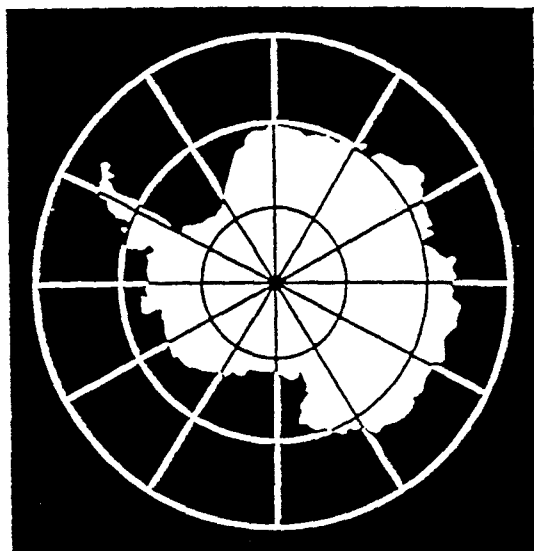


ANTARCTIC TREATY
Final Report of the
Twenty-second Antarctic Treaty
Consultative Meeting

Tromsø, Norway, 25 May - 5 June 1998



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ACRONYMS AND ABBREVIATIONS

ASOC	Antarctic and Southern Ocean Coalition
ASMA	Antarctic Specially Managed Area
ASP	Antarctic Specially Protected Area
ATCM	Antarctic Treaty 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
CEMP	CCAMLR Ecosystem Monitoring Programme
CEP	Committee for Environmental Protection
COMNAP	Council of Managers of National Antarctic Programmes
EHSMS	Environmental, Health and Safety Management System
EIA	Environmental Impact Assessment
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	World Conservation Union
MARPOL	International Convention for the Prevention of Marine 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	Specially Protected Area
SSSI	Site of Special Scientific Interest
UNEP	United Nations Environment Programme
WGI/II	Working Group I/II
WMO	World Meteorological Organisation
WTO	World Tourism Organisation

PART ONE

Final Report of ATCM XXII

FINAL REPORT OF THE XXII ANTARCTIC TREATY CONSULTATIVE MEETING

TROMSØ, NORWAY, 25 MAY - 5 JUNE 1998

- (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 Tromsø from 25 May - 5 June 1998, 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 welcomed Bulgaria as a new Consultative Party to the Antarctic Treaty. In accordance with Paragraph 161 of the Final Report of ATCM XXI, the question of Bulgaria's status was decided at an early stage of the Meeting, enabling Bulgaria to attend the Meeting as a Consultative Party. The relevant Decision 1 (1998) is reproduced at Annex B.
- (3) The Meeting was also attended by Delegations from the following Contracting Parties to the Antarctic Treaty which are not Consultative Parties (Canada, Colombia, the Czech Republic, Denmark, Greece, Slovakia, Switzerland, and Ukraine).
- (4) A Preparatory Meeting with Embassy representatives was held in Oslo on 11 February 1998. The information requirements of the Host Country towards the Contracting Parties, Observers and Experts were fulfilled by Circular Notes (3 in 1997, 5 in 1998), letters and through an Internet website with an open as well as a password-protected area.
- (5) In accordance with Rules of Procedure, Observers and Experts having a technical or scientific interest in Antarctica were present at the Meeting. These are detailed in the list of participants reproduced at Annex K.
- (6) The Meeting was opened by HE Mr Knut Vollebæk, Minister of Foreign Affairs of Norway. His address is reproduced at Annex D.
- (7) Mr Rolf Trolle Andersen, Ambassador of Norway to France, was elected Chairman of the Meeting. Mr. Jon Ramberg was appointed Executive Secretary. Two working groups were established and, on the suggestion of Norway as Host, the Meeting elected Dr François Hane-kom of South Africa as Chairman of Working Group I, and Dr Roberto Puceiro of Uruguay as Chairman of Working Group II.
- (8) The Meeting approved the Rules of Procedure for the Committee for Environmental Protection (CEP), adopted by the CEP at its first session. The CEP then elected Professor Olav Orheim of Norway as Chair, Ambassador Professor Jorge Berguño of Chile as First Vice

Chair and Ms Gillian Wratt of New Zealand as Second Vice Chair. The Rules of Procedure are reproduced at Annex B as Decision 2 (1998)¹.

