEs and CEEs. The Meeting urged Parties, in accordance with Resolution 6 (1995), to submit, by 1 March 1997, a list of all IEEs and CEEs prepared by them in the preceding year to the Host Government of the next ATCM. Furthermore, the Meeting encouraged the host of the next ATCM to request and, in advance of the next ATCM, distribute a representative sample of IEEs prepared by Parties in accordance with Article 2 of Annex I of the Protocol.

(133) The United Kingdom tabled a paper (XX ATCM/INF 8) which undertook a review of EIAs undertaken for proposed activities in Antarctica. New Zealand offered to coordinate further work on this and report to the XXI ATCM.

(134) It was suggested that IEEs and CEEs could be made readily available by releasing them on the Internet. This practice has indeed already been initiated by some Parties.

(135) The Meeting reiterated that in considering potential impacts on the environment during the EIA process, the values as mentioned in Article 3, paragraph 1 of the Protocol should be included.

(136) The Meeting agreed that the paper tabled by New Zealand (XX ATCM/INF 2) was valuable and formed an important contribution to the understanding and interpretation of the terms "minor" and "transitory" as used in the Madrid Protocol.

(137) The Meeting noted that the nature and significance of possible environmental impacts could be affected by a range of variables including the nature, scale, location and timing of the activity; the experience of the organization or individuals conducting the activity; and other activities that have been or are being conducted in or near the area of the activity in question. With regard to the last point, it was noted that identifications and considerations of possible cumulative impacts is an important part of environmental impact assessment.

(138) The terms "minor" and "transitory" are interpreted by the Treaty Parties in their implementation of Annex I and a great deal of experience in producing IEEs and CEEs has accumulated. Many IEEs and CEEs have been presented as Information Papers at the ATCM meetings. However, there is at present no systematic approach to utilising and learning from this experience.

(139) Valuable suggestions were put forward as to how the lists and matrices in the Information Paper (XX ATCM/INF 2) could be developed and expanded. It was recognized that the limited time available for discussion did not allow for more than a general exchange of views on possible ways forward.



(140) The Meeting noted with appreciation the offer by New Zealand to coordinate inter-session work on the basis of Information Paper (XX ATCM/INF 2), both on developing a further understanding of the terms "minor" and "transitory" and a network of Environmental Officers of National Antarctic Programmes to enhance the mutual understanding of EIA processes. New Zealand will report to the next ATCM on these aspects. It was decided that states concerned would send to New Zealand the names of their respective experts.

(141) The Meeting's attention was drawn to IUCN's plans (XX ATCM/INF 85) to host a workshop on cumulative impacts in Washington DC, USA, in September 1996. The workshop will draw on the work of the two SCAR/COMNAP workshops on monitoring held in October 1995 and March 1996, and will be designed to produce outcomes that are of practical use to Antarctic operators and the Antarctic Treaty System. In order to ensure maximum usefulness, delegates were asked to send comments on content to the workshop organisers.

## Item 20

### The Antarctic Protected Area System

#### a) **Proposals for Revised and New Management Plans**

(142) The Meeting noted the growing problem associated with the interim period ahead of the approval of Recommendation XVI-10. It urged Parties to consider approval of Recommendation XVI-10 under the terms of Article IX of the Antarctic Treaty so that it might become effective at the earliest possible opportunity.

(143) The United Kingdom and the United States of America Delegations tabled Working Papers (XX ATCM/WP 3 and 24, respectively) which set out revised management plans for the following Sites of Special Scientific Interest.

SSSI No. 9 - Rothera Point, Adelaide Island

SSSI No. 19 - Linnaeus Terrace, Asgard Range, Victoria Land

(144) The ATCM adopted Measure I (1996) relating to management plans for the above Sites of Special Scientific Interest.

(145) The Meeting noted that clear and accurate maps were an important part of the Management Plans and recognised that there were as yet no guidelines on the preparation of maps for protected areas. SCAR was asked to ensure that such guidelines be drawn up and included in the Management Plan Handbook, and to consider how high quality maps could be made available.

(146) The Delegation of Australia tabled Working Paper (XX ATCM/WP 26) which proposed the extension of the date of expiry of the management plan for Site of Special Scientific Interest No. 25. The meeting noted that the management plans for a number of other Sites of Special Scientific Interest expire before the year 2000 and that the extensions of Sites 13 and 20 which had been considered at XIX ATCM had, as a result of an oversight, not been included in a rel-

evant Resolution. Consistent with Resolution 7 (1995), the ATCM adopted Resolution III (1996) to extend the expiry dates of these plans to 31 December 2000.

(147) The Delegations of Australia and Norway tabled Working Paper (XX ATCM/WP 14 Rev.1) nominating Mikkelsen Cairn, Vestfold Hills as a Historical Site. The ATCM adopted Measure II (1996) to add this site to the "List of Historic Monuments Identified and Described by proposing Government or Governments".

(148) The Delegations of Brazil and Poland tabled Working Paper (XX ATCM/WP 15) proposing that Admiralty Bay, King George Island (South Shetland Islands) be designated as an Antarctic Specially Managed Area. A contact group was organised to examine the issue and arrive at an agreed text. The ATCM adopted the proposed Management Plan as set out in Working Paper (XX ATCM/WP 15 Rev.2), and decided that the plan be annexed to the report of the ATCM and that Parties agree to comply with it on a voluntary basis until such time as Annex V to the Protocol on Environmental Protection to the Antarctic Treaty becomes effective under Article IX of the Antarctic Treaty. The ATCM decided that when Annex V becomes effective the area covered by the Management Plan will become an ASMA after an evaluation of the experience gained and, if necessary, a revision of the Management Plan.

(149) The Meeting noted Information Paper (XX ATCM/INF 30) submitted by Argentina, which set out the history of the stone hut designated as Historic Site No 39 which sheltered three members of the Nordenskjöld expedition in 1902.

**b) Site Inspections**

(150) There was no substantive discussion on this item.

**c) Means for Evaluating Possible Gaps in the System**

(151) The Meeting examined Working Papers tabled by the Netherlands (XX ATCM/WP 5) and the United Kingdom (XX ATCM/WP 16), which examined the status of protected areas and how they will be affected by the provisions of Annex V. It noted that under the terms of Article 3(3) of Annex V SSSIs and SPAs would automatically become ASPAs whilst Historic Sites and Monuments could become ASMAs, ASPAs or be simply listed. As for the South West Anvers Island MPA and the Dufek Massif SRA, the United States announced that it would provide Annex V Management Plans for these areas at some time after Annex V has taken effect, so that the areas can be taken up into the new system.

The Meeting discussed the requirement in Article 6(2) of Annex V that no marine area should be designated as an ASPA or ASMA without the prior approval of CCAMLR. It agreed that a list of existing SSSIs containing marine areas be submitted to the Commission of CCAMLR for their consideration.

(152) The Delegation of Italy tabled Working Paper (XX ATCM/WP 13) on the protection of Historic Sites and Monuments. The Meeting considered that a Party intending to nominate a site for listing as a Historic Site or Monument, or a Party writing a site Management Plan, should

consult the originating Party for the site. It considered that the most appropriate way of achieving this was through a Resolution. The Meeting adopted Resolution IV (1996).

(153) A proposal for renumbering of Antarctic protected areas was included in a joint working paper tabled by the United Kingdom and the Netherlands (XX ATCM/WP 18). The Meeting endorsed the renumbering system proposed in this paper, but noted that the proposal regarding amalgamating sites should not preempt the revision of management plans.

The Meeting recognised that Management Plans for SSSIs designated by Recommendation VIII-4, and subsequent Recommendations, have been held under voluntary provisions. Nevertheless, it acknowledged that SSSIs renumbered using 3-digit numbers and held under revised Management Plans in accordance with Annex V, contained mandatory provisions and prohibited access except in accordance with a permit. It decided that such sites must be held under a Measure to be approved under the terms of Article IX of the Treaty. The net effect of this would be that, until such time as Annex V entered into force, two forms of SSSI would exist. Sites of a voluntary nature held under previous Recommendations and numbered by 2 digits, and sites of a mandatory nature held under Measures and numbered with 3 digits. But until Annex V enters into force, neither type of SSSI would require a permit for entry. The Meeting adopted Resolution V (1996).

(154) Working Paper (XX ATCM/WP 16) tabled by the United Kingdom drew attention to the need for clarification of the use of mandatory prohibitions within Management Plans for Antarctic Specially Managed Areas as set out at Paragraphs 111 and 112 of the Final Report of ATCM XVIII (Kyoto, 1994). The United Kingdom Delegation's view was that the intention of the drafters of Annex V had been to provide a clear distinction between ASPAs, held under mandatory provisions and ASMAs held under exhortatory provisions.

(155) The Australian Delegation considered that there are situations in which mandatory provisions may need to be applied to ASMAs (for example to prohibit the construction of roads in a particular zone) and that it may not be practical or desirable to upgrade the area to an ASPA and thus require all access to be subject to the issue of a permit. The Australian Delegation considered that Article 5, 3 (f) of Annex V to the Environmental Protocol to the Antarctic Treaty clearly provides for mandatory provisions under an ASMA. Australia therefore proposed that in order to make it clear that a provision in an ASMA is mandatory, such provisions (where required) be included in a separate section of the Management Plan under the heading "Mandatory Provisions".

(156) Some Delegations agreed with the principle that prohibition of specific activities within ASMAs was a valuable tool for management. The Meeting acknowledged that a number of Parties had no legal means in domestic law to address any such prohibition. One Delegation had doubts about mandatory provisions in ASMAs. The Meeting considered that further work was needed to clarify this matter.

(157) The Meeting considered Information Papers (XX ATCM/INF 12 and 42), submitted by the Netherlands and the United Kingdom respectively. The United States noted that Management Plans for protected areas are included in a document describing United States legislation implementing the Agreed Measures and other aspects of the Antarctic Treaty system and that the document has been provided to United States tour operators and is available on request. The

Meeting decided that (XX ATCM/INF 12 Rev.1) would be attached as an Annex to the Final Report. The United Kingdom indicated that it would circulate (XX ATCM/INF 42) in due course. It was suggested that Parties should examine this Information Paper and send their comments and/or amendments to the United Kingdom by 1 September 1996.

(158) An Information Paper submitted by IUCN (XX ATCM/INF 64 Rev.2) concerning the protection and conservation of sub-Antarctic Islands was brought to the attention of the Meeting. IUCN suggested that Management Plans be developed for such islands that do not have them in order to enhance the conservation of the wider southern region.

## **Item 21**

### **Collection, Archiving, Exchange and Evaluation of Environmental Information**

(159) Under this agenda item a discussion took place about the structure of the agenda. In this context it was noted that annotating the agenda items might be useful.

## **Item 22**

### **Environmental Monitoring and the State of the Antarctic Environment**

(160) The Republic of Korea, Russia and ASOC presented Information Papers (XX ATCM/INF 62, 63 and 84) on this item.

(161) Several Delegations welcomed the ASOC Paper (XX ATCM/INF 63) on EIA monitoring at World Park Base. The report noted that preliminary analyses from the 1995/96 season data indicated that the environmental impact on the site of former World Park Base was negligible and within the limits predicted in past EIAs. Greenpeace had concluded that as a result no further monitoring would be undertaken. The Meeting noted this information as evidence that monitoring is not necessarily an indefinite activity. New Zealand noted that Information Paper (XX ATCM/INF 10) discussed the follow-up to the IEE decommissioning of Vanda Station, including monitoring and remedial activities.

(162) SCAR and COMNAP (XX ATCM/INF 114) reported on two technical workshops on environmental monitoring organised by them. Nineteen countries attended these workshops which were successful in addressing the terms of reference set out by the ATCM. After approval by SCAR and COMNAP a Working Paper with recommendations on environmental monitoring, together with any necessary supporting Information Papers, will be provided for the XXI ATCM.

(163) The suggestion was made that SCAR should examine the question of a report on the State of the Antarctic Environment and, in consultation with other appropriate organisations, provide a proposal to the XXI ATCM on how to prepare such a report, including those with expertise in the Antarctic.

## Item 23

### Preparation of the XXI Consultative Meeting

#### a) **Date and Place of Next Meeting**

(164) Under this agenda item the UK tabled (XX ATCM/WP 2). This paper set out the reasons for having ATCMs in April or May. The Meeting took note of the paper, but it was generally understood that host countries should have some degree of flexibility when fixing the dates of ATCMs.

(165) The Meeting very much welcomed the invitation of New Zealand to host the XXI Consultative Meeting in Christchurch from 19 - 30 May 1997.

(166) The Meeting also welcomed the invitation of the UK to host the next intersessional meeting of the Group of Legal Experts on Liability in Cambridge from 7 - 11 October 1996.

#### b) **Invitations of International and Non-Governmental Organizations**

(167) The Meeting decided that the following international and non-governmental organizations having a scientific or technical interest in Antarctica shall be invited to designate an Expert to the XXI ATCM in order to assist it in its substantive work:

IHO, IMO, IOC, UNEP, WMO, WTO, ASOC, IAATO, IUCN AND PATA.

(168) With reference to Rule 41 of the Revised Rules of Procedure of 1992, it was decided that these experts could attend the Meeting during the discussion of all items on the Preliminary Agenda of the XXI Consultative Meeting except for the following:

4. Adoption of Agenda
7. Operation of the Antarctic Treaty System
- 16(b) Preparation of the XXII Consultative Meeting

#### c) **Preparation of the Agenda of the XXI Consultative Meeting**

(169) The Meeting decided to:

- take up environmental matters as much as possible under agenda items reflecting issues that will be addressed by the Protocol and its Annexes after these have come into force;
- take up the issues discussed by WG II in the present Meeting under four new agenda items: inspections, operations issues, science issues, and education issues;

- let the allocation of agenda items to Working Groups be the subject of a proposal by the Host Country concerned at a later stage.

(170) The Meeting felt there was a need for agenda items to be annotated. It was recognized this would put an additional burden on Host Countries. The most efficient as well as effective way to deal with this would be for ATCPs to indicate in advance what, if any, issues they should want to be discussed under the various agenda items. ATCPs should do this at the same time they may propose additional agenda items, i.e. no later than 180 days before the next Consultative Meeting (Rule 36). Although ATCPs might use this opportunity to announce their intention to produce Working Papers on the issues concerned, the indication that they should like to see an issue discussed should in no way entail an obligation to come up with a Working Paper on the subject. On the basis of the indications received, the Host Country could then produce an annotated provisional agenda to be sent to the other ATCPs no later than 120 days before the Meeting (Rule 37).

(171) The Meeting prepared the Preliminary Agenda of the XXI Consultative Meeting, appended as Annex H.

## **Item 24**

### **Any Other Business**

(172) The Chairman read out the text of a message from the Meeting to the Stations in the Antarctic.

(173) The Delegation of Chile tabled a Working Paper (XX ATCM/WP 20) which contained a draft Resolution on which refers to the ongoing negotiations on a Comprehensive Test Ban Treaty, the CTBT. The Meeting recalled that the Antarctic Treaty incorporates the first legally binding test ban for any region of the world and expressed its hope that the negotiations on the CTBT would be successfully concluded as soon as possible.

(174) The Delegation of the United Kingdom asked for more innovative and creative thinking on the part of the ATCM and suggested that a full day of brainstorming by the Heads of Delegations at the next ATCM would be useful. The Delegation of New Zealand expressed its readiness to arrange for facilities for this purpose. Several Delegations would like to have simultaneous interpretation during this meeting.

## **Item 25**

### **Adoption of the Report**

## **Item 26**

### **Closing of the Meeting**

## **Part II**

# **Resolutions and Measures adopted at the XX Antarctic Treaty Consultative Meeting**





# Resolutions and Measures adopted at the XX Antarctic Treaty Consultative Meeting

## Annex A

### Resolutions

1. Addition to Checklist A "Permanent Antarctic Stations and Associated Installations" attached to Resolution 5 (1995)
2. Aesthetic values of Antarctica
3. Extension of the Expiry Dates for Sites of Special Scientific Interest
4. Effective management and conservation of Historic Sites and Monuments
5. Revised renumbering of Antarctic Protected Areas

## Annex B

### Measures

1. Revised Description and Management Plan for Sites of Special Scientific Interest (SSSI's)
2. Antarctic Protected Area System: **New Historic Sites and Monuments**



# **Annex A**

## **Resolutions**



## Resolution I (1996)

The Representatives,

*Recalling* Resolution 5 (1995) on Antarctic Inspection Checklists;

*Considering* that under Article VII of the Antarctic Treaty inspections of remote field camps may be undertaken, and guidance in planning and carrying out such inspections might be helpful;

*Recommend:*

Adding the following text at the end of Checklist A "Permanent Antarctic Stations and Associated Installations" attached to Resolution 5 (1995):

"This checklist could be used to help prepare for, and to guide, inspections of remote field camps as well as permanent stations and associated facilities. Some items on the checklist may not be relevant to the inspection of remote field camps. When planning inspections, the checklist should be examined and adapted for the particular facility to be inspected."



## Resolution II (1996)

The Representatives,

*Noting* that Antarctica has been the subject of significant works of art, literature and music;

*Recognising* that the unique character of Antarctica itself represents an inspiration for protecting its values;

*Recommend:*

Promotion of understanding and appreciation of the values of Antarctica, in particular its scientific, aesthetic and wilderness values, including through:

- a) Educational opportunities, in particular for young persons, and
- b) The contribution of writers, artists and musicians.





## Resolution III (1996)

### Extension of the Expiry Dates for Sites of Special Scientific Interest

The Representatives,

*Recalling* Recommendations VIII-3 and XII-5, and Resolution 7/1995;

*Noting* that experience of the practical effect of the Management Plans for these sites has shown them to be an effective means of reducing the risks of interference with science in areas of special scientific interest; and

*Conscious of* the advantage of further harmonising the expiry dates of Sites of Special Scientific Interest pending the entry into force of the Protocol on Environmental Protection to the Antarctic Treaty and Annex V to that Protocol.

*Recommend that;*

1. The date of expiry of Sites of Special Scientific Interest numbers 13 and 20 which were considered at XIX ATCM be extended to 31 December 2000.
2. The date of expiry of Sites of Special Scientific Interest numbers 2, 23, 24, 25, 26, 27 and 28 be extended from 31 December 1997 to 31 December 2000.
3. The date of expiry of Sites of Special Scientific Interest numbers 29, 31 and 32 be extended from 31 December 1999 to 31 December 2000.
4. The Governments of the Consultative Parties should use their best endeavours to ensure, in accordance with paragraphs 3 and 4 of Recommendation VII-3, that the Management Plans for these sites are complied with.

## **Resolution IV (1996)**

### **Effective management and conservation of Historic Sites and Monuments**

The Representatives,

*Noting* the need to ensure the effective management and conservation of Historic Sites or Monuments;

*Aware* that those who originally created Historic Sites or Monuments are not necessarily the same as the designators for the Sites or the proposers of Management Plans for some sites;

*Recognising* the particular historic and cultural importance of such sites to originating Parties;

*Recommend that:*

During the preparations for the Listing of a Historic Site or Monument, or the writing of a Site Management Plan, adequate liaison is accorded by the proposing Party with the originator of the Historic Site or Monument and other Parties, as appropriate.

## Resolution V (1996)

### Revised renumbering of Antarctic Protected Areas

The Representatives,

*Noting* the requirement in Article 3(3) of Annex V that all SPAs and SSSIs designated as such by past ATCMs should, on entry into force of Annex V, be renamed and renumbered accordingly;

*Acknowledging* that at the XIX ATCM the Parties agreed to adopt a numbering system based on the use of three digits;

*Taking account of* the gaps in the existing numbering system;

*Recommend that:*

1. The numbering system for ASPAs annexed to this Resolution be adopted; and
2. The three-digit numbers should be introduced at the same time as an Annex V Management Plan is adopted by the ATCM for any protected area.
3. Where an SPA and SSSI are collocated that they be assigned separate numbers so as not to preempt any review of the Management Plans for those areas.

## ANNEX

### PREPOSED RENUMBERING OF ANTARCTIC PROTECTED AREAS

Existing SPA's	Existing Site No.	Proposed New Site No.	Year Annex V Management Plan adopted
'Taylor Rookery'	1	101	1992
Rookery Islands	2	102	1992
Ardery Island and Odbert Island	3	103	1992
Sabrina Island	4	104	
Beaufort Island	5	105	
Cape Crozier [ <i>redesignated as SSSI n° 4</i> ]	–	–	
Cape Hallet	7	106	
Dion Islands	8	107	
Green Island	9	108	
Byers Peninsula [ <i>redesignated as SSSI n° 6</i> ]	–	–	
Cape Shireff [ <i>redesignated as SSSI n° 32</i> ]	–	–	
Fildes Peninsula [ <i>redesignated as SSSI n° 5</i> ]	–	–	
Moe Island	13	109	1995
Lynch Island	14	110	
Southern Powell Island	15	111	1995
Coppermine Peninsula	16	112	
Litchfield Island	17	113	
North Coronation Island	18	114	
Lagotellerie Island	19	115	
New College Valley	20	116	1992
Avian Island ( <i>was SSSI n° 30</i> )	21	117	
'Cryptogram Ridge'	22	118	
Forlidas and Davis Valley Ponds	23	119	
Pointe-Geologie Archipelago	24	120	1995
Cape Royds	1	121	
Arrival Heights	2	122	
Barwick Valley	3	123	
Cape Crozier ( <i>was SPA n° 6</i> )	4	124	
Fildes Peninsula ( <i>was SPA n° 12</i> )	5	125	
Byers Peninsula ( <i>was SPA n° 10</i> )	6	126	
Haswell Island	7	127	
Western Shore of Admiralty Bay	8	128	
Rothera Point	9	129	
Caughley Beach	10	116	
'Tramway Ridge'	11	130	1995
Canada Glacier	12	131	
Potter Peninsula	13	132	
Harmony Point	14	133	
Cierva Point	15	134	
North-east Bailey Peninsula	16	135	

Existing SPA's	Existing Site No.	Proposed New Site No.	Year Annex V Management Plan adopted
Clark Peninsula	17	136	
North-west White Island	18	137	
Linnaeus Terrace	19	138	
Biscoe Point	20	139	
Parts of Deception Island	21	140	
'Yukidori Valley'	22	141	
Svarthamaren	23	142	
Summit of Mount Melbourne	24	118	
'Marine Plain'	25	143	
Chile Bay	26	144	
Port Foster	27	145	
South Bay	28	146	
Ablation Point	29	147	
Avian Island [ <i>redesignated as SPA n° 21</i> ]	–	–	
Mount Flora	31	148	
Cape Shireff ( <i>was SPA n° 11</i> )	32	149	
Ardley Island	33	150	
Lions Rump	34	151	
Western Branfield Stait	35	152	
Dallmann Bay	36	153	



# **Annex B**

## **Measures**





## Measure I (1996)

### Revised Description and Management Plan for Sites of Special Scientific Interest (SSSI)

The Representatives,

*Recommend* to their Governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty,

For the Sites of Special Scientific Interest mentioned below.

- (i) the Management Plan inserted in the Annex to Recommendation XIII-8 on the Facilitation of scientific research: Sites of Special Scientific Interest be deleted;
- (ii) the relevant Management Plan of the Sites of Special Scientific Interest, annexed to this Measure, be inserted in the Annex to Recommendation XIII-8 on the Facilitation of scientific research: Sites of Special Scientific Interest;

The Sites of Special Scientific Interest concerned are:

SSSI No 9 Rothera Point, Adelaide Island

SSSI No 19 Linnaeus Terrace, Asgard Range, Victoria Land;

- iii) that the Consultative Parties ensure that their nationals comply with mandatory provisions of the new Management Plans.

## Measure II ( 1996)

### Antarctic Protected Area System: New Historic Sites and Monuments

The representatives,

*Recalling* Recommendations I-IX, V-4, VI-14, VII-9, XII-7, XIII-16 and XIV-8, Measures 4 and 5 (1995) and Resolution 8 (1995),

*Recommend* to their governments the following Measure for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty

to add the following historic monuments to the "List of Historic Monuments Identified and Described by the proposing Government of Governments" annexed to recommendation VII-9, thereby guaranteeing its full protection and respect as envisaged by the Recommendations noted above.

Mikkelsen Cairn, Tryne Islands, Vestfold Hills. A rock cairn and a wooden mast erected by the landing party led by Captain Klarius Mikkelsen of the Norwegian whaling ship Thorshavn and including Caroline Mikkelsen, Captain Mikkelsen's wife, the first woman to set foot on East Antarctica. The cairn, at latitude 6822'34''S longitude 7824'33''E was discovered by Australian National Antarctic Research Expedition field parties in 1957 and again in 1995.

# Management Plan

for Site of Special Scientific Interest (SSSI) No. 9

## ROTHERA POINT, ADELAIDE ISLAND

### I. Description of Values to be Protected

Rothera Point was originally designated in Recommendation XIII-8 (1985, SSSI No. 9) after a proposal by the United Kingdom that the Site would serve as a biological research site and control area against which the effects of human impact associated with the adjacent Rothera Research Station (UK) could be monitored in an Antarctic fulfilled ecosystem. The Site itself has little intrinsic nature conservation value.

### 2. Aims and Objectives

#### 2 (i) Aims

Management of Rothera Point aims to:

- \* avoid major changes to the structure and composition of the terrestrial ecosystems, in particular to the fellfield ecosystem and breeding birds, by:
  - preventing physical development within the site, and;
  - limiting human access to the Site to maintain its value as a control area for environmental monitoring studies;
- \* allow scientific research and monitoring studies of breeding birds, terrestrial and fresh-water biota, and soils, while ensuring as far as possible that the Site is protected from over-sampling;
- \* allow regular visits for management purposes in support of the objectives of the management plan.

#### 2. (ii) Objectives

The Site is unique in Antarctica as it is the only protected area currently designated (1995) solely for its value in the monitoring of human impact. The objective is to use the Site as an unaffected control area in assessing the impact of activities undertaken at Rothera Research Station on the Antarctic environment.

The hypothesis being tested is that the activities undertaken at Rothera Research Station have not caused environmental impact within the Site.

Monitoring studies undertaken by the British Antarctic Survey (BAS) began at Rothera Point in 1976, before the establishment of the station later that year, and have expanded considerably since 1989. The BAS plans to continue monitoring studies in the future.

The purposes of the monitoring programme (1995) are to:

- \* survey the distribution of terrestrial flora and invertebrates every decade;
- \* assess heavy metal concentrations in lichens every five years;
- \* assess petroleum hydrocarbon concentrations in gravel and soil every other year;
- \* survey the breeding bird population annually.

### **3. Management Activities**

The following management activities are to be undertaken to protect the values of the Area:

- \* signboards illustrating the location and boundary of the Site and stating entry restrictions shall be erected at the major access points and serviced on a regular basis;
- \* a map showing the location and boundaries of the Site and stating entry requirements shall be displayed in a prominent position at Rothera Research Station;
- \* visits shall be made as necessary (no less than once every two years) to assess whether the Site continues to serve the purposes for which it was designated and to ensure management activities are adequate.

### **4. Period of Designation**

Designation for an indefinite period.

### **5. Maps**

Map 1 shows the location of Rothera Point in relation to northern Marguerite Bay. Map 2 shows the Site in greater detail, with an inset showing the Site in relation to Rothera Research Station.

### **6. Description of the Area**

#### *6 (i) Geographical coordinates, boundary markers and natural features*

Rothera Point (lat. 67 34'S, long 68 08'W) is situated in Ryder Bay, at the south-east corner of Wright Peninsula on the east side of Adelaide Island, south-west Antarctic Peninsula.

The Site is the north-eastern one-third of Rothera Point (Map 2), and is representative of the area as a whole. It is about 300 m from west to east and 250 m from north to south, and rises to a maximum height of 36 m. At the coast, the Site boundary is the 2.5 m contour. No upper shore, littoral or sublittoral areas of Rothera Point are therefore included within the SSSI. The southern boundary of the Site, running across Rothera Point, is marked by a line of pink fuel drums filled with concrete. The remaining boundary is unmarked. There are two signboards just outside the perimeter of the Site located at the starting points of the pedestrian access route around Rothera Point.

The Site boundary extends to the 2.5 m contour at the coast. There is unrestricted pedestrian access below this contour height around Rothera Point. The recommended pedestrian access route follows the Mean High Water Mark (MHW) and is shown on Map 2.

Small areas of permanent ice occur to the north and south of the summit of the SSSI. There are no permanent streams or pools.

The rocks are predominantly heterogeneous intrusions of diorite, granodiorite and adamellite of the mid-Cretaceous-Lower Tertiary Andean Intrusive Suite. Veins of copper ore are prominent bright green stains on the rock. Soil is restricted to small pockets of glacial till and sand on the rock bluffs. Local deeper deposits produce scattered small circles and polygons of frost sorted material. There are no extensive areas of patterned ground. Around prominent rock outcrops used as bird perches by Dominican gulls (*Larus dominicanus*) there are accumulations of recent and decaying limpet (*Nacella concinna*) shells forming patches of calcareous soil. There are no accumulations of organic matter.

There are no special or rare geological or geomorphological features in the Site.

The limited terrestrial biological interest within the Site is confined to the rock bluffs where there is locally abundant plant growth dominated by lichens. The vegetation is representative of the southern "maritime" Antarctic fellfield ecosystem and is dominated by the fruticose lichens *Usnea antarctica*, *U. sphacelata*, and *Pseudephebe minuscula*, and the foliose lichen *Umbilicaria decussata*. Numerous crustose lichens are associated, but bryophytes (mainly *Andreaea* spp.) are sparse.

A single very small population of antarctic pearlwort (*Colobanthus quitensis*) occurs below the northern cliff of the Site, whilst a few plants of Antarctic hair grass

(*Deschampsia antarctica*) have become established at two locations since 1989.

The invertebrate fauna is impoverished and consists only of a few species of mites and spring-tails, of which *Halozetes belgicae* and *Cryptopygus antarcticus* are the most common.

There are no special or rare terrestrial flora and fauna in the Site.

Brown and south polar skuas (*Catharacta lonnbergii* and *C. maccormicki*) are the most abundant breeding birds found in the Site, with three pairs of skuas recorded nesting in the 1994/95 season. A pair of Dominican gulls (*Larus dominicanus*) nest in the Site. Wilson's storm petrels (*Oceanites oceanicus*) also breed, but only one nest has been found.

Rothera Research Station (UK) lies about 250 m west of the western boundary of the Site (see inset on Map 2).

#### *6 (ii) Restricted zones within the Site*

None.

#### *6 (iii) Location of structures within the Site*

A rock cairn marks the summit of the Site (36 m) and 35 m to the east south east of it there is another cairn (35.4) marking a survey station.

#### *6 (iv) Location of other Protected Areas within close proximity*

SPA No. 8, Dion Islands, Marguerite Bay, lies about 15 km south of Adelaide Island. SPA No. 19, Lagotellerie Island, Marguerite Bay, lies about 11 km south of Pourquoi Pas Island. SPA No. 21, Avian Island, Marguerite Bay, lies about 0.25 km south of the south-west tip of Adelaide Island. The locations of these SPAs are shown on Map 1.

### **7. Permit Conditions**

Entry to the Site is prohibited without a Permit. Permits shall be issued only by appropriate national authorities, and may contain both general and specific conditions.

General conditions for issuing a Permit to enter the Site may include:

- \* activities limited to scientific research or monitoring purposes;
- \* the actions permitted will not jeopardize the ecosystem or scientific or monitoring values of the Site.
- \* any management activities are in support of the objectives of the Management Plan;
- \* the actions permitted are carried out in accordance with this Management Plan;
- \* the permit holder must carry the permit, or an authorized copy, within the Site.

National authorities may attach further general and specific conditions to a permit.

#### *7 (i) Access to and movement within the Site*

Access to the Site shall be on foot.

Landing of helicopters within the Site is prohibited. As far as practicable, helicopter overflight of the Site shall be avoided.

Vehicles are prohibited in the Site.

*7 (ii) Activities which are or may be conducted within the Site, including restrictions on time and place*

Activities which are or may be conducted within the Site are:

- \* scientific research or monitoring which will not jeopardise the ecosystems of the Site;
- \* essential management activities.

*7 (iii) Installation, modification or removal of structures*

No structures are to be erected in the Site, or equipment installed, except for essential scientific or management activities (eg. signboards, monitoring equipment) as specified in the permit.

All scientific and monitoring equipment, including marker stakes, installed in the Site must be approved by Permit and clearly identified to show principal investigator, project and year of installation. The Permit holder must remove any scientific or monitoring equipment installed as soon as it is no longer required or on the expiry of the permit whichever is the sooner.

*7 (iv) Location of field camps*

Camping in the Site is prohibited. Accommodation may be available at Rothera Research Station.

*7 (v) Restrictions on materials and organisms which may be brought into the site*

No non-indigenous living animals, plant material, microorganisms or soil shall be deliberately introduced into the Site.

Any hazardous substances or chemicals, including radioisotopes, which may be introduced for scientific, monitoring or management purposes specified in the Permit, shall be removed from the Site at or before the conclusion of the activity for which the Permit was granted.

Fuel, food and other materials must not be stored in the Site, unless required for essential purposes connected with the activity for which the Permit has been granted. All such materials introduced shall be removed from the Site at or before the conclusion of the activity for which the Permit was granted. Permanent depots are not permitted.

No poultry products, including food products containing uncooked dried eggs, shall be taken into the Site.

*7 (vi) Taking of or harmful interference with native flora and fauna*

Taking of or harmful interference with native flora and fauna is prohibited, except in accordance with a Permit. Where taking of or harmful interference with animals is involved this should be in accordance with the SCAR Code of Conduct for the use of Animals for Scientific Purposes in Antarctica, as a minimum standard.

*7 (vii) Collection or removal of anything not brought into the Area by the Permit holder*

Material may be collected and/or removed from the Site only in accordance with a Permit and should be limited to the minimum necessary to meet scientific or management needs. Material of human origin not brought into the site by the Permit holder, or otherwise authorised, which is likely to compromise the values of the Site shall be removed unless the impact of removal is likely to be greater than leaving the material in situ. In the latter case the appropriate authority shall be notified.

*7 (viii) Disposal of wastes*

All wastes, including all human wastes, must be removed from the Site.

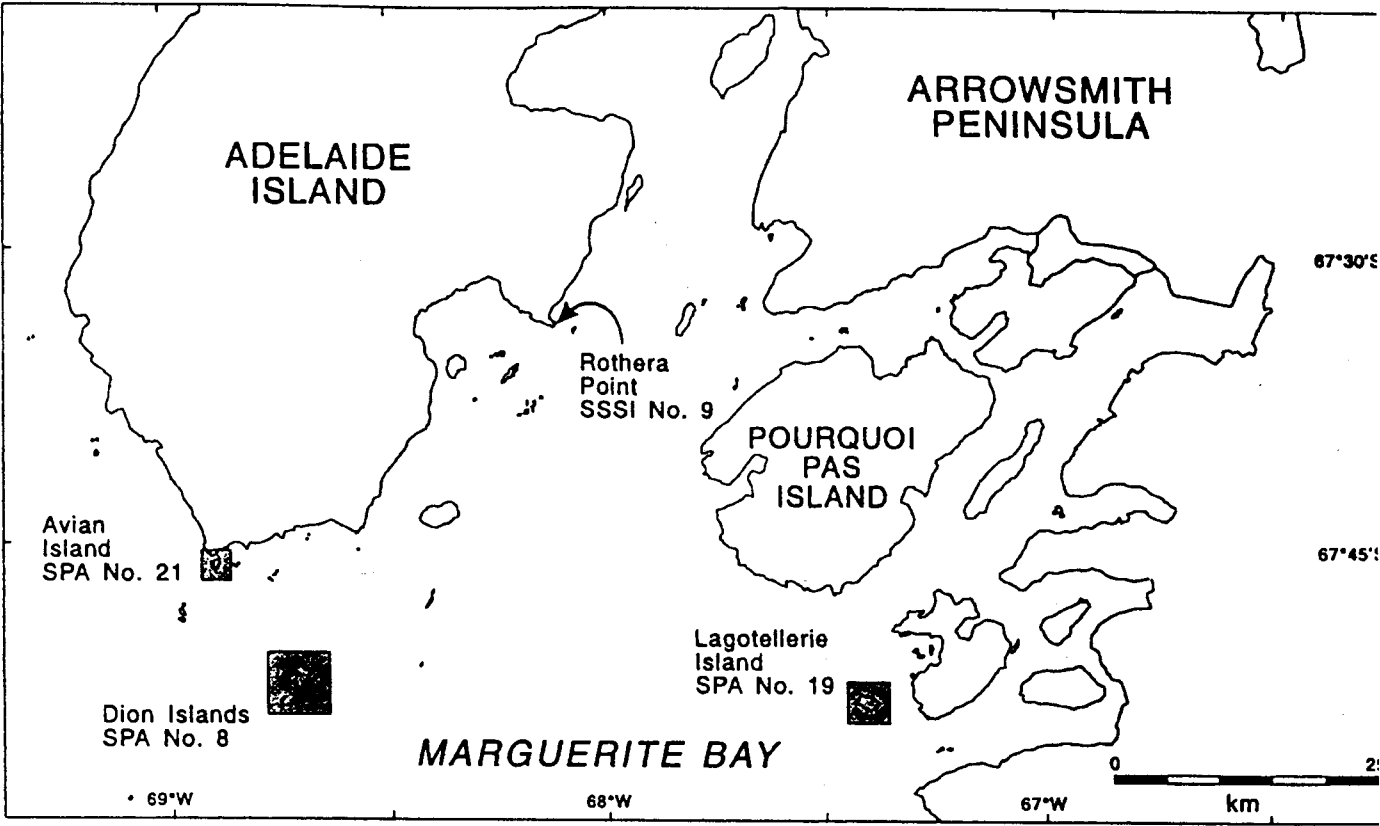
*7 (ix) Measures that are necessary to ensure that the aims and objectives of the Management Plan can continue to be met*

Permits may be granted to enter the Site to carry out scientific research, monitoring and site inspection activities, which may involve the collection of a small number of samples for analysis, to erect or maintain signboards, or to carry out protective measures.