(9) A Meeting of the Group of Legal Experts on Liability, chaired by Professor Rüdiger Wolfrum of Germany, was held to continue discussions on the draft liability annex to the Protocol on Environmental Protection to the Antarctic Treaty.

(10) Following previous practice the opening statements were not delivered at the meeting. Instead, they were provided for inclusion in the Final Report and are reproduced at Annex D.

(11) The following Agenda was adopted:

1. Opening of the Meeting
2. Election of Officers
3. Adoption of the Agenda
4. Rules of Procedure for the Committee for Environmental Protection
5. Operation of the Antarctic Treaty System: Reports by Observers and Experts
 - a. *In accordance with Recommendation XIII-2 Reports will be received from:*
 - i) the Head of the Delegation of the United States in his/her 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/her 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/her 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 Article III (2) of the Antarctic Treaty, the following organisations have been invited to present their Reports to the Plenary: ASOC, IAATO, IHO, IOC, IMO, IUCN, PATA, UNEP, WMO and WTO.*
 - c. *Consequences of the entry into force of the Protocol on Environmental Protection and related issues*
6. Report of the Committee for Environmental Protection
7. Compliance with the Protocol on Environmental Protection
 - a. *General Matters and Implementation by the ATCPs*
 - b. *Matters covered by Annex I*
 - c. *Matters covered by Annex II*
 - d. *Matters covered by Annex III*
 - e. *Matters covered by Annex IV*
 - f. *Matters covered by Annex V*
8. Emergency Response and Contingency Planning
9. The Question of Liability as Referred to in Article 16 of the Protocol

¹ The Rules of Procedure reproduced as Decision 2 incorporate modifications made to them after the CEP had delivered its Report to the Meeting (cf. item 6, para 37 below).

10. Safety of Operations in Antarctica
11. Relevance of Developments in the Arctic and the Antarctic
12. Tourism and Non-governmental Activities in the Antarctic Treaty Area
13. Inspections under the Antarctic Treaty
14. Operational Issues
15. Science Issues
16. Education Issues
17. Preparation for the XXIII Consultative Meeting
18. Other Business
19. Consideration of Bulgaria's Notification
20. Adoption of the Report
21. Closing of the Meeting.

(12) The proceedings under agenda items 1, 5a, 5b, 11, 17 and 21 were open to the public.

(13) In accordance with a request made at the previous ATCM Norway, as Host of ATCM XXII, was asked to make a provisional allocation of agenda items to the Working Groups. Norway's proposal was adopted and the agenda items were discussed as follows:

Plenary: Items 1, 2, 3, 4, 5, 6, 11, 17, 18, 19, 20, 21

The Committee for Environmental Protection (CEP): Items 4, 6 and 7

Working Group I (WGI): Items 5 (c), 7 (a), 8, 9

Working Group II (WGII): Items 10, 12, 13, 14, 15, 16

Liability Group: Item 9

Norway's proposed schedule for the Meeting was also adopted and applied in a flexible manner.

ITEM 5: OPERATION OF THE ANTARCTIC TREATY SYSTEM: REPORTS BY OBSERVERS AND EXPERTS

a. Reports under Recommendation XIII-2

(14) Pursuant to Recommendation XIII-2, the Meeting received reports from:

- i) the Head of the Delegation of the United States as the Representative of the Depository Government of the Antarctic Treaty,
- ii) the Executive Secretary of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR),
- iii) the Head of the Delegation of Australia as the 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 as the 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 Chairperson of the Council of Managers of National Antarctic Programmes (COMNAP).

These reports are all reproduced at Annex F.