*7 (x) Requirements for reports*

Parties should ensure that the principal holder of each Permit issued submits to the appropriate authority a report describing the activities undertaken. Such reports should include, as appropriate, the information identified in the Visit Report Form suggested by SCAR. Parties should maintain a record of such activities and, in the Annual Exchange of Information, should provide summary description of activities conducted by persons subject to their jurisdiction, in sufficient detail to allow evaluation of the effectiveness of the Management Plan, Parties should, wherever possible, deposit originals or copies of such original reports in a publicly accessible archive to maintain a record of usage, to be used both in any review of the Management Plan and in organising the scientific use of the Site.





Rothera Point Site of Special Scientific Interest (SSSI) in relation to Marguerite Bay and other nearby protected areas.

68°07'00"W

68°06'40"W

LEGEND

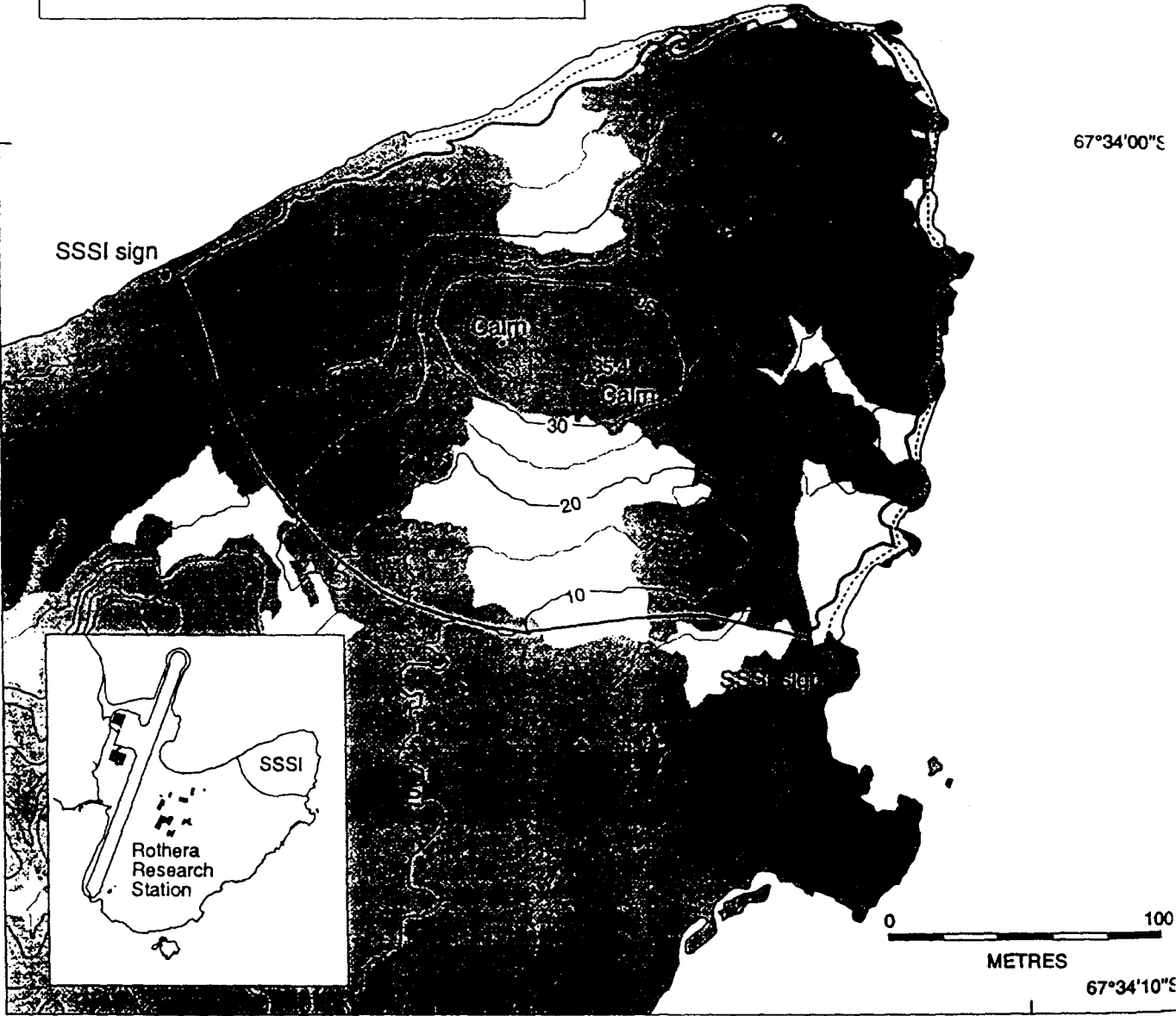
- Permanent snow/ice
- Ice-free area
- Artificially levelled area
- Temporarily flooded area
- ≡ Road (unmetalled)
- Boundary of SSSI
- - - Pedestrian access route
- ~ Index contour (10 m)
- ~ Contour (5 m)
- ▲<sup>35.4</sup> Survey station

# ROTHERA POINT

Site of Special Scientific Interest No. 9

67°34'00"S

SSSI sign



0 100  
METRES

67°34'10"S

Rothera Point Site of Special Scientific Interest

# Management Plan

## for Site of Special Scientific Interest (SSSI) No. 19 LINNAEUS TERRACE, ASGAARD RANGE, VICTORIA LAND

### 1. Description of Values to be Protected

Linnaeus Terrace was originally designated in Recommendation XIII-8 (1985, SSSI No. 19) after a proposal by the United States of America on the grounds that the Area is one of the richest known localities for the cryptoendolithic communities that colonize the Beacon Sandstone. Exposed surfaces of the Beacon Sandstone are the habitat of cryptoendolithic microorganisms, which may colonize a zone of up to 10 millimetres deep below the surface of the rocks. The sandstones exhibit a range of biological and physical weathering forms, as well as trace fossils, and many of the formations are fragile and vulnerable to disturbance and destruction by trampling and sampling. Cryptoendolithic communities are known to develop over time periods in the order of tens of thousands of years, and damaged rock surfaces would be slow to recolonize. The excellent examples of these communities found at the site are the subject of the original detailed Antarctic cryptendolithic descriptions. As such, Linnaeus Terrace is considered a type locality with outstanding scientific values related to this ecosystem. These values, as well as the vulnerability of the site to disturbance and destruction, require that it receives long-term special protection.

### 2. Aims and objectives

Management at Linnaeus Terrace aims to:

- . avoid degradation of, or substantial risk to, the values of the Area;
- . prevent unnecessary human disturbance to the Area and protect the fragile rock formations from breakage;
- . permit research on the cryptoendolithic communities while ensuring they are protected from over-sampling;
- . permit visits for management purposes in support of the objectives of the management plan.

### 3. Management activities

- . Durable wind direction indicators should be erected close to the designated helicopter landing site whenever it is anticipated there will be a number of landings at the Area in a given season. These should be replaced as needed and removed when no longer required.
- . Brightly colored markers, which should be clearly visible from the air and pose no significant threat to the environment, shall be placed to mark the helicopter landing pad.
- . Markers or structures erected within the Area for scientific or management purposes shall be maintained in good condition.
- . Visits shall be made as necessary (no less than once every five years) to assess whether the Area continues to serve the purposes for which it was designated and to ensure management and maintenance measures are adequate.
- . National Antarctic Programs operating in the region shall consult together with a view to ensuring these steps are carried out.

#### 4. Period of designation

Designated under ATCM Measure XX-I for an indefinite period.

#### 5. Maps and photographs

Map A: Linnaeus Terrace, Wright Valley, location image-map. Orthophotograph specifications:

Projection: Lambert conformal conic; Standard parallels: 1st - 7918'00"S; 2nd - 7642'00"S.  
Central Meridian: 16230'00"E Latitude of Origin: 7801'16.211"S  
Spheroid: WGS84; Positional accuracy of original orthophotograph at 1:10,000 is ca. 2m.  
Photography USGS/DoSLI (SN7856) 22 November 1993.

Map B: Linnaeus Terrace, protected area orthophotograph. Orthophotograph specifications are the same as in Map A, except positional accuracy of original orthophotograph at 1:2,500 is ca. 0.5m.

Map C: Linnaeus Terrace, topographic map. Map specifications are the same as those for Map B. Contours are derived from the digital elevation model used to generate the orthophotograph in Map B.

Figure 1: Perspective view showing Linnaeus Terrace above the South Fork of Wright Valley and Don Juan Pond. The perspective is from an elevation of 7000m, 20 km out from the Area at a bearing of 65E.

Figure 2: Linnaeus Terrace, perspective view, showing the boundaries of the Area and the designated helicopter pad (16104'29"E, 7735'50"S, elevation 1610m). The perspective is from an elevation of 2000 m, 2300 m out from the Area at a bearing of 65E. Image source: Maps A and B.

Figure 3: Photograph illustrating some of the fragile rock formations and fossils found on Linnaeus Terrace.

#### 6. Description of the Area

##### *6(i) Geographical coordinates, boundary markers and natural features*

Linnaeus Terrace (16105'00"E, 7735'50"S) is an elevated bench of weathered Beacon Sandstone approximately 1.5 km in length and 1 km in width. It is located at the east end of the Asgaard Range, 1.5 km north of Oliver Peak (16102'30"E, 7736'40"S) at an elevation of about 1600 m. The Area overlooks the South Fork of the Wright Valley, is about 4 km from Don Juan Pond and 10 km from the terminus of the Wright Upper Glacier (Map A and Figure 1). The boundaries of the Area and prominent features are shown in the accompanying maps and figures.

On the ground, the lower (northern) boundary of the Area is characterized by the presence of a predominantly sandstone outcrop of approximately 3 m in height which extends for much of the length of the terrace. The lower boundary of the Area is defined as the upper edge

of this outcrop, and as straight lines adjoining the visible edges where the outcrop is covered by surface talus (Figure 2). The upper (southern) boundary of the Area is characterized by a line of sandstone outcrop of about 2-5 m in height, occurring between the elevations of 1660-1700 m about 70 above the general elevation of the terrace. The upper boundary of the Area is defined as the uppermost edge of this outcrop, and shall be considered a straight line between the visible edges where the outcrop is covered by surface talus (Map B, Figure 2). The west end of the Area is defined as where the terrace narrows and merges with a dolerite talus slope on the flank of the NW ridge of Oliver Peak. The boundary at the west dips steeply from where the upper outcrop disappears, following the border of the dolerite talus with the terrace sandstone down to the westernmost corner. The east boundary is defined as the 1615 m contour, which follows closely the edge of an outcrop which extends much of the width of the terrace. At the southernmost corner of the Area the terrace merges with the slopes into the valley to the east: from this point the boundary extends upward to the 1700 m contour, from where it follows the line of outcrop defining the south boundary (Map B, Figure 2).

Winter air temperature at Linnaeus Terrace ranges between -20C and -45C, while in January the daily mean is -5. Cryptoendolithic microorganisms typically colonize porous Beacon sandstones with a 0.2 - 0.5 mm grain size, with an apparent preference for rocks stained tan or brown by Fe +3-containing oxyhydroxides. A silicified crust of about 1 mm thickness on many of the rocks probably facilitates colonization by stabilizing the surface and reducing wind erosion. Three of the five described cryptoendolithic microbial communities have been found on Linnaeus Terrace: the Lichen Dominated, Red-Gloeocapsa and Chroococciopsis Communities. Linnaeus Terrace is the type locality of the endemic green algal genus *Hemichloris* and of the endemic Xanthopycean algal species *Heterococcus endolithicus*. The Area is unusual in that so many different living and fossil endolithic communities are present within a small area. The main physical and biological features of these communities and their habitat are described in Friedmann, E.I. (ed) 1993 *Antarctic Microbiology*, Wiley-Liss, New York.

A small area (Map C) has been contaminated by release of the C(14) radioactive isotope. While the contamination poses no significant human or environmental threat, any samples gathered within this area are considered unsuitable for scientific work using C(14) techniques.

*6(ii) Restricted zones within the Area*

None.

*6(iii) Structures within the Area*

A number of rocks within the Area have small instruments installed into them for scientific purposes and should not be disturbed.

*6(iv) Location of other Specially Protected Areas or Sites of Special Scientific Interests within close proximity of the Area*

None.

## 7. Permit conditions

Permits may be issued only by appropriate national authorities as designated under Annex V, Article 7 of the Protocol on Environmental Protection to the Antarctic Treaty. Conditions for issuing a Permit to enter the Area are that:

- . it is issued only for scientific study of the cryptoendolithic ecosystem, or for a compelling scientific or management purpose that cannot be served elsewhere;
- . the actions permitted will not jeopardize the natural ecological system or scientific values of the Area;
- . any management activities are in support of the objectives of the Management Plan;
- . the actions permitted are in accordance with the Management Plan;
- . the Permit, or an authorized copy, shall be carried within the Area;
- . a Visit Report is supplied to the authority named in the Permit;
- . any Permit issued shall be valid for a stated period.

### *7(i) Access to and movement within the Area*

Access to the Area is permitted by foot or by helicopter. No special restrictions apply to the routes used to move to and from the Area. Helicopters shall land only at the designated site at the west end of the terrace (16104'29"E, 7735'50"S, elevation 1610 m: Maps B and C), except when specifically authorized by Permit otherwise for a compelling scientific or management purpose. Use of helicopter smoke bombs within the Area is discouraged. When transporting permitted visitors, pilots, air crew, or passengers en route elsewhere on helicopters are prohibited from moving on foot beyond the immediate vicinity of the designated landing and camping sites unless specifically authorized by a Permit. Land vehicles are prohibited within the area.

Pedestrian traffic should be kept to the minimum necessary consistent with the objectives of any permitted activities. Visitors should avoid breaking fragile rock formations. *7(ii) Activities that are or may be conducted in the Area, including restrictions on time or place*

- . Scientific research which will not jeopardize the ecosystem of the Area;
- . Essential management activities, including monitoring.

### *7(iii) Installation, modification or removal of structures*

No structures, except boundary markers and signs, are to be erected within the Area except as specified in a Permit. All scientific equipment installed in the Area must be approved by Permit and clearly identified by country, name of the principal investigator and year of installation. All such items should be made of materials that pose minimal risk of contamination of the Area. Removal of specific equipment for which the Permit has expired shall be the responsibility of the authority which granted the original Permit.

### *7(iv) Location of field camps*

Camping is permitted within the Area only at the designated site in the immediate vicinity of the helicopter landing pad (Maps B and C).

### *7(v) Restrictions on materials and organisms which can be brought into the Area*

To avoid compromising the microbial ecosystem for which this site is protected, no living animals, plant material or microorganisms shall be deliberately introduced into the Area and precautions should be taken against accidental introductions. No herbicides or pesticides shall be

brought into the Area. Any other chemicals, including radio-nuclides or stable isotopes, which may be introduced for scientific or management purposes specified in the Permit, shall be removed from the Area at or before the conclusion of the activity for which the Permit was granted. Food, fuel, and other materials are not to be stored in the Area, unless required for essential purposes connected with the activity for which the Permit has been granted. All such materials introduced shall be for a stated period only, shall be removed at or before the conclusion of that stated period, and shall be stored and handled so that risk of their introduction into the environment is minimized.

*7(vi) Taking or harmful interference with native flora or fauna*

This is prohibited, except in accordance with a Permit. Where animal taking or harmful interference is involved this should be in accordance with the SCAR Code of Conduct for the Use of Animals for Scientific Purposes in Antarctica, as a minimum standard.

*7(vii) Collection or removal of anything not brought into the Area by the Permit holder*

Material may be collected or removed from the Area only in accordance with a Permit. Material of human origin, not brought into the Area by the Permit Holder, but which is likely to compromise the values of the Area may be removed from any part of the Area.

*7(viii) Disposal of waste*

All wastes, including all human wastes, must be removed from the Area.

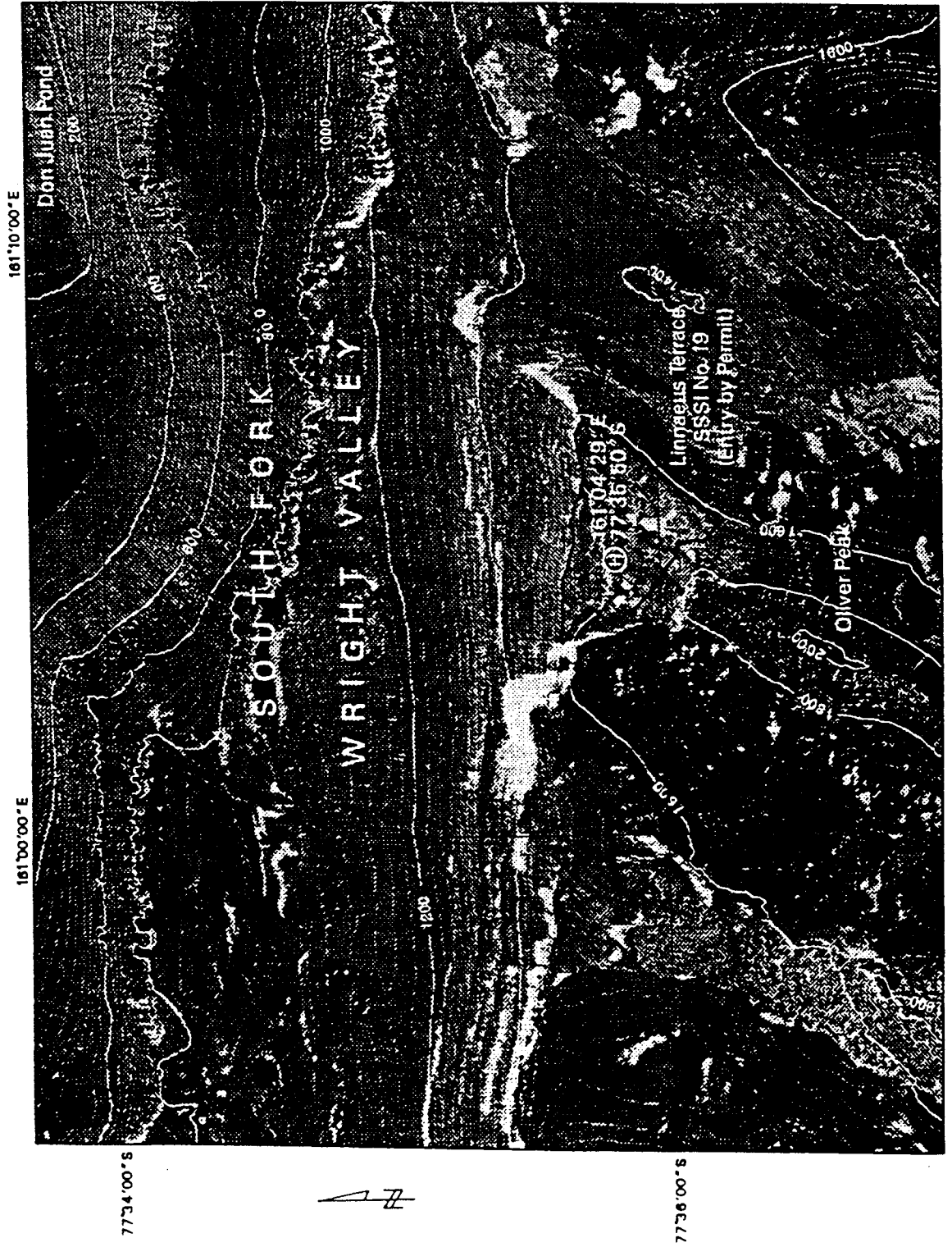
*7(ix) Measures that are necessary to ensure that the aims and objectives of the Management Plan can continue to be met*

Permits may be granted to enter the Area to carry out biological monitoring and site inspection activities, which may involve the collection of small amounts of biological material for analysis or audit, or to carry out protective measures.

*7(x) Requirements for reports*

Parties should ensure that the principal holder of each permit issued submit to the appropriate authority a report describing the activities undertaken. Such report should include, as appropriate, the information identified in the Visit Report form suggested by SCAR. Parties should provide summary descriptions of activities conducted by persons subject to their jurisdiction, in sufficient detail to allow evaluation of the effectiveness of the management plan. Parties should, wherever possible, deposit originals or copies of such original reports in a publicly accessible archive to maintain a record of usage, to be used both in any review of the management plan and in organizing the scientific use of the Area.

Map A - Linnaeus Terrace, Wright Valley, location image-map



Photography: 22 November 1993  
Projection: Lambert conformal conic

Protected area boundary  
Designated helicopter pad

0 2000  
meters



Map B - Linnaeus Terrace, Site of Special Scientific Interest No. 19: site orthophotograph

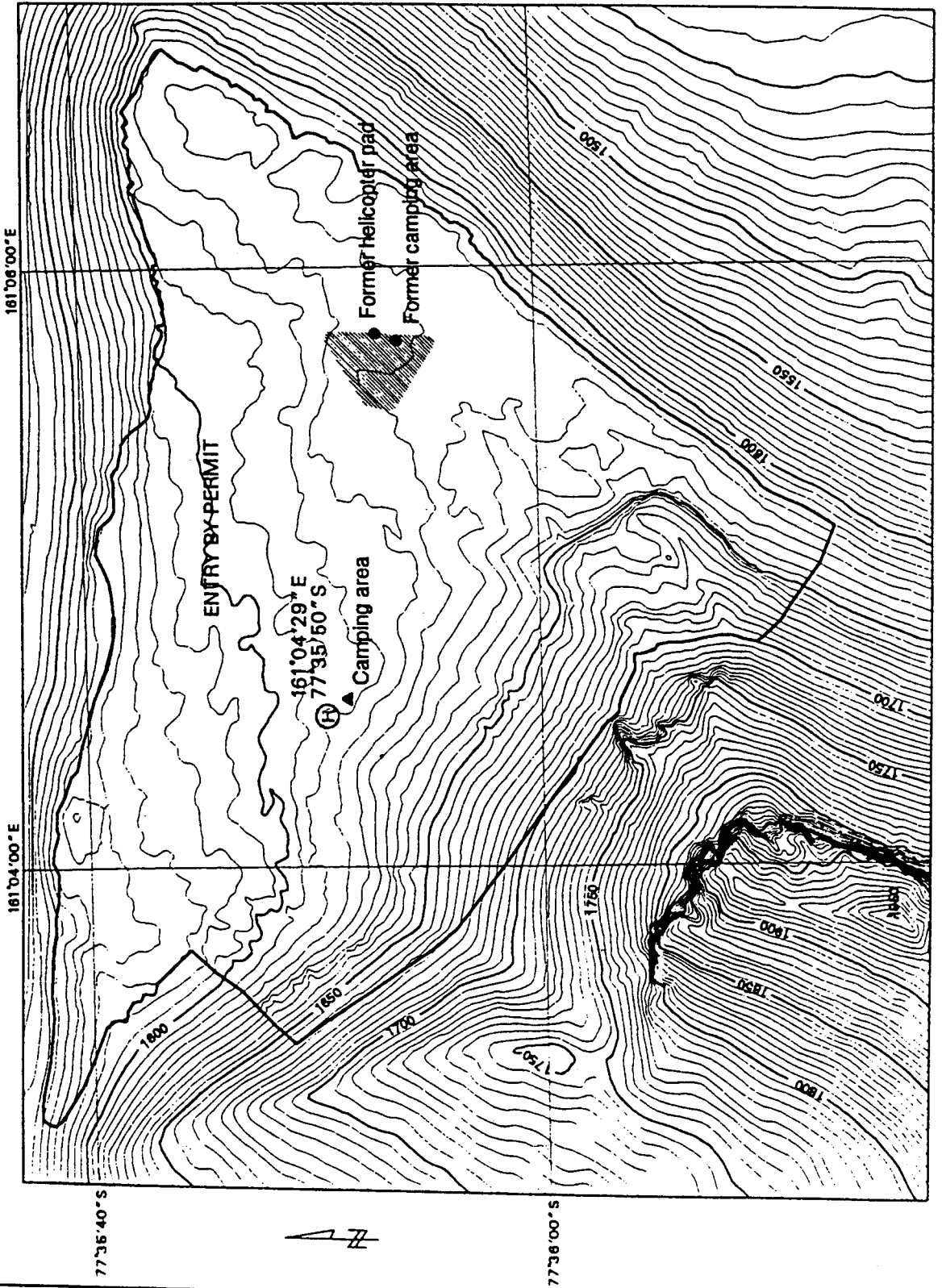


Photography: 22 November 1993  
 Projection: Lambert conformal conic  
 Spheroid: WGS84

Protected area boundary  
 Designated helicopter pad

0 400  
 meters  
 Contour interval: 5m

Map C - Linnaeus Terrace, Site of Special Scientific Interest No. 19: topographic map



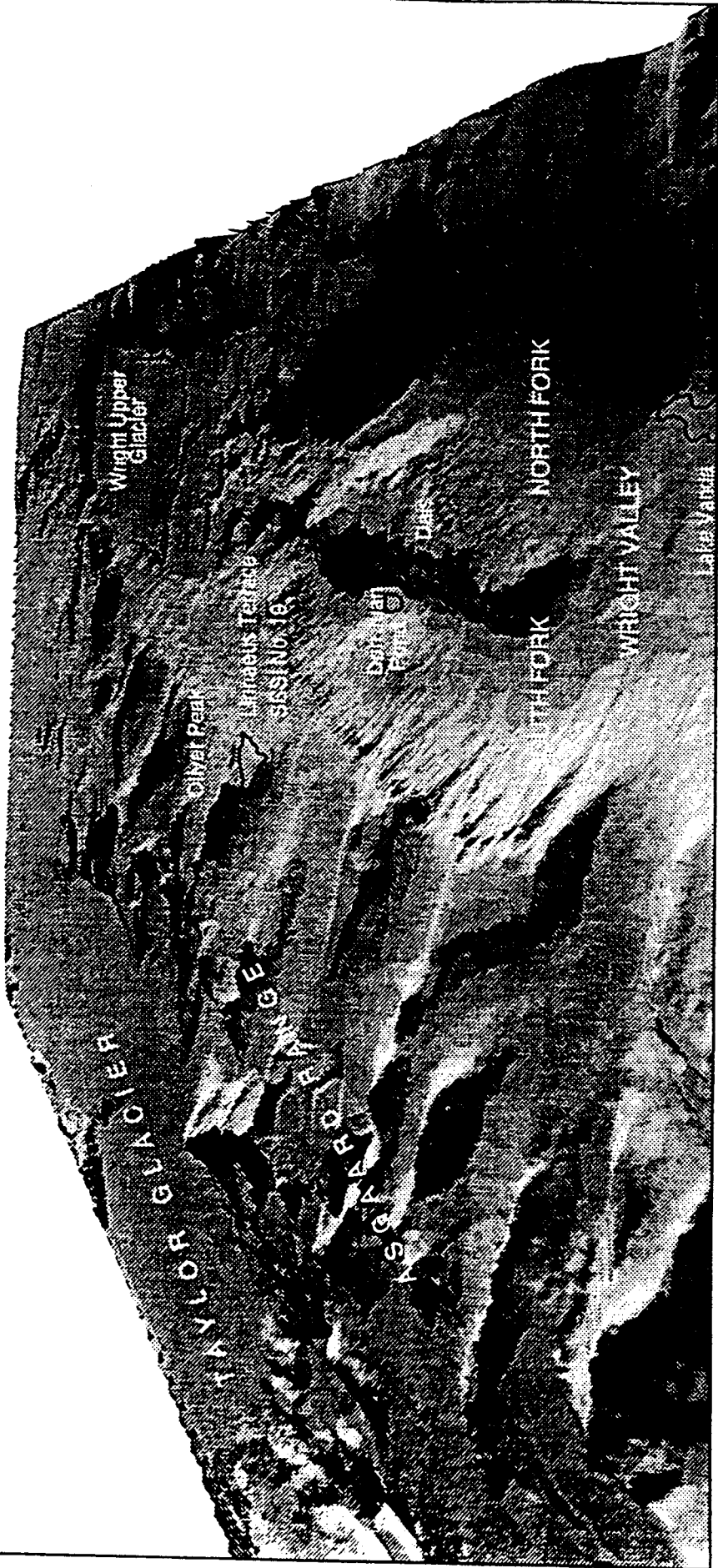
0 meters  
Contour interval: 5m

0 400

Protected area boundary  
Designated helicopter pad  
C contaminated area

Map C is digitally derived from the orthophotograph in Map B

Figure 1 - Wright Valley, perspective view



# **Part III**

## **Annexes C - J**



## **ANNEX C**

### **ATCM Recommendations by subject (par. 70, Final Report)**



## ATCM Recommendations by subject (par. 70, Final Report)

### annex 1

- 08:11 (2031) CPs to carry out environmental impact assessment following guidelines in code of conduct  
info: CPs may circulate EIAs to CPs through SCAR  
*resolution* (↓PEP)
- 12:03 (2032) CPs <sup>1)</sup> to make IEEs and, if necessary, CEEs, to ask advice from SCAR and <sup>2)</sup> to discuss matters further at ATCM XIII  
info: CPs to CPs: CEEs  
<sup>1)</sup> *resolution* (↓PEP) <sup>2)</sup> *decision* (↓)
- 14:02 (2036) CPs to adopt an elaborate forerunner to Annex 1 (applicable to scientific activities only)  
info: CPs to CPs: CEEs (as part of annual exchange AT)  
*resolution* (↓PEP)  
note: Although operative paras 2 and 3 contain mandatory language, these paras depend on para 1, which has hortatory language

### annex 2

- 01:08 (2046) CPs to <sup>1)</sup> think of measures for the protection of the living resources in the ATS, as an interim measure, to issue rules of conduct along the lines of an annexed statement, and <sup>2)</sup> to come back to the matter during ATCM II  
<sup>1)</sup> *resolution* (↓AM) <sup>2)</sup> *decision* (↓)  
note: The 'annexed statement' has mandatory language, but this is not addressed to the CPs. Hortatory language is used in recommending the latter to issue a similar statement (in so far as possible).
- 02:02 (2047) CPs to work towards agreed measures for the protection of living resources in Antarctica  
*resolution* (↓AM)
- ATCM Recommendations by subject (2)
- 03:10 (2053) SCAR <sup>1)</sup>to be encouraged generally to continue their interest in the conservation of the Antarctic fauna and flora and <sup>2)</sup>'at this moment' to advise on what should be taken up into the Annexes to the Agreed Measures  
<sup>1)</sup> *resolution* <sup>2)</sup>*resolution* (↓PEP)  
note: Ad <sup>2)</sup>: Under the regime of the PEP, SCAR can make proposals for ASPa and ASMAs on the basis of Annex V 5.1, but Annex II gives it no authority to make proposals on the contents of this Annex's Appendices.
- 04:16 (-) Specially protected species, taken up into AM



*measure* (↓PEP)

04:17 (-) Specially protected species, taken up into AM  
*measure* (↓PEP)

04:18 (2053) CPs to cooperate in limiting the issuance of permits i.a.w. AM VI  
*resolution* (↓PEP)

note: The substance of this Recommendation is taken care of by Annex II 3.3.b.

04:19 (2055) CPs to use an annexed format for the exchange of information under AM XII.1a, and to welcome SCAR studying status species etc. on the basis of AM XII 1.b and 1.c

info: CPs to CPs: cf. subject

*resolution* (↓PEP)

note: Annex II.6.c requires that the CPs should adopt a new measure to cover the substance of this Recommendation.

04:20 (2055) CPs to consider Recommendations 04:01 to 04:19 inclusive as guidelines until AM become effective

*resolution* (↓)

note: Spanish text of ATS has 04:02 to 04:16

### ATCM Recommendations by subject (3)

06:09 (2055) CPs to transmit information on the basis of 04:19 (implementation AM XII.1a) to national Antarctic committees and to invite SCAR to assemble and publish this information and to prepare reports based on it from time to time

*resolution* (↓PEP)

note: If SCAR is to go on doing the above, the ATCM (or the CEP) will have to adopt a new resolution to this effect.

### annex 2 and annex 5

03:08 (2048) Agreed Measures for the Conservation of Antarctic flora and fauna

info: CPs to CPs: before November of each year on steps taken and information collected during preceding 1 July - 1 June relating to the implementation of the AM *measure* (↓PEP)

03:09 (2053) AM to be used as guidelines until effective

*resolution* (↓)

### annex 3

08:11 (2061) code of conduct, paragraph 1: recommended procedure on waste disposal

*resolution* (↓PEP)

12:04 (2062) CPs to seek advice from Antarctic operating agencies on problems in implementing the code of conduct (08:11) and the need to revise it  
*resolution (↓PEP)*

13:04 (2062) CPs to invite SCAR to undertake a comprehensive review of the waste disposal aspects of the code of conduct annexed to 08:11  
*resolution(↓PEP)*

15:03 (2063) CPs to adopt an elaborate fore-runner of Annex 3  
*measure (↓PEP)*  
note: See the Introduction, para 5

#### **annex 4**

ATCM Recommendations by subject (4)

15:04 (2073) CPs to adopt an elaborate fore-runner of Annex 4  
*resolution (↓PEP)*  
note: See the Introduction, para 5

#### **annex 5**

01:09 (2084) CPs to do something about the preservation of tombs, buildings or objects of historic interest  
*resolution(↓PEP)*

04:01 (2085, 2131) Tailor Rookery SPA  
*measure*

04:02 (2085, 2137) Rookery Islands SPA  
*measure*

04:03 (2085, 2142) Ardery and Odbert SPA  
*measure*

04:04 (2085, 2149) Sabrina Island SPA  
*measure*

04:05 (2085, 2149) Beaufort Island SPA  
*measure*

04:06 (2085, 2151) Cape Crozier SPA  
*measure (↓08:02)*

04:07 (2085, 2151) Cape Hallet SPA  
*measure*

04:08 (2085, 2153) Dion Islands SPA  
*measure*

04:09 (2085, 2154) Green Island SPA  
*measure*

ATCM Recommendations by subject (5)

04:10 (2085, 2156) Byers Peninsula SPA  
*measure* (↓08:02)

04:11 (2085, 2156) Cape Shireff SPA  
*measure* (↓15:07)

04:12 (2085, 2156) Fildes Peninsula SPA  
*measure* (↓08:02)

04:13 (2085, 2157) Moe Island SPA  
*measure*

04:14 (2085, 2160) Lynch Island SPA  
*measure*

04:15 (2085, 2162) Powell Island SPA  
*measure*

05:04 (2085) CPs <sup>1)</sup> to draw up a list of historic monuments and <sup>2)</sup> further to consider the matter at ATCM VI  
<sup>1)</sup> *resolution* (↓07:09); <sup>2)</sup> *decision* (↓)

05:05 (2085, 2156) Modification of Fildes Peninsula SPA  
*measure* (↓08:02)

06:08 (2086) Introduction of permits for entry into SPAs  
*resolution* (↓08:05)

06:10 (2086, 2165) Coppermine Peninsula SPA  
*measure*

06:14 (2086) CPs to adopt adequate measures for the preservation of historic monuments and to mark them in situ; to prepare a list of historic monuments for consideration at ATCM VII  
*resolution* (↓PEP)

ATCM Recommendations by subject (6)

07:02 (2086) CPs <sup>1)</sup> to adopt criteria for the selection of SPAs, and <sup>2)</sup> to ask SCAR to review the existing SPAs and the need for new ones in the light of the criteria

<sup>1)</sup> resolution (↓PEP) <sup>2)</sup> resolution (↓)

07:03 (2087) CPs <sup>1)</sup> to ask SCAR whether SSSIs might be a good idea and <sup>2)</sup> to come back to this at ATCM VIII

<sup>1)</sup> resolution (↓) <sup>2)</sup> decision (↓)

07:09 (2087) CPs to adopt a proposed list of historic monuments  
*resolution*

08:01 (2088) Litchfield Island SPA  
*measure*

08:02 (2088) Terminates the designation of three SPAs (to become SSSIs on the basis of 08:04)  
*measure (↓)*

08:03 (2088) Institution of SSSIs (criteria, management plans required, expiry dates)  
*resolution (↓PEP)*

08:04 (2089) SSSIs 1-7 (Cape Royds, Arrival Heights, Barwick Valley, Cape Crozier, Fildes Peninsula, Byers Peninsula, Haswell Island)  
*resolution*

08:05 (2088) Terminates 06:08 and modifies AM: permits introduced in new sub-para VIII.2.c  
*measure (↓PEP)*

10:05 (2090) SSSI 8 Admiralty Bay  
*resolution*

10:06 (2090) Expiry dates for SSSIs 1-6 -> 30/06/85, SSSI7 -> 30/06/83  
*resolution*

ATCM Recommendations by subject (7)

12:05 (2092) Expiry dates for SSSIs 1-8 extended to 31/12/85  
*resolution*

12:07 (2093) Historic monument 44 added to list of historic monuments (07:09)  
*resolution*

13:05 (2093) CPs to ask SCAR for advice on the areas system and the possible inclusion of new types of areas

*resolution(↓)*

note: The other part of this Recommendation (under coop data) is also spent

13:07 (2095) Expiry dates for SSSIs 2-8 extended to various dates  
*resolution*

- 13:08 (2095) SSSIs 9-21 (Rothera Point, Caughley Beach, Tramway Ridge, Canada Glacier, Potter Peninsula, Harmony Point, Cierva Point, Bailey Peninsula, Clark Peninsula, White Island, Linnaeus Terrace, Biscoe Point, Shores of Port Foster  
*resolution* (↓ for SSSIs 13 {Potter Pen.} and 20 {Biscoe Point}, both expired on 31/12/95
- 13:09 (2096) Modification of management plan for SSSI (Cape Royds), expiry date extended to 31/12/95  
*resolution*
- 13:10 (2096) SPA 18: North Coronation Island  
*measure*
- 13:11 (2096) SPA 19: Lagotellerie Island  
*measure*
- 13:12 (2096) SPA 20: New College Valley  
*measure*
- 13:13 (2096) Revision of SPA 7's boundaries and its description  
*measure*
- ATCM Recommendations by subject (8)
- 13:14 (2096) Recommendations 13:10 - 13:13 to be considered as guidelines until effective  
*resolution*
- 13:16 (2097) Historic monuments 45-52 to be added to the list annexed to 07:09  
*resolution*
- 14:04 (2097) Expiry date of SSSI2 extended to 31/12/97  
*resolution*
- 14:05 (2097) SSSIs 22-28 (Yukidori Valley, Svarthamaren, Summit of Mt Melbourne, Marine Plain, Chile Bay, Port Foster, South Bay)  
*resolution*
- 14:06 (2098) Institution of MSSSIs (criteria, management plans, expiry dates)  
*resolution* (↓PEP)
- 14:08 (2099) Historic monument 53 added to the list annexed to 07:09  
*resolution*
- 15:06 (2104) SSSIs 29-31 (Ablation Point-Ganymede Heights, Avian Island, Mount Flora)  
*resolution* (↓16:04 for Avian Island)
- 15:07 (2104) <sup>1)</sup> Terminates Cape Shireff as SPA11 (rec 04:11) and <sup>2)</sup> designates it as SSSI 32  
<sup>1)</sup> *measure* (↓), <sup>2)</sup> *resolution*

15:08 (2106) Modifies AM VIII by introducing the requirement for SPAs to have management plans  
*measure (↓PEP)*

ATCM Recommendations by subject (9)

15:09 (2106) CPs to improve the descriptions of SPAs and to develop management plans for them. SCAR to have regard to this when considering proposals for SPAs.  
info: CPs to SCAR and CPs: any activities authorized during preceding year and expected to be authorized in next year  
*resolution (↓PEP)*

15:10 (2108) Institution of SRAs  
*resolution (↓PEP)*

15:11 (2109) Institution of MPAs  
*resolution (↓PEP)*

15:12 (2113) Historic monuments 54 and 55 added to list of historic monuments annexed to 07:09  
*resolution*

15:13 (2113) Description of historic monument 53 modified  
*resolution*

16:02 (2114) SSSIs 33 and 34 (Ardley Island, Lions Rump)  
*resolution*

16:03 (2114) (M)SSSIs 35 and 36 (Western Branfield Strait, East Dallmann Bay)  
*resolution*

16:04 (2115) Redesignates SSSI30 (Avian Island) to become SPA 21  
*measure*

16:05 (2115) New management plan for SSSI6: Byers pen.  
*resolution*

16:06 (2116) Management plans for SPAs 8, 9, 13-16, 18, 19  
*measure*

ATCM Recommendations by subject (10)

16:07 (2116) Expiry dates for SSSIs 4, 5, 7, 10-12, 18 extended to 31/12/01; for SSSI 22 to 31/12/03  
*resolution*

16:08 (2117) SPA 22 Cryptogram Ridge  
*measure*

- 16:09 (2117) SPA 23: Forlidas and Davis Valley Ponds  
*measure*
- 16:10 (2117) Annex V to PEP  
*measure*
- 16:11 (2120) Historic monuments 56-59 added to the list annexed to 07:09  
*resolution*
- 17:02 (2120) Annex V management plans for SPAs 1-3, 20  
*measure*
- 17:03 (2121) Historic monument 60 added to list annexed to 07:09  
*resolution*

### **annex 5 and tourism**

- 11:03 (2091) Mount Erebus declared a tomb  
*resolution*

### **ccamlr**

- 08:10 (170) CPs <sup>1)</sup> to undertake and encourage various activities to the end of protection, scientific study and rational use of Antarctic marine living resources and <sup>2)</sup> to include the item on the agenda of ATCM IX  
*<sup>1)</sup> resolution (↓CCAMLR), <sup>2)</sup> decision (↓)*

### **ATCM Recommendations by subject (11)**

- 09:02 (171) CPs to consider various measures with regard to scientific research on Antarctic marine living resources, to observe specified interim guidelines for their conservation and to convene a SATCM to elaborate a draft definitive regime  
*resolution (↓CCAMLR)*
- 10:02 (172) CPs to seek conclusion and entry into force of a CCAMLR and to cooperate in activities facilitating its operation once it is in force  
*resolution (↓CCAMLR)*
- 11:02 (173) CPs to seek the earliest possible entry into force of CCAMLR and to facilitate early operation of bodies for which CCAMLR provides  
*resolution (↓)*

### **cooperation: air safety**

14:09 (131) CPs to convene an Expert Meeting on air safety. TOR, outline agenda and some arrangements included in this Recommendation

*decision* (↓)

15:20 (132) CPs to take a large number of measures to improve air safety in the ATS  
info: CPs to CPs: information about planned air operations i.a.w. a specified format by 1.IX and no later than 1 July of each year

*resolution*

### **cooperation: data**

13:05 (137) CPs to request advice from SCAR on improvement of comparability and accessibility of scientific data on Antarctica

*resolution*(↓);

note: The other part of this Recommendation (under Annex 5) is also spent

15:16 (138) CPs <sup>1)</sup> to work towards data directory listings, a scientific data directory and an Antarctic Scientific and Environmental Data System under the aegis of SCAR, and <sup>2)</sup> to convene an Expert Meeting after completion of a draft work programme to be developed by SCAR

<sup>1)</sup> *resolution*, <sup>2)</sup> *decision* (↓)

ATCM Recommendations by subject (12)

16:12 (139) CPs to implement the Seismic Data Library System

*resolution*

### **cooperation: emergency assistance**

01:10 (136) CPs to reaffirm principle of emergency assistance and to consider consultations and Expert Meetings for adequately responding to emergency requests for help

*resolution*

### **cooperation: general measures**

15:14 (089) Declaration on the promotion of international scientific cooperation

*resolution*

15:15 (090) CPs to promote the objectives of AT III, focusing on SCAR in doing so, and helping the research programmes of Parties with little experience

*resolution*

17:04 (094) CPs to welcome, encourage and support SCAR initiatives in global change



research, to give high priority to such research, and perhaps to consider applying for funds to support a proposed new group of specialists

*resolution*

### **cooperation: logistics**

02:05 (124) CPs to hold an Expert Meeting on logistics  
*decision* (↓)

03:03 (124) Arrangements Expert Meeting 02:05 to be considered at prep. meeting ATCM IV  
*decision* (↓)

04:25 (124) Date, place, and agenda for meeting on logistic cooperation  
*decision* (↓)

### **cooperation: meteorology and telecommunications**

ATCM Recommendations by subject (13)

01:11 (097) CPs to convene a meeting of experts in Antarctic radio communications. TOR and outline for the agenda given  
*decision* (↓)

02:03 (097) The meeting of 01:11 to be held between 1 May and 31 August 1963  
*decision* (↓)

03:05 (097) CPs to approve and implement the recommendations of the June '63 Telecommunications Meeting insofar as they find they can, and to continue improving (the coordination) of Antarctic telecommunications  
*resolution*

04:26 (098) CPs to include an item on telecommunications in the agenda of ATCM V  
*decision* (↓)

05:02 (098) CPs <sup>1)</sup> to continue to cooperate with WMO and SCAR, to consider the usefulness of creating Antarctic Meteorological Centres in the Antarctic, and <sup>2)</sup> to convene a meeting of telecom experts in August or September '69. Defines TOR and composition of the meeting, the outline of its agenda, and various administrative arrangements.  
<sup>1)</sup>*resolution*, <sup>2)</sup>*decision* (↓)

06:01 (099) CPs to adopt the proposals in the Final Report of the 1969 Antarctic Treaty Meeting on Telecommunications as guidelines, and to try and implement them in their plans for expeditions  
*resolution*

06:03 (100) CPs to adopt the Annexes 1 and 2 to this Recommendation as current bases for planning, to implement them to this end as far as practicable, to invite WMO to review the Annexes from time to time and to advise the ATCM of the results  
*resolution (annexes ↓14:07)*

07:07 (103) MNAPs to take into account the information of a May '72 SCAR symposium on Antarctic telecommunications, and to be encouraged to exchange information with a view to improving the compatibility of Antarctic networks.  
*resolution*

#### ATCM Recommendations by subject (14)

09:03 (104) CPs <sup>1)</sup>to collect data on Antarctic telecommunications, to exchange these among themselves, to ask SCAR for advice and <sup>2)</sup>to arrange for another Expert Meeting.  
<sup>1)</sup>*resolution*, <sup>2)</sup>*decision* (↓)

10:03 (104) <sup>1)</sup>CPs to improve the collection and the distribution of Antarctic meteorological data. Stations to transmit and forward data a.s.a.p. <sup>2)</sup> CPs to invite WMO to revise Annexes 1 and 2 of 06:03. CPs to ask SCAR to prepare a telecommunications handbook and <sup>3)</sup>with a view to updating this handbook to ensure that SCAR is informed each June and December of changes in telecommunications practices.

info: CPs to SCAR, see subject under <sup>3)</sup>

<sup>1,3)</sup>*resolution*, <sup>2)</sup>*resolution* (↓)

note: Annexes 1-3 (↓14:07) of this Recommendation contain a description of the Antarctic telecommunications network for the exchange of meteorological data as per September 1978.

12:01 (108) CPs to try and implement fully Annex 1 to this Recommendation, to maintain and improve as much as possible collection and distribution of meteorological data having regard to Annexes 2 and 3 of this Recommendation, to try and finalize work within the framework of the WMO, and to invite WMO to look into some matters  
*resolution (Annexes ↓14:07)*

12:02 (109) <sup>1)</sup> CPs to try and use the existing Antarctic telecommunications systems effectively, and satellite communications as appropriate. <sup>2)</sup> SCAR to be asked to consider updating the telecommunications handbook, to investigate matters relating to the use of satellite communications and to examine the adequacy of the Antarctic telecommunications systems  
<sup>1)</sup> *resolution* <sup>2)</sup> *resolution* (↓)

14:07 (114) CPs to adopt Annex 1 of this Recommendation to replace Annex 1 of 12:01, to adopt Annexes 2 and 3 to this Recommendation to replace Annexes 2 and 3 of 12:01 as well as Annexes 1, 2 and 3 of 10:01, to adopt Annexes 4 and 5 to this

Recommendation to replace Annexes 1 and 2 of 06:03; to invite WMO to take various actions, to help in preparing these and to be prepared to follow them up.

*resolution*

ATCM Recommendations by subject (15)

15:18 (119) 1) CPs to try and improve meteorological and ice sea information services and to participate in IGOSS programmes asap; 2) to refer a report to WMO and, after its review there, to invite SCAR and COMNAP to recommend appropriate action to ATCM XVI

*1)resolution 2)resolution (↓)*

**cooperation: personnel and materials**

01:02 (141) CPs to promote the exchange of scientific personnel  
*resolution*

02:07 (141) CPs to expedite procedures applying to shipments of research objects and to provide proper care in handling of such shipments  
*resolution*

10:04 (141) CPs to refer problems in connection with the removal of geological specimens to SCAR for further study  
*resolution (↓)*

**cooperation: transport**

07:08 (125) CPs to pool transport facilities as much as possible and to make arrangements, including financial arrangements, accordingly  
*resolution*

08:07 (126) CPs to identify the ways in which a cooperative air transport system might be useful, to inform SCAR via SCALOG and to request SCAR to draw conclusions and inform CPs  
*resolution (↓)*

09:04 (126) CPs to request SCAR to keep looking into the matter of transport facilities' improved compatibility and to adopt what SCAR may come up with  
*resolution*

14:10 (127) CPs to invite WMO and SCAR (in coordination with the IOC) to consider ways of improving meteorological and sea ice information services and thereafter, if necessary to convene an Expert Meeting  
*resolution(↓15:18)*

## ATCM Recommendations by subject (16)

15:19 (128) CPs to increase cooperation in hydrographic survey and charting and to coordinate their activities within the framework of IHO or SCAR  
*resolution*

### **cramra**

07:06 (192) CPs <sup>1)</sup> to study mineral exploitation of Antarctic resources and <sup>2)</sup> to include the item on the agenda of ATCM VIII

<sup>1)</sup> *resolution* (↓*CRAMRA*), <sup>2)</sup> *decision* (↓)

08:14 (193) CPs <sup>1)</sup> to study Antarctic mineral resources, to ask advice and coordination from SCAR and <sup>2)</sup> to include the item on the agenda of ATCM IX

<sup>1)</sup> *resolution* (↓*CRAMRA*), <sup>2)</sup> *decision* (↓)

09:01 (194) CPs <sup>1)</sup> to reaffirm, to study, to endorse and to note various matters in connection with a future regime on Antarctic mineral resources, to urge nationals and other states to refrain from exploration and exploitation in the meanwhile and <sup>2)</sup> to include the item into the agenda of ATCM X

<sup>1)</sup> *resolution* (↓*CRAMRA*), <sup>2)</sup> *decision* (↓)

10:01 (195) CPs <sup>1)</sup> to go on preparing for a regime for Antarctic mineral resources and <sup>2)</sup> to include the item on the agenda of ATCM XI

<sup>1)</sup> *resolution* (↓*CRAMRA*), <sup>2)</sup> *decision* (↓)

11:01 (197) CPs to conclude a regime on Antarctic mineral resources as a matter of urgency and to convene an SATCM to this end. The regime to be based on various principles and to contain various provisions contained in this Recommendation

*resolution* (↓*CRAMRA*)

15:02 (239) CPs to convene a meeting in 1990 to discuss a liability regime under *CRAMRA*

*decision* (↓)

### **environmental monitoring**

## ATCM Recommendations by subject (17)

15:05 (2263) CPs <sup>1)</sup> to encourage and to undertake environmental monitoring activities as well as keeping accurate records of activities in the ATA, to ask SCAR for advice and <sup>2)</sup> to convene an expert meeting

<sup>1)</sup> *resolution* <sup>2)</sup> *decision* (↓)

17:01 (2265) CPs to ask SCAR for advice; to ask their COMNAP reps. to set up research programmes at a representative subset of facilities in Antarctica; to provide lists

of data sets with a view to the development of an Antarctic data directory, and to try and obtain expert advice nationally

*resolution*

### **exchanges of information**

01:01 (084) CPs to facilitate exchanges of information on scientific programmes  
*resolution*

01:03 (084) CPs to promote the exchange and the availability of scientific data  
*resolution*

01:06 (076) Specification of information to be exchanged on the basis of AT VII.5  
info: CPs to CPs: information on the basis of AT VII.5  
*resolution* (↓08:06)

01:07 (084) <sup>1)</sup> CPs to exchange information on logistic problems. <sup>2)</sup> Proposals for calling a meeting of experts on this subject to be discussed at or before II ATCM  
info: CPs to CPs: see subject <sup>1)</sup>  
<sup>1)</sup> *resolution* <sup>2)</sup> *decision* (↓)

01:13 (084) CPs to exchange information on application of nuclear equipment and techniques in ATS  
info: CPs to CPs: see subject  
*resolution*

### **ATCM Recommendations by subject (18)**

02:01 (086) CPs to take measures contributing to <sup>1)</sup> transmission of data obtained in '57-59/60 to International Data Gathering Centres (IDGCs) before 1 July '63 <sup>2)</sup> availability, exchange and transmission to IDGC of data in general <sup>3)</sup> free availability of published results since beginning International Geophysical Year, transmission of existing results to IDGCs before 1 June '63 and of future results a.s.a.p.  
info: CPs to CPs and to IDGCs: see subject  
*resolution* (<sup>1)</sup> ↓)

02:04 (076) CPs, please try and comply with 01:06  
info: see 01:06  
*resolution* (↓08:06)

02:06 (076) CPs to report asap and prior to 1 June on modifications in activities previously reported i.a.w. AT VII.5 and 01:06  
info: CPs to CPs: see subject  
*resolution* (↓08:06)

- 03:01 (077) Information on the basis of 01:06 para 8 to include information on airfield facilities in Antarctica  
info: CPs to CPs: see subject  
*resolution* (↓08:06)
- 03:02 (082) Exchanges on unoccupied refuges to be made before 30 November and modifications on the same subject before 30 June of the following year  
info: CPs to CPs: see subject  
*resolution* (↓08:06)
- 04:23 (077) Information in 01:06, 03:01, 03:02 to be provided as far as practicable before 31 October of each year and the rest before the end of November  
info: CPs to CPs: see subject  
*resolution* (↓08:06)
- 06:02 (083) Exchanges on the basis of AT VII.5 and 01:06 to include information on telecommunications facilities i.a.w. a format specified and before 31 October (i.a.w. 04:23)  
info: CPs to CPs: see subject  
*resolution* (↓08:06)
- ATCM Recommendations by subject (19)
- 06:12 (083) Exchange on the basis of AT VII.5 and Rec 01:06 para 8 to include information on scientific research rockets to be launched from then ATA  
info: CPs to CPs: see subject  
*resolution* (↓08:06)
- 06:13 (077) Information on the basis of 01:06 and 02:06 to include information about ships carrying out substantial oceanographic research programmes in ATS  
info: CPs to CPs: see subject  
*resolution* (↓08:06)
- 08:06 (077) <sup>1)</sup> Consolidates 01:06 02:04 02:06 03:01 03:02 04:23 06:02 06:06 06:12 06:13 by prescribing a standard format. The data concerned to be exchanged before 30 November and modifications on activities previously reported before 30 June  
<sup>2)</sup> Information on the basis of 04:19 may be added until AM become effective.  
info: CPs to CPs: see subject  
<sup>1)</sup> *resolution*, <sup>2)</sup> *resolution* (↓)
- 13:03 (080) Modifies 08:06. Annex 08:06 para 2: 30 June -> 30 November. Annex 08:06 para 3: add reports on the basis of 08:09 para 3  
info: CPs to CPs: see subject  
*resolution*
- 16:01 (086) Exchange on the basis of AT VII.5 to include information on implementing legislation AT and Recommendations  
info: CPs to CPs: see subject

## *resolution*

### **ice**

15:21 (2283) CPs <sup>1)</sup> to exchange information on the exploitation of icebergs, to ask SCAR for advice and <sup>2)</sup> to include the matter in the agenda for ATCM XVI

<sup>1)</sup> *resolution* (↓), <sup>2)</sup> *decision* (↓)

note: According to the final act of Special ATCM XI para 6 the harvesting of ice is governed by the PEP.

### **new islands**

ATCM Recommendations by subject (20)

06:11 (2285) CPs to consult over new islands in order to give them special protection and to prevent tourists from landing on them

*resolution*

### **non-consultative parties**

08:08 (149) CPs to urge states with activities in the Antarctic to become NCPs, and NCPs to approve Recommendations that have become effective

*resolution*

### **nuclear waste**

08:12 (2277) CPs to try and keep Antarctica free from nuclear waste

*resolution*

### **oil contamination**

09:06 (2273) CPs <sup>1)</sup> to study various matters with respect to oil contamination and <sup>2)</sup> to hold an expert meeting

<sup>1)</sup> *resolution* (↓10:07) <sup>2)</sup> *decision* (↓)

10:07 (2273) CPs to encourage oil contamination studies, to ask SCAR to keep under review the possibility of further research, and to consider whether their existing obligations under international agreements could be sufficient

*resolution*

## operation ats: information

01:04 (061) SCAR to be encouraged to keep up the good work  
*resolution*

01:05 (061) CPs to encourage the work of International Organizations and to promote the development of cooperative working relations with such organizations bilaterally  
*resolution*

02:08 (062) CPs to encourage cooperation etc. over Year of Quiet Sun (1964/5)  
*resolution (↓)*

### ATCM Recommendations by subject (21)

05:03 (062) SCAR to be encouraged to continue its interest in the Southern Ocean and to advise the International Oceanographic Commission coordination group as appropriate  
*resolution*

12:06 (049) Host Governments (HG) of ATCMs to <sup>1)</sup> distribute Final Reports + docs to NCPs invited (in addition to CPs); <sup>2)</sup> send Final Reports + Recommendations to SG UN and, as appropriate, to draw the attention of International Organizations to relevant parts of Final Reports and information docs; <sup>3)</sup> bring the ATS Handbook up to date i.a.w. a specified format. <sup>4)</sup> Information docs to be made publicly available if submitting delegation has marked them so and CPs to consider modalities of making publicly available all past and future docs. <sup>5)</sup> The Depository Government to identify and catalogue publicly available information on ATS. <sup>6)</sup> 'Operation ATS' on agenda XIII

info: HG: see <sup>1)</sup> and <sup>2)</sup>

*decision* (<sup>3)</sup>↓13:01 para 2, <sup>4)</sup>↓14:01, <sup>5)</sup>↓13:01 <sup>6)</sup>↓)

note: Although <sup>1)</sup> is not reflected in RoP 25 (CPs only), actual practice confirms it. RoP 25 should be adapted.

12:08 (062) CPs to consider favourably requests for funding of costs to SCAR for advising of CPs  
*resolution*

13:01 (051) <sup>1)</sup> Final Reports to be informative; <sup>2)</sup> ATS Handbook to remain up to date <sup>3,4,5)</sup> CPs to make available on request & i.a.w. national laws/regulations: (3) Final Reports, ATS Handbook, annual exchanges on the basis of AT, (4) via national committees: annual activities reports submitted to SCAR, (5) scientific information; <sup>6)</sup> CPs to institute national contact points; <sup>7)</sup> names & addresses contact points to be taken up into ATS Handbook and Final Reports

info: CPs (nationally): see 3, 4, 5

<sup>1,2,7)</sup> *decision* <sup>3,4,5,6)</sup> *resolution*



## ATCM Recommendations by subject (22)

13:02 (052) Item 'Operation ATS: reports' permanently on agenda ATCM. To be invited for presenting reports: chair SATCM or other meeting on the basis of ATCM, chair C-CCAMLR, chair SCAR, Depository Government CCAS and others to be identified by CPs

*decision*

note:

According to the Final Reports of ATCM XVI para 24 and XVII para 25 COMNAP is invited under this Recommendation on the same basis as SCAR. This is **not** however reflected in the Rules of Procedure: if these were fully complied with, COMNAP could not attend ATCMs. With respect to SCAR 13:02 2.c.iii (reflected in RoP 30.b.iii) will have to be updated when the PEP takes effect, as Recommendations 04:19 and 06:07 will then be superseded.

14:01 (067) Modifies 12:06 para 4 on public availability of documents

*decision*

## operation ats: meetings

01:14 (022) administrative arrangements (interim measure)

info: <sup>1)</sup>Host Government (HG) to distribute Final Reports + other docs to CPs. <sup>2)</sup> next HG to consult CPs on agenda next ATCM. <sup>3)</sup> CPs generally to consult as appropriate. <sup>4)</sup> CPs to send notifications of approval of Recommendations to all other CPs. <sup>5)</sup> Depository Government to inform all CPs of Recommendations taking effect.

<sup>1)</sup>*decision* (↓RoP25), <sup>2)</sup>*decision* (↓RoP35-7), <sup>3,4,5)</sup> *decision*

note:

This Recommendation is considered a *decision* in its entirety, as it is intimately bound up with the workings of the AT. Although <sup>1)</sup> applied to ATCM I only, it is clear from the text of 12:06 para 1 that it came to be taken as pertaining to all ATCMs.

01:16 (022) All docs to reach CPs at least one month prior to ATCM concerned

info: CPs, see under subject

*decision*

03:06 (035) CPs to examine concept of expert meetings and come back to it during ATCM IV

*decision* (↓)

## ATCM Recommendations by subject (23)

04:24 (035) Arrangements for Meetings of Experts

info: Host Government of Expert Meeting to circulate report to all CPs

*decision*

13:15 (033) Host Government of ATCMs to invite NCPs to these meetings

*decision*

note: Although the article before 'non-Consultative Parties' has been left out in the operative part of the Recommendation, its preambular parts suggest that all NCPs be invited. RoPs 1, 3 and 26 on the other hand, leave room for not all NCPs being invited. Yet there is no selection mechanism like the one in RoPs 38-41 for Experts.

## **pep**

- 06:04 (2002) CPs <sup>1)</sup> to ask advice from SCAR on, to encourage research into, to take interim measures against human interference; <sup>2)</sup> to include item on agenda of ATCM VII  
*<sup>1)</sup> resolution (↓PEP), <sup>2)</sup> decision (↓)*
- 07:01 (2002) CPs <sup>1)</sup> to discuss SCAR's responses to 06:04 at ATCM VIII and <sup>2)</sup> to adopt them as voluntary guidelines (with various qualifications)  
*<sup>1)</sup> decision (↓), <sup>2)</sup> resolution (↓PEP)*
- 08:11 (2003) CPs to observe annexed code of conduct to the greatest extent feasible and to invite SCAR to continue its interest in human impact studies  
*resolution (↓PEP)*
- 08:13 (2003) CPs to be very responsible in many ways over Antarctic environment  
*resolution (↓PEP)*
- 09:05 (2004) CPs to approve a declaration on the protection of the Antarctic environment  
*resolution (↓PEP)*
- 15:01 (2005) CPs to work towards a comprehensive system for the protection of the Antarctic environment and to hold an SATCM to that end in 1990  
*resolution (↓PEP)*

## **postal services**

### ATCM Recommendations by subject (24)

- 01:12 (145) CPs to cooperate on postal services in the ATS  
*resolution*
- 05:01 (145) CPs to issue stamps commemorative of tenth anniversary AT  
*resolution (↓)*
- 10:09 (146) CPs to thank the Antarctic scientific community and to consider ways of commemorating the 20th anniversary of the AT  
*resolution (↓)*
- 15:22 (146) CPs to issue a commemorative stamp on the 30th anniversary of the AT  
*resolution (↓)*

## **radio isotopes**

06:05 (2279) CPs to ask SCAR to propose principles for the control of radio isotopes in scientific investigations  
*resolution*(↓)

06:06 (2279) CPs to provide information to others on the use of radio isotopes  
info: CPs to CPs: see subject; at least six months in advance, but in any event annually  
*resolution*

## **recommendations**

02:09 (22, 285) CPs to try and approve as many Recommendations as possible a.s.a.p.  
info: CPs to signify approval to Depositary Government  
*resolution*

03:07 (23, 285) New CPs urged to accept and all NCPs urged to consider accepting Recommendations  
info: NCPs and new CPs to inform other Contracting Parties of acceptance  
*resolution*

## **scientific drilling**

ATCM Recommendations by subject (25)

14:03 (2281) Conditions under which scientific drilling may take place. Recommendation to be adopted as a guideline  
*resolution*

## **seals**

03:11 (152) CPs to <sup>1)</sup> include pelagic sealing on agenda ATCM IV and <sup>2)</sup> voluntarily to regulate their activities in the ATS  
<sup>1)</sup> *decision* (↓) <sup>2)</sup> *resolution*(↓CCAS)

04:21 (152) CPs voluntarily to take account of interim measures on pelagic sealing  
*resolution* (↓CCAS)

04:22 (153) CPs to encourage SCAR to continue studying pelagic sealing and to advise them on the contents of annexes to the Interim Guidelines  
*resolution*(↓)

05:07 (153) CPs voluntarily to take account of SCAR proposals to modify the Interim Guidelines

*resolution* (↓CCAS)

05:08 (154) CPs to study draft CCAS before ATCM VI

*resolution* (↓)

## **siting**

13:06 (2269) MNAPs to consult together over stations in each other's proximity

*resolution*

15:17 (2270) CPs <sup>1)</sup> to consult with one another over the establishment of new stations, to prepare a CEE i.a.w. 14:02, and <sup>2)</sup> to help NCPs with choice of siting and CEE

<sup>1)</sup> *resolution* (↓PEP), <sup>2)</sup> *resolution*

## **tourism**

ATCM Recommendations by subject (26)

04:27 (2288) Government-government arrangements for tourists visiting Ant. stations, conditions for permission

info: CPs to CPs: information on applications and conditions

*resolution*

06:07 (2288) Control of activities not sponsored by CPs. <sup>1)</sup> CPs to try and uphold AT and Recommendations, <sup>2)</sup> to provide information on do's and don'ts, <sup>3)</sup> to notify other CPs about expeditions organized in, proceeding from or calling at its territory. Rec to be considered guideline until effective

info: CP to CPs: information on expeditions by NCPs

<sup>1,2)</sup> *resolution* <sup>3)</sup> *measure*

07:04 (2289) Control of activities not sponsored by CPs. CPs to keep effects of such activities under review, to consider drawing up a statement of accepted practices at ATCN VIII, to consult before ATCM VIII on the possibilities of designating Areas of Special Tourist Interest, and to try and apply the provisions of the AT and Recommendations to visitors not sponsored by CPs

*resolution* (↓08:09)

08:09 (2289) Control of activities not sponsored by CPs. CPs to promote <sup>1)</sup> awareness Statement of Accepted Practices (Annex A), <sup>2)</sup> visits to stations both i.a.w. 04:27 and in ASTIs (Annex B) only; <sup>3)</sup> to require reports from tour organizers i.a.w. Annex C to CPs whose stations have been visited, CPs to forward such reports to ATCM and <sup>4)</sup> to keep annexes under review at successive ATCMs

info: CPs to ATCM: reports by tour operators

<sup>1)</sup> *resolution* (↓10:8), <sup>2)</sup> *resolution* (ASTIs: ↓), <sup>3)</sup> *measure*, <sup>4)</sup> *decision*

10:08 (2294) Control of activities not sponsored by CPs. CPs to <sup>1)</sup> modify 08:09 Annex A, <sup>2)</sup> comply with specified government-government arrangements for help/advice to non-governmental expeditions, <sup>3)</sup> encourage tour operators to use experienced guides, <sup>4)</sup> discourage commercial overflights  
*resolution* (<sup>1,3</sup>) ↓18:01)

16:13 (2298) Intersessional meeting to be held to make proposals to ATCM XVII, agenda etc.  
*decision* (↓)

#### ATCM Recommendations by subject (27)

18:01 CPs to circulate annexed Guidance for visitors, organizers, operators and to  
(XVIII 33) urge compliance.

*resolution*

note: The Annexes are written as if the PEP and Annex V had taken effect

## **ANNEX D**

# **Guideline on Pre-sessional Document Circulation and Document Handling**



## **Guideline**

### **Pre-sessional Document Circulation and Document Handling**

1. All Working Papers prepared by Consultative Parties and Observers referred to in Rule 2, and Information Papers which a Representative of a Consultative Party requests be translated, should be received by the Host Government no later than 45 days before the meeting. The Host Government should circulate these papers in translation no later than 30 days before the meeting through diplomatic channels. It is suggested that Information Papers for which translation has been requested by a Consultative Party should ordinarily be limited to 30 pages. Those Information Papers for which translation has not been requested should be submitted to the Host Government no later than 30 days before the meeting for pre-sessional circulation by the Host Government. Such papers will include those from non-Consultative Parties in accordance with Rule 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"). and Experts in accordance with Rule 44 (a) ("Experts may, in respect of the relevant agenda item, submit documents to the Secretariat for distribution to the Meeting as information documents.").
2. Working Papers, and those Information Papers for which a Representative of a Consultative Party has requested a translation, received before the Meeting but after the 45 day deadline will, where practicable, be circulated pre-sessionally in the language in which they are submitted and, if possible, in translation by the Host Government. If pre-sessional circulation and translation have not been possible, such Papers will be available in translation during the Meeting.
3. When a revised version of a Paper made after its initial submission is resubmitted to the Host Government for translation, the revised text should indicate clearly the amendments that have been incorporated.
4. When Working Papers and Information Papers are generated during the course of the ATCM, Working Papers will be translated and circulated and Information Papers will be circulated at the ATCM.
5. Consultative Parties may request the translation of any Information Paper either pre-sessionally or during the ATCM.
6. No Working Paper or Information Paper submitted to the ATCM will be used as the basis for a discussion at the ATCM unless it has been translated into the four official languages.
7. The Host Government should, within three months of the end of the Consultative Meeting hosted by it, or, where this is not practicable, as soon as reasonably possible afterwards, circulate through diplomatic channels:
  - the Final Report of that Meeting, in the official languages;



- a comprehensive list of that Meeting's officially circulated Working and Information Papers.
8. The Host Government should provide any Party to the Antarctic Treaty with copies of documents mentioned in the previous paragraph at the request of that Party.

# **Annex E**

## **Opening Addresses**



## **LIST OF THE OPENING ADDRESSES**

### **Opening addresses submitted by the following Consultative Parties:**

- Opening address of The Netherlands
- Opening address submitted by the Delegation of Argentina
- Opening address submitted by the Delegation of Australia
- Opening address submitted by the Delegation of Belgium
- Opening address submitted by the Delegation of Chile
- Opening address submitted by the Delegation of China
- Opening address submitted by the Delegation of Ecuador
- Opening address submitted by the Delegation of Finland
- Opening address submitted by the Delegation of France
- Opening address submitted by the Delegation of Germany
- Opening address submitted by the Delegation of India
- Opening address submitted by the Delegation of Italy
- Opening address submitted by the Delegation of Japan
- Opening address submitted by the Delegation of the Republic of Korea
- 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 the Russian Federation
- 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 the United Kingdom
- Opening address submitted by the Delegation of the United States of America
- Opening address submitted by the Delegation of Uruguay

### **Opening addresses submitted by the following non-Consultative Parties:**

- Opening address submitted by the Delegation of Bulgaria
- Opening address submitted by the Delegation of Canada
- Opening address submitted by the Delegation of Greece

## **OPENING ADDRESS OF THE NETHERLANDS BY MS. MARGARETHA DE BOER, MINISTER OF HOUSING, SPATIAL PLANNING AND THE ENVIRONMENT**

Your Excellencies, Mr. Burgomaster, distinguished delegates, ladies and gentlemen,

On behalf of the Netherlands Government I should like to extend a warm welcome to you all. This year marks the thirty-fifth anniversary of the Antarctic Treaty's entry into force. The Netherlands, which acceded to the Treaty in 1967 and acquired consultative status in 1990, has the pleasure of organising this twentieth Consultative Meeting. Reaching two such milestones gives us an excellent opportunity to dwell for a moment on the achievements of the Antarctic Treaty.

The first articles to the Treaty dedicate Antarctica to peace and science. The Treaty has been successful in preserving the peace: it has kept Antarctica out of the Cold War. In prohibiting nuclear explosions and measures of a military nature, the Treaty was an early example of an arms control treaty. To this day Antarctica is still the world's only weapon-free zone. It also provided the basis for successive Antarctic Treaty Consultative Meetings to display a great potential for settling problems before conflicting interests rendered such settlement impossible. A good example of this is Article 7 of the 1991 Protocol on Environmental Protection to the Antarctic Treaty, which prohibits any activity relating to mineral resources other than scientific research.

That the Treaty has served the interests of science goes without saying. Science is by far the most important human activity in Antarctica and long may it remain so. However, the Treaty's achievements, or to be more precise, the achievements of your Consultative Meetings, go much further.

It is interesting to see how rapidly concern for the Antarctic environment has become an important instrument at these meetings. The first meeting in 1961, adopted a Recommendation on this subject, despite the fact that at the time the majority of Recommendations still related to the advancement of science. Only three years later the Brussels meeting furnished a fully-fledged instrument in the form of the Agreed Measures for the Conservation of the Antarctic Fauna and Flora. This essentially constitute and environmental treaty. These measures provided for the protection of species and areas on biological grounds.

Your meetings have, however, gone further by adopting other grounds for protection or management of areas. They have also introduced the concept of environmental impact assessment in an Antarctic context. Furthermore, they have drawn up rules and guidelines for waste prevention and waste management.

This was finally all put together in the Protocol on Environmental Protection, to which I referred a moment ago. It resulted in the formulation on a treaty text of a third objective: the comprehensive protection of the Antarctic environment and dependent and associated ecosystems. In recent decades the Antarctic Treaty System has served this third purpose effectively. May it continue to do so.

For the Netherlands Government, concern for the environment was an important political factor when it expressed interest in acquiring consultative status. In fact, the same applies to the

country's observer status in respect of the Arctic Environment Protection Strategy. Scientific interest in the two polar regions goes further back. The first Dutch Antarctic survey took place in 1963. The Netherlands now has a permanent national Antarctic research programme which has, among other things, an important environmental component.

The Netherlands Government attaches great importance to the entry into force of the Protocol on Environmental Protection and its five Annexes. The protocol and its Annexes concern all human activities in Antarctica. We hope they will prove to be particularly good tools for barring structural provisions, for instance for tourists. We hope that agreement can soon be reached on the complexities of the Sixth Annex. This concerns liability and is obligatory under the Protocol. In theory, the legal enforcement of rules in Antarctica remains a problem, even allowing for the comprehensive rights of inspection pursuant to the Treaty. Viewed thus, a study of the problem from the international law angle to determine whether port state control could help towards a solution is desirable.

It is good to see at this meeting that, when it comes to the discussion of complex problems, organisational matters have not been forgotten. At the meeting in Seoul last year, you recognised that only those decisions which imposed actual obligations on the Contracting Parties needed in the future to be subjected to a burdensome approval procedure. It is worth examining which decisions taken previously still require this approval. In addition, you have made a start on improving the distribution of documents. Such improvements are especially important given the fact that a Secretariat has not yet been established.

Finally, let me point out that this meeting is taking place in the city of Utrecht. First settled in 48 AD and once the frontiers of the Roman Empire, the city's original name was Trecht, from the Latin "trajectinum", which means a ford, a place where a river can be crossed. I hope that Utrecht will also be a place where you can bridge the divides between your own different points in view. Perhaps you will be fortified in your efforts by the knowledge that the river one has to cross in this city is the Rhine, not the Rubicon.

Thank you.

## OPENING ADDRESS BY DR. HORACIO E. SOLARI, HEAD OF THE DELEGATION OF ARGENTINA

Mr. Chairman,

On behalf of the delegation of Argentina, I wish to congratulate you for your election as Chairman of the XXth Antarctic Treaty Consultative Meeting and, through you, express our appreciation to the Government of the Netherlands for having so generously offered to host this meeting in beautiful and historic Utrecht, for the warm welcome it has extended to all of us and for the organization and logistics it has put at our disposal. All of this will contribute greatly to the work we have ahead of us which encompasses important and diverse topics.

Because of the significance of protecting the Antarctic delicate ecosystems, environmental protection will undoubtedly continue to be a focal point of our concerns and discussions. In that context, the establishment at the XIXth ATCM of a specific working group on environmental protection was very much welcomed. We hope that the group will continue carrying out its important work in a dynamic and efficient manner until the entry into force of the Protocol on Environmental Protection. With regard to the Protocol, I wish to state that my delegation is extremely satisfied that a significant number of countries ratified it during the last intersessional period. We are confident that this process will continue unimpaired allowing for its forthcoming entry into force.

The Republic of Argentina has persisted in its efforts to adopt all possible measures aimed at effective compliance with the provisions of the Protocol. As a matter of fact, the papers submitted by my country to the present ATCM reflect that determination. Because of its unique geographic location as one of the gateways to the Antarctic, the Republic of Argentina has a special interest in protecting the Antarctic environment and its dependent and associated ecosystems. Consequently, Argentina, as has been its practice, has continued developing scientific research programs and international cooperation efforts with particular emphasis in the area of protection of the Antarctic environment. We believe that this is a new contribution to the operation and permanent consolidation of the Antarctic Treaty and that it will help meet its objectives and purposes.