- (15) The Head of the Delegation of the United States as the Representative of the Depository Government of the Antarctic Treaty invited the Meeting to inform his Delegation about possible corrections to the table addressing "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" attached to Information Paper (XXII ATCM/IP74).
- (16) In response to the report from the Depository Government of the Antarctic Treaty, Bulgaria informed the Meeting that it had ratified the Protocol on Environmental Protection and that the Protocol, with its Annexes I-V, was now part of Bulgarian legislation.
- (17) The Meeting encouraged those Parties who had not yet approved Annex V of the Protocol on Environmental Protection to take necessary action in order for this Annex to enter into force.
- (18) The report of the Executive Secretary of CCAMLR brought to the attention of the Meeting that the total catch from illegal, unreported and unregulated fisheries, particularly in fisheries for toothfish in the Indian Ocean sector of the Convention Area, in the 1996/97 fishing season had been estimated to be between 74,000 and 82,000 tonnes.
- (19) The Meeting thanked the Executive Secretary and his staff for their excellent work in what was a difficult and challenging time for CCAMLR. It noted with grave concern the unreported, unregulated and illegal fishing for toothfish which was undermining the objective of the Convention. The Meeting agreed that concerted action was needed to support the Convention.
- (20) The Head of the Delegation of Australia as the Representative of the Depository Government of CCAMLR informed the Meeting that Mauritius had indicated that it intends to become member of CCAMLR and that it will participate as an observer at the next CCAMLR meeting.

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

- (21) In accordance with Rule 20, reports were presented by ASOC, IAATO, IHO, IMO, IUCN, UNEP, WMO and WTO.

The reports, most of which are reproduced at Annex G, were welcomed by the Meeting and specific elements of them were taken up under the relevant agenda items.

c. Consequences of the entry into force of the Protocol on Environmental Protection and related issues

- (22) Norway introduced Working Paper (XXII ATCM/WP25) proposing that an ATCM home page be established on the World Wide Web, with the purpose of assisting future ATCM Host Governments in pre-sessional circulation of documents, as well as enabling easier access to information about the Antarctic and the Antarctic Treaty system to the general public. The Meeting expressed support for the Norwegian initiative and adopted Resolution 5 (1998), reproduced at Annex C.

- (23) Professor Wolfrum reported on the work of the Contact Group on organisational aspects of the establishment of an Antarctic Treaty Secretariat, which he chaired. There were two options discussed on the question of privileges and immunities to be given to the Secretariat.
- (i) The Secretariat to have privileges and immunities in both the host state and all Consultative Parties.
 - (ii) The Secretariat to have privileges and immunities in the host country only.
- (24) The Contact Group also discussed whether the establishment of a Permanent Secretariat should be dealt with by a Protocol or a Measure. On the future budgets of a Permanent Secretariat, the Group raised the question of whether the contributions from States should only cover the running cost of the Secretariat, or if the costs incurred by the Consultative Meetings should be covered as well.
- (25) Australia introduced Working Paper (XXII ATCM/WP8) on the Antarctic Treaty Secretariat proposing that Parties give careful consideration to Hobart, Tasmania, as a possible site.
- (26) Argentina introduced Working Paper (XXII ATCM/WP28) addressing the issues of the establishment of the Secretariat in Buenos Aires and recalling the facilities it offered to that effect. During the presentation, Argentina thanked Delegations for their renewed support.
- (27) The views expressed by Australia, Argentina and the United Kingdom in relation to this issue are appended to this Report (Appendix 1).
- (28) Numerous Delegations reiterated their support for Buenos Aires, whilst one Delegation expressed its reservation. Some Delegations recognised the merits of Hobart as an Antarctic centre with good infrastructure. Some Delegations expressed no view during the debate.
- (29) One Delegation proposed that Parties give consideration to the idea of an interim secretariat arrangement, while another suggested that a rotating secretariat arrangement should be considered. Some Delegations expressed that they did not favour a temporary solution regarding the designation of the seat for the Secretariat.
- (30) Numerous Delegations expressed their view that, taking into account the degree of support received by the Argentine candidacy, Buenos Aires is the quickest way to reach a prompt solution.
- (31) A number of Delegations also underlined the view that Article IV of the Antarctic Treaty is a key element which should be carefully preserved and that discrimination amongst Consultative Parties should be consequently avoided.
- (32) Several Delegations stated their preference for an adequate geographical and cultural balance and specific reference was made in that respect to Latin America.
- (33) The Meeting expressed its strong support for the establishment of a permanent secretariat, and the desirability of reaching consensus on the issue of location at the earliest date.