I also wish to emphasize my country's satisfaction with the progress made by the Group of Experts on Liability entrusted with the drafting of an Annex to the Madrid Protocol on liability for environmental damage to the Antarctic. All of this work will pave the way for the entry into force of the Protocol on Environmental Protection and shows the importance that the Consultative Parties attach to this basic instrument.

I would also like to express my country's special appreciation to the Consultative Parties for consistently supporting the offer made by Buenos Aires to host the Antarctic Treaty Secretariat.

The Republic of Argentina is confident that the subject of the establishment of a Secretariat will be part of a negotiated effort carried out by all delegations.

My country also hopes that this important question will soon be successfully solved with a decision that will include the designation of Buenos Aires as permanent headquarters of the

Antarctic Treaty Secretariat. Until that time, the ATCM host country's obligations as a functioning Secretariat should be strengthened in order to adequately meet the requirements arising from increased Antarctic activities.

In this regard, I wish to particularly underline my country's full willingness to help us arrive at a final agreement on the subject.



## OPENING ADDRESS BY MR. PAUL O'SULLIVAN, HEAD OF THE DELEGATION OF AUSTRALIA

Mr. Chairman,

The Australian delegation is delighted to come to The Netherlands for the Antarctic Treaty Consultative Meeting. We look forward to working with you and our colleagues in these excellent facilities in the beautiful city of Utrecht.

We come to this meeting with the 1995/96 Antarctic summer program almost at its conclusion. This seasons program has been one of the most complex undertaken by my country in Antarctica. We completed the most extensive marine science program undertaken by Australia in the Southern Ocean, with 101 days devoted to marine research. This work is directly relevant to CCAMLR and will contribute to a better understanding of the Antarctic environment and global change.

All of our priority scientific and operational objectives were completed, despite a number of difficulties early in the season. Such challenges, which confront us and others active in Antarctica, help to bind us in our work. In Antarctica we have to share experiences and knowledge, cooperate with each other, and lend assistance when required. So it is in the Antarctic Treaty Consultative Meeting. Now, at our twentieth meeting, with a large body of achievements behind us including the Madrid Protocol, there is a need for consolidation. Yet there is still work to do, and problems that will be solved by working together. We look forward at this meeting to cooperating on further progress in the development of the Treaty system.

My delegation is delighted that since the nineteenth meeting four more Consultative Parties have ratified the Madrid Protocol. The objective we all share of bringing the Protocol into force is now on the horizon. Australia hopes that those countries which have yet to announce their ratification will be in a position to do so soon.

But there is other unfinished business. Australia is keen to see progress on the liability regime to which we committed ourselves when the Protocol was adopted in 1991. Some five years later we still do not have agreement on rules for liability. Accordingly, my delegation will be looking for ways to advance this work under the excellent guidance of Professor Wolfrum. We will be pleased to explore avenues to achieve, within a reasonable time, an annex to the Protocol providing the widest possible liability for environmental damage, based on the polluter pays principle. We recognise, however, that such a regime may need to include both financial limits and limits on the extent to which a state must stand behind its operators.

Australia notes that the Antarctic tourist industry continues to grow. While relatively few of the ship-borne tourists to Antarctica are from my country, delegations will be aware that tourist overflights have once again been conducted from Australia. Over 3000 people visited Antarctica this way during the last summer, on nine Qantas flights. We believe they did so in safety and comfort, and with negligible impact on the Antarctic environment. My delegation believes that we should continue to encourage private operators in the Antarctic who meet the environmental requirements, operate safely and make little or no demands on the national programs that are conducting essential research in Antarctica.

Mr. Chairman,

Since our last meeting in Seoul there has been a change of Government in Australia. Our new government wants to take this opportunity to reiterate its commitment to the Antarctic Treaty and its principles. Our Government has confirmed that the objectives for the Australian Antarctic Program are to:

- \* maintain the Antarctic Treaty System;
- \* understand global climate change;
- \* undertake scientific work of practical importance; and
- \* protect the Antarctic environment.

Australia remains fully committed to the Treaty and looks forward to fully participating in this and future meetings.

Australia's Antarctic summer program for this year will be completed when our research vessel Aurora Australis returns to Hobart this week. But that is not the end of it - left behind in Antarctica are our winter staff at four stations who will continue to work on essential scientific and meteorological observations. They will also be preparing for the next season's activities. Sitting here in the beautiful spring of Utrecht it is easy to forget that we have our staff in the darkness of Antarctica doing work as important as that which we will tackle here.

In conclusion, my delegation reiterates its pleasure at meeting again with our Antarctic Treaty colleagues. We trust that our work together here will be meaningful and memorable - setting a firm foundation for the further development of the Antarctic Treaty system.

## OPENING ADDRESS BY MR. PHILIPPE GAUTIER, HEAD OF THE DELEGATION OF BELGIUM

Mr. Chairman,

May I first extend my warm congratulations to you on the occasion of your election to the Chairmanship of our meeting and, through you, thank the Government of the Netherlands for the hospitality it is offering us in this beautiful city of Utrecht.

We are particularly happy to be able to meet in the Netherlands, a country which is close to Belgian hearts not only for geographical reasons but also because of the in-depth cooperation linking our two countries.

International cooperation is in fact the cornerstone of the Antarctic System and will no doubt increase in times to come. Indeed, the many obligations contained in the Madrid Protocol call for strengthened collaboration between the Parties to the Treaty.

There lies the main stake of our meeting. After the formal improvements carried out in Seoul through decision No. 1, the time is ripe to improve the functioning of the System itself in order to ensure the Protocol's successful entry into force. This represents an important task in view of our commitment, upon adopting the Protocol, to abide by its provisions where and whenever possible. The good or "not-so-good" habits we pick up today will certainly have a bearing on the work we carry out tomorrow.

The preparation and organization of our meetings feature among the items requiring our attention. In this respect, the Utrecht meeting represents a step forward: thanks to your efficiency, several documents were made available to us prior to the session. There is little doubt that efforts of this nature are worthy of being continued. Equally, we must ensure that the TWEG is able to fulfil, on a provisional basis, the missions which will eventually be entrusted to the Committee for Environmental Protection. I should also like to emphasize the significance of the Liability Annex relating to environmental damage in the Antarctic, soon to be incorporated to the Madrid Protocol, and of the need to set up a small and efficient secretariat in order to ensure adequate implementation of the Protocol.

Mr. Chairman, it gives me much pleasure to inform you today that Belgium ratified the Madrid Protocol on 25th April, 1996. On that occasion, my country indicated that it accepted Annex V of the Protocol.

With respect to Belgian scientific research in the Antarctic, I also wish to inform you that the council of Ministers recently agreed in principle to the launching of a new phase of the Belgian Antarctic Programme for a four-year period, following an initiative put forth by our Federal Minister of Scientific Policy [Cf. INFO54].

Mr. Chairman,

The Belgian delegation intends to cooperate fully within the Antarctic System in order to help strengthen it. You may rest assured that my delegation will do its very best to contribute to this endeavour.

**OPENING ADDRESS BY AMBASSADOR OSCAR PINOCHET DE LA BARRA,  
HEAD OF THE DELEGATION OF CHILE**

Mr. Chairman,

Since the XI special ATCMs, held in Viña del Mar and in Madrid in 1990 and 1991 respectively, the entire Antarctic Treaty System has turned its eyes towards a goal which will hold our attention during the next half century: protecting the Antarctic environment.

The fulcrum of our work shall be the Committee to be established by the Protocol; it is thus unfortunate, in our opinion, that the full complement of 26 ratifications has not yet been achieved.

Since we should not remain passive while we await that point, we must strengthen the Transitional Environmental Working Group (TWEG) which differs from Working Groups I and II because it can be convened at any time in the form of a plenary or subgroups whenever an environmental emergency so requires it, even during intersessional periods.

Chile has submitted several proposals to that effect.

I also wish to emphasise two positive developments since we met in Seoul. One is the fact that we are making better use of the Council of Managers of National Antarctic Programs (COMNAP), a very valuable body of the Antarctic Treaty System. I am referring specifically to the mission we entrusted to it in Seoul: i.e. that it consider the desirability and feasibility of employing the concept of Best Available Techniques for the protection of the Antarctic environment (paragraph 115 of the XIX ATCM Final Report). The other is the useful contact that has just been established between the Arctic and Antarctic Systems to exchange experiences on how to prevent and control pollution in the two polar regions.

We should recall these developments, which is why I wish to thank the Chairman for giving me the opportunity to make these brief comments.

Our system has matured and we have expanded the Agenda to include items which in 1959 would have seemed premature, such as the educational and aesthetic values of the Antarctic recently proposed by Chile.

There is a lot in the polar continent that can be of interest to younger generations and I think that now we are ready to take over this activity.

To conclude, Chile feels that it is time to adopt and harmonize simple and practical measures that will facilitate our discussions as well as the exchange and archiving of documents between and by the ATCM host countries. I am confident that no one would object to actions along these lines.

## **OPENING ADDRESS BY AMBASSADOR ZHU MANLI, HEAD OF THE DELEGATION OF CHINA**

On behalf of the Chinese Delegation, I would like to congratulate you on your election as the chairman of the Twentieth Session of the Antarctic Treaty Consultative Meeting. We are very pleased to come to the beautiful city of Utrecht at this lovely season of blossoming tulips. May I take this opportunity to thank the Government of the Netherlands for hosting this important Meeting.

The Madrid Protocol on Environmental Protection has established comprehensive principles for the protection of Antarctic environment. Almost 5 years have passed since the signing of the Protocol and the time is no coming for its entry into force. The Chinese Delegation believes that, for the full and effective implementation of the Protocol, further deliberation in the coming days of the following issues is critical:

- \* Clarification on the criteria for evaluation of Environmental Impact Assessment;
- \* Cooperation among State Parties in planning and conduct of activities in Antarctic;
- \* Relationship of the protocol with other environmental treaties.

The Chinese Government approved the Protocol in 1994. According to China's practice, the Protocol has automatically become the national law on the day when it was approved. In order to further strengthen its commitment to the protection of Antarctic environment, China is in a process of establishing related regulations. We have initiated an educational and public awareness program on Antarctic Environmental Protection across the country. All these have shown our firm commitments to the effective implementation of the Protocol.

Another important work before us is to continue our consultation on the Liability Annex to the Protocol. Great progress has been made in this regard under the very able leadership of Professor Rüdiger Wolfrum. Once again we would like to emphasise the following point: as provided for in Article 2 and 3 of the Protocol, the Antarctic is designated as a natural reserve devoted to peace and science. The delicate balance between the protection of environment and scientific activities is underlined in the provisions of the Protocol. This balance, we believe, should be reflected in the Annex on Liability as well.

As the Protocol enters into force, the administrative responsibilities within the Antarctic Treaty System will be greatly increased. The creation of a small and effective secretariat becomes all the more necessary and matter of urgency. We hope all the Parties concerned will cooperate closely with each other and reach consensus at an early date.

We obviously have a lot to do at this meeting. The Chinese Delegation believes, under your able leadership, this meeting will be of a great success.

**OPENING ADDRESS OF THE REPRESENTATIVE OF ECUADOR TO THE XX  
ATCM 1996**

Mr. President,

I wish to congratulate you for being appointed to be the president who will run this ATCM meeting and we make votes for a successful completion of this tremendous task.

Ecuador is aware of the great responsibility the country has as a consultative member of the Antarctic treaty, regarding specially the environmental aspect and scientific investigations as well. Therefore, our efforts are obviously pointing in this direction, finding a way sometimes with obstacles which in any cases are being overcome.

Ecuador has projected its VI Antarctic expedition for the Antarctic summer 1996 - 1997. During this time the construction of the scientific station Pedro Vicent Maldonado will be taken to an end, thus remaining useable on a permanent basis. With this station then we will be finally ready to develop continuous plans of study and specially of environmental interest, under the rules given by the Madrid Protocol.

Ecuador as a peaceloving country and an environmentally engaged country due to the experience with our Galapagos islands, restates its firm intention to maintain the spirit of work and to carry on in the task of preserving this white and fascinating continent and its environment for the future generations of the world.

## OPENING ADDRESS BY AMBASSADOR HEIKKI PUURUNEN, HEAD OF THE DELEGATION OF FINLAND

Mr. Chairman,

Let me first congratulate you on behalf of the Finnish delegation on your election to the Chairman of this XX Antarctic Treaty Consultative Meeting. I am confident that we will reach tangible results under your good chairmanship at our present meeting. May I also express our gratitude to the government of the Netherlands for hosting this meeting and for her kind hospitality.

Taking into consideration the large number of important issues to be discussed at our meeting I will confine myself to addressing only a few topics that are important to us.

Finland has noted with great satisfaction the progress made after our last meeting in Seoul in the number of ratifications of the Madrid Protocol. Finland is also determined to join soon those countries that have already completed their national procedures in this respect and, for its part, contribute to our common goal, the entry into force of the Protocol.

As in many other countries the ratification of the Protocol by Finland requires consent of the Parliament. A separate national act on the environmental protection of the Antarctic had also to be drafted in order to ensure effective implementation of the provisions of the Protocol. The draft is now finished and the Government Bill on the ratification as well as on the draft act, which are due to be taken up by the Parliament simultaneously, is about to be submitted to the Parliament.

The draft Annex on Environmental Liability to the Madrid Protocol has been discussed several times by the Legal Experts' Working Group. Progress has been made under the able chairmanship of Professor Rüdiger Wolfrum but central issues still need to be agreed upon. Finland views effective protection of the Antarctic environment as the primary consideration in this respect.

Finland supports international cooperation in Antarctic research and logistics. It is obvious that more results can be achieved by common efforts and equal cost-sharing. This may also cause less environmental disturbance.

As an example of our aspirations for international cooperation I would like to mention a common environmental management plan that is being prepared by Finland and Sweden whose research stations in the Antarctic are located close to each other. Such a common plan will allow us to plan jointly activities in the Nordenskiöld base area and also to better assess and control environmental impacts caused by the stations.

Finland also supports the recently launched "Environmental Monitoring of Impacts from Research and Operations in the Antarctic" as a means to assess in a comprehensive way consequences of human activities carried out by all 26 countries currently involved in Antarctic research.

In the beginning of 1996 the Finnish research vessel "Aranda" owned by the Finnish Institute of Marine Research undertook an expedition to the Weddell Sea in cooperation with Norway and Sweden. Research was focused on marine sciences. The expedition was a continuation of the Finnish-Norwegian-Swedish cooperation on Antarctic transportation.

An automatic weather station is located at the Finnish research station Aboa in the Queen Maud Land. It has been delivered there in order to secure a continuous data flow into the GTS network of the WMO.

The ozone sounding has been continued at the Argentinean Marambio research station in the framework of Finnish/Argentinean cooperation. This research has been scientifically productive in terms of several doctoral and master's theses.

I would like to conclude by noting that Finland - as the initiator of the Rovaniemi-process - has been active in promoting the Arctic Environmental Protection Strategy and is pleased with the establishment of contacts between the ATCMs and the AEPS as "interpolar" cooperation. Finland is convinced that this cooperation will continue also in the Arctic Council which will be established this summer.



## OPENING ADDRESS BY MR. JEAN FRANÇOIS DOBELLE, HEAD OF THE DELEGATION OF FRANCE

Mr. Chairman,

Allow me first of all to congratulate you on the occasion of your election as Chairman of this Consultative meeting, my delegation also wishes to extend its thanks to the Royal Government of the Netherlands for its hospitality and its effort in staging this well-organized meeting.

The French delegation has come here with the hope that the XX Consultative Meeting will reap the rewards of the resolutions adopted last year in Seoul to improve its working methods and especially the speed and efficiency of its decision-making process. However, the practical considerations are far less significant than the substantive issues we will have to address in the coming days. To quote the words used by your predecessor in his closing speech, we must seek to "paint the dragon's eye", i.e., to resolve seemingly minor issues which are in effect of the utmost importance since they have a direct bearing on the overall physiognomy of our work.

The setting up of the Antarctic Treaty's Secretariat lies at the forefront of such issues. The scope and complexity of the Antarctic System's work no longer allows the Parties to content themselves with a secretariat whose incumbent changes on a yearly basis: a stable structure is required, and not solely in order to keep a record of our work. The French delegation will spare no effort in helping define the tasks and status of a future permanent Secretariat, recognized by all Consultative Parties as being sorely needed. Turning to its location, although France is not a candidate to receive such a Secretariat, it will certainly support any consensus leading to the designation of its future headquarters and in so doing will neither favour nor exclude any one candidacy. France is hopeful that an open attitude will prevail and that the Antarctic System will not be deprived for much longer of this essential work tool.

Issues which the Antarctic System has had to deal with over the last few years include the Liability Annex to the Madrid Protocol. As we come closer to the time of its entry into force, the need to bring this vital Annex to fruition becomes more urgent. The French delegation will do its utmost to assist the Working group responsible for drafting this Annex, which is currently in its fifth version. This being said, we should avoid the pitfalls of a maximalised approach whereby any activity in the Antarctic is in itself incompatible with the conservation of this continent's wildlife and near-pristine condition, and those of a minimalist approach whereby any liability mechanism is deemed to intolerably hamper Antarctic discovery, be it for the purpose of science or tourism.

Mr. Chairman,

Convinced that the decisions taken during the previous Consultative Meeting will facilitate our current work, and fully confident in your able leadership, the French delegation wishes to assure you its full support in your efforts to make these discussions as fruitful as we all expect them to be.

## OPENING ADDRESS BY AMBASSADOR JOCHEN TREBESCH, HEAD OF THE DELEGATION OF THE FEDERAL REPUBLIC OF GERMANY

Mr. Chairman,

First of all allow me to warmly congratulate you on your election. After all the preparatory work I can well imagine how difficult it is to chair and lead to a successful conclusion a conference such as the Consultative Meeting of Antarctic Treaty Parties. We look forward to working with you and will be happy to do all we can to support you in your task. We wish you good luck and a successful conference.

I would also like to take this opportunity to thank the Government of the Netherlands on behalf of my Government for hosting the XXth Consultative Meeting. The organization of such a conference requires much effort, dedication, and skill. We very much appreciate the work they have done.

The XXth Consultative Meeting is a special event due to the round figure: above all, it gives us an opportunity to look back at what the Consultative Parties have achieved at such meetings in the past. We note with satisfaction that since its establishment the Antarctic Treaty system has created a reliable network of measures, decisions and resolutions which has become denser and more specific, particularly during the last five years.

The Protocol of Environmental Protection adopted in 1991, which is playing an important role in developing the antarctic Treaty System, was a milestone of the last few years. It represents a crucial new development in that it is not only binding upon the State Parties themselves but also upon operators under their jurisdiction. The Federal Republic of Germany, which, like other Consultative Parties, has invested a substantial sum in Antarctic research, particularly in the research into the global ecological interrelations, has from the outset supported the environmental protocol project. In the meantime we have enacted domestic legislation implementing the Protocol of Environmental Protection. This shows the importance attached to the aim of ensuring effective and comprehensive environmental protection on the sixth continent without impairing Antarctic research.

My Government has therefore noted with satisfaction that most Consultative Parties to the Antarctic Treaty have now ratified the Protocol of Environmental Protection. We are confident that those Parties whose ratification process has not yet been concluded will help ensure that the Protocol enters into force at an early date.

At this 20th anniversary of the Consultative Meetings, however, we must not content ourselves with a look back. On the contrary, this is not least an opportunity to look to the future to necessary and possible further improvements which can be made to the Antarctic Treaty System. We will have to live up to further challenges in many areas if we are to keep it vigorous and effective in the interest of all.

One way in which we can foster effective environmental protection is by elaborating a liability regime regarding environmental damage in the Antarctic. Meetings of legal experts

from the Antarctic Treaty Consultative Parties have been working on this complex issue for the last three years. This matter is also a theme of this Consultative Meeting and we hope that further progress will be made.

Another challenge is the improvement of the organizational basis of our work. This is not an end in itself but, rather, the prerequisite for ensuring that we continue to perform our duties responsibly. This includes enhancing the efficiency of the secretariat tasks to be performed by the host states of future Consultative Meetings and pursuing considerations on the establishment of a small and cost-effective Antarctic Treaty Secretariat. The efficient implementation of the Protocol of Environmental Protection is linked to this issue. Furthermore, we are confronted with the growing volume of exchange of information between Parties, which will increase to an even greater extent once the Protocol has entered into force. Considerable progress has been made in the opinion-forming and decision-making processes at the Consultative Meetings. However, much remains to be done here if we are to be equal to the increasingly complex problems.

Mr. Chairman,

Germany attaches great importance to its membership of the Antarctic Treaty and to its active participation in the Antarctic Treaty System. Therefore, we, too, hope that this XXth Consultative Meeting will succeed, and will do all we can to help bring about consensus in a constructive way.

Thank you.

## OPENING ADDRESS BY DR. A. E. MUTHUNAYAGAM, HEAD OF THE DELEGATION OF INDIA

Mr. Chairman,

At the outset, I like to express our deep appreciation to the Government of The Netherlands for hosting the XXth Antarctic Treaty Consultative Meeting and for the excellent hospitality extended to us in this beautiful city of Utrecht. India's commitment to the Antarctic Treaty as a Consultative party is effectively reflected in its active participation in successive Antarctic expeditions and associated organizations of the Antarctic treaty systems like SCAR and CCAMLR.

India has successfully completed 15 expeditions to Antarctica and one special expedition to the Weddell Sea area. Based on the experience gained in these expeditions we are now set to launch a ten year scientific programme from the beginning of 1997 which will include pioneering programmes in Atmospheric Sciences, Earth Sciences, Biological Sciences, Human Psychology and Environment. We are also going to start a new Antarctic Study Centre at Goa from next year which will have state of the art facilities for scientific research in specific areas of Earth and Atmospheric Sciences.

The year 1995 is significant to us as India for the first time has taken out an expedition to Area 58 in Antarctic Waters for a resource assessment and survey for krill and other Antarctic fish. The expedition was organised with the Indian oceanographic research vessel 'SAGAR SAMPADA' with fifteen scientists on board. As a part of an Indo-Polish Scientific and technological Cooperation Programme, we also got the Help of three Polish experts who participated in this expedition. We take this opportunity to express our sincere appreciation and gratitude to the Government of Poland and to the Sea Fisheries Institute, Gdynia, for their active help and cooperation. The resource assessment survey has yielded promising results and we like to continue the work more actively in future. The CCAMLR has duly been informed about this new endeavour from the Indian side.

India's commitment to the protection of Antarctic environment has been adequately reflected in our efforts to establish a Protocol on Protection of Antarctic Environment. India is one of the original sponsors of the Environmental protocol to the Antarctic Treaty and is one of the earlier signatories. We are very glad to inform the members that India has now decided to ratify the Protocol. The Instrument of Ratification has already been sent to our Ambassador in the United States to formally deposit it with the Government of United States who are the depository of the protocol. We hope that the process of ratification of the protocol by all the countries will be completed shortly and the Committee for Environment Protection will be constituted very soon. We are glad to note that the Transitional Environmental Working Group which met for the first time in the last ATCM has done impressive work. We like to see that the good efforts of this Group would continue in this meeting also.

India has actively participated in the deliberations of the Group on Liability Annex to the Antarctic protocol and we are glad to see that the fifth offering has been circulated or discussion during the current session of the ATCM. We hope that the deliberations will be fruitful and a

commonly accepted Liability Annex would evolve which takes into consideration the practical realities and the financial capabilities of developing countries participating in Antarctic expeditions.

In all these and other matters figuring in the agenda, I assure our complete cooperation from the Indian delegation to arrive at quick and acceptable decisions through consensus. We look forward to a very fruitful outcome of this meeting under your Chairmanship.

Thank you.

## OPENING ADDRESS BY AMBASSADOR SERGIO CATTANI, HEAD OF THE DELEGATION OF ITALY

I would like, first of all, to congratulate you on your election to the Chair of this XXth Consultative Meeting to the Antarctic Treaty. The Italian Delegation wishes also to thank the Government of the Netherlands for its hospitality and the efficient organisation of this meeting.

During the next two weeks, many important issues will be under discussion. Three of them are of special importance for Italy: the implementation of the Protocol on environmental protection; the liability annex; the establishment of the Secretariat.

As to the first question, we are pleased to note that, since our last meeting in Seoul, progress has been made in the ratification process. However, a few States have not yet ratified the Protocol, which, therefore, is not yet in force. Although the Antarctic Treaty Parties have agreed to apply provisionally the Protocol and its annexes in the course of their activities in Antarctica, this occurs only "to the extent practicable" and in accordance with the legal system of each Contracting Party. It is in the spirit of this provisional application of the Protocol that, pending the establishment of the Committee on Environmental Protection, a Transitional Environmental Working Group (TEWG) began to function at the XIX ATCM. This was an important step. However, I believe that now it is necessary and urgent to provide the TEWG with appropriate guidance so that it may perform its duties in the most efficient and useful manner and within the framework of a clear mandate from the ATCM.

The second question, concerning the liability annex, has occupied us for three and a half years. The complexity of the subject certainly justifies such an investment of time and energy. Italy believes that every effort should be made toward the timely completion of the negotiations on this annex. We favour a workable liability regime that may reasonably guarantee the effectiveness of the Madrid Protocol without unduly sacrificing the viability of Antarctic research and Antarctic science especially at a time when funding becomes increasingly difficult. A compromise to this effect must be found in light of the principles and objectives of the Protocol which designates Antarctica as "a natural reserve" while recognizing at the same time that it is devoted to "peace and science".

Finally, I would like to address the need for the establishment of a small and viable Secretariat which may ensure for the future a smooth operation of the Antarctic Treaty System. Italy has supported the establishment of such a structure since the XVIIth ATCM in Venice and continues to believe that this important matter deserves a timely solution in a manner that may be acceptable to all parties. The Antarctic System has demonstrated in the past a remarkable degree of adaptability to new situations. The creation of a Secretariat would constitute further evidence of this quality and would reinforce the institutional cooperation already taking place within the ATCM.

Mr. Chairman,

International cooperation has been, indeed, a characteristic of Antarctic activities for a very long time and I am glad to say that international cooperation is the most important feature of the Italian Antarctic Research Programme. We have just concluded our eleventh Antarctic campaign with good results in all our scientific and logistic endeavours. Our main international

activities, the cape Roberts Project and the CONCORDIA Project are progressing smoothly. The same can be said of the other cooperation programmes in Antarctica. In fact, this last campaign was one of the best we ever had.

Thank you.

**OPENING ADDRESS BY MR. WATARU IWAMOTO, HEAD OF THE DELEGATION  
OF JAPAN**

Mr. Chairman,

On behalf of the Delegation of Japan, I would like to congratulate you on your election of the XXth Antarctic Treaty Consultative Meeting. I would also like to take this opportunity to thank the Government of the Netherlands for hosting this Meeting.

We recognise the importance of the comprehensive environmental protection of the Antarctica and place high priority the early entry into force of the Protocol for the Environmental Protection to the Antarctic Treaty as well as enacting its domestic legislation. We look forward to achieving considerable progress at this Meeting in many issues relating to the implementation of the Protocol.

The establishment of a Secretariat which enables the Antarctic Treaty System to work more efficiently is also our great concern. In order to realise its early establishment, practical approach is needed, and we believe that the shortest way is the establishment by the Article IX of the Treaty.

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

Thank you, Mr. Chairman.



## OPENING ADDRESS BY MR. CHUN YONG-DUC, HEAD OF THE DELEGATION OF THE REPUBLIC OF KOREA

Mr. Chairman,

On behalf of the Government of the Republic of Korea, which hosted the XIXth ATCM last year, I wish to extend my warmest congratulations on your election as Chairman of the XXth ATCM. May I also take this opportunity to express my appreciation and gratitude, through you, to the Netherlands Government for hosting the XXth ATCM in this historic city of Utrecht.

I look forward to a significant progress to be made, as was done in the Seoul Meeting, on many important items of the agenda. Crucial among those issues, in my view are the implementation of the Protocol on Environmental Protection to the Antarctic Treaty, the setup of a liability regime, and the establishment of a permanent Secretariat to the Treaty.

Mr. Chairman, the need for the Protocol to enter into force as soon as possible seems to become increasingly pressing. At the last ATCM, the Republic of Korea stated that it would ratify the Environmental Protocol upon completing the necessary legal procedures. I am now delighted to report that the Republic of Korea became the 20th Consultative Party to ratify the Protocol on 2 January of this year. We are approaching the number which is required for the Protocol's entry into force, and, therefore, the remaining Parties yet to ratify it are urged to conclude their ratification procedures without delay.

I am also pleased to inform you of our approval of the Measures. Subsequent to having approved last year those 186 Recommendations out of 204 that had been adopted up to the XVIIIth ATCM, my government was in a position to approve on 18 April 1996 the five Measures adopted at the last Seoul ATCM, i. e. Measures 1(1995)-5(1995). Thus, we fully supported the elements contained in the said Measures for the purpose of the protection of the Antarctic environment.

Deeply aware of the importance of the Protocol, the Republic of Korea neither did wait nor is waiting for the formal coming into force of the Protocol, and has been steadily implementing a broad range of environmental measures at its Antarctic station relying on both its own resources and international cooperation. A joint inspection team, which is a good example of such cooperation, visited our station and noted the general environmental standards of the station.

Mr. Chairman, we established the Transitional Environmental Working Group (TEWG) as an interim arrangement so that it may essentially pave the way for the Committee for Environmental Protection (CEP) that is to be constituted by the Protocol when it comes into effect. Since the advent of the TWEG in the last ATCM, and throughout this year's ATCM, the TWEG has done tremendous work. I appreciate its significant contributions.

Every Consultative Party is committed to the full/fledged environmental protection system under the Protocol. However, as it stands with its present five Annexes, the Protocol is lacking a liability regime. The Republic of Korea, in this respect, acknowledges the substantial progress made in identifying the issues on adding another Annex to the Protocol on Environmental Protection. We highly commend the work accomplished so far by the Experts Group

under the able leadership of Prof. R. Wolfrum. We are eager to see that the group's objectives are achieved within a reasonable period of time, so that the Protocol may have its sixth Annex in due course.

The Republic of Korea continues to support the earliest possible establishment of a permanent Antarctic Treaty Secretariat. A Secretariat will enhance the efficient exchange of information among the Parties, and improve the awareness of the global community with regard to the measures taken in the Antarctic to preserve its unique ecosystem.

Mr. Chairman, the Republic of Korea has rather a short history in Antarctica having acceded to the Treaty only in 1986. However, the Republic of Korea attaches great importance to its membership in the Antarctic Treaty and to its active participation in the Antarctic Treaty System. The Korea Antarctic Research Program (KARP), initiated with the construction of King Sejong Station in 1988, has evolved in many different research areas such as geology, biology, oceanography, and meteorology. Through the Program, the Republic of Korea has participated actively in the Antarctic Treaty regime, including the major components thereof like CCAMLR, SCAR and COMNAP. The KARP will continue its progress toward the understanding of the antarctic environment and the best protection of our last pristine continent.

At the last ATCM in Seoul, we produced such good results as, first of all, a good start of the (TEWG), secondly, the restructuring of the ATCM Recommendations as measures under Article IX of the Antarctic Treaty, thirdly, the invention of the pre-sessional document circulation system, just to name a few. We sincerely hope that this XXth ATCM will also be successful bringing a fruitful conclusion in each and every agenda item under your able chairmanship.

Thank you, Mr. Chairman.

## OPENING ADDRESS BY MR. STUART PRIOR, HEAD OF THE DELEGATION OF NEW ZEALAND

Mr. Chairman,

Congratulations on your election to Chair this Antarctic Treaty Consultative Meeting. Through you, Mr. Chairman, may I thank the Government of the Netherlands for this opportunity to meet in Utrecht.

Mr. Chairman, nearly all Consultative Parties have ratified the Protocol on Environmental Protection to the Antarctic Treaty. There is now a very real possibility that it will enter into force in 1997. This will be an historic occasion. It will demonstrate Parties' commitment to the implementation of a remarkable environmental regime. Entry into force, however, is not the end and Parties will need to work hard to maintain the momentum of the Protocol and the ATS, as well as the further development of the Antarctic Treaty system itself.

Entry into force also means the establishment of the Committee for Environmental Protection. A key task for Parties at this meeting will be to consider and define the functions and responsibilities of the CEP in advance of its possible first meeting next year. At the same time, much remains to be done in developing the practical processes needed to give force to the Protocol and to ensure that it becomes a practical and dynamic instrument for the protection of Antarctica.

New Zealand has an explicit commitment to this process. Over the past year since we last met, New Zealand has worked steadily to implement the Protocol in our domestic Antarctic practices. This work has included the establishment of an Environmental Assessment and Review Panel which is responsible for reviewing all proposed New Zealand Antarctic activities to determine if the level of impact is acceptable. Following on from our practice in 1995, Environmental Impact Assessments have been prepared by New Zealand Antarctic tour operators. In addition to this, the New Zealand Antarctic Programme prepared an EIA as its first step in a plan to relocate its fuel tank storage area at Scott Base. During the preceding 12 months New Zealand, in association with the United States, has been working on a feasibility study to develop a joint response oil spill contingency plan for the Ross Sea. Copies of all these papers are available as Information Papers to interested delegates.

A subject of particular interest to New Zealand, as we noted last year, is the growth and development of tourism and non-governmental activity in the Antarctic Treaty area. During the 1995-96 Antarctic season, the Ross Sea hosted 806 visitors aboard four different ships which made a total of six cruises. Any substantial increase in activity, particularly the use of helicopters to access previously undisturbed areas of the continent, has the potential for detrimental impact on the natural landscapes and wildlife, and for the disruption of other legitimate activities in the region, particularly scientific research. Tourism, therefore like other activities in Antarctica, is subject to review and agreed controls and we welcomed the development of Recommendation XVIII-1 and the subsequent resolution on post-visit reports.

To assist with the planned management of tourism and other non-governmental activities in the Ross Sea, New Zealand has produced a draft management plan for tour operators and visitors alike. The plan sets out a New Zealand framework for New Zealand-based visits to the

Ross Sea region. In the plan we have established a strategy to provide information and guidance for the running of efficient tour operations in the Ross Sea which embody the spirit and principles underlying the Protocol. New Zealand has also produced a model EIA for tour operations who might operate in the Ross Sea and who would appreciate assistance in the preparation of EIA documents. We are also continuing our intersessional work on developing a standardised reporting format for visitors to Antarctica. We hope that this form will be ready for consideration by Parties at the next ATCM.

Also of particular concern to New Zealand is the completion of the Annex on Liability. This is the last outstanding component of the Protocol and with the imminent entry into force of the Protocol, the need to make substantive progress on this issue is becoming more urgent. We hope that here at Utrecht, we will be able to engage in a substantive debate and achieve significant progress.

We hope too, that Parties will be able to make constructive progress on organisational matters. It is important that the ATS maintain its momentum and credibility internationally. Our focus should be firmly fixed on developing and elaborating the far-sighted, ambitious and complex programme for the protection and management of the Antarctic continent envisaged in the Environmental Protocol.

In this context, we believe that it is important for the ATS to develop and maintain its contact with other international fora. We believe that closer links with the UN system and with the UNEP in particular would assist Parties with the development of a Protocol-based environmental management regime for Antarctica. The "Question of Antarctica" in the United Nations will come up again this year. New Zealand is working on a bilateral basis with Malaysia and other countries in the Asia/Pacific region to encourage greater involvement and awareness of the Protocol and the Antarctic Treaty. We are also actively seeking areas of scientific collaboration in Antarctica with our neighbours and friends in this region.

Mr. Chairman,

Mutual cooperation, assistance and consensus have marked the Treaty since its inception and we hope that Parties' continuing commitment to these principles will produce a conducive working environment and one that will provide for substantive debate and progress on the issues before us.

## **OPENING ADDRESS BY AMBASSADOR JAN ARVESEN, HEAD OF THE DELEGATION OF NORWAY**

Norwegian implementation legislation following up Norway's earlier ratifications of the Madrid Protocol to the Antarctic Treaty, entered into force on the 5th of May of last year. This means that Norwegian citizens, Norwegian juridical persons, Norwegian flag vessels and aircrafts, as well as foreigners domiciled in Norway are under legal obligations to observe and abide by the rules and regulations of the Madrid Protocol.

We are coming closer to the entering into force of the Madrid Protocol. As of today, 22 of the 26 Consultative Parties have ratified the Protocol. The Norwegian delegation would hope that by next year's ATCM in New Zealand, the remaining 4 Consultative Parties will also have ratified the Protocol.

In view of the fact that the entry into force of the Protocol can be envisaged in a year or so, my delegation would like to express its concern about two outstanding issues that need to be resolved in the near future. I am referring to the question of the location of the Secretariat and the finalization of the Liability Annex.

With regard to the Secretariat issues, we are still faced with an impasse. The Norwegian delegation is of the opinion that it is imperative that renewed, constructive efforts be made after the XXth ATCM, with a view to achieving at a consensus decision on the location of the Secretariat at the next ATCM in Christchurch.

Regarding the Liability Annex, we have now made substantial progress in our deliberations. The Norwegian delegation would express the hope that this new trend will continue and that the Consultative Parties would do their utmost in order to truly help the eminent Chairman of the Group of Legal Experts, Professor Rüdiger Wolfrum, to bridge the gap of different views on the various concepts and terms that are to be included in the Annex.

At the XIX ATCM in Seoul last year, we agreed on a trial basis on a so-called guideline regarding pre-sessional document circulation and document handling at the present ATCM. This guideline, and in particular the efficient way in which the provisions of the guideline have been implemented by our host country, The Netherlands, has proved to be very useful. Consequently, my delegation would strongly favour that the appropriate decision be taken here in Utrecht to make the guideline a permanent tool for the submission and handling of ATCM-documentation.

## OPENING ADDRESS BY AMBASSADOR V. AZULA DE LA GUERRA, HEAD OF THE DELEGATION OF PERU

Mr. Chairman,

On behalf of the delegation of Peru, I wish to congratulate you for your highly deserved election to lead this important discussions and, through you, express our appreciation to the Government of the Netherlands for hosting this meeting and for the hospitality extended to all of us. We hope to be able to contribute to the discussions which will lead to constructive decisions enabling us to consolidate the Antarctic Treaty System.