ITEM 6: REPORT OF THE COMMITTEE FOR ENVIRONMENTAL PROTECTION

(34) The Chairman of the Committee for Environmental Protection presented the report of the Committee to the Meeting. The report is reproduced at Annex E.

(35) Annexed to the Committee's report were the following appendices for consideration by the Meeting:

- Proposed new Rule 13 of the CEP Rules of Procedure, regarding submission and handling of documents,
- Draft Measure on Historic Sites and Monuments regarding Sites N° 15, 18 and 22.
- Draft Measure on Historic Sites and Monuments regarding the South-West Coast of Elephant Island, South Shetland Islands,
- Draft Resolution on Annex V: Area Protection and Management,
- Draft Resolution on the Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas.

(36) The initial Rule 13 adopted by the Meeting before the Committee started its work, read as follows:

Pending the adoption of rules relating to the submission of documents, Members of the Committee should follow the Guideline on Pre-session Document Circulation and Handling, as set out in Annex D of the Final Report of ATCM XX.

(37) During its session the CEP adopted Guidelines on Circulation and Handling of CEP Documents and therefore proposed to modify Rule 13 to read:

Members of the Committee should follow the Guidelines on Circulation and Handling of CEP Documents, as set out in Annex 3 to the Report of the Committee on Environmental Protection to ATCM XXII.

The Meeting approved the proposed new text. The Rules of Procedure referred to in para 35 above and reproduced at Annex B as Decision 2 (1998) take account of this modification.

(38) In presenting the report of the CEP, the Committee's Chairman pointed out that the Committee had identified several issues related to exchange of information, including overlap and duplication in the requirements set by ATCM, by SCAR and by COMNAP, and in the extensive reporting requirements given in the Environmental Protocol. The Committee had further agreed that there is a need to simplify the means for information exchange and that the use of electronic mechanisms would be valuable, including the establishment of an Internet home page. The format of the home page, however, still remained to be finalised, as were the modalities for protecting documents in an electronic exchange system. The Committee therefore suggested that these and other related issues be considered by ATCM XXII. In order to facilitate the work of the Committee, its Chairman urged Members to indicate their e-mail addresses in the list of participants at the Meeting.

(39) Referring to paragraphs 10 and 11 of the CEP Report, the Committee's Chairman reminded the Meeting that there was a need to clarify the division of labour between the CEP and Working Group II in order to avoid duplication of work. Since the CEP is still in its formative stage and already had a large work programme for ATCM XXIII, he underlined that

the CEP did not now propose that the ATCM should transfer tasks to it from WG II. At the same time the Committee was cognisant of its role as advisor to the ATCM, and would of course carry out any tasks directed to it.

(40) Referring to the Agenda agreed by the Committee the Chairman pointed out that the Committee had a considerable work load for the time ahead. The Committee had agreed to establish open-ended, e-mail based, inter-sessional contact groups as the basic mechanism for preparing the next ATCM, and had designated lead countries for each group. It had further gratefully accepted the generous offer of Peru to organise a pre-sessional one-and-a half day workshop on topics related to Annex V, Article 3 of the Protocol on Environmental Protection immediately prior to the next ATCM, based on the success of the workshop organised at Tromsø ahead of ATCM XXII.

(41) The Meeting expressed its warm appreciation and thanks to the CEP and its Chairman for the valuable and copious work performed. The Meeting adopted:

- Measure 1 on Historic Sites and Monuments regarding Sites N^o 15, 18 and 22. The text of this Measure is reproduced at Annex A;
- Measure 2 on Historic Sites and Monuments regarding the South-West Coast of Elephant Island, South Shetland Islands. The text of this Measure is reproduced at Annex A;
- Resolution 1 on Annex V: Area Protection and Management. The text of this Resolution is reproduced at Annex C;
- Resolution 2 on the Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas. The text of this Resolution is reproduced at Annex C.