My delegation is aware of the significance of the Antarctic Continent as a nuclear-free zone and of the importance of approaching it as an area devoted to research and development for the benefit of science and progress.

We face a daunting challenge. This means that we must persist in our common efforts to protect the Antarctic for present and future generations. This objective requires a convergence of will in order to improve the mechanisms of the Antarctic Treaty, of the Protocol on Environmental Protection and of other related agreements.

As a country closely linked to the Antarctic which occupies an area influenced by the Antarctic ecosystem, Peru needs to be involved in agreements that have an impact on it. These agreements need to be strengthened if we are to maintain the principles that gave rise to the System.

My country, to the extent of its ability, has been developing scientific programs aimed at acquiring more in-depth knowledge about the secrets of the white continent, this contributing to the development of a genuine Antarctic science.

From the time Peru adhered to the Antarctic Treaty as a Consultative Party in 1989, it has carried out seven scientific expeditions and built the "Machu Picchu" research station at Admiralty Bay on King George Island.

Many scientists and technical experts have contributed to this effort by developing various research areas and by disseminating information about this relatively new subject among Peru's intellectual sectors.

The VIIth Peruvian scientific expedition to the Antarctic, called "Colonel FAP Federico Velez Nuñez" in memory of an eminent Peruvian meteorologist who researched the Continent, was the result of a joint effort made by my country's government leaders, by the institutions connected to the National Antarctic Affairs Commission" (the body which coordinates policies in this area), by scientists and by the Armed Forces, which attained the objectives that had been set.

Transportation for the expedition was provided by the Peruvian Air Force, which also assisted with a helicopter to fly around the island. In addition to research work, studies were carried out aimed at expanding the "Machu Picchu" station's facilities in order to convert it, in the near future, into a station that will permanently house a team of Peruvian nationals.

The Peruvian project on MST Radar (Mesospheric/stratospheric/tropospheric) is an important program designed to gain more in-depth knowledge about the Antarctic Continent. Built with native technology it has led to the discovery of a phenomenon of asymmetry between Polar Mesospheric Summer Echoes (PMSE) in the Arctic and the Antarctic that have an impact on mesospheric summer temperatures in both polar regions.

In connection with this program, we are considering the development of a parallel project to launch rockets so as to obtain access to information that will complement research carried out with the MST Radar. We have been assisted in this project by the valuable scientific contribution of Germany and the United States.

Peru has been working on another project, a School on Radar Science and Technology, that will benefit the Latin American scientific community; we have been assisted in this project by the University of Colorado and Cornell University. The project will avail itself of existing physical and human infrastructure in Peru. The proposal was submitted to the InterAmerican Institute for Global Change, which had approved its first stage: we have been working to obtain the necessary funding for its operation.

Mr. Chairman,

The entry into force of the Protocol on Environmental Protection to the Antarctic Treaty, is of vital importance if we are to protect the Antarctic ecosystem. Once it enters into force we will have an instrument that will reaffirm the scientific nature and the spirit of peace that have guided our efforts to improve the Treaty. That is the understanding of the Government of Peru and for that reason it was one of the first States to ratify the Protocol in March 1993.

In this regard, my delegation believes that it is important to give the greatest political support to the mechanism provided for by the Protocol for the protection of Antarctic resources, such as the Committee for Environmental Protection: its effective implementation will contribute to the conservation and protection of the Antarctic environment.

Furthermore, Peru believes that an arbitration tribunal must be established. It is the mechanism provided for by the Protocol for the settlement of disputes and once it becomes effective we will have an ad hoc body to settle any conflicts that might arise. For this and other reasons, we hope that at this XXth Consultative Meeting we will have the full complement of 26 ratifications required for the entry into force of the Madrid Protocol.

Another decisive factor to fully materialize the implementation of the Madrid Protocol is, undoubtedly, the improvement of its liability regime, as provided for by Article 16. With that in mind, the XVIIth ATCM, held in 1992, appointed a group of experts entrusted with the task of elaborating the appropriate standards and procedures.

The group has held several meetings but in spite of its progress, it will need to continue negotiations in order to arrive at a final document that meets the requirements of all Parties. We congratulate Professor Rüdiger Wolfrum for his able leadership and we trust that this ATCM plenary, in addition to extending the mandate of the group, will once again urge each Member

State to support a consensus and arrive at an Agreement that not only reflects our will but also provides compensations in cases where there has been a negative impact on the Antarctic environment.

To conclude, on behalf of the delegation of Peru, I wish to reiterate our pleasure at being able to meet in the historic city of Utrecht and fully enjoy the traditional hospitality of the Netherlands.



## OPENING ADDRESS OF THE HEAD OF THE DELEGATION OF THE RUSSIAN FEDERATION

Mr. Chairman,

Let me congratulate you on behalf of the delegation of the Russian Federation on your election as Chairman of the XXth Antarctic Treaty Consultative Meeting, and, through you thank the Government of the Netherlands for the opportunity to meet in the beautiful historic city of Utrecht to discuss the issues of practical activities and co-operation in faraway Antarctica.

The basic principles of the Antarctic Treaty first proclaimed 37 years ago are still in force as the cornerstone elements of international law for the southern polar region of our planet. It guarantees successful future co-operation for the benefit of our countries and the whole of mankind. Even now research conducted in Antarctica enables us to state that the Antarctic region plays a major role in understanding many aspects of natural phenomena in the southern as well as in the northern hemisphere. Cold Antarctic which became a priority area for scientific research and international co-operation through the 1959 Treaty, has turned into a focal point of warm sincere traditions of understanding, partnership, mutual assistance and depoliticisation.

At present, Russia among some other countries is forced to reduce its efforts in implementing the National Antarctic Programme due to some budgetary constraints though we hope that the process will be soon reversed. That is why the strategy of our development for the years to come is to undertake all the necessary efforts to sustain the earlier achieved level of scientific studies and their logistic support with an aim of strengthening the integration of the existing national infrastructure of Antarctic activities into the international community. The 1991 Madrid Protocol on Environmental Protection must become one of the most significant elements of the contemporary Antarctic Treaty System. This document, conceived to be a warranty of the conservation of the unique Antarctic nature for the future of mankind, demands the reevaluation of many specific practical parameters of our work in the Antarctic.

Therefore, the ratification of the Protocol in countries which have created a considerable infrastructure in Antarctica depends not only on legal issues, but also on a serious increase in budgetary funding of the National Antarctic Programmes to meet the environmental requirements of the Protocol. The latter has led to a situation when due to budgetary problems Russia has not been able to ratify the Protocol. Presently, all the necessary legal instruments have been prepared and agreed upon by all the relevant governmental bodies. The ratification proposal will be soon submitted to the Government and then directly to the State Duma, the lower chamber of the Russian Parliament. Regardless of the current absence of a formal act of ratification of the Madrid Protocol, the Russian Antarctic Expedition is taken much effort to clean up the territory of its stations and has made a significant progress in it.

The delegation of the Russian Federation would like to express its willingness to actively co-operate with other ATCM delegations, find common ground and obtain constructive results on all issues currently under consideration.

Thank you, Mr. Chairman.

## **OPENING ADDRESS BY DR. FRANCOIS HANEKOM, HEAD OF THE DELEGATION OF SOUTH AFRICA**

Mr. Chairman,

On behalf of the South African delegation I would like to extend our warmest congratulations to you on your election as Chairman of the XXth Antarctic Treaty Consultative Meeting. Through you Sir, I would like to thank the Government of the Netherlands for hosting this meeting, and for the kind hospitality extended to us by the city of Utrecht.

South Africa, as only Consultative Party on the African Continent, is thankful to continue and to strengthen its role in contributing to international management of an entire continent - Antarctica. We trust that this meeting shall again demonstrate to the world, how a large group of nations has the ability to cooperate, unified in their endeavours towards environmental protection, peaceful administration, and the pursuit of scientific knowledge.

We are committed to full compliance to the objectives of the Protocol for environmental Protection of Antarctica, and have ratified it on 3 August 1995. We firmly believe that the early entry into force of the Protocol is one of the highest priorities, and we urge those countries who have not done so, to expedite ratification. We also look forward to significant progress on the many important issues on the Agenda, for example functional use of the Transitional Environmental Working Group (TEWG) and progress within the Group of Experts on Liability and related matters. We believe that it is essential to put a Secretariat in place to ensure the effective functioning of the Protocol on the Antarctic Treaty System (ATS), and we trust that a solution in this regard will soon be found in the spirit of cooperation which has always been a characteristic feature of the Treaty System.

The establishment of the Liability Annex seems to be complex and time consuming. We commend the work accomplished thus far by the Meeting of Experts. We share the view that it is important that the Annex, or Annexes, that are finally adopted, are designed for the special conditions of Antarctica. We therefore, welcome the involvement of scientific, technical and logistic experts in the discussions and we encourage the meeting to fully consider their inputs in order to ensure that realism prevails. This will further ensure that a liability regime for Antarctica can be implemented with confidence which will be essential in the future operations of the Antarctic Treaty System.

Mr. Chairman, South Africa has, apart from the tragic death of a member of our summer personnel, experienced a very successful season. Good progress has been made with the SANAE IV base building process. We are confident that this station will be operational for overwintering purposes from January 1997 onwards. South Africa, in a very special way, is committed to its Environmental, Health and Safety Management Policy in Antarctica. The South African National Antarctic Programme (SANAP) strives to achieve, in all its activities, to have no negative impact on the Antarctic environment. Every participant in the SANAP, as far as possible, shall have safe and healthy working conditions in a clean environment, and safety considerations shall have preference over all other activities.

The South African delegation is looking forward to a fruitful meeting and intend to play an active role in an attempt to achieve the goals set out for the meeting.

## OPENING ADDRESS BY MR. JUAN MUÑOZ DE LABORDE, HEAD OF THE DELEGATION OF SPAIN

Mr. Chairman,

First of all, I wish to congratulate you on your election as Chairman of the XX Antarctic Treaty Consultative Meeting and express my appreciation to the Government of the Netherlands for hosting the meeting in this beautiful city of Utrecht.

Because of its special circumstances, the Antarctic offers unique and increasingly diverse opportunities of international cooperation: its territory brings together a number of factors that foster the development of research projects of global interest, enhanced by technical advances, by the effective possibility of instant exchange of information through electronic networks and by the automation of many activities that need to be carried out in a hostile environment such as the Antarctic continent.

The Antarctic Treaty contains in its spirit the seeds of a genuine international cooperation whose only determining and originating factors are the preservation of the Continent for peace and science.

Spain is confident that this meeting will be successful in keeping with the purposes of the Antarctic Treaty and is convinced that it will make substantial progress on all items, in particular on those of a more urgent nature.

Because of the significance of the Antarctic environment and due to time pressures, environmental protection should continue being at the heart of our discussions, especially if our objective is the early entry into force to the Protocol and its Annexes. To this end, and bearing in mind the number of years that have elapsed since the Madrid Protocol was signed in 1991, Spain wishes to reiterate the call it made at the XIX ATCM in Seoul, to the effect that the ratification process be concluded as soon as possible.

However, progress should also be made in drafting the text of the pending Annexes to the Protocol, in particular the Liability Annex, so that there are no gaps in the Protocol once it is implemented.

The Transitional Environmental Working Group (TEWG) has demonstrated its ability to set the foundations for the operation of the Committee on Environmental Protection, foreseeing the importance of its future environmental responsibilities within the framework of the Treaty.

With regard to institutional requirements, the need for a permanent Secretariat is apparent in order to collect, store and disseminate data, prepare meetings, oversee the translation and distribution of documents and carry out all the other task that normally fall to the secretariat of a convention as important as the Antarctic Treaty.

It is a well-known fact that my country supports the nomination of Argentina as the host country for the Permanent Secretariat. For obvious reasons of headquarters distribution, geo-

graphic and operational aspects, Argentina is, in our opinion, the ideal candidate. The State Parties of the Treaty should take a decision on the subject unbiased by considerations beyond the spirit of the Treaty itself.

Regarding domestic treatment of Antarctic questions, Spain is pleased to report that its Ministerial Commission on Science and Technology (CICYT), as Spain's National Antarctic Committee, has established an Advisory Group on Antarctic Questions charged with following up routine matters affecting the Antarctic continent.

In addition, the legal counsel of the Spanish Foreign Ministry, in an effort to streamline the various types of Recommendations arising from the XIX ATCM held in Seoul, is developing a study of the Resolution adopted by all the Antarctic Treaty Consultative Meeting in order to review and classify them and take the necessary steps, at a domestic level, to ratify them in those cases where it has not already done so.

Mr. Chairman, I wish the meeting success in all its endeavours.

## OPENING ADDRESS BY AMBASSADOR WANJA TORNBERG, HEAD OF THE DELEGATION OF SWEDEN

On behalf of the Delegation of Sweden may I congratulate you on your election to the chair of this Consultative Meeting and wish you good luck and a successful conference. My delegation would also like to thank the government of the Netherlands for their hospitality and for their efficient and impressive organization that we have already been able to appreciate.

The Protocol on Environmental Protection has now been ratified by most Parties and we hope that the remaining few will soon be able to do so. There are also some States that still have not given effect to the obligation of the Protocol in their domestic law. We must make sure that our concern for the Antarctic environment can be used on developing processes to put the Protocol in practice. While the TEWG is a step in the right direction we do want to see continuing progress on the practical and technical issues of the Protocol.

The Parties need some kind of interim arrangements to provide Secretariat Services until a Secretariat can be established. This is essential to e.g. give the TEWG and afterwards the CEP necessary support.

The development of a Liability Annex has taken a few steps forward under the skilful and efficient chairmanship of Professor Rüdiger Wolfrum from Germany - Sweden would like to see a strong liability regime with as few exceptions as possible. There are, however, still fundamental differences between the Parties concerning the content of the regime. It is important to keep the momentum and Sweden supports the set up of a timetable for the future work, the expert group should be moving to prepare a first draft negotiating text. A diplomatic conference should then be called as soon as possible.

The protection of the environment is an issue of great concern. The Antarctic has some of the more vital clues for the knowledge of the global environment. The interest in environmental issues should benefit the scientific articles in the Antarctic Treaty area.

Concluding we reiterate our pleasure to be here in the very friendly town of Utrecht and our commitment to cooperation to ensuring the success of this meeting.

## **OPENING ADDRESS BY DR MIKE RICHARDSON, HEAD OF THE DELEGATION OF THE UNITED KINGDOM**

Mr. Chairman,

May I, on behalf of the UK delegation, thank the Government of the Netherlands for hosting this XXth ATCM in this ancient city of Utrecht. Under your Chairmanship we are assured of constructive discussions to work towards the priority goal of ratification of the Environmental Protocol.

We extend congratulations towards the six States that have ratified the Protocol since the last ATCM. For the first time since 1991 we can begin to see that the Protocol may indeed come into force before too long. We would urge the remaining four States that have not yet ratified to do all in their power to do so at the earliest opportunity.

The ATCM is, we believe, facing a temporary difficulty. A degree of inertia has set in with clear directions forward not always apparent. Much of this can be laid at the door of the interim period in which we find ourselves ahead of ratification. We believe that the coming into being of the Committee for Environmental Protection, required by the Protocol, should re-inject vigour back into the system. There are fundamental environmental concerns that require to be addressed in Antarctica. The CEP will play a key role in advising on those issues.

To ensure that the CEP is effective on ratification we must lay adequate foundations now. The precursor of the CEP, the Transitional Environmental Working Group must, on the one hand, be given a focused limited agenda of key issues, whilst on the other hand, be allowed freer rein to adopt a more proactive approach to environmental advice. It ought not to be constrained to a reactive position of only providing advice when requested to do so by the ATCM.

We will present a paper on the timing of the ATCM. We are concerned that the ATCM should meet as early as possible in the year to provide for adequate preparatory time for the activities proposed for the following year. But it should also meet late enough to allow sufficient time for preparation of papers reporting the activities of the previous year. For that reason the UK believes that ATCMs should be held in April/May.

We note the considerable work that has been done by the Experts Group on liability. But progress has been slow on this complex but important subject. We intend to continue to play an active role in the discussions on an Annex on Liability. Our view is that any liability regime must be realistic, tailored to the specific and difficult conditions of Antarctica and, importantly, that it must not jeopardise science programmes.

The United Kingdom delegation looks forward to a profitable and productive meeting under your Chairmanship.

## OENING ADDRESS BY MR. R. TUCKER SCULLY, HEAD OF THE DELEGATION OF THE UNITED STATES

Delegation wishes to express its deep appreciation to the Government of The Netherlands for providing such excellent facilities, and for the hospitality of the City of Utrecht.

We look forward to significant progress on many important items on the agenda. We continue to believe that the entry into force of the Protocol to the Antarctic Treaty on Environmental Protection should be the highest priority of the Antarctic Treaty Consultative Parties. We note, as depositary country, that 22 of the 26 Parties have so far ratified the Protocol. In the past 12 months, the U.S. has made substantial progress towards enacting domestic implementing legislation for the Protocol, which is the final step that is required under U.S. law before the ratification process is complete. The United States hopes that all Parties will give full legal and practical effect to the Protocol and its Annexes to ensure the protection of the values of Antarctica as articulated in the Protocol.

We also believe that the establishment of a modest Secretariat is essential to assist the functioning of the Protocol, and the Antarctic Treaty System in general, and that it should begin operation by the time the Protocol enters into force. We continue to support and encourage the participation of experts from the scientific, technical and conservation communities, to help identify actions necessary to effectively implement the Protocol and other parts of the Antarctic Treaty System.

Recalling that Antarctica is a continent dedicated to science, and that environmental protection is essential to maintain the scientific values of Antarctica, we are pleased to note the impressive progress being made in many areas of research. Antarctica is again proving itself a natural laboratory providing significant new evidence of global change and of the interrelationship of glaciological, biological, meteorological, and oceanographic progresses manifesting these changes. Antarctica is also proving to be a very valuable site for astrophysical investigations. Research there continues to be a model of international scientific cooperation.

We note the important work undertaken last week by the Transitional Environmental Working Group and the Group of Legal Experts, and we are pleased to note the improved integration of CCAMLR, SCAR and COMNAP within the Antarctic Treaty System.

Progress can be made at this meeting in a variety of areas including tourism, environmental impact assessment, environmental monitoring, protected areas, and management and exchange of scientific data.

In conclusion, we reiterate our pleasure at being here in the very friendly city of Utrecht and our commitment to cooperation to ensure the success of the meeting.

## OPENING ADDRESS BY MR. MARIO A. FONTANOT, HEAD OF THE DELEGATION OF URUGUAY

Mr. Chairman,

On behalf of the Delegation of Uruguay, I wish to express our pleasure and appreciation for the warm and cordial welcome given to us by the Netherlands authorities and, in particular, by the people and the official representatives of the city of Utrecht.

I also wish to congratulate Mr. J. Bosman for having been appointed to guide us throughout these two weeks of intense work in which our attention will be focused on learning from past experiences, taking responsibility for present activities and placing our hope in the Antarctic's future.

All participants are well aware of the hard work required to coordinate the legitimate concerns of all Member States to try to arrive at a sustained and responsible consensus that will allow us to achieve clear, practical and viable objectives.

Because of its size, my country understands and appreciates the efforts made by the Government of the Netherlands which has offered us the opportunity to work efficiently, in a relaxed atmosphere, responding promptly and effectively to the participants' numerous requirements.

In that line of thought, I also wish to express my appreciation to the administrative staff, to the interpreters and the translators: were it not for their effectiveness and commitment, the Chairman's work would most likely have become an "antarctic expedition".

We can state with satisfaction that year after year we have made progress in understanding the needs of the Antarctic continent and in taking up its challenges while at the same time demonstrating to the rest of the international community the way in which the members of the Antarctic System have faced up to their responsibilities.

During this meeting we will deal with new subjects, such as:

- how to avail ourselves of the Antarctic continent as an inspiring muse that will enrich us culturally by allowing us to enjoy its aesthetic values;
- how to carry out our scientific work while maintaining intact the Antarctic's aesthetic and historic values;
- how to learn from the various educational and training programs offered by the State Parties in order to reach - to the extent possible - the ideal of responsible human behaviour towards nature.

We are fully cognizant of the fact that we must have, in due time and form, a standard to govern responsible behaviour by the various Antarctic operators, within a clear and effective legal framework aimed at preserving the continent without limiting the most important activity carried out therein, i.e., scientific research. It would be pointless to curtail the potential of scientific activities.

Mr. Chairman, we have come to the XX ATCM in that spirit and we believe that if it prevails, the progress of our meetings will be most satisfactory.



## OPENING ADDRESS BY MR. CHRISTO PIMPIREV, HEAD OF THE DELEGATION OF BULGARIA

Mr. Chairman,

May I first of all, congratulate you, on behalf of the delegation of the Republic of Bulgaria, on your election as a Chairman of the XXth Antarctic Treaty Consultative Meeting. We would also like to express our gratitude to the Government of the Netherlands, the host of the present Meeting, for the excellent conditions of work, providing for the participants.

Dear Chairman:

The Republic of Bulgaria ascended to the Antarctic Treaty in 1978, and thus became the twentieth contracting party because of its firm conviction that Antarctica shall forever be used exclusively for peaceful purposes and that international cooperation on the basis of freedom and scientific investigation in Antarctica shall continue in the interest of all mankind. Up to now Bulgaria organized four successive Antarctic campaigns and realized several scientific programmes in Antarctica in 1994 The Bulgarian Antarctic Institute presented an application for associate membership in SCAR. On March 5th, 1995 Bulgaria became an associate member of this most important scientific coordination body. We highly estimate this fact as a recognition of our country for its scientific activities and long standing scientific interests in the continent.

In the period 1993-1996 Bulgaria organized three successive Antarctic campaigns. A summer base was established and a systematic collection of data and samples in various research fieldd was initialized. These campaigns were organized by the Bulgarian Antarctic Institute with the help and logistic support of the Spanish Antarctic Programme. The base was named "St Kliment Ochridski" by an official act of the President of the Republic of Bulgaria. Ecological hazards caused by the five-year interruption of the activity in the refuge were removed during these campaigns. The scientific programme includes in the fields of the geology, meteorology, glaciology and human medicine.

In May 1995 a National Antarctic Programme, for a three-year period, was accepted and financed by the Bulgarian National Fund for Scientific Research. The Programme is multidisciplinary in approach and includes several scientific projects in the fields of biology, geology and physics, which set problems of present interest for today's Antarctic science.

Having in mind the global significance of every human activity in this large natural laboratory on the Earth and the wide scope of the Bulgarian science Programme as well, we are in full consciousness of the close collaboration with the other nations, carrying out their own programmes in the Antarctic, that is necessary for the realization of the ambitious Bulgarian scientific plans.

May I, Mr. Chairman, avail myself on this meeting so as to express, on behalf of the Bulgarian delegation and of all the Bulgarian members of the last expeditions, of our colleagues from the Spanish Antarctic Programme, the Brazilian Antarctic Programme and Argentinian Antarctic Institute, our gratitude for the great support lend to the Bulgarian scientific expeditions and programmes, as well as for the beneficial co-operation.

Evaluating realistically our scientific activities and presence in the region of the sixth continent, Bulgaria has sufficient grounds to believe and sincerely hopes that its future nomination for the acquisition of a consultative status under the Antarctic Treaty, according to its regulations, will meet the positive support of the other consultative Member States.

## OPENING ADDRESS BY THE HEAD OF THE DELEGATION OF CANADA

Mr. Chairman:

On behalf of Canada I am pleased to congratulate you on your election as Chairman of this important meeting of the Antarctic Treaty. The twentieth Consultative Meeting marks a milestone in the maturity of this Treaty which has not only met its original purpose in achieving international cooperation for the governing of an entire continent, but has provided an outstanding example to the rest of the world of the ability of large number of nations to work together towards common goals of environmental protection, peaceful management, and the pursuit of knowledge for all to share. My country also expresses its gratitude to the Government of The Netherlands for its hospitality in hosting this meeting and for the excellent organization that has enabled us all to be here.

Since before Canada became a political entity as a nation, Canadians have had a sustained interest in and familiarity with polar matters. Today, the Government of Canada has given expression to this interest through creation of the post of Ambassador for Circumpolar Affairs, with responsibilities for north polar and south polar regions, and it is in that capacity that I am pleased to represent Canada at this meeting. As an indigenous northerner, whose ancestors have lived in the north polar regions since before recorded history and developed a culture and attitudes attuned to the realities of the polar environment, I believe that we can make a useful contribution not only to the North, but also to south polar and Antarctic issues of today.

During the past year, Canada was host to the Third Ministerial Meeting of the Arctic Environmental Protection Strategy. On that occasion, in accordance with the decision made in Korea at the last meeting of Antarctic Treaty Consultative Parties, Canada was pleased to present the report for the XIX ATCM, and so set in motion systematic exchange between the inter-governmental organizations dealing with the Arctic and the Antarctic respectively. The Ministers of the eight Arctic countries, for their part, welcomed this exchange, and agreed to reciprocate, in the manner that will be dealt with later in the Agenda of this meeting.

I am pleased to be able to report to you, also, that after several years of sustained and sometimes difficult negotiations, the final steps are being taken toward creation of an Arctic Council, which will include in its membership representatives of the governments of the circumpolar Arctic countries and of major arctic indigenous organizations. Canada will initially chair the Council and provide the Secretariat. We hope to be able to report, at the next ATCM, that the Arctic Council has been established. There will be subjects on which the Council may be able to facilitate co-operation between arctic and antarctic interests. Environmental protection and sustainable management of resources are priority interests in both areas.

Another development in north polar areas during the past year, which will be of interest to those concerned with Antarctic issues and which as representative of Canada I am pleased to bring to your attention is the Second Conference of Parliamentarians of the Arctic Region, which was held in Yellowknife, Northwest Territories, Canada, last March. Elected representatives from a wide range of political parties from seven circumpolar countries discussed common problems and the need for inter-country cooperation on questions of the sustainability of economies and cultural values, environmental contaminants, problems of governance and new dimensions of international security in the arctic region. They found value in shared experiences and mutual

opportunities for elected representatives to collaborate in addressing both national and international issues in polar regions. The experience of the Antarctic Treaty was important to these discussions.

Mr. Chairman, Canada wishes you and all delegates success in our forthcoming discussions. The Antarctic Treaty System has responsibility for management of a large and important part of the planet in the interests of all humankind and natural ecosystems. It is also, although not without its difficulties, a successful development in the growth of a shared sense of caring for our environment, manifest through international policy. Canada is pleased to be part of this growth.

**OPENING ADDRESS BY MINISTER PLENIPOTENTIARY DR. EMMANUEL  
GOUNARIS, HEAD OF THE DELEGATION OF GREECE**

Mr. Chairman,

On behalf of the Greek Delegation, I would like to congratulate you on your election as Chairman of the XXth Antarctic Treaty Consultative Meeting. May I also through you Mr Chairman express my gratitude to the Government of the Netherlands for hosting this meeting in the beautiful city of Utrecht and also my thanks for its warm hospitality. On this opportunity I would like to congratulate Turkey for its accession to the Antarctic Treaty. 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. Greece has last year ratified the Protocol on Environmental Protection to the Antarctic Treaty of 1991 and works now for the establishment of its internal legislation.

Mr. Chairman,

The question of the location of the Antarctic Treaty Secretariat is always a very important matter. All of us need this Secretariat, especially the Non-Consultative Parties. My delegation deeply regrets that no official consensus has yet been reached regarding this issue, even though almost all the Parties, have already decided on Buenos Aires as city for the location of the Secretariat. The "intermediary solution" regarding this matter, is neither good nor practical and has negative effects as far as the exchange of information about Antarctica is concerned. During this meeting we have started to study drafts regarding the legal status, the privileges and immunities of the Antarctic Treaty Secretariat. This is a very positive step. At the same time Mr. Chairman, I like to express my deep satisfaction to Prof. Dr. Francioni regarding the establishment under his chairmanship of the internal regulation of the Secretariat. Matters, related to the establishment of the Liability Annex need a satisfactory solution. I am very happy to see that the Liability Working Group, chaired by Prof. Dr. Wolfrum, has made a great progress.

Mr. Chairman,

The 8th issue of our Agenda related to the exercise of Jurisdiction in Antarctica has been solved under Article VIII, paragraph I of the Antarctic Treaty. This article covers only the scientific personnel associated with the stations or expeditions and the observers in charge carrying out inspection. However, as Prof. Dr. Cafilisch, Ambassador of Switzerland has said in his opening address during the XVIII ATCM, in Antarctica are not only such activities undertaking. There are also activities undertaking by fishermen, hunters, tourists, tour operators, film makers, etc. This agenda item is therefore very important and has to be discussed in detail.

Mr. Chairman,

Greece is also particularly concerned about the ozone layer over Antarctica and support in this matter, any action and suggestion of SCAR and non-governmental organizations ECO and ASOC, necessary to ensure the earliest possible recovery of the ozone layer. As far as the use of methyl-bromide is concerned, I would like to inform this Meeting that Greece very soon will eliminate the use of this material.

Mr. Chairman,

Greece believes that the establishment of tourist facilities ashore in Antarctica is not desirable. Such facilities could have a serious negative environmental impact on the 6th Continent. For this reason we have to avoid the establishment of such facilities.

Finally Mr. Chairman I would like to inform this meeting that Greece and especially the National Center for Marine Research, in collaboration with other Greek Institutions, has already created a National Program for Antarctica for 1996-2000. The realization of this program will start very soon.

Thank you, Mr. Chairman.



## **ANNEX F**

# **Reports on the operation of the Antarctic Treaty System**





## List of reports on the operation of the Antarctic Treaty System

- CCAMLR
- CCAS
- SCAR
- Status of Recommendations
- Parties to the Antarctic Treaty
- Parties to the Protocol on Environmental Protection to the Antarctic Treaty
- COMNAP

# CONVENTION ON THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES (CCAMLR)

(Canberra, 20 May 1980)

(Convention entered generally into force on 7 April 1982)

Participant	Date of signature	Date of Deposit of Instrument of Ratification, Accession, Acceptance or Succession	Date of Entry into Force
Argentina	11 Sep 1980	28 May 1982	27 Jun 1982
Australia	11 Sep 1980	06 May 1981	07 Apr 1982
Belgium	11 Sep 1980	22 Feb 1984	23 Mar 1984
Brazil		28 Jan 1986	27 Feb 1986
Bulgaria		01 Sep 1992	30 Sep 1992
Canada	01 Jul 1988	31 Jul 1988	
Chile	11 Sep 1980	22 Jul 1981	07 Apr 1982
European Economic Community		21 Apr 1982	21 May 1982
Finland	06 Sep 1989	06 Oct 1989	
France	16 Sep 1980	16 Sep 1982	16 Oct 1982
Germany	11 Sep 1980	23 Apr 1982	23 May 1982
Greece	12 Feb 1987	14 Mar 1987	
India	17 Jun 1985	17 Jul 1985	
Italy	29 Mar 1989	28 Apr 1989	
Japan	12 Sep 1980	26 May 1981	07 Apr 1982
Korea, Rep. of		29 Mar 1985	28 Apr 1985
Netherlands		23 Feb 1990	25 Mar 1990
New Zealand	11 Sep 1980	08 Mar 1982	07 Apr 1982
Norway	11 Sep 1980	06 Dec 1983	05 Jan 1984
Peru	23 Jun 1989	23 Jul 1989	
Poland	11 Sep 1980	28 Mar 1984	27 Apr 1984
Russian Federation	11 Sep 1980	26 May 1981	07 Apr 1982
South Africa	11 Sep 1980	23 Jul 1981	07 Apr 1982
Spain	09 Apr 1985	09 May 1984	
Sweden		06 Jun 1984	06 Jul 1984
Ukraine		22 Apr 1994	22 May 1994
United Kingdom	11 Sep 1980	31 Aug 1981	07 Apr 1982
United States of America	11 Sep 1980	18 Feb 1982	07 Apr 1982
Uruguay	22 Mar 1985	21 Apr 1985	

Members of the CCAMLR Commission 13 March 1996

## STATEMENT BY THE CCAMLR OBSERVER AT THE XXth ATCM

CCAMLR is pleased to attend the XXth ATCM and welcomes the opportunity to inform Consultative Parties of recent developments in its work.

2. CCAMLR continues to be very active in the conservation and rational utilisation of Antarctic marine living resources. In the 1994/95 season one workshop, two *ad hoc* subgroups, two working groups, the Scientific Committee and the Commission all met to consider various aspects of resource conservation and management.

### MEMBERSHIP

3. Since the XIXth Antarctic Treaty Consultative Meeting there have been no changes in the CCAMLR membership. A list of CCAMLR Members and Acceding States is attached (Appendix A).

### FISHING IN THE CONVENTION AREA IN THE 1994/95 AND 1995/96 SEASONS.

4. Fisheries for Antarctic krill, several species of finfish and Antarctic crabs were open in the CCAMLR Convention Area in the 1994/95 season. A map of the CCAMLR Convention Area is attached (Appendix B).

5. For the first time since 1992, krill catches increased in 1994/95 to a total of 118,715 tonnes as a result of increased fishing, mostly in Subareas 48.2 and 48.3, by Ukraine. Other countries which fished for krill were Japan and Poland.

6. The major finfish species targeted in commercial fisheries in the 1994/95 season was the Patagonian toothfish (*Dissostichus eleginoides*). Fishing for *D. eleginoides* was conducted in Subarea 48.3 (South Georgia Island), Division 58.5.1 (Kerguelen Islands) and Division 58.5.2 (McDonald and Heard Islands). The total catch of this species was 8,889 tonnes from both longline and trawl fisheries.

7. Although the fisheries for mackerel icefish (*Champsocephalus gunnari*), grey rockcod (*Lepidonotothen squamifrons*) and crabs (*Paralomis spinosissima* and *P. formosa*) were open in some areas and seasons, no catches were reported from these particular fisheries.

8. The following fisheries are open in the 1995/96 season in the Convention Area and are subject to allocated Total Allowable Catches (TACs) and other fisheries regulations:

Species	Area	TAC (tonnes)
Antarctic krill	48 (South Atlantic)	1 500 000 450 000
	58.4.2 (South Indian Ocean)	
Patagonian toothfish	48.3 (South Georgia and Shag Rocks)	4 000 28 200 297
	48.4 (South Sandwich Islands)	
	58.4.3 (Elan and Banzare Islands)	
	58.5.2 (McDonald and Heard Islands)	
Mackerel icefish	48.3 (South Georgia and Shag Rocks)	1 000 311
	58.5.2 (McDonald and Heard Islands)	
Grey rockcod	58.4.4 (Ob and Lena banks)	1 150
Lanternfish	48.3 (South Georgia and Shag Rocks)	109 000
Antarctic crabs	48.3 (South Georgia and Shag Rocks)	1 600

9. The following TACs have been re-assessed since last season:

- Antarctic krill (*Euphausia superba*) in Division 58.4.2, for which the TAC was adjusted in line with new calculations, and is now set at 450 000 tonnes (previously 390 000 tonnes);
- Lanternfish (*Electrona carlsbergi*) in Subarea 48.3, for which the TAC was reduced this year from 200 000 to 109 000 tonnes to reflect increasing uncertainty about the state of this stock in the absence of fishing and new research surveys; and
- Patagonian toothfish (*Dissostichus eleginoides*) in Subarea 48.3, for which the TAC has been increased to 4 000 tonnes (previously 2 800 tonnes) in line with new calculations based on results of scientific surveys.

10. In addition, some small TACs were allocated to the following fisheries:

- Mackerel icefish (*Champsocephalus gunnari*) in Subarea 48.3, for which a restricted (1 000 tonnes) commercial catch taken with midwater trawls is allowed, but linked to a requirement to perform a bottom trawl survey;
- an exploratory fishery for toothfish species in Divisions 58.4.3. (Elan and Banzare Banks) with a TAC of 200 tonnes; and
- an exploratory fishery for deep-water species around Heard Island (Division 58.5.2) with a TAC of 50 tonnes for each species.

11. The 1995/96 Schedule of CCAMLR Conservation Measures contains 35 conservation measures which regulate fisheries activities of CCAMLR Members and require comprehensive, detailed data collection and reporting from fisheries.

## THE SCIENCE OF ANTARCTIC RESOURCE MANAGEMENT

12. Calculations made last year established that the best estimate of potential yield for Antarctic krill was 0.116 of its pre-exploitation biomass. This figure was obtained from modelling exercises which take into account the risk of depletion of the krill stock (the 'risk' is a 10% probability that the spawning stock biomass will drop below 20% of its median unexploited

level over a period of 20 years) and the risk that dependent species (such as penguins and seals) would experience an unacceptable decline in their krill food source.

13. This year the precautionary krill catch limit for Division 58.4.2 (South Indian Ocean) was adjusted in line with the new calculations. The estimate of pre-exploitation biomass for this division is 3.9 million tonnes.

14. A new estimate (35.4 million tonnes) has been calculated for pre-exploitation biomass for Area 48. However, further evidence suggests that there may have been changes in the pattern of krill recruitment in Area 48 in recent years. Revision of the precautionary catch limit for krill in Area 48 has been deferred, pending investigation of this possibility.

15. The Workshop on Methods for the Assessment of Patagonian toothfish resulted in greatly improved assessments of this species. The new assessment for Subarea 48.3 used results from scientific surveys and, taking uncertainty into account, calculated a long-term low-risk annual yield of 4 000 tonnes.

16. At the first meeting of the new CCAMLR Working Group on Ecosystem Monitoring and Management (WG-EMM) in Siena, Italy, a major breakthrough was achieved towards integration of the ecosystem approach into CCAMLR's management advice. As a first step in this process the Working Group constructed a framework for a strategic model which will allow information collected from the now well-established CCAMLR Ecosystem Monitoring Program to be integrated into an 'ecosystem assessment'.

## **CCAMLR SCHEME OF INTERNATIONAL SCIENTIFIC OBSERVATION**

17. The Scheme of International Scientific Observation has been in force since the 1992/93 season.

18. For the last three fishing seasons, every vessel taking part in the Patagonian toothfish fishery in Subarea 48.3 was obliged to have an international scientific observer on board. Scientific observers designated under the Scheme conducted observations aboard each of the 13 vessels fishing for *D. eleginoides* in the 1994/95 season in Subarea 48.3.

19. The quantity and quality of data deriving from this scheme was extremely high, and enabled stock assessments of this species to be developed considerably. The data also proved particularly useful in assessing the effectiveness of the measures taken to mitigate seabird by-catch in this longline fishery.

20. A scientific observer designated by the USA conducted an observation program aboard the Japanese vessel Chiyo Maru No.2 fishing for krill in Statistical Area 58. In addition, scientific observers from Ukraine were placed on board two krill trawlers as part of the Ukrainian national research program.

21. A scientific observers' logbook for recording scientific observations conducted on board of longline fishing vessels was prepared and published by CCAMLR. There are plans to pro-

duce similar logbooks for other types of fisheries. The scientific observers' manual has been revised and a new version of this manual will be published next year.

## **PREVENTION OF INCIDENTAL MORTALITY OF SEABIRDS DURING FISHING OPERATIONS**

22. Detailed analysis of data collected by CCAMLR scientific observers revealed that there was a general decrease in the overall catch rate of birds in the longline fishery in 1995, probably due to the implementation of CCAMLR requirements such as night-time setting of longlines and the use of bird-scaring streamer lines.
23. The conservation Measure designed to minimise incidental mortality has been amended so that if discharge of offal during setting or hauling is unavoidable, this must now take place from the side opposite that on which longlines are deployed. Guidelines are also given on the size and spacing of weights on the line to ensure that it sinks as fast as possible. These two additions should reduce the opportunities for birds to take bait and thus be caught on longlines.
24. An information document "CCAMLR Initiatives on the Prevention of Incidental Mortality of Seabirds in Longline Fisheries" was prepared and distributed in 1995 to many international organisations having an interest in the reduction of seabird mortality in fisheries.
25. The CCAMLR Co-ordinating Group on the incidental mortality of seabirds arising from longline fisheries continues its work intersessionally. A handbook advising fishermen about seabirds, their interaction with longline fisheries and methods of preventing seabirds mortality, is in preparation. It will be published later this year.

## **MARINE DEBRIS**

26. This year's reports from Members on the assessment and avoidance of incidental mortality and the impacts of marine debris on biota in the Convention Area have shown a continued reduction in the overall amount of marine debris at some locations of the Atlantic sector of the Southern Ocean. This suggests that compliance with CCAMLR measures designed to reduce marine debris has improved. Unfortunately, at some other locations, the trend towards reduction, observed during the past two seasons, has been reversed.
27. Monitoring of beached marine debris in the Antarctic is being conducted annually by several CCAMLR Members. During the past two years, standard methods adopted by CCAMLR have been used for this purpose.
28. For two seasons in succession, packaging bands recovered had all been cut as required by CCAMLR. In addition to the recommended practice of cutting packaging bands after their removal from packages, CCAMLR prohibits, from the 1995/96 season, the use of plastic packaging bands in general on vessels without on-board incinerators.

## **CCAMLR SYSTEM OF INSPECTION**

29. The CCAMLR System of Inspection is in its seventh season of operation. For some time CCAMLR has been aware that effective enforcement of its conservation measures is essential but that this is extremely difficult given the size of the Southern Ocean and the costs involved in patrolling it.

30. Further progress was made this year towards increasing the capacity of Inspectors to inspect vessels effectively in CCAMLR waters. Previously, inspectors have been able to board only vessels which are seen to be fishing. Now, all vessels may be inspected and inspectors will report that the vessel is presumed to have been engaged in harvesting, if:

- fishing gear is in use, has recently been in use, or is about to be used;
- fish which occur in the Convention Area are being processed or have recently been processed;
- fishing gear from the vessel is in the water; or
- fish (or their products) which occur in the Convention Area are stowed on board.

Such reports will significantly improve the ability of Flag States to prosecute in cases of infraction.

31. For the past two years, CCAMLR has also been considering the applicability of a satellite-linked Vessel Monitoring System (VMS) and a vessel notification system to the Convention Area as means of enforcing compliance with the CCAMLR fisheries management regime. However, while the need to enforce compliance was recognised, it has not yet been possible to develop a consensus on the topic. Possible means for enforcing compliance will be considered further at the next CCAMLR meeting.

## **COOPERATION WITHIN THE ANTARCTIC TREATY SYSTEM**

32. The complementary nature of the objectives of the Antarctic Treaty Consultative Parties (ATCP) and CCAMLR in protecting the marine environment was enhanced by the adoption of the Protocol on Environmental Protection to the Antarctic Treaty. The Commission noted that the Chairman of the CCAMLR Scientific Committee would participate as observer in the work of a Committee for Environmental Protection (CEP).

33. CCAMLR's attention was drawn to a discussion which took place at the XIX Consultative Meeting on Article 2 of the draft Annex on Liability to the Protocol on Environmental Protection. CCAMLR was advised by its Chairman (France) of a request from the ATCM to provide an opinion on the two alternatives for Article 2.

34. This matter was discussed and the response prepared at the Fourteenth Meeting of the Commission. The Chairman of the Commission conveyed this response in February 1996 to the organizers of the XXth ATCM. A copy of the Chairman's letter is attached (Appendix C).



35. It was further noted that, in the future, under the provisions of Annex V of the Protocol, CCAMLR would receive draft management plans from the Antarctic Treaty for Antarctic Specially Protected and Managed Areas (ASPAs and ASMAs) with requests for advice and approval by the Commission. The Commission endorsed the criteria established by the Scientific Committee for the assessment of proposals.

36. The ASMA proposal for Admiralty Bay was the first made under Annex V to the Protocol and submitted to CCAMLR for consideration. The Commission concluded that those provisions of the proposed ASMA which affect the marine environment were consistent with the objectives of CCAMLR.

37. In the 1995/96 intersessional period, CCAMLR Members have not made any further proposals for protecting CEMP sites. At present, two CEMP sites located on the South Shetland Islands (Seal Islands and Cape Shirreff) are protected in accordance with the existing CCAMLR procedure.

38. During the intersessional period the CCAMLR Data Manager participated in the SCAR-COMNAP workshop on the practical design and implementation of environmental monitoring programs as required by Annex III to the Protocol on Environmental Protection. The workshop acknowledged that CCAMLR is currently the only organisation with extensive experience of monitoring programs designed for Antarctic conditions. Considerable interest was shown in the Structure of the CCAMLR Ecosystem Monitoring Program and in several of CCAMLR's monitoring methods, especially those for bird populations and marine debris.

39. The CCAMLR Scientific Committee continues to maintain close coordination with several SCAR programs and, in particular, with such programs as:

- Antarctic Pack-Ice Seals (APIS);
- Southern Ocean Global Ocean Dynamics (SO-GLOBEC);
- Coastal Zone Ecology of the Sea-Ice Zone (CZ-EASIZ); and
- Global Changes in the Antarctic (GLOCHANT).

## **COOPERATION WITH OTHER ORGANISATIONS**

40. As well as the Scientific Committee on Antarctic Research (SCAR), Observers from ASOC, CCSBT, IOC, IUCN, IWC and SCOR attended the Fourteenth Meeting of CCAMLR.

41. During the 1994/95 intersessional period CCAMLR was represented at meetings of CCSBT, FAO, ICCAT, ICES, SPFFA and the UN.

42. CCAMLR continues to keep under constant review recent initiatives by the UN and FAO on high seas fisheries, in particular, the flagging of vessels on the high seas, 'a code of conduct' regarding fishing practices, and the UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks. { {al

43. CCAMLRL is actively promoting wider awareness of its objectives and work within relevant international organisations and forums.

## **Appendix A**

### **MEMBERS OF CCAMLR (as of November, 1995)**

Argentina  
Australia  
Belgium  
Brazil  
Chile  
European Economic Community  
France  
Germany  
India  
Italy  
Japan  
Korea, Republic of  
New Zealand  
Norway  
Poland  
Russian Federation  
South Africa  
Spain  
Sweden  
Ukraine  
United Kingdom of Great Britain and Northern Ireland  
United States of America

**STATES PARTY TO THE CONVENTION BUT NOT MEMBERS OF THE  
COMMISSION**

Bulgaria

Canada

Finland

Greece

Netherlands

Peru

Uruguay

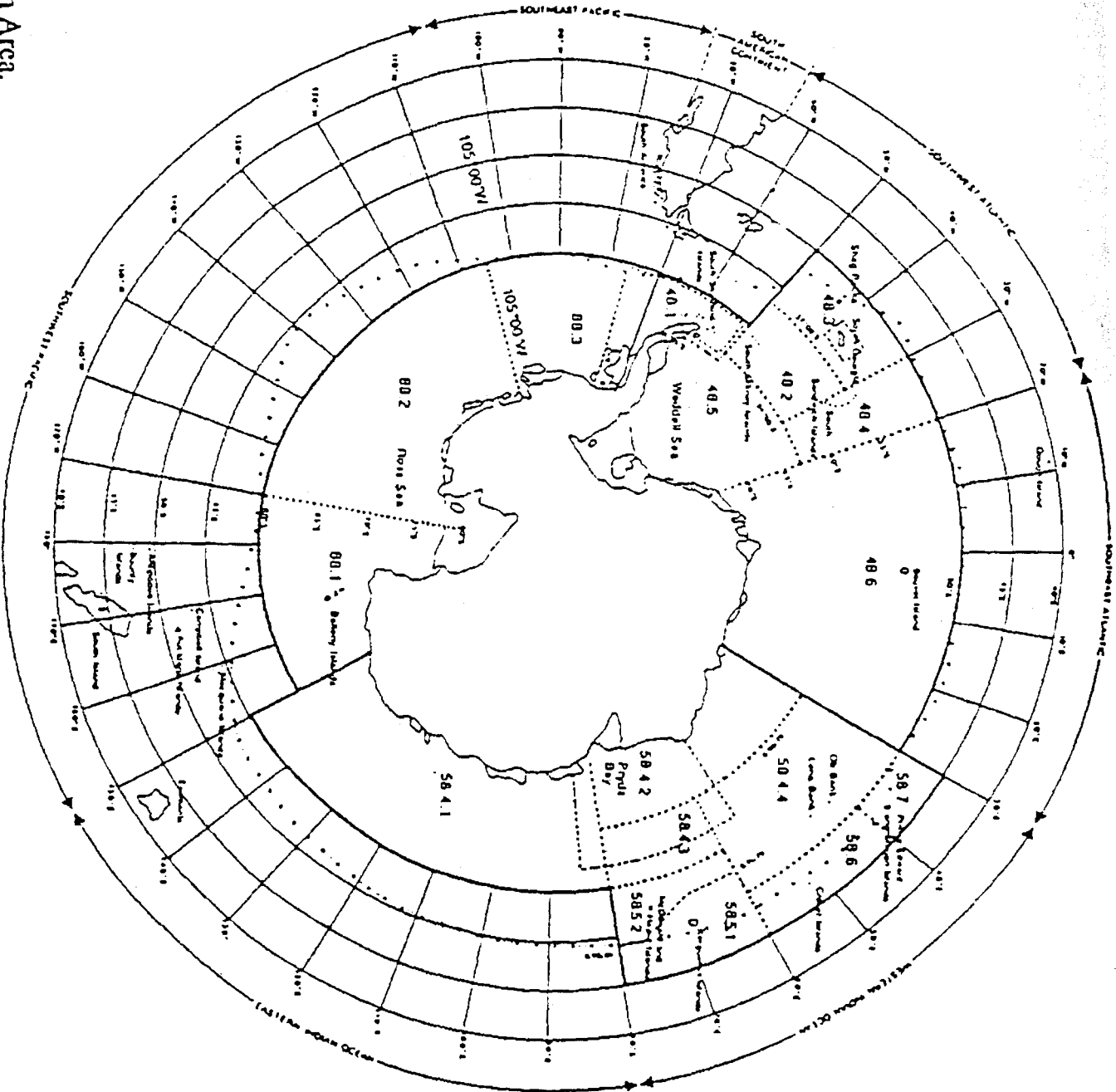
# Appendix B



CCANLIR

Boundaries of the Statistical Reporting Areas in the Southern Ocean

- Legend
- STATISTICAL AREA ZONE STATISTIQUE CLASSE STATISTIQUE PATRON AREA ESTADISTICA
  - .... STATISTICAL SUBAREA ZONE STATISTIQUE CLASSE STATISTIQUE SUBAREA ESTADISTICA
  - ..... ANTIARCTIC CONVENTION COMITÉ DE CONVENCION ANTARCTICA CONVENCION ANTARCTICA
  - CONTINENT, ISLAND CONTINENT, ILE MAITRIQUE, OCTROB CONTINENTE, ISLA
  - MEGALITHIC STUDY REGION ZONE D'ETUDE MEGALITHIC PATRON ZONA DE ESTUDIO MEGALITHIC REGION DE ESTUDIO MEGALITHIC



Map of the Convention Area.

## Appendix C

Our Ref: 8.2.1 26 February 1996

Ministerie van Buitenlandse Zaken  
Sc DRW (Drs J P H Bosman)  
Postbus 20061  
2500 EB 's-Gravenhage  
THE NETHERLANDS

Dear Drs Bosman

### **XXth Antarctic Treaty Consultative Meeting - The Netherlands, 29 April to 10 May 1996**

#### **Draft Annex on Liability to the Protocol on Environmental Protection to the Antarctic Treaty.**

At the XIXth Antarctic Treaty Consultative Meeting held in Seoul, draft texts of an Annex on Liability to the Protocol on Environmental Protection to the Antarctic Treaty were discussed.

As Chairman of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), I was asked to seek the views of the Commission of the alternative texts of Article 2.

This matter was discussed at the Fourteenth Meeting of the Commission, held in Hobart, Australia from 24 October to 3 November 1995, and I attach a response which the Commission asked me to send to the XXth ATCM. The response is in English, French, Russian and Spanish.

Yours sincerely,  
Jacques Villemain, Chairman  
Attch.

## **Appendix D**

### **DRAFT ANNEX ON LIABILITY TO THE PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY**

The question of the scope of the annex on liability to the Protocol to the Antarctic Treaty on the Environment was considered by CCAMLR at its Fourteenth Meeting.

Various opinions were expressed by Members of the Commission, who are also represented at Antarctic Treaty Consultative Meetings (ATCMs). This diversity of views may also be expressed again at the ATCM. However, a point of view was generally expressed, without a consensus having necessarily been reached, supporting the following views:

1. Matters subject to regulation by CCAMLR should not involve liability under the annex on liability.
2. Activities or events associated with harvesting could fall within the scope of the annex on liability of the Protocol.

**REPORT SUBMITTED TO THE XXTH 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 May 1995 to the present. Events prior to May 1995 were reported to the XVIIIth and XIXth Antarctic Treaty Consultative Meetings (see Annex B and Annex F of the respective Final Reports).
2. Following the decision at the informal meeting of Contracting Parties in Tasmania in October 1993 that Parties should comply fully with the reporting requirement of Article 5 (Capture and Killing of Seals) of the Convention, the UK as depositary reminded Parties of this obligation by Diplomatic Note on 4 August 1995. Returns for 1995 covering the period from 1 March to 30 June 1995 were requested. The results are reproduced as Annex A to this report. Reminders have been sent by Diplomatic Note to those Parties with outstanding responses.
3. As agreed at the above informal meeting the UK as depositary will remind Parties that returns for 1996 (for the period 1 July 1995 to 30 June 1996) should be transmitted to the UK and SCAR by 31 October 1996.
4. Since the XIXth Antarctic Treaty Consultative Meeting there have been no accessions to the Convention for the Conservation of Antarctic Seals. A list of countries which were original signatories of the Convention, and of countries which have subsequently acceded, is attached (Annex B to this Report).



## ANNEX A

### CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS (CCAS)

Synopsis of reporting in accordance with Article 5 and the Annex: Capture and killing of seals during period 1 March 1994 to 30 June 1995.

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Contracting Party	Captured	Killed
Argentina	Nil	Nil
Australia+	Nil	Nil
Belgium	Nil	Nil
Brazil	Nil	Nil
Canada	Nil	Nil
Chile	>101	Nil
France	Nil	Nil
Germany	Nil	Nil
Italy	Nil	Nil
Japan	Nil	Nil
Norway	Nil	Nil
Poland	*	*
Russia	*	*
South Africa	Nil	Nil
UK	Nil	Nil
USA+	Nil	Nil

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+ Period 1 March 1994 to 28 February 1995 only

> 101 Antarctic Fur Seals (Arctocephalus Gazella). 100 cubs (50 male, 50 female) and 1 adult female weighed and released.

\* Report not received

Polar Regions Section  
South Atlantic and Antarctic Department  
Foreign and Commonwealth Office  
London SW1A 2AH

## ANNEX B

### CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS

London, 1 June - 31 December 1972

(The Convention entered into force on 11 March 1978)

<u>State</u>	<u>Date of signature</u>	<u>Date of Deposit Ratification or Acceptance (A)</u>
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
Russia <sup>1 2 4</sup>	9 June 1972	8 February 1978
United Kingdom <sup>2</sup>	9 June 1972	10 September 1974 <sup>3</sup>
United States of America <sup>2</sup>	28 June 1972	19 January 1977
Australia	5 October 1972	1 July 1987
France <sup>2</sup>	19 December 1972	19 February 1980 (A)
Chile <sup>1</sup>	28 December 1972	7 February 1980
Japan	28 December 1972	28 August 1980 (A)

<u>State</u>	<u>Date of Deposit of Instrument of Accession</u>
Poland	15 August 1980
Germany, Federal Republic of <sup>1</sup>	30 September 1987
Canada	4 October 1990
Brazil	11 February 1991
Italy	2 April 1992

<sup>1</sup> Declaration or Reservation

<sup>2</sup> Objection

<sup>3</sup> The instrument of ratification included the Channel Islands and the Isle of Man

<sup>4</sup> Former USSR



**SCAR Report to XX ATCM**

**Utrecht, The Netherlands  
29 April – 10 May 1996**



## **Opening Address by Professor A.C. Rocha-Campos, President of the Scientific Committee on Antarctic Research**

SCAR is pleased to participate in this meeting and looks forward to making a contribution towards its success. The SCAR activities since XIX ATCM have included the meeting of the SCAR Executive Committee in Siena, Italy 16-20 September 1995, meetings of some Groups of Specialists, a symposium and some workshops. The most important of these activities, including those relevant to the work of the Antarctic Treaty System, are reported here.

The Full Membership of SCAR has not changed but Colombia withdrew from Associate Membership of SCAR in April 1995. The closer relations with the Council of Managers of National Antarctic Programmes (COMNAP) are strengthening cooperation, leading to more effective execution of scientific research in the Antarctic.

SCAR continues to be active in initiating, promoting and coordinating a diversity of scientific activities, but only a few can be briefly noted here.

The SCAR Global Change Programme has re-focused its scientific priorities to concentrate on palaeoenvironmental records and ice sheet mass balance. The SCAR Global Change Programme Office has been established in the Cooperative Research Centre for the Antarctic and Southern Ocean Environment, University of Tasmania, Hobart, and a full-time Programme Coordinator is in post. In addition, the Programme Office is providing for other SCAR programmes that have a global change component. The Programme Office will also act as the formal institutional linkage between SCAR and International Geosphere-Biosphere Programme (IGBP) / World Climate Research Programme (WCRP) through the START framework, by taking on the role of the System for Analysis, Research and Training (START) Regional Committee for the Antarctic.

The Group of Specialists on Environmental Affairs and Conservation (GOSEAC) met in Christchurch, New Zealand, during June 1995 and will meet in Puerto Iguazu, Argentina, during June 1996. The work of GOSEAC is increasingly relevant to the Protocol on Environmental Protection to the Antarctic Treaty. In conjunction with COMNAP, two workshops on environmental monitoring have been held in Oslo, Norway, during October 1995 and in College Station, Texas, USA, during March 1996. SCAR strongly believes that the object of such monitoring should be to provide efficiently, effectively and at minimum cost, a continuing index of the health of the Antarctic terrestrial and aquatic ecosystems at both local and regional levels.

On the subject of Antarctic data management, the SCAR and COMNAP Executive Committees accepted the proposal from the International Centre for Antarctic Information and Research (ICAIR) in Christchurch, New Zealand, to host and develop the Antarctic Master Directory (AMD). The project is being funded by a consortium of four countries and software development for the system is progressing well.

Other groups have been active. The SCAR Group of Specialists on Seals has developed a five-year programme on Antarctic Pack Ice Seal (APIS) and so far more than 40 research projects involving scientists from 18 nations have been identified under APIS. A circumpolar survey of Antarctic pack ice seals is planned for the 1998-99 Antarctic summer season. The Coastal and Shelf Ecology of the Antarctic Sea-Ice Zone (CS-EASIZ) programme, developed

by the SCAR Group of Specialists on Southern Ocean Ecology (GOSSOE), is now in operation and the first season of field work has been undertaken. This programme is being closely supported by the SCAR Global Change Programme Office.

These are some of the highlights of SCAR's diverse activities. In these and other ways SCAR wishes to maintain its input of advice to the Antarctic Treaty System. However, I wish to emphasize again that SCAR's activities, in both basic and applied science, are inevitably constrained by financial limitations. In particular, SCAR's applied role of providing scientific advice to the Antarctic Treaty would be even more effective if funding from the Antarctic Treaty System could be made available to support the meetings necessary to generate that advice.

## **SCAR Report to XX ATCM**

### **1. INTRODUCTION**

Since XIX ATCM in Seoul, May 1995, the SCAR Executive Committee has met and some SCAR groups have held meetings. In addition, the President of SCAR attended the annual meeting of COMNAP and the Chairman of COMNAP attended the SCAR Executive Meeting, underlining the continuing cooperation between the two organizations for the benefit of Antarctic science.

The membership of SCAR now comprises 25 Full Members and 7 Associate Members (see Appendix 1). Unfortunately, Colombia withdrew from Associate Membership of SCAR during the year. The membership of the Executive Committee (Appendix 2) and the Chief Officers of SCAR subsidiary groups (Appendix 3) are unchanged since XIX ATCM.

### **2. SCAR-COMNAP COOPERATION**

SCAR and COMNAP continue to maintain routine contact through their Secretariats. In addition, the President of SCAR attended the annual meeting of COMNAP in Santiago, Chile, during August 1995 and the Chairman of COMNAP attended the meeting of the SCAR Executive Committee in Siena, Italy, during September 1995. A joint meeting of the SCAR and COMNAP Executive Committees will be held during the XXIX SCAR meeting in Cambridge, United Kingdom, during August 1996.

### **3. ENVIRONMENTAL AFFAIRS AND CONSERVATION**

The Group of Specialists on Environmental Affairs and Conservation held its seventh meeting (GOSEAC VII) in Christchurch, New Zealand, during June 1995 and will meet again in Puerto Iguazu, Argentina, during June 1996. The meeting discussed many topics including the planning of two joint SCAR-COMNAP Workshops on environmental monitoring and a "Management Plan Handbook" for protected areas. The two workshops have since taken place, the first in Oslo, Norway, during October 1995, and the second at College Station, Texas, USA, during March 1996. A brief account of these workshops is given in a joint SCAR-COMNAP Information Paper and a full report and recommendations will be available at XXI ATCM in Christchurch, New Zealand, during 1997. Progress with the Handbook has been delayed and is not available at this meeting as was originally intended. A complete draft will be considered at GOSEAC VIII (June 1996) and this will be passed to SCAR for comment. It is intended that a final version should be tabled at XXI ATCM.

The meeting also considered checklists for environmental impact assessment in relation to four different scientific activities in the Antarctic: activities in near-shore or shallow coastal areas; drilling in rock/soil/sediments; ice drilling; and seismic traverses [on land]. These checklists will be discussed by the relevant SCAR Working Groups during XXIV SCAR in Cambridge, United Kingdom, during August 1996.



#### **4. ANTARCTIC DATA**

The joint SCAR-COMNAP request for proposals to host the Antarctic Master Directory (AMD) and develop the Antarctic Data Directory System (ADDS) led to the proposal from the International Centre for Antarctic Information and Research (ICAIR) in Christchurch, New Zealand being accepted by the SCAR and COMNAP Executive Committees. The project is being funded by a consortium of four countries working in the Ross Sea Sector: New Zealand, United States, Italy and France. A Steering Committee has been established with representatives from the four funding partners, SCAR and COMNAP and held its first meeting in December 1995. ICAIR staff are currently developing the software necessary for operating the Directory System. Several SCAR countries have now identified their National Antarctic Data Centre (NADC) and will be providing data when requested.

#### **5. THE ANTARCTIC AND GLOBAL CHANGE**

The SCAR Global Change Programme Office has been established in the Cooperative Research Centre for the Antarctic and Southern Ocean Environment at the University of Tasmania in Hobart, Australia. This office is hosted by the Research Centre and a full-time Programme Coordinator has been appointed. The Programme Coordinator will be responsible for coordinating those aspects of all SCAR programmes that are collecting data relevant to global change studies and ensuring that other related international programmes are aware of these data.

The Group of Specialists has focused its programme on two major fields: "Global Palaeoenvironmental Records from the Antarctic Ice Sheet and Marine and Land Sediments" and "Ice Sheet Mass Balance and Sea-Level". In the field of palaeoenvironmental records a strong link has been established with the Past Global Changes (PAGES) programme of IGBP that is examining global changes over the past 250,000 years. PAGES has joined with the SCAR group to formulate a coherent bi-polar attack in the future strategy for ice-coring.

Several national programmes are already collecting data that contribute to knowledge of the ice sheet mass balance. Remote-sensing is the principal method, using data from satellites and radio-echo sounding flights, but ground-truth data are also being collected. A major aim is to determine the ice-mass flux outward from the ice sheet across the grounding line into the ocean by the measurement of ice thickness around the entire Antarctic perimeter.

Other SCAR programmes, notably the Coastal and Shelf - Ecology of the Antarctic Sea-Ice Zone (CS-EASIZ) and the Biological Investigations of Terrestrial Antarctic Systems (BIOTAS) have major components that are relevant to global change research. In addition the Group of Specialists is developing two new programmes that will be proposed to SCAR: Antarctic Sea-Ice Processes, Ecosystems and Climate (ASPECT) and Antarctic Ice Margin Evolution (ANTIME). ASPECT will examine how the ecosystems and climate are influenced by sea-ice processes whereas ANTIME will investigate fluctuation of the ice margin during the past 250,000 years as recorded in marine and terrestrial sediments.

In February 1996, the SCAR Global Change Programme Coordinator met with the IGBP Core Programme Directors to reach an understanding for the integration of Antarctic global

change data into existing IGBP programmes as appropriate. This will lead to the SCAR Global Change Programme Office being recognized as the focal point for the Antarctic information and data exchange relevant to global change.

## **6. ATMOSPHERIC AND SOLAR-TERRESTRIAL SCIENCES**

Monitoring of Antarctic ozone levels continues both from ground-based stations and from satellites. Recent results show that the springtime ozone depletion over the Antarctic is not deepening significantly from year to year although the area affected is greater in some years. The situation is forecast to continue for many years yet before a significant improvement is noted but scientists are reluctant to suggest that the trough of depletion has been reached. The scientific community continues to express its concerns about ozone depletion and notes that other compounds (such as methyl bromide) in addition to CFCs are now known to destroy ozone.

Workshops were held by the First Regional Observing Study of the Troposphere (FROST) and the Antarctic Geospace Observatory Network (AGONET) programmes of the Working Groups on Physics and Chemistry of the Atmosphere and on Solar-Terrestrial and Astrophysical Research respectively. The FROST programme is yielding coordinated synoptic observations of the Antarctic troposphere for the first time and these are being used to compare weather prediction schemes over the Antarctic continent. Extra data fed into models for specific periods have indicated the reliability of forecasting. The programme has also highlighted the paucity of observing stations in the Pacific sector of Antarctica and the consequent data void for this region.

An AGONET database has been established, hosted by Italy, and geomagnetic and ionospheric data are being fed into the system from Antarctic observatories operated by more than seven countries. From a preliminary inspection of the data, specific periods are being selected for detailed study. A particular study aspect is the solar wind that has relevance to space weather and the US Space Weather Initiative. Such studies can help to improve the cost-effectiveness of space satellite technology.

## **7. BIOLOGICAL SCIENCES**

Through its Antarctic Pack-Ice Seals (APIS) Programme, SCAR has developed a five-year programme of research on Antarctic pack-ice seals. This initiative, that originated with the SCAR Group of Specialists on Seals, aims to promote studies of the status of Antarctic pack-ice seal populations and the role they have in the Antarctic ecosystem. The data collected will provide vital information for the administration of the Convention for the Conservation of Antarctic Seals (CCAS). To date, 41 research projects involving scientists from 18 nations have been identified under APIS. The programme plan includes a major proposal intends to carry out a circum-polar survey of Antarctic pack ice seals in the 1998-99 field season and significant levels of ship support are being sought for this. The last planning meeting was held in Seattle during June 1995 and the next meeting will be in Cambridge during July 1996.

The APIS Programme can be expected to produce information of value to several Antarctic research programmes and inter-governmental organizations. These include CEP, CCAS, CCAMLR, (including CEMP), Southern Ocean - Global Ocean Ecosystems Dynamics Research

(SO-GLOBEC), Scientific Committee on Oceanic Research (SCOR), Southern Ocean - Joint Global Ocean Flux Study (SO-JGOFS), SCAR-GLOCHANT, and International Whaling Commission (IWC).

The Coastal and Shelf - Ecology of the Antarctic Sea-Ice Zone (CS-EASIZ) programme of the Group of Specialists on Southern Ocean Ecology has established a Steering Committee for the programme. The programme aims to improve our understanding of the structure and dynamics of the Antarctic Coastal and Shelf Ecosystem (ACSE), the most complex and productive ecosystem in Antarctica, and likely the one most sensitive to global environmental change. Particular attention will be paid to those features that make the biology of this ice-dominated ecosystem so distinctive, and to understanding seasonal, inter-annual and long-term changes.

The unique character of CS-EASIZ is its coherent approach to the ecology of the coastal and shelf marine ecosystem, integrating work on the ice, water-column and benthic sub-systems. It will form a potentially major input to the GLOCHANT programme, interface easily with SO-JGOFS and SO-GLOBEC and relate closely to the International Geosphere-Biosphere Programme (IGBP) Land-Ocean Interactions in the Coastal Zone (LOICZ) programme.

The first field data under the programme were collected during the 1995-96 austral summer season. In particular, there was an EASIZ-dedicated cruise by MV Polarstern in the Weddell Sea during January and February 1996. A dedicated cruise has also been scheduled for the 1996-97 season, and a timetable of workshops and symposia has been proposed.

The Biological Investigations of Terrestrial Antarctic Systems (BIOTAS) organized its first international field programme in 1995-96. A group of scientists from Italy, the United Kingdom and the United States, hosted by the Italian Antarctic Programme worked at Edmonson Point in the Ross Sea on the effects of enhanced UV-B radiation on terrestrial organisms.

## **8. EARTH SCIENCES**

The VIIth International Symposium on Antarctic Earth Sciences was held in Siena, Italy, during September 1995 and attracted more than 200 participants. It was encouraging to note the number of younger scientists participating and the new techniques that are being brought to bear on the solution of Antarctic geological and geophysical problems.

The Antarctic Offshore Acoustic Stratigraphy (ANTOSTRAT) programme also held a meeting in Siena, immediately following the Earth Sciences Symposium. The purpose of this meeting was to identify potential sites in the Southern Ocean for the Ocean Drilling Programme (ODP).

The Cape Roberts Project is a multi-national project being coordinated by New Zealand scientists that aims to recover up to 1,500 m of drill core from sedimentary strata beneath the sea floor off Cape Roberts at the south-western corner of the Ross Sea. The project will address two main themes: the early glacial history of Antarctic and its role in determining global sea-level changes; and the timing of rifting of the Antarctic continent in order to help understand the formation of the Transantarctic Mountains and the Ross Sea.

Following SCAR Recommendation XXIII-12, a workshop was held in Cambridge, United Kingdom, during May 1995, to consider all aspects of the reported subglacial lake beneath the deep ice-core drilling site at Vostok Station. The Workshop concluded that the current ice-core drilling should proceed but terminate at least 25 m above the ice-water interface, and should not penetrate the water beneath the ice.

## **9. RECENT SCAR PUBLICATIONS**

The SCAR Bulletin continues to be published quarterly within Polar Record and No 121, April 1996, included the texts of XIX ATCM Measures, Decisions and Resolutions. SCAR Reports and various newsletters are published irregularly as required.

The following two volumes have now been published by IUCN:

Progress in the Conservation of the Subantarctic Islands. Edited by P.R. Dingwall. Gland and Cambridge, IUCN, xvi + 225 pages, 1995. [Proceedings of the SCAR-IUCN Workshop on Protection, Research and Management of Subantarctic Islands, Paimpont, France, 27-29 April 1992.] ISBN 2-8317-0257-7.

Opportunities for Antarctic Environmental Education and Training. Edited by P.R. Dingwall and D.W.H. Walton. Gland and Cambridge, IUCN, xvii + 174 pages, 1996. [Proceedings of the SCAR-IUCN Workshop on Environmental Education and Training, Gorizia, Italy, 26-29 April 1993.] ISBN 2-8317-0297-6.

**Appendix 1**  
**Membership of SCAR**  
**(April 1996)**

<i>Full Members</i>	<i>Date of admission to Associate Membership</i>	<i>Date of Admission to Full Membership</i>
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		3 February 1958
United Kingdom		3 February 1958
United States of America		3 February 1958
Germany		22 May 1987
Poland		22 May 1987
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

**ICSU 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

**Appendix 2**  
**SCAR Executive Committee**  
**(April 1996)**

*President*

Professor A.C. Rocha-Campos  
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E-mail: ndbirken@yf-kr.edu.pl *Executive Secretary*

Dr. P.D. Clarkson  
Scientific Committee on Antarctic Research,  
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Cambridge CB2 1ER, United Kingdom.  
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Fax: +44 1223 336549;  
E-mail: execsecscar.demon.co.uk

**Appendix 3**  
**SCAR Chief Officers**  
**(April 1996)**

**WORKING GROUPS**

**Biology**

Dr. J. Valencia (Chairman), SCAR-Chile, Avenue Luis Thayer Ojeda 814, Santiago, Chile.

Dr. P. Shaughnessy (Secretary), CSIRO Division of Wildlife and Ecology, PO Box 84, Lyneham, ACT 2602, Australia.

Dr. J. Cooper, (Secretary of the Bird Biology Sub-Committee), Percy FitzPatrick Institute of African Ornithology, University of Cape Town, Rondebosch 7700, South Africa.

Dr. R.I. Lewis-Smith (Chairman of the BIOTAS programme), British Antarctic Survey, High Cross, Madingley Road, Cambridge, CB3 0ET, United Kingdom.

**Geodesy and Geographic Information**

A. Clarke, (Secretary), Australian Government Analytical Laboratories, PO Box 65, Belconnen, ACT 2616, Australia.

**Geology**

Dr. M.R.A. Thomson (Secretary), British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET, United Kingdom.

**Glaciology**

Professor Dr. H. Miller (Chairman), Alfred-Wegener-Institut für Polar- und Meeresforschung, Columbusstraße, Postfach 120161, D-2850 Bremerhaven, Germany.

**Human Biology and Medicine**

Dr. D.J. Lugg (Chairman), Antarctic Division, Channel Highway, Kingston, Tasmania 7050, Australia.

## **Physics and Chemistry of the Atmosphere**

Dr. D.H. Bromwich (Chairman), Byrd Polar Research Center, The Ohio State University, 125 South Oval Mall, Columbus OH 43210-1308, USA.

## **Solid-Earth Geophysics**

Dr. P.F. Barker (Secretary), British Antarctic Survey, High Cross Madingley Road, Cambridge CB3 0ET, United Kingdom.

## **Solar-Terrestrial and Astrophysical Research**

Professor A.D.M. Walker (Chairman), Department of Physics, University of Natal, King George V Avenue, Durban 4000, South Africa.

## **GROUPS OF SPECIALISTS**

Evolution of Cenozoic Palaeoenvironments of the Southern High

### **Latitudes**

Dr. P.N. Webb (Convenor), Dept of Geology & Mineralogy, The Ohio State University, 125 South Oval Mall, Columbus, Ohio 43210-1398, USA.

Dr A.K. Cooper (Secretary), Pacific Branch of Marine Geology, US Geological Survey, MS 99, 345 Middlefield Road, Menlo Park, CA 94025, USA.

### **Seals**

Dr. D.B. Siniff (Convenor), Ecology Building, University of Minnesota, 1987 Upper Buford Circle, St Paul, MN 55108, USA.

Dr. J.L. Bengtson (Secretary), National Maritime Mammal Laboratory, NOAA/NMFS, 7600 Sand Point Way NE, Seattle, WA 98115, USA.

## **Southern Ocean Ecology (in co-sponsorship with SCOR)**

Dr. D.G.M. Miller (Convenor), Sea Fisheries Research Institute, Private Bag X2, Roggebaai 8012, South Africa.



## **Structure and Evolution of the Antarctic Lithosphere**

Professor I.W.D. Dalziel (Convenor), Institute for Geophysics, University of Texas at Austin, 8701 Mopac Boulevard, Austin, TX 78759, USA.

## **Antarctic Environmental Affairs and Conservation**

Dr. D.W.H Walton (Convenor), British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET, United Kingdom.

## **Global Change and the Antarctic**

Professor C.R. Bentley (Convenor), Geophysical and Polar Research

Center, University of Wisconsin, Weeks Hall, 1215 West Dayton Street, Madison, Wisconsin 53706-1692, USA.

## **SCAR-COMNAP *ad hoc* Planning Group on Antarctic Data Management**

A. Clarke (Chairman, SCAR), Australian Government Analytical

Laboratories, PO Box 65, Belconnen, ACT 2616, Australia.

M.R. Thorley (Co-Chairman, COMNAP), British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET, United Kingdom.

## Appendix 4

### Acronyms and Abbreviations

ACSE	Antarctic Coastal and Shelf Ecosystem
ADDS	Antarctic Data Directory System
AGONET	Antarctic Geospace Observatory Network
AMD	Antarctic Master Directory
ANTIME	Antarctic Ice Margin Evolution
ANTOSTRAT	Antarctic Offshore Acoustic Stratigraphy
APIS	Antarctic Pack Ice Seals programme
ASPECT	Antarctic Sea-Ice Processes, Ecosystems and Climate
ATCM	Antarctic Treaty Consultative Meeting
BIOTAS	Biological Investigations of Terrestrial Antarctic Systems
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCAS	Convention for the Conservation of Antarctic Seals
CEMP	CCAMLR Ecosystem Monitoring Programme
CEP	Committee for Environmental Protection
COMNAP	Council of Managers of National Antarctic Programmes
CS-EASIZ	Coastal and Shelf - EASIZ
EASIZ	Ecology of the Antarctic Sea-Ice Zone
FROST	First Regional Observing Study of the Troposphere
GLOCHANT	Group of Specialists on Global Change and the Antarctic
GOSEAC	Group of Specialists on Environmental Affairs and Conservation
GOSSOE	Group of Specialists on Southern Ocean Ecology
ICAIR	International Centre for Antarctic Information and Research
IGBP	International Geosphere-Biosphere Programme
IGU	International Geographical Union
IUBS	International Union of Biological Sciences
IUCN	World Conservation Union
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
IWC	International Whaling Commission
LOICZ	Land-Ocean Interactions in the Coastal Zone
NADC	National Antarctic Data Centre
ODP	Ocean Drilling Programme
PAGES	Past Global Changes
SCAR	Scientific Committee on Antarctic Research
SCOR	Scientific Committee on Oceanic Research
SO-GLOBEC	Southern Ocean – Global Oceans Ecosystems Dynamics Research
SO-JGOFS	Southern Ocean – Joint Global Ocean Flux Study
START	System for Analysis, Research and Training
URSI	Union Radio Scientifique Internationale
UV	Ultra Violet
WCRP	World Climate Research Programme

# 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 (Cantabria 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)
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) +	ALL	ALL	ALL	ALL	ALL	ALL
Finland (1989) +	ALL	ALL	ALL	ALL	ALL	ALL
France	ALL	ALL	ALL	ALL	ALL	ALL
Germany (1981) +	ALL	ALL	ALL (except 8)	ALL (except 1-11 and 13-19)	ALL (except 5* and 6)	ALL (except 9 and 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. (1989)	ALL	ALL	ALL	ALL	ALL	ALL
Netherlands (1990) +	ALL	ALL	ALL	ALL	ALL	ALL
New Zealand	ALL	ALL	ALL	ALL	ALL	ALL
Norway	ALL	ALL	ALL	ALL	ALL	ALL
Peru (1989) +	ALL	ALL	ALL	ALL	ALL	ALL
Poland (1977) +	ALL	ALL	ALL	ALL	ALL	ALL
Russia	ALL	ALL	ALL	ALL	ALL	ALL
South Africa	ALL	ALL	ALL	ALL	ALL	ALL
Spain (1988) +	ALL	ALL	ALL	ALL	ALL	ALL
Sweden (1988) +	ALL	ALL	ALL	ALL	ALL	ALL
United Kingdom	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.

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) (Oslo 1975)	14 Recommendations adopted at Eight 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)
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 and 5)	ALL	ALL	ALL	ALL
India (1983) +	ALL	ALL	ALL	ALL (except 1 and 9)	ALL	ALL
Italy (1987) +	ALL (except 5)	ALL	ALL	ALL (except 1 and 9)	ALL	ALL
Japan	ALL	ALL	ALL	ALL	ALL	ALL
Korea, Rep. (1989)	ALL	ALL	ALL	ALL	ALL	ALL
Netherlands (1990) +						
New Zealand	ALL	ALL	ALL	ALL	ALL	ALL
Norway	ALL	ALL	ALL	ALL	ALL	ALL
Peru (1989) +	ALL	ALL	ALL	ALL	ALL	ALL
Poland (1977) +	ALL	ALL	ALL	ALL	ALL	ALL
Russia	ALL	ALL	ALL	ALL	ALL	ALL
South Africa	ALL	ALL	ALL	ALL	ALL	ALL
Spain (1988) +	ALL	ALL	ALL	ALL (except 1 and 9)	ALL (except 1)	ALL
Sweden (1988) +						
United Kingdom	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.

## 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)	4 Recommendations adopted at Seventeenth Meeting (Venice 1992)	1 Recommendation adopted at Eighteenth Meeting (Kyoto 1970)
Argentina	ALL	ALL	ALL	ALL (except XVI-10)		
Australia	ALL	ALL	ALL	ALL	ALL	
Belgium	ALL	ALL				
Brazil (1983) +	ALL	ALL				
Chile	ALL	ALL	ALL			
China (1985) +	ALL	ALL	ALL	ALL		
Ecuador (1990) +						
Finland (1989) +						
France	ALL	ALL	ALL	ALL	ALL	ALL
Germany (1981) +	ALL (except 10 to 13)	ALL	ALL (except 3,4,8,10,11,22)	ALL (except 4,6,7,8,9)	ALL (except 2,3)	ALL
India (1983) +		ALL				ALL
Italy (1987) +						
Japan	ALL	ALL				ALL
Korea, Rep. (1989)	ALL	ALL	ALL (except 1-11,16,18,19)	ALL (except 120)	ALL (except 1)	
Netherlands (1990) +						
New Zealand	ALL	ALL	ALL	ALL	ALL	
Norway	ALL	ALL	ALL	ALL	ALL	
Peru (1989) +						
Poland (1977) +	ALL	ALL	ALL			
Russia	ALL	ALL				
South Africa	ALL	ALL	ALL	ALL	ALL	ALL
Spain (1988) +						
Sweden (1988) +						
United Kingdom	ALL	ALL (except 2)	ALL	ALL	ALL	ALL
Uruguay (1985) +	ALL	ALL	ALL (except 3,4,8,10,11)	ALL (except 4,6,8,9)	ALL	ALL
U.S.A.	ALL	ALL	ALL (except 1-5,8-11,14)	ALL (except 4,8,9,10)	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.

# 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

5 Measures adopted at Nineteenth Meeting (Seoul Twentieth Meeting 1995)	Measures adopted at Twenty-first Meeting	Measures adopted at Twenty-Second Meeting	Measures adopted at Twenty-third Meeting
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Argentina			
Australia			
Belgium			
Brazil (1983) +			
Chile			
China (1985) +			
Ecuador (1990) +			
Finland (1989) +			
France			
Germany (1981) +			
India (1983) +			
Italy (1987) +			
Japan			
Korea, Rep. (1989)	ALL		
Netherlands (1990) +			
New Zealand			
Norway			
Peru (1989) +			
Poland (1977) +			
Russia			
South Africa			
Spain (1988) +			
Sweden (1988) +			
United Kingdom			
Uruguay (1985) +			
U.S.A.			

\* 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.

## RATIFICATIONS OR ACCESSIONS TO THE ANTARCTIC TREATY

COUNTRY	STATUS	DATE OF
	RATIFICATION	OR ACCESSION
Argentina	OS/CP	23 Jun 1961
Australia	OS/CP	23 Jun 1961
Austria	AS	25 Aug 1987
Belgium	OS/CP	26 Jul 1987
Brazil	AS/CP*	16 May 1975
Bulgaria	AS	11 Sep 1978
Canada	AS	04 May 1988
Chile	OS/CP	23 Jun 1961
China	AS/CP*	08 Jun 1983
Colombia	AS	31 Jan 1980
Cuba	AS	16 Aug 1984
Czech Republic***	AS	01 Jan 1993
Denmark	AS	20 May 1965
Ecuador	AS/CP*	15 Sep 1987
Finland	AS/CP*	15 May 1984
France	OS/CP	16 Sep 1960
Germany	AS/CP**	05 Feb 1979
Greece	AS	08 Jan 1987
Guatemala	AS	31 Jul 1991
Hungary	AS	27 Jan 1984
India	AS/CP*	19 Aug 1983
Italy	AS/CP*	18 Mar 1981
Japan	OS/CP*	04 Aug 1960
Korea, D.P.R.	AS	21 Jan 1987
Korea, Republic of	AS/CP*	28 Nov 1986
Netherlands	AS/CP	30 Mar 1967
New Zealand	OS/CP	01 Nov 1960
Norway	OS/CP	24 Aug 1960
Papua New Guinea	AS	16 Mar 1981
Peru	AS/CP*	10 Apr 1981
Poland	AS/CP	08 Jun 1961
Romania	AS	15 Sep 1971
Russia	OS/CP	02 Nov 1960
Slovakia***	AS	01 Jan 1993
South Africa	OS/CP*	21 Jun 1960
Spain	AS/CP*	31 Mar 1982
Sweden	AS/CP*	24 Apr 1984
Switzerland	AS	15 Nov 1990
Turkey	AS	24 Jan 1996
United Kingdom	OS/CP	31 May 1960
United States	OS/CP	18 Aug 1960
Ukraine	AS	28 Oct 1992
Uruguay	AS/CP*	11 Jan 1980

**OS/Original Signatory; AS-Acceding State; CP-Consultative Party**

- \* These acceding states became Consultative Parties on the following dates: Poland, 29 July 1977; Germany 3 March 1981; Brazil and India, 12 September 1983, China and Uruguay, 7 October 1985; Italy, 5 October 1987; Spain and Sweden, 21 September 1988; Peru, Finland and Republic of Korea, 9 October 1989; Netherlands and Ecuador, 19 November 1990.
- \*\* The German Democratic Republic was united with the Federal Republic of Germany on 2 October 1990.
- \*\*\* Czechoslovakia, which acceded to the Treaty on 14 June 1962, ceased to exist on 31 December 1992 and was succeeded by two independent states, the Czech Republic and the Slovak Republic.

**June 1996**



**PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY**  
**Signed at Madrid on October 4, 1991\***

**CONSULTATIVE PARTIES:**

State	Date of signature	Date of deposit of Ratification, Acceptance of Approval	Date of Acceptance of ANNEX V**
Argentina	Oct. 4, 1991	Oct. 28, 1993 <sup>3</sup>	Apr. 06, 1994 (A)
Australia	Oct. 4, 1991	Apr. 06, 1994	Apr. 26, 1996 (A)
Belgium	Oct. 4, 1991	Apr. 26, 1996	
Brazil	Oct. 4, 1991	Aug. 15, 1995	
Chile	Oct. 4, 1991	Jan. 11, 1995	
China	Oct. 4, 1991	Aug. 02, 1994	Jan. 26, 1995 (AB)
Ecuador	Oct. 4, 1991	Jan. 04, 1993	
Finland	Oct. 4, 1991		
France	Oct. 4, 1991	Feb. 05, 1993	Apr. 26, 1995 (B)
Germany	Oct. 4, 1991	Nov. 25, 1994	Nov. 25, 1994 (A)
India	July 2, 1992	Apr. 26, 1996	
Italy	Oct. 4, 1991	Mar. 31, 1995	May. 31, 1995 (A)
Japan	Sep. 29, 1992		
Korea, Rep. of	July 2, 1992	Jan. 02, 1996	June 05, 1996 (B)
Netherlands	Oct. 4, 1991	Apr. 14, 1994	
New Zealand	Oct. 4, 1991	Dec. 22, 1994	Oct. 21, 1992 (B)
Norway	Oct. 4, 1991	June 16, 1993	Oct. 13, 1993 (B)
Peru	Oct. 4, 1991	Mar. 08, 1993	Mar. 08, 1993 (A)
Poland	Oct. 4, 1991	Nov. 01, 1995	
Russian Federation	Oct. 4, 1991		
South Africa	Oct. 4, 1991	Aug. 03, 1995	June 14, 1995 (B)
Spain	Oct. 4, 1991	July 01, 1992	Dec. 08, 1993 (A)
Sweden	Oct. 4, 1991	Mar. 30, 1994	Mar. 30, 1994 (A)
United Kingdom	Oct. 4, 1991	Apr. 25, 1995	May 21, 1996 (B)
United States	Oct. 4, 1991		0
Uruguay	Oct. 4, 1991	Jan. 11, 1995	May 15, 1995 (B)

## NON-CONSULTATIVE PARTIES:

State	Date of Signature	Date of deposit of Ratification, Acceptance or Approval	Date of Acceptance of ANNEX V**
Austria	Oct. 4, 1991		
Bulgaria			
Canada	Oct. 4, 1991		
Colombia	Oct. 4, 1991		
Czech Republic <sup>1 2</sup>	Jan. 1, 1993		
Cuba			
Denmark	Jul. 2, 1992		
Greece	Oct. 4, 1991	May 23, 1995	
Guatemala			
Hungary	Oct. 4, 1991		
Korea, DPR of	Oct. 4, 1991		
Romania	Oct. 4, 1991		
Slovak Republic <sup>1 2</sup>	Jan. 1, 1993		
Switzerland	Oct. 4, 1991		

The following denotes earliest date relating either to Annex V or Rec. XVI-10 \*\*\*:

A Acceptance Annex V

B Approval of XVI-10

\* Signed at Madrid on October 4, 1991; thereafter at Washington until October 3, 1992. The Protocol will enter into force initially on the thirtieth day following the date of deposit of instruments of ratification, acceptance, approval or accession by all States which were Antarctic Treaty Consultative Parties at the date on which this Protocol was adopted. (Article 23)

\*\* Adopted at Bonn on October 17, 1991.

\*\*\* Adopted at XVIth Consultative Meeting -- Bonn 1991

<sup>1</sup> Signed for Czech & Slovak Federal Republic on Oct. 2, 1992 - Czechoslovakia accepts the jurisdiction of the International Court of Justice and Arbitral Tribunal for the settlement of disputes according to Article 19, paragraph 1. On December 31, 1992, at midnight, Czechoslovakia ceased to exist and was succeeded by two separate and independent states, the Czech Republic and the Slovak Republic.

<sup>2</sup> Effective date of succession in respect of signature by Czechoslovakia which is subject to ratification by the Czech Republic and the Slovak Republic.

<sup>3</sup> Accompanied by declaration with informal translation, copy of which is attached at Tab A.

Department of State,  
Washington.

# **REPORT FROM THE COUNCIL OF MANAGERS OF NATIONAL ANTARCTIC PROGRAMS (COMNAP) TO THE XXTH ATCM**

## **CONTENTS**

1. Introduction
2. Science Support
3. Operations, Logistics, and Technology
4. Environmental Monitoring
5. Information Management
6. Impact of Other Activities in the Antarctic on Science Operations

## **1. Introduction**

- 1.1. This report to the XXth Antarctic Treaty Consultative Meeting is submitted by the Council of Managers of National Programs pursuant to agenda topic 5, Operation of the Antarctic Treaty System; Reports, and to Recommendation XIII-2. The Council of national managers (COMNAP, and its Standing Committee on Antarctic Logistics and Operations, SCALOP) met from July 31 to August 4, 1995 in Santiago, Chile. The officers and members are identified on the last page of this report. All but six of 29 national programs were represented at the 1995 meeting in Santiago. Earlier, in conjunction with the XIXth ATCM in Seoul Korea there was a meeting with 27 members from 22 national programs present.
- 1.2 The functional basis for a council of national Antarctic operators has grown from their commonality of purpose: the conduct and support of science; the implementation of ATCM recommendations; and the pursuit of safety, efficiency and economy in Antarctic operations. The COMNAP organization, meetings, symposia and workshops, have provided the direct contact, the exchange of experience and ideas and the opportunistic networking that have proven so effective in initiating and enhancing cooperation in these areas of common purpose. In addition, the work of the council is organized to assure the timely sharing of information and the discussion of common concerns, problems and solutions.
- 1.3 During the past year the topics dealt with at the annual meetings and by the several working groups have included matters arising at, or assigned by, the ATCM. The status of the work by COMNAP is summarized under the topic headings in this report. In one case a working paper is introduced in response to a previous ATCM assignment. In other cases, some jointly with SCAR, COMNAP has introduced information papers.

## **2. Science Support**

- 2.1 Antarctica is a continent for science. The Antarctic Treaty acknowledges the substantial contributions to scientific knowledge resulting from international cooperation in scientific investigation. From a scientific as well as from an operational and logistic point of view, cooperation plays an important role in national Antarctic programs. Furthermore, during the last years most nations have experienced tighter research budgets. Hence the rationale for cost effective ways for implementing science programs and making better use of existing infrastructure has become more prominent. Together with SCAR, COMNAP is working toward the goal of making international cooperation more efficient. The basic vehicle for this is sharing of information and providing venues for interaction between managers and science program leaders. In August 1996 the annual COMNAP meeting will once again be held in conjunction with the biennial SCAR meeting. Joint sessions and activities will be organized to enhance the information sharing and the opportunities for cooperation. To this end both organizations are also involved in the expanded use of electronic communications.
- 2.2 Most cooperative programs and activities originate from direct contacts between a

small number of scientists and managers from two or more countries. Common scientific and geographical interests evolve into coordinated research and shared logistics. The following paragraphs briefly summarize some current examples of ongoing projects.

### Cape Roberts Project

The cooperation between Italy, New Zealand, the United States, Germany, and the United Kingdom in setting up this project was outlined in the COMNAP report to the XIXth ATCM. Australia has now joined the project. In 1995/96 the final shipment of equipment was transported to Cape Roberts in the Ross Sea on board the Italian supply ship, the *Italica*. Planning is now well underway for the first two years of drilling in 1996/97. Fifteen hundred meters of core will be recovered from the sea floor 500m below the sea ice for research on climate and glacial history prior to 40 million years ago and on the tectonic history of the continent.

Up to 40 scientists from the six participating nations will be located at Cape Roberts where the core will be split and logged, and at Scott Base and McMurdo where investigation will be carried out on the core at the Crary Laboratory. It is intended to prepare a report of preliminary findings before researchers leave the Ice. Representatives of all the participating nations met at the 1995 COMNAP meeting in Santiago to review operational planning for the project. A further planning meeting will be held at the SCAR/COMNAP meetings in Cambridge in August 1996.

### Dome C Project

The initial cooperation by France and Italy and general concept for the Dome C Project were summarized in the COMNAP report to the XIXth ATCM. During the 1995/96 season two traverse operations from Dumont d'Urville and several Twin Otter flights from Terra Nova Bay have supported the development of the Concordia Base. Radio echo soundings were performed and a strain network established for more detailed definition of the ice sheet at that location. In addition to glaciology cooperative projects in atmospheric sciences, astrophysics, geophysics and medicine are being planned. The opportunities for broader international scientific cooperation are to be developed at a workshop to be held in Siena Italy 3 to 5 June 1996.

### Deep Drilling at Vostok

An international scientific team of 8 Russians, 5 French, and 2 Americans continued the deep core ice drilling at Russia's Vostok Station during the 1995/96 summer, and in January 1996 recovered core from a depth of 3350m. Study of this core illuminates the paleoclimate record of four glacial/interglacial cycles as far back as 420 thousand years. With respect to the future of deep drilling at Vostok, there is additional international interest and what may be a new challenge in the apparent existence of a lake beneath the ice in the area of Vostok. Special seismic measurements taken during the 1995/96 summer show the ice extending to a depth of 3700m and then water for 200m below.

## EPICA

The European Project for Ice Coring in Antarctica (EPICA) combines the efforts of ten European nations (Belgium, Britain, Germany, Denmark, France, Italy, Netherlands, Norway, Sweden and Switzerland) to undertake deep ice core drilling at two locations in Antarctica: at Dome C and in Dronning Maud Land. The European Commission has approved support for EPICA with the particular target for drilling to 3300 meters at Dome C. The broad aim of the project is to reconstruct high resolution histories, over several hundreds of thousands of years, of the Earth's past climate, climate changes and the associated regional and global processes. EPICA is designed to extend the Vostok record and to provide a Southern Hemisphere complement to the deep ice core through the Greenland ice sheet completed in 1992.

### A Life Science Project

The effects of increased ultra violet on Antarctic terrestrial communities were studied by joint effort of scientists from Britain, Italy and the USA at a site on the Victoria Land coast. In a series of co-ordinated studies in December and January they examined the effects of UV-B as well as other effects of global change on bacteria, fungi, algae, nematodes, springtails, mosses and lichens.

## 3. Operations, Logistics and Technology

### 3.1 BATs

In Seoul, the XIXth ATCM, and earlier in Kyoto the XVIIIth, considered the use of Best Available Technologies or Best Available Techniques in Antarctica. Paragraph (115) of the final report of the XIXth ATCM invited COMNAP to consider the desirability and feasibility of employing the concept of BATs for the protection of the Antarctic environment, and to recommend appropriate action to the XXth ATCM. This matter was taken up at the 1995 COMNAP/SCALOP meeting in Santiago. The meeting noted that logistics and operational support in Antarctica make up a distinct industry and that the COMNAP/SCALOP community is already involved, through the use of symposia, workshops and trade exhibits, in the process of searching for the best relevant techniques and technologies. Of these the most important are the biennial Symposia on Antarctic Logistics and Operations that are conducted in conjunction with each SCAR meeting. Pursuant to paragraph (115) of the final report of the XIXth ATCM, the COMNAP meeting considered the way to focus on the environmental protection criteria. A working paper on this topic has been submitted for consideration by the TEWG and by the XXth ATCM.

### 3.2 Contingency planning

COMNAP/SCALOP members have considered contingency planning for several years primarily in connection with oil spill prevention and response, and during work on air operations safety, environmental impact assessment, tourism and, of course, regional contingency planning. The attention currently being given by COMNAP can be briefly summarized as follows: First, there is the continuing practice of oil spill prevention and response. The COMNAP Guidelines for Oil Spill Contingency Planning were included in the report to the XVIIIth ATCM in 1992. Many oil spill contingency plans for individual stations or ships and, in some cases, for entire program areas, have been prepared, exchanged among the operators, and revised. Con-

sideration has been given to multi-operator or regional plans as provided for in the guidelines. All the concerned national operators have participated in developing such a project for the King George Island area, and a regional plan is under consideration for the Ross Sea area.

Second, COMNAP has considered the implementation of the Protocol Article 15, Emergency Response Action, and Protocol Annex IV, Article 12. The task is to extend the guidelines and the existing contingency plans that deal with oil spill prevention and response to include other environmental threats and emergencies.

Third, members have been asked to consider special needs or opportunities for cooperation or coordination in their contingency planning. In many cases the realities of distance, absence of transport and other practicalities in Antarctica preclude the pooling of equipment of joint use of response capabilities. The discussions continue, and have been extended to consider all life threatening as well as environmental contingencies, including mass casualty response and the implications of tourism and non-governmental activities.

### 3.3 Fuel Handling and Storage

In addition to the Guidelines for Oil Spill Contingency Planning, the SCALOP Working Group on Oil Spill Prevention and Response has developed recommended procedures and measures for the prevention and control of spills. These were printed in two documents approved by COMNAP at its meeting in June 1992: Recommended Procedures for Fuel Oil Transfer at Stations and Bases, and Recommendations for Spill Prevention and Containment of Fuel at Stations and Bases. These procedures and recommendations identify facility configurations, methods and equipment that reduce the likelihood of a spill and control or contain the spill until contingency response plans can be activated. Contingency plans and spill prevention measures are therefore viewed together to assure consistency.

The actions taken by COMNAP/SCALOP in the development of spill contingency planning and spill prevention measures are part of an evolving process. Such plans and measures require periodic updating in response to changing requirements and technologies. The results of these efforts to date together with the continuing process by COMNAP/SCALOP are consistent with the intent of ATCM Resolution 4 (1995).

## 4. Environmental Monitoring

Antarctic research activities and related logistic operations may affect the environment and are therefore subject to conservation regulations and controls as required by the Protocol on Environmental Protection. ATCM XVIII asked SCAR and COMNAP to provide technical advice for the design of effective monitoring programs. The wide range of topics and the complexity of the subject made it necessary to split the discussions into two linked workshops. The first workshop in Oslo, Norway, made optimum use of scientific and logistic experience of Antarctic workers and monitoring expertise of invited speakers from outside the Antarctic community. The second workshop at College Station, Texas, addressed issues related to the practical design and implementation of environmental monitoring programs. More details of the workshops are provided in a SCAR/COMNAP Information Paper. The detailed reports of both workshops are not yet available. These will be considered at the SCAR and COMNAP meetings in



Cambridge in August of this year and a Working Paper with recommendations will be provided for consideration of parties at the XXIst ATCM.

## **5. Information Management**

### **5.1 AMEN**

The fastest, least expensive and most reliable way for national program managers to share information, to work together on documents or to undertake cooperation through dialogue in near real time, is to use computer-based electronic networks; i.e. the Internet. While it is still (perhaps even more) essential that personal acquaintances and friendships are established and working relationships are nurtured at annual meetings, the Internet has rapidly become the preferred way to communicate. The original Antarctic Managers Electronic Network was established in 1994. Two years later it has been extended to include a homepage on the World Wide Web. One of the current objectives is to exploit the features of the COMNAP website on the Internet to improve and expedite the advance exchange of operational information. An information paper on this topic has been submitted to the ATCM.

### **5.2 Logistic Symposia**

Antarctic logistic and operational activities account for the major expense and investment by national operators, leading to expanding levels of cooperation and what has grown to be a more than thirty year history of information sharing; the main events of which continue to be the Symposia on Antarctic Logistics and Operations. The Seventh Symposium will be held at Cambridge England on 6 and 7 August 1995. The list of topics being featured this year include:

- Remote Sensing and the Use of Satellites for Science Support
- Deep Drilling Technologies
- Significant and Proven Developments in Operations, Logistics, and Science Support
- Energy Conservation
- Best Available Technologies for Waste Management and Environmental Protection
- Science Operations Planning and Resource Allocation

In addition to the presentation of papers, there will be a technical exposition from manufacturers of products, or provider of services that may be of interest to the Antarctic operators.

### **5.3 Antarctic Data Directory System**

Since XIXth ATCM substantial progress has been made by COMNAP and SCAR in responding to ATCM recommendations (XIII-5, XV-16 and XVII-1) on data management. COMNAP and SCAR have now started development of the Antarctic Data Directory System (ADDS), composed of an Antarctic Master Directory (AMD) and a network of National Antarctic Data Centres (NADCs). A joint COMNAP-SCAR exercise inviting interested parties to

host the AMD and to actively develop the ADDS, through the support of the network of NADCs, was completed with the acceptance of a proposal from a consortium composed of New Zealand, France, Italy and the United States of America. The AMD and ADDS support service will be developed and located at the International Centre for Antarctic Information and Research (ICAIR), Christchurch, New Zealand. COMNAP and SCAR have formed a steering committee to oversee the implementation and running of the ADDS, which includes monitoring the work of the AMD.

Development of core AMD software is now underway along with a toolkit to assist NADCs in the generation and maintenance of data set descriptions. In parallel with this COMNAP and SCAR have asked MNAPs and National Committees to identify NADCs. Eleven NADCs have now been formally identified and several others are known to the ADDS Steering Committee but have yet to be formally notified to COMNAP and SCAR.

A joint COMNAP-SCAR information paper on Antarctic Data Management gives further details on the development and implementation of the ADDS and the AMD.

## **6. Impact of Other Activities in the Antarctic on Science Operations**

Several issues of importance to both national program and non-governmental operators in the Antarctic were raised at the 1995 COMNAP annual meeting. These issues included adequacy of medical facilities and response to injury and illness, safety procedures when taking passengers ashore, communications with national operators and contingency planning by tour operators. They relate to the ability of operators (government and non-government) to provide support to each other in the case of emergency, and to the diversion of resources away from their primary objective - in the case of the national operators represented in COMNAP, from science support to emergency response.

These issues are outlined in an Information Paper presented by COMNAP to the XXth ATCM.

Consideration of these issues is timely in relation to the forthcoming need (once the Protocol is ratified) to provide permits to all Antarctic activities, and the obligations contained in Article 15 and in Article 10 of Annex IV to the Protocol on Environmental Protection to the Antarctic Treaty.

# COUNCIL OF MANAGERS OF NATIONAL ANTARCTIC PROGRAMS

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Secretariat:	c/o American Geophysical Union 2000 Florida Avenue, NW Washington, DC 20009, USA

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NETHERLANDS	(M) Dr. Jan H. Stel (S) Mr. Raymond M.L. Schorno
NEW ZEALAND	(M) Ms. Gillian Wratt (S) Mr. Malcolm Macfarlane
NORWAY	(M) Dr. Olav Orheim (M) Dr. Jan-Gunnar Winther (S) Mr. Jan-Erling Haugland
PERU	(M) Amb. Luzmila Zanabria (S) Mr. Octavio Vizcarra
POLAND	(M) Prof. Stanislaw Rakusa-Suszczewski (S) Dr. Seweryn M. Zalewski
REPUBLIC OF	(M) Dr. Won-Oh Song
KOREA	(S) Dr. Dong Yup Kim
REPUBLIC OF	(M) Mr. Dirk van Schalkwyk
SOUTH AFRICA	(S) Mr. Richard N. Skinner
RUSSIA	(M) Dr. Peter Nikitin (M) Mr. Valery V. Lukin

	(S)	Dr. Valery Klokov
SPAIN	(M)	Dr. Juan-Ramn Vericad
	(S)	Dr. Alberto Castejon
SWEDEN	(M)	Prof. Anders Karlqvist
	(M)	Dr. Olle Melander
	(S)	Mr. Ulf Hedman
UKRAINE	(M)	Mr. Poitr Ghozik
UNITED KINGDOM	(M)	Dr. Barry Heywood
	(S)	Mr. John Hall
UNITED STATES	(M)	Dr. Cornelius W. Sullivan
	(S)	Mr. Erick Chiang
URUGUAY	(M)	Gen. Yelton Bagnasco
	(S)	Col. Roque Aita

## **Annex G**

### **Reports in relation to Article III(2) of the Antarctic Treaty**



**List of reports in relation to Article III(2) of the Antarctic Treaty**

- IHO
- WMO
- ASOC
- IUCN



**REPORT FROM THE INTERNATIONAL HYDROGRAPHIC ORGANISATION (IHO)  
TO THE XX ANTARCTIC TREATY CONSULTATIVE MEETING (ATCM),  
UTRECHT, THE NETHERLANDS, 29 APRIL - 10 MAY 1996.**

**1. Background - Summary**

The International Hydrographic Organisation (IHO)'s Permanent Working Group (PWG) on Cooperation in Antarctica was established in 1992 and has rendered previous reports to the ATCM, this report serves to update developments since the last report rendered to the 1995 meeting in Seoul. The report is presented to ATCM in Utrecht on behalf of the IHO by the Netherlands' Hydrographer, Commodore Egon Bakker.

**2. Progress Report 1995-1996**

**2.1** During the past twelve months the Member States of the IHO which belong to the PWG have proceeded to consolidate their work in the production of nautical charts of Antarctica. INT chart 65 has been produced by New Zealand and reproduced by the United Kingdom. INT chart 9154, which has been a collaborative production between Argentina and the United Kingdom, was produced in February 1996. Additionally, 20 charts are scheduled for completion later in 1996 or 1997. A further 11 charts are presently scheduled for production in the period 1998 - 2000. The two graphic indexes accompanying this Report show the configuration of the INT chart scheme, the production responsibilities of the individual Member States, and the scheduled publication dates.

**2.2** It will be appreciated that scheduled completion of the INT charts is dependent on the timely and successful completion of the surveys, which are influenced by factors outside the control of the responsible national hydrographic offices, not least budgetary and meteorological factors. Notwithstanding these, IHO Member States are making every effort to complete their survey undertakings and to process the results of those surveys promptly for subsequent incorporation into the charts.

**2.3** IHO Member States continue to cooperate bilaterally to avoid duplication of survey work and to ensure the maximum return on the investment of scarce and expensive surveying resources in Antarctica.

**2.4** Production of the nautical chart programme has also benefited from the inclusion of data held in the IHO's Data Centre for Digital Bathymetry (DCDB) at Boulder, Colorado, USA. The Centre receives data from a multiplicity of scientific institutes and organisations. Whilst much of the data held by DCDB has not been collected primarily for navigational purposes, Member States find that it can have considerable value as source data in the production of nautical charts, provided that it is carefully quality assessed.

**2.5** The progress of chart productions to date has been hallmarked by the degree to which Member States have been prepared to exchange national data sets and collaborate in compilation. The IHO recognises the high professional commitment of these Member States: Argentina, Australia, Brazil, Chile, Ecuador, France, Russia, South Africa, Spain, United Kingdom, United States and Uruguay, and the extent of

the collaboration of their Hydrographic Services in the production of the INT chart scheme of Antarctica which will contribute to the safety of life at sea in those waters.

### 3. Cooperation with other international organisations

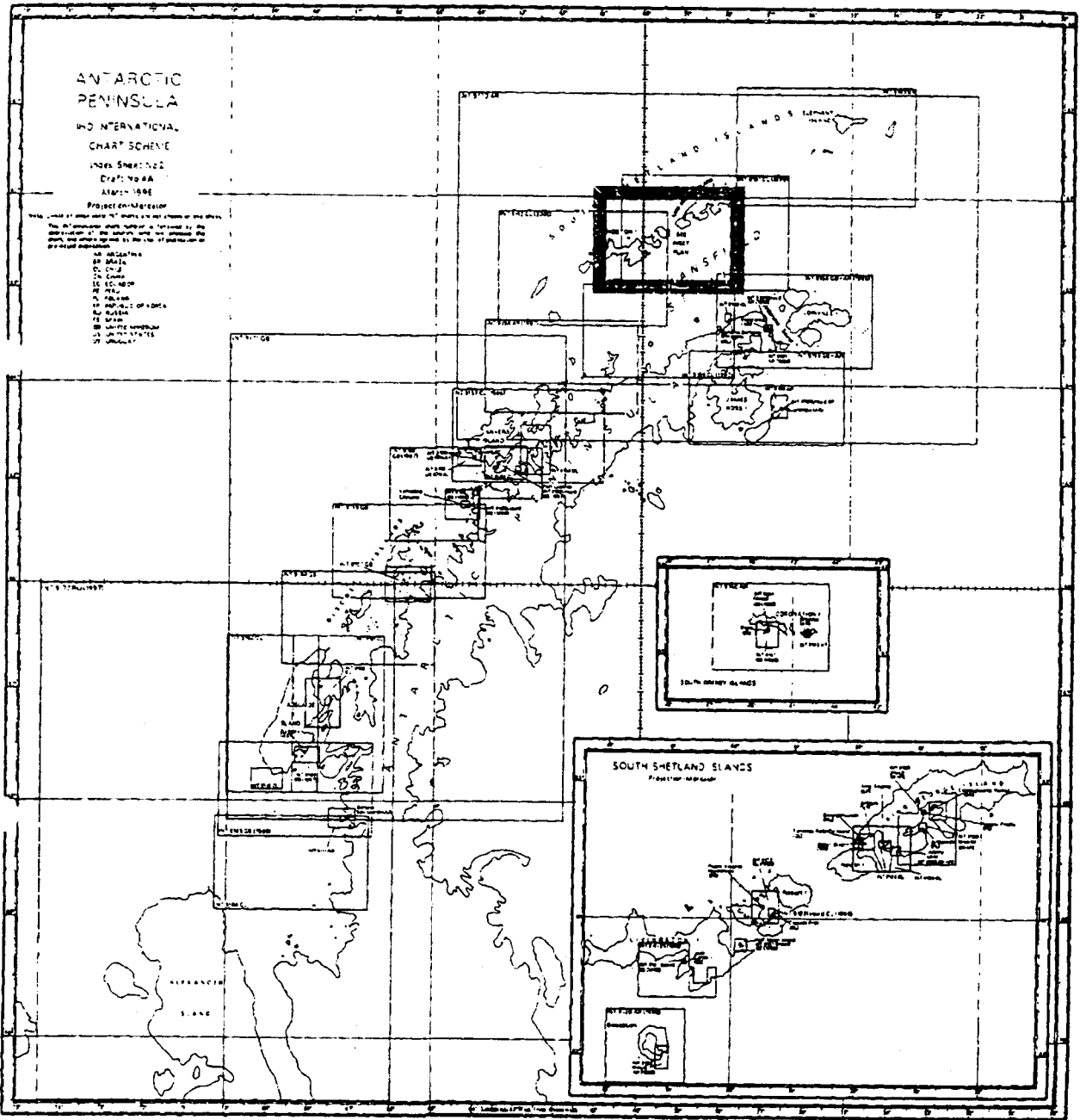
The IHO continues to cooperate closely with SCAR and COMNAP, in particular, and welcomes the presence of observers from these organisations at the biennial meetings of PWGCA. IHO is aware of the year-on-year increase of maritime traffic in Antarctica, and the extent to which this highlights the need for up-to-date, official nautical charts to enhance the safety of Antarctic navigation. *However, IHO wishes to register with ATCM its concern that antarctic waters continue to be amongst the most treacherous in the world, and the navigators of tourist ships in particular should be cautioned that nautical charts of antarctica are not as complete as charts in other parts of the world because of the sever difficulties of thoroughly and consistently surveying in such difficult operating conditions.* It is for this reason that IHO has sought to establish a link with the International Association of Antarctica Tour Operators (IAATO) and has sought to encourage the supply of additional information in the form of comments on existing charts, graphical information etc to enhance the currency and accuracy of chart detail.

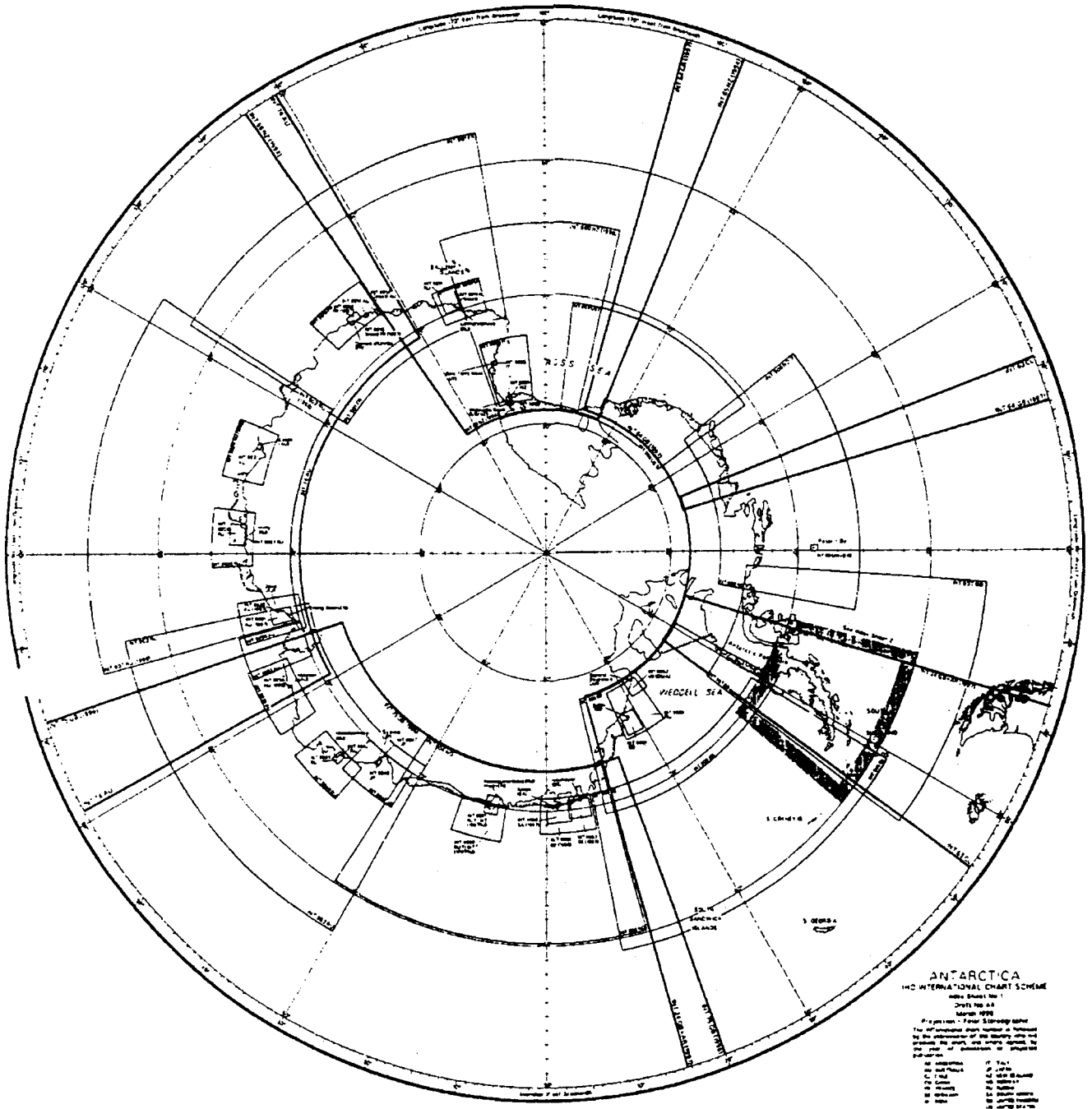
### 4. Conclusion

The IHO is pleased to be able to assure the ATCM that its Member States involved in the work of the PWG will continue their high level of commitment to the work of surveying and charting Antarctic waters within the constraints of their scarce national surveying and charting resources. In turn, the IHO Member States look to ATCM for positive action in support of the Seoul resolution 1-1995 with respect to the continuing funding of these important activities (within the National Antarctic Programmes) to support the safety of life at sea in Antarctica.

Annexes:            Index sheet No. 1 IHO INT chart Scheme, Antarctica,  
                         Draft no. 4A, March 1996  
                         Index sheet No. 2 IHO INT chart Scheme, Antarctic Peninsula,  
                         Draft no. 4A, March 1996

# ANNEX 1





## REPORT OF THE WORLD METEOROLOGICAL ORGANIZATION (WMO) IN RELATION TO ARTICLE 111 (2) OF THE ANTARCTIC TREATY

Since XIX ATCM WMO activities in relation to Antarctica have been:

- \* the twelfth Congress of the World Meteorological Organization (Cg XII) was held in Geneva in June 1995. In relation to its Antarctic program Congress,
  - assessed that most of the planned targets in the WMO Third Long Term Plan for Antarctica had been met and adopted draft WMO Antarctic Activities for inclusion in the Fourth Long Term Plan.
  - noted that the Executive Council WMO Working Group non Antarctic Meteorology (EC-WGAM) had been re-established with revised terms of reference.
  - was pleased to note that the Antarctic Regional Basic Synoptic Network RBSN) had been expanded by inclusion of Automatic Weather Stations (AWS) and Automatic Geophysical Observatories and that an International Programme for Antarctic Buoys had been established.
  - welcomed continued WMO contact with the International Association of Antarctic Tour Operators and urged WMO members to recruit tourist ships for the Voluntary Observing Ships scheme.
  - noted again the deficiencies in the observing network in Antarctica particularly over Western Antarctica and delays in insertion of data into the telecommunication system. It re-emphasised target times for reception of Antarctic data.
  - requested the EC-WGAM to seek to coordinate the deployment of new AWS and the maintenance of continuous observations at existing stations.
  - welcomed the EC-WGAM Survey of Antarctic historical data and the preparation of a data catalogue to assist in the SCAR Antarctic Data Directory System.
  - encouraged WMO Members to expand ozone observations in Antarctica and to provide the observations to the WMO Global Watch Data Centres. It also noted the importance of maintaining close contact with the Secretariats of the UN Framework on Climate Change, the Montreal Protocol and the Vienna Convention for the Protection of the Ozone Layer in relation to Antarctic programs.
  - confirmed continued contact with appropriate international groups dealing with Antarctic policy. science and operations in particular ATCM, SCAR, COMNAP and IOC noting particularly IOC and WMO participation in the First Southern Ocean Forum.
- \* The WMO Executive Council Working Group on Antarctic Meteorology (EG-WGAM) maintained work on network development, the monitoring of the effectiveness of Antarc-

tic meteorological telecommunications, the development of an annual reporting system and the development of a catalogue of historical data.

\* WMO has provided information papers for other relevant agenda items of XX ATCM

**REPORT OF THE ANTARCTIC AND SOUTHERN OCEAN COALITION (ASOC)  
Under Article III (2) of the Antarctic Treaty XX Antarctic Treaty Consultative Meeting**

Agenda Item 5 (b)

April 1996

Since the XIX ATCM in Seoul, ASOC member groups have continued to participate in, and to monitor components of, the Antarctic Treaty system. ASOC member groups have continued to provide educational and public information materials on the Antarctic Treaty system to government and legislative officials, scientists, professional groups, the media and the public in many countries.

Our primary focus during the past year has been a strengthening of our efforts to encourage individual Parties to ratify the Protocol and hence bring it into force at the earliest date.

However, more than four and a half years have now elapsed since the signing of the Protocol, and although the past year has seen six further ratifications, four Consultative Parties (Finland, Japan, Russia and the United States) remain to ratify. In at least two of these (Japan and Russia) the process appears to be moving very slowly. ASOC urges all of these Parties to make the commitment necessary to complete ratification within the next year. We also encourage all other Parties to offer whatever assistance they can to facilitate the prompt entry into force of the Protocol.

We urge Parties to facilitate practical implementation by increased sharing of expertise and technology, through both multilateral and bilateral initiatives.

ASOC also urges those Non Consultative Parties which are active in Antarctica, of from which activities in Antarctica are organised, to ratify and implement the Protocol as soon as possible. In particular we urge Ukraine, Bulgaria and Canada to take the necessary legal step to bring the Protocol into force for their countries.

We have continued to direct substantial attention and resources to the question of a liability annex to the Protocol. An effective liability regime is essential to ensure compliance with the provisions of the Protocol and this is an imperative in the overall system of "comprehensive" protection promised by the Protocol, and mandated by Article 16.

ASOC congratulates Professor Rudiger Wolfrum for his work in developing the elements of a liability annex, and ushering forward successive "Offerings". We continue to submit detailed comments on each of these Offerings. ASOC's "Commentary on the Chairman's Fifth Offering" is tabled at this ATCM as an Information paper. However, ASOC is extremely concerned about the slow rate of progress Parties are making towards a completed annex and by several Parties' support for a very weak final instrument, which we believe would undermine the comprehensive nature of the Protocol.

We note with disappointment the continuing failure to establish a Secretariat, which could greatly contribute to the implementation of the Protocol and assist with other aspects of the Treaty's work.

ASOC looks forward to the second meeting of the transitional Environmental Working Group (TEWG), and hopes that with the experience of its first meeting in Seoul it will now be able to assume the functions of the Committee for Environmental Protection, as a way to ensue a smooth transition to the CEP.

With the burgeoning of Antarctic tourism, we reiterate the urgent need for proper attention to adequate prior EIA by operators, Parties and TEWG, and in particular to the possible cumulative impacts of such activities. ASOC is concerned that a large proportion of tourist expeditions still proceed to Antarctica without any prior, let alone adequate, EIA. We do however acknowledge and welcome the fact that a number of tourist operators are producing EIAs.

In the last six months, SCAR/COMNAP have held two workshops on environmental monitoring supported to the XVIII ATCM. ASOC participated in these workshops and believes they were most useful. However, the workshops did not address the need to develop monitoring techniques and models for the full range of Protocol obligations, Monitoring the potential impacts from tourism, and upon the intrinsic, wilderness and aesthetic values addressed by the Protocol, were inadequately covered. The monitoring of cumulative impacts for multiple operators in areas of high intensity (such as clusters of stations of sites frequently visited by tourist vessels) was also barely addressed. ASOC believes that these are vital components of the advice on monitoring which Parties and the ATCM require.

ASOC continues to focus significant attention and resources on science. ASOC scientists have participated in meetings of SCAR and some of its Groups, such as GOSEAC and Seals, in addition to the SCAR/COMNAP monitoring workshops. We note the need for adequate researching by the Treaty system if SCAR is realistically to be able to provide the advice sought of it.

It is our believe that the best available environmentally sound technologies should be introduced into Antarctic operations as early as possible. These should include renewable energy and minimum impact waste disposal systems. For technologies as yet untested in Antarctic conditions, Parties could undertake in-situ testing as part of their research programmes.

No expeditions to Antarctica were mounted by any ASOC member organisations in the 1995/96 season, but Greenpeace conducted a further series of monitoring investigations at its former base site. This programme, fully funded by Greenpeace, was carried out with logistic support provided by the New Zealand Antarctic Programme, The Greenpeace team of two scientists conducted a further series of monitoring investigations at the site of the organisation's former World Par Base, at Cape Evans, Ross Island. The results of these monitoring investigations are being made widely available.

In the broader context of the Antarctic Treaty system, ASOC continues its keen interest in CCAMLR's progress towards precautionary management and conservation of Antarctica's marine living resources. ASOC believes that practical application of the significant theoretical advances in CCAMLR's approach to management in recent years, are being threatened by unresolved bilateral issues between some Parties, and by the overwhelming commercial realities of the burgeoning Patagonian toothfish (black hake) fishery. In this fishery CCAMLR faces a challenge which may make or break it as credible conservation and fisheries management regime. ASOC believes that actions to ensure sound management and enforcement should, wherever possible, be taken in a truly international manner.



ASOC is disappointed that the problem of seabird mortality in longline fishery has not yet been adequately resolved. Efforts to date to reduce albatross mortality, whilst successful, have resulted in a consequential increase in petrel mortality.

We also look to Parties to both the Protocol and CCAMLR to integrate Protocol-type measures into CCAMLR. ASOC believes that it is important to ensure that CCAMLR is kept up to date and consistent with the newer and more rigorous environmental protection initiatives of the Protocol.

This also applies to the International Whaling Commission (IWC). ASOC has continued its policy of sending an observer to the annual IWC meetings, and is very concerned that despite the Resolution passed at the 1995 meeting, recommending that scientific whaling should not be permitted in Sanctuaries, large-scale "scientific" whaling is still being conducted by one state in the Southern Ocean Whale Sanctuary. In the 1995/96 season, 440 Minke whales were killed, up from 330 in previous years.

Looking beyond issues arising within Antarctica, ASOC remains concerned about the impacts on Antarctica of global environmental problems such as stratospheric ozone depletion and anthropogenic climate change. We urge Parties to ratify those Treaties and Protocols directed to controlling or minimising the problems, to use their particular knowledge of Antarctica to raise awareness of the issues in the appropriate fora, and to promote further action to ensure the long term protection of the Antarctic environment.

ASOC looks forward to working with delegates at this XX ATCM, and to the successful resolution of some of the more contentious issues addressed in this report.

**REPORT OF THE WORLD CONSERVATION UNION (IUCN)  
Under Article III (2) of the Antarctic Treaty XX Antarctic Treaty Consultative Meeting**

April 1996

IUCN, The World Conservation Union, is an unique partnership of States, government agencies and non-governmental organisations. Founded in 1948, it now has over 800 members, including 160 state and government agency members, from some 130 countries.

The Union's mission is:

"to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable."

IUCN provides a "neutral forum" for the discussion of issues by bringing both GOs and NGOs to the table to discuss issues. The elements of IUCN's policy and programme are agreed by the triennial General Assembly of members and their execution is coordinated by an international Secretariat, IUCN's six Commissions, bodies of volunteer experts from all over the world, make a major contribution to the development and execution of the programme. With its long experience and worldwide networks of experts, IUCN is in a unique position to offer advice to the Antarctic Treaty Parties on such issues as protected area management, environmental monitoring, environmental legislation, and liability for environmental damage. Two of the IUCN Commissions, those on National Parks and Protected Areas and on Environmental Law, are currently making significant contributions in IUCN's Antarctic programme.

IUCN has been concerned with Antarctic conservation issues for over 35 years. In 1991, six months before the Protocol to the Antarctic Treaty on Environmental Protection was signed in Madrid, it published the Strategy of Antarctic Conservation. Many elements of this Strategy were incorporated in the Protocol and its annexes.

In 1992, two workshops were held in partnership with SCAR's Group of Specialists on Environmental Affairs and Conservation (GOSEAC), on conservation management and research in the sub-Antarctic islands, and on protected area policy for Antarctica.

In 1993 a workshop on Antarctic environmental education and trainings was held, again in partnership with GOSEAC. The Proceedings of all these workshops have now been published and are available. IUCN is now planning a fourth technical workshop to be held in Washington DC in September 1996, entitled "Cumulative Environmental Impact in Antarctica: Minimisation and Management". The workshop will build on the results from the SCAR/COMNAP workshops on environmental monitoring, focusing on aspects relevant to cumulative impacts, expanding this to wider discussion on cumulative environmental impacts in Antarctica, including the identification of complications for management of activities, for monitoring and assessment procedures. The outcome should be useful in a practical way to the ATS in general, specifically to national, non-governmental and commercial operators and to the Antarctic scientific community.

Following the adoption of Recommendations on Antarctica and the Southern Ocean, and on sub-Antarctic Islands, and the endorsement of an Antarctic programme by the most recent

IUCN General Assembly, held at Buenos Aires in January 1994, and Antarctic Advisory Committee (AAC) was established to provide guidance on the programme and to contribute to its implementation.

The AAC is made up of 11 members, appointed in their personal capacities by IUCN's Director-General, for their expertise in matters relating to the conservation of Antarctica, the sub-Antarctic Islands and the Southern Ocean. AAC members have been chosen from a diverse and professional background: academia, governmental conservation agencies, non-governmental organizations and private consultancies. The AAC is chaired by Ms. Beth Marks, based in the United States, with the support of vice-chairs Mr. Mike Prebble (New Zealand) and Mr. John Cooper (South Africa).

In line with the priorities agreed by its 1994 General Assembly IUCN would like to draw particular attention to the following matters to be considered by the 20th ATCM in Utrecht, The Netherlands, 29 April-10 May 1996.

**1. Ratification and implementation of the Protocol to the Antarctic Treaty on Environmental Protection:**

IUCN considers ratification to be a matter of highest urgency, to ensure the entry into force of the Protocol. By April 1996, only four out of 26 Consultative Parties remained to ratify. IUCN trusts that all will accomplish this before the end of 1996. In addition, whereas several Consultative Parties have passed the necessary domestic legislation to comply with the Protocol and ensure its implementation for their nationals, many others have not yet done so. This is necessary for the comprehensive implementation of all clauses of the Protocol, and is therefore also a matter of urgency. Once the Protocol is ratified, IUCN considers that the Protocol's Committee on Environmental Protection should be constituted as soon as possible thereafter.

**2. Progress towards completion of a Liability Annex to the Protocol:**

This Annex will be an essential part of the Protocol, ensuring that clear legally binding obligations on liability are elaborated for Parties conducting activities in the Antarctic. Negotiations for the completion of this Annex need to be pursued by the Parties with considerably more urgency. IUCN's Commission on Environmental Law has developed a paper "Financial Preparedness and the Joint Compensation Fund in the Annex on Environmental Liability to the Madrid Protocol", which was distributed at the last meeting of the Working Group of Legal Experts in November 1995, and is being distributed at this meeting. Three major points were highlighted in this paper:

- (1) there is need for the Annex to elaborate a strong financial preparedness regime for all Parties operating in the Antarctic;
- (2) an effective joint compensation fund should be established which would be triggered if (a) liable entities are unable to discharge their obligations or (b) the restoration costs exceed any limitation on liability; and
- (3) it is important for the Parties to consider how non-Party operators should be treated.

The Commission on Environmental Law is willing to contribute to the further development of the Annex as best it can, but notes that until now no access to the meetings of the Working Group of Legal Experts has been granted to NGOs. We welcome more open discussion, including outside experts being admitted to the meetings. We also recommend that the negotiations should include consideration of lessons learnt from environmental management elsewhere in the world. IUCN has wide experience in this field.

### **3. Establishment of a Treaty Secretariat:**

A small permanent Secretariat for the Antarctic Treaty is essential for the efficient operation of the mechanisms established under the Protocol, in particular the environmental impact assessment procedures and the Protocol's Committee on Environmental Protection. In addition, IUCN believes that many aspects of the management of Antarctica, including the management of scientific research, of its associated logistics, and of tourism, would benefit from a more integrated, international approach. Establishing a permanent Treaty Secretariat to provide the necessary administrative support would greatly facilitate the development of a more integrated approach to these uses of Antarctica. IUCN considers that the Secretariat should be established without further delay.

### **4. Protected areas:**

IUCN encourages Parties to extend and make the Protected Area system more comprehensive. The SCAR/IUCN Protected Areas Workshop produced valuable recommendations which were adopted by the Treaty. SCAR also endorsed and the Treaty subsequently adopted the ecosystem matrix that was revised at the workshop. This matrix highlights representative areas in need of protection, and we encourage Parties to use this matrix as a guide when seeking to designate additional areas for protection. IUCN is tabling an Information paper, "Environmental Protection of the Islands of the Southern Ocean: Towards a Full Coverage of Management Plans", which encourages consistent environmental protection be accorded the southern cold-temperature and sub-Antarctic islands.

### **5. Environmental education and training:**

At XIX ATCM, IUCN offered to compile a draft directory of current Antarctic environmental education and training courses, as recommended by the SCAR/IUCN Workshop on Environmental Education and Training. A draft inventory of existing environmental education is attached to the Information paper, "Antarctic Environmental Education and Training: Draft Inventory of Existing Arrangements". We encourage Parties to review this directory and send updates to the person listed to the person listed in the Appendix.

### **6. Overlaps between the ATS and other international agreements:**

IUCN was pleased to see the issue of Antarctic Treaty System overlaps with other regimes raised by Chile at ATCM XIX in Seoul. We believe the time has come to move beyond merely noting the current situation and actually commence dealing with it. The number of international treaties, conventions and agreements has increased markedly in recent years and there is now some need to consider the consistency or otherwise of rights, obligations and measures created by any given agreement, relative to others. This needs to be examined not only in a legal sense

but also in a broader moral sense. One should not exaggerate the likely implications of such an investigation: the Antarctic Treaty sets very high standards for environmental management; thus it is likely its provisions will be as good as, if not superior to, the requirements established by other agreements. Overlap may produce mutual reinforcement, or have no effect, but if there are dysfunctional overlaps, the harmonisation of conflict resolution should be sought. In any case it is best tested by direct comparison, so that any benefits or difficulties can be assessed.

To enhance positive overlaps or relationships, the ATS needs to assess whether stronger ties should be sought with other agreements. For example, it might be beneficial for the ATS to send formal representation to other fora as a way of putting forward the interests of the conservation of an area of the planet which is not otherwise represented.

**It is therefore recommended that the XX ATCM appoints a Working Group to:**

- (a) compile an inventory of international treaties, conventions and agreements of direct relevance to Antarctic Treaty operations;
- (b) conduct additional analysis of overlap situations, sufficient to indicate where such agreements reinforce Antarctic Treaty provisions or create potential difficulties;
- (c) make recommendations for any action which ATCPs should collectively or individually undertake, including the utility of seeking formal ATS representation at other international fora; and
- (d) report its conclusions in a preliminary report to be tabled at the ATCM in 1997.

## **CONCLUSION**

IUCN continues to place a high priority on helping the Antarctic Treaty System to maintain and enhance its effectiveness in conserving and protecting the Antarctic region. As always, IUCN puts its resources and expertise at the service of the ATCM towards this ends.

## **ANNEXES**

- A. Conservation in the Antarctic--Programme 1994-1996
  - B. IUCN Resolution--Antarctica and the Southern Ocean
  - C. IUCN Resolution--Improved Protection for wildlife in Subantarctic Island Ecosystems.
1. From 1996, the IUCN General Assembly will be renamed the IUCN World Conservation Congress.

## **Annex A**

### **Conservation in the Antarctic The Programme of IUCN - The World Conservation Union for 1994-1996**

#### **Background**

1. IUCN has been concerned with Antarctic conservation issues since 1960 when, at the 7th Session of the General Assembly held in Warsaw, members urged that the then proposed Antarctic Treaty should set aside inviolable areas for the conservation of the unique polar fauna and its natural environment. A number of issues were raised at subsequent Sessions of the General Assembly, including:
  - (a) the need for standard regulations for the protection of Antarctic flora and fauna and their habitats;
  - (b) the need to conserve krill and other marine resources;
  - (c) the need for some general designation to be given to Antarctica connoting its special conservation values;
  - (d) the need for comprehensive attention to problems of environmental management;
  - (e) the need for a comprehensive strategy for Antarctic conservation.
  
2. The 17th Session of the IUCN General Assembly, held in San José, Costa Rica, in 1988, adopted Recommendation 17.52, which emphasized:
  - (a) the need for an Antarctic Conservation Strategy;
  - (b) the importance of an environmental impact assessment there;
  - (c) the need for a coherent system of protected areas and other conservation measures in the region;
  - (d) the need for the establishment of an Antarctic database;
  - (e) the importance of rigorous practices to eliminate waste discharges;
  - (f) the importance of action to address the increasing problems posed by Antarctic tourism;
  - (g) the need for stronger action to conserve the marine fauna and flora of the Antarctic;
  - (h) the case for more precise measures to give effect to the conservation of Antarctic seals;

- (i) the need for action to prevent mineral related activities in the Antarctic that could impose severe damage on its environment.
3. The IUCN Commission on National Parks and Protected Areas (CNPPA) has for many years regarded Antarctica, with the sub-Antarctic islands and New Zealand, as one of the biogeographical realms reflected in the structure of the Commission, and had been concerned for the adequacy of the protected areas in the circum-Antarctic islands. A comprehensive directory of protected areas in the circum-Antarctic islands was published by IUCN in 1985. This remains the most extensive analysis of the status of protection of sub-Antarctic island wildlife and habitats. The 29th Working Session of CNPPA, held at Wairikei, New Zealand, in August 1987 produced a publication entitled *Conserving the Natural Heritage of the Antarctic Realm*.
4. In 1989, the Director-General established a working group including representation from the Scientific Committee on Antarctic Research (SCAR), and from NGOs such as the World Wide Fund for Nature (WWF) and the Antarctic and Southern Ocean Coalition (ASOC) to respond to the General Assembly's call for the preparation of a strategy for Antarctic conservation. The resulting document was discussed at a workshop held during the 18th Session of the General Assembly in Perth, Australia at which further Recommendations were adopted, especially calling for the exclusion of mineral exploration and exploitation from the Antarctic regions. The Union's Strategy for Antarctic Conservation was published in 1991, after revision in the light of the discussions held at the General Assembly. This is the most comprehensive exposition available of Antarctic conservation problems and requirements. It has been widely distributed, in all three IUCN official languages, and extremely well received, including by the Antarctic Treaty Governments.
5. Since 1990, IUCN has maintained a small Secretariat programme on Antarctic conservation. It was originally established under the personal leadership of the Director General, himself an Antarctic biologist. The initial task was the completion of the Strategy for Antarctic Conservation, but following its publication and the adoption of the Protocol on Environmental Protection to the Antarctic Treaty, work has focused on specific aspects notably:
  - (a) discussion of protected areas and policy and practice in Antarctica;
  - (b) discussion of conservation management and research priorities in the circum-Antarctic islands;
  - (c) discussion of the environmental implications of Antarctic tourism;
  - (d) discussions of the needs for information in order to educate and train those working in or visiting Antarctica in practices compatible with good Antarctic conservation.

#### Output in 1990-1993

6. The strategy for Antarctic Conservation was published in 1991. In that year IUCN's efforts were concentrated on contributing to the negotiations of the Environmental Protocol to the Antarctic Treaty (Madrid Protocol). Subsequently, IUCN promoted the Strategy

recommendations through regular attendance at Antarctic Treaty Consultative Meetings (ATCMs), and recently at the Scientific Committee under the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR).

7. In 1992, two workshops were held:
  - (a) on conservation management and research in the sub-Antarctic islands, at Paimpont in France;
  - (b) on protected areas in, and protected area policy for Antarctica, held in Cambridge, United Kingdom.
8. IN 1993, a workshop on environmental education and training in the Antarctic region was held in Gorizia, Italy.
9. All these workshops were held in partnership with the SCAR Group of Specialists on Antarctic Environment and Conservation. All are leading to substantial publications. More than 20 recommendations from the Cambridge Workshops were presented to the XVII ATCM in 1992, and most were adopted.

#### The 1994-1994 Programme

10. It is proposed that in 1994-1996, IUCN's contribution to Antarctic conservation reflect IUCN's greatest area of expertise namely:
  - (1) Protected Areas;
  - (2) Environmental liability issues (through the Commission on Environmental Law); and
  - (3) Marine ecosystem management with suitable contributions to the work of the commission on the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR);

#### Priorities

11. The activities below will be undertaken in consultation with IUCN members and Antarctica Treaty Parties. An appropriate consultative mechanism will be developed to ensure this occurs.
12. The priorities for 1994-1996 are proposed as:

#### Priority 1

- (i) to work for the establishment and management of Antarctic specially protected or managed areas for consideration by Antarctic Treaty meetings;



- (ii) to work on the development of an annex to the Antarctic Environmental Protocol on Liability for Environmental Damage.

## Priority 2

- (iii) to work on the ecosystem management of Antarctic Marine Living Resources, in consultation with IUCN members and the Parties to the Convention on Antarctic Marine Living Resources;
- (iv) to hold a workshop on the impact and management of human presence in Antarctica;
- (v) in consultation with Treaty Parties and IUCN members to work on the elaboration of detailed proposals for the implementation of the Antarctic Environmental Protocol;
- (vi) to produce an integrated strategy for conservation in the Sub-Antarctic Islands, and assistance with management plans for individual islands or groups of islands;
- (vii) to participate in Antarctic Treaty Consultative Meetings, where such participation will contribute to achieving the above objectives.

## **Guidance, Personnel and Administration**

- 13. IUCN's programme in Antarctica was carried out in the past triennium on a part time basis by the Vice-Chair for the Antarctic Treaty of CNPPA, under contract to IUCN, by agreement with the Department of Conservation in New Zealand. Future arrangements are subject to resources availability and will be determined through the consultative mechanisms outlined in point 15 below.
- 14. Responsibility for this programme at IUCN Headquarters was transferred in October 1993 to the Protected Areas Programme, since the greater part of the Union's work in the region has been in the category of activity. However, links will need to be maintained with the Marine Programme, Species Conservation Programme, Conservation Strategies Programme, Environmental Assessment Service and several other elements.
- 15. The representation of IUCN at Antarctic Treaty, CCAMLR, and SCAR meetings has fallen largely to the special consultant, but has also involved the Director General and the Legal Adviser to the Council. A review of this representation will be undertaken following the 19th Session of the General Assembly.
- 16. Some further machinery is needed for the guidance of this programme. At the time when the IUCN Strategy for Antarctic Conservation was in preparation, an ad hoc group established to advise the Council and the Director General provided valuable overall guidance. It is proposed that such machinery be re-established in the shape of an IUCN Advisory Committee on Antarctic Conservation. The group would be established by the Director General in consultation with IUCN members, and the special meeting on the occasion of

the 19th Session of the General Assembly will permit such consultation. The Committee will need to balance governmental and non-governmental expertise, and reflect the range of views within IUCN, although members will serve in a personal capacity.

#### Budget

17. Current resources for the Antarctic Programme will be exhausted by the end of 1993 with the exception of funding available for a workshop on the Impacts of Human Presence in Antarctica.
18. The implementation of this Programme is subject to the location of available resources.

## **Annex B**

### **19.96 ANTARCTICA AND THE SOUTHERN OCEAN**

RECALLING recommendations 18.75, 17.52 and 17.53 and Resolutions 15.20, 16.8, 18.9 and 18.74 of the 15th, 16th, 17th and 18th Sessions of the General Assembly:

RECOGNIZING the critical role played by Antarctica in global climate and oceanic circulation, the importance of the Antarctic environment and its dependent and associated ecosystems, its vital role in the world's biophysical and biochemical systems, its great value as the world's largest remaining wilderness area, its intrinsic and inspirational values, and its importance for monitoring and other research directed to understanding the natural environment and global processes, including those modified by human activity;

NOTING that world opinion has now turned firmly against the exploitation of minerals in Antarctica and expects impeccable standards of environmental performance by all who operate there;

WELCOMING the Protocol on Environmental Protection to the Antarctic Treaty, adopted by the Antarctic Treaty Parties in Madrid, Spain, in October 1991, which commits the Parties to the comprehensive protection of the Antarctic environment and dependent and associated ecosystems, designates Antarctica as a nature reserve devoted to peace and science and, inter alia, prohibits any activity relating to mineral resources other than scientific research;

APPRECIATING that the Governments of Argentina, Spain, France, Peru, Ecuador and Norway have now ratified the Protocol on Environmental Protection;

AWARE that the Subantarctic Islands support distinctive ecosystems and many endemic species, that knowledge of these islands and their ecosystems remains inadequate and that it is important that conservation measures in these islands groups are strengthened;

EMPHASIZING the importance of the conservation of the ecosystems of the circum-Antarctic seas, and the need to ensure that any use of their living resources is sustainable;

The General Assembly of IUCN - The World Conservation Union, at its 19th session in Buenos Aires, Argentina, 17-26 January 1994:

1. CALLS UPON all Parties to the Antarctic Treaty who have not already done so to ratify the Protocol on Environmental Protection as a matter of urgency, so ensuring its early entry into force;
2. URGES Parties to the Protocol:
  - (a) to revise their domestic legislation and procedures promptly to comply with the Protocol.
  - (b) to negotiate the Annex on liability for damage mandated by the Protocol as soon as

practicable to ensure that clear, legally binding obligations are imposed on Parties who administer or conduct activities in the Antarctic;

3. CALLS UPON all Parties to the Antarctic Treaty and all organizations active in Antarctica to pay particular attention to:
  - (a) minimizing environmental impact;
  - (b) establishing and safeguarding a comprehensive network of protected areas, including adequate representation of the principal habitats and the biological diversity of the Antarctic region;
  - (c) preventing the deposition of waste and facilitating the removal of wastes which have already been deposited;
  - (d) establishing and enforcing stringent regulations governing the conduct of all persons visiting Antarctica, whether scientists, logistic and other support personnel or tourists;
  - (e) otherwise according priority to conservation in Antarctica as a whole;
4. ENCOURAGES Treaty Parties to establish the Committee for Environmental Protection on an interim basis promptly so that it may function prior to the entry into force of the Protocol.
5. CALLS for a permanent ban on all minerals activity in Antarctica throughout the area south of 60 degrees South latitude;
6. ENCOURAGES Treaty Parties to establish a Secretariat to ensure inter alia an effective implementation of the Antarctic Treaty including the Protocol;
7. CALLS ON Parties to the Convention on the Conservation of Antarctic Marine Living Resources to take all steps necessary to conserve the marine ecosystems of the Southern Ocean;
8. ENCOURAGES Treaty Parties to the Protocol to build upon the inspection provisions in the Antarctic Treaty and Protocol and to develop and implement an environmental inspection system to assist in the effective protection of the Antarctic environment;
9. REQUESTS the Director General, within available resources:
  - (a) in consultation with Antarctic Treaty Parties and IUCN members, Commissions and Council, to work for:
    - (i) the establishment and management of Antarctic specially protected or managed areas;

(ii) the development of an Annex to the Antarctic Protocol on liability for environmental damage;

## **19.95 IMPROVED PROTECTION FOR WILDLIFE IN SUBANTARCTIC ISLANDS ECOSYSTEMS**

**AWARE** of the inadequate knowledge of subantarctic island ecosystems and the need to improve protection of their biodiversity and ensure their full conservation;

**AWARE** also of the ongoing review by IUCN of the status of Subantarctic Islands in relation to their possible World Heritage status;

**NOTING** that the conduct of activities such as tourism constitutes a danger to the maintenance of the equilibrium of such ecosystems, which are among the world's most fragile;

The General Assembly of IUCN - The World Conservation Union, at its 19th session in Buenos Aires, Argentina, 17-26 January 1994:

1. **STRONGLY RECOMMENDS** that the international specialized agencies, as well as all States and Governments exercising responsibilities and supervision over these areas, should fully protect the priceless environmental assets constituted by the species these islands contain, many of which are threatened with extinction;
2. **CALLS UPON** the governments concerned to adopt, as rapidly as possible, all necessary measures to ensure the conservation of these ecosystems;
3. **REQUESTS** the Director-General, within available resources and in consultation with IUCN members, Commissions, relevant governments and NGOs, to produce an integrated strategy for conservation in the Subantarctic Islands and to offer assistance with management plans for individual islands or groups.



## **Annex H**

### **Preliminary Agenda of the XXI ATCM**





## Preliminary agenda of the XXI ATCM

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 Head of the Delegation of the United States of America in his capacity as Representative of the Depository Government of the Antarctic Treaty
    - ii) the Chairman of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)
    - iii) the Head of the Delegation of Australia in his capacity as Representative of the Depository Government for the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR)
    - iv) the Head of the Delegation of the United Kingdom in his capacity as Representative of the Depository Government of the Convention for the Conservation of Antarctic Seals (CCAS)
    - v) the President of the Scientific Committee on Antarctic Research (SCAR)
    - vi) the Chairman of the Council of Managers of National Antarctic Programmes (COMNAP)
  - b) in relation to the Article III(2) of the Antarctic Treaty
6. Protocol on Environmental Protection to the Antarctic Treaty
  - @) Starting up the Committee for Environmental Protection  
(*Contingent upon the Protocol's having come into force*)
    - a) General Matters  
(implementation by ATCPs, relation with other treaties)
    - b) Matters covered by Annex I  
(EIAs)
    - c) Matters covered by Annex II  
(fauna and flora)

- d) Matters covered by Annex III  
(waste)
  - e) Matters covered by Annex IV  
(marine pollution, port state jurisdiction)
  - f) Matters covered by Annex V  
(areas, sites, monuments)
  - g) Liability Annex
7. Operation of the Antarctic Treaty System
  8. Relevance of Developments in the Arctic and the Antarctic  
(political and administrative aspects; environmental, technical, scientific and logistic aspects)
  9. Tourism and Non-Governmental Activities in the Antarctic Treaty Area
  10. Inspections under the Antarctic Treaty  
(inspections and inspection checklists)
  11. Operations Issues  
(data management; collection, archiving, exchange and evaluation of environmental information; infrastructure and technology; safety issues)
  12. Science Issues  
(status of present programmes, future actions and programmes, recent developments of importance, plans for cooperation)
  13. Education Issues  
(education, training, public awareness)
  14. Environmental Monitoring and the State of the Antarctic Environment
  15. Specific Environmental Protection Measures
  16. Preparation of the XXII Consultative Meeting
    - a) Date and place of the XXII ATCM
    - b) Invitations of International and Non-Governmental Organizations
    - c) Preparation of the Agenda of the XXII ATCM
  17. Any other Business
  18. Adoption of the Report

## 19. Closing of the Meeting



## **Annex I**

### **Message from the XX Consultative Meeting to Stations in the Antarctic**



## MESSAGE FROM THE XX CONSULTATIVE MEETING TO STATIONS IN THE ANTARCTIC

The Parties to the Antarctic Treaty have just completed two weeks of discussion at their XX Consultative Meeting, which was hosted by the Netherlands government in Utrecht.

The early entry into force of the Environmental Protocol to the Antarctic Treaty and of its five Annexes remains the priority objective. The Meeting noted with satisfaction that since the last Antarctic Treaty Consultative Meeting (ATCM) 6 Consultative Parties (Belgium, Brazil, India, Poland, Republic of Korea, South Africa) have ratified the Protocol, bringing the total to 22 out of 26 States. It is now conceivable that the Protocol will be in force before the next ATCM, which will be held in New Zealand in 1997.

Valuable exchanges took place on tourism, education and training, and on the cultural and aesthetic values of the Antarctic. Reports on current and proposed activities at Antarctic stations, presented to the Meeting, demonstrated the continuing benefit of Antarctic scientific research and the valuable work undertaken by all Member States.

During this ATCM a Group of Legal Experts met again in order to continue discussions on a sixth Annex to the Environmental Protocol. This is to deal with Liability for environmental damage. The ATCM was pleased to learn from the Group's chairman that the Group had made substantial progress. Further discussions are scheduled before the XXI ATCM.

The Transitional Environmental Working Group (TEWG) met for the second time. This interim body addresses the functions of the Committee for Environmental Protection, which will come into being when the Protocol enters into force. The TEWG had an in-depth discussion on Environmental Impact Assessments required by the Protocol. The TEWG also discussed the consequences for the protected area system of the Protocol's entry into force. On the basis of its work the ATCM revised various management plans and took decisions on the designations of an Antarctic Specially Managed Area and an Historic Site.

The ATCM agreed on a mechanism for the exchange of information with the Arctic Environmental Protection Strategy (AEPS) Conference for the benefit of both parties.

As the Antarctic year moves into another winter, delegations participating in the XX Consultative Meeting send their warmest greetings to all in Antarctica. We wish you every success in your important scientific endeavours during the coming months.





# **Annex J**

## **National Contact Points**



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