ITEM 7: COMPLIANCE WITH THE PROTOCOL ON ENVIRONMENTAL PROTECTION

a. General matters and Implementation by the ATCPs

(42) Australia presented Working Paper (XXII ATCM/WP7) welcoming the entry into force of the Environmental Protocol on 14 January 1998 and proposing that 14 January each year be recognised as "Antarctic Environment Day". There was widespread support for steps to highlight the importance of the Protocol as well as the Antarctic Treaty System as a whole, with attention drawn to the fact that 1999 will mark the 40th anniversary of the signing of the Antarctic Treaty. At the same time, the proposal did not gain the support of all Delegations because of concern expressed by several Delegations over the number of requests their Governments are receiving for declaration of "Days". The Meeting encouraged Australia to revisit this issue at ATCM XXIII.

(43) Chile introduced Working Paper (XXII ATCM/ WP22) on "Protection of the Antarctic Environment Declaration of the XXII ATCM" and suggested that the entry into force of the Protocol on Environmental Protection and the establishment of the Committee for Environmental Protection (CEP) should be duly commemorated by a Declaration of the Parties at Tromsø. While there was insufficient time to complete consideration of the Declaration, the

Meeting welcomed this initiative intended to announce the significance of the designation of Antarctica as a natural reserve devoted to peace and science.

(44) The discussion on consequences of the establishment of the Committee for Environmental Protection was based on three Working Papers (XXII ATCM/WP20, Norway, XXII ATCM/WP23, New Zealand and the Netherlands and XXII ATCM/WP24, United Kingdom). These Papers were acknowledged as valuable contributions on this important matter.

(45) Several Delegations emphasised that even though the CEP is the most important advisory body within the ATCM on issues related to the implementation of the Protocol on Environmental Protection, other bodies, notably SCAR, COMNAP and CCAMLR, retain the ability to provide independent advice to the ATCM.

(46) It was noted that the establishment of the CEP will have implications for the work of Working Group II, and that the ATCM may need to reflect upon the consequences for the structure and future organisation of the work of the ATCM. To that end, it was agreed that the issue of the consequences of the entry into force of the Protocol should be kept on the agenda for future ATCMs.

(47) The Meeting recognised the detailed discussions that had been held in the Committee for Environmental Protection on Comprehensive Environmental Evaluations, and it endorsed paras 25 and 26 in the Report from the Committee for Environmental Protection to ATCM XXII recalling in this regard para 32 from ATCM XXI Final Report.

(48) The Meeting also endorsed the recommendation from the Committee that a Workshop on Protected Areas be held immediately ahead of ATCM XXIII, and agreed its Terms of Reference as set out in para 49 of the Committee's report.

(49) The Meeting had a preliminary exchange of views on questions related to the future ways and means of conducting ATCM business more efficiently. During that discussion, many valuable ideas were raised. The Meeting requested Norway as the Host Government to forward the summary of the ideas presented by the Chairman of Working Group II for consideration at ATCM XXIII. (Cf. Appendix 2 to this Report.)

(50) The Meeting noted the following Information Papers on the national implementation of the Protocol on Environmental Protection and activities in the Antarctic 1997/98: (XXII ATCM/IP3, United Kingdom) describing the implementation of the Protocol into its domestic legislation, (XXII ATCM/IP31, 32 & 33, the Netherlands). Information Paper 31 described the implementation of the Protocol into its domestic legislation, while Information Paper 32 contained the actual text of the Protection of Antarctica Act. Information Paper 33 outlined a Draft Decree on the Protection of Antarctica. (XXII ATCM/IP38, Uruguay), describing measures adopted in compliance with the Protocol, (XXII ATCM/IP43, Chile), describing their approach to the enforcement of the Protocol, (XXII ATCM/IP45, Japan), describing the measures taken for the Implementation of the Protocol, (XXII ATCM/IP63, Russian Federation), describing measures to ensure the Implementation of the Protocol upon its ratification by the Russian Federation. (XXII ATCM/IP73, United States of America) containing a report with respect to Article 13 (1) of the Protocol, (XXII ATCM/IP94, ASOC) describing a proposal for a Sub-Agenda item on Energy Management in the Antarctic, (XXII ATCM/IP110 and 114, Finland), describing the implementation of the Protocol in Finland. And (XXII

ATCM/IP115, Bulgaria), containing the Bulgarian acceptance of Annex V to the Madrid Protocol and approval of Recommendation XVI-10.

(51) The Meeting noted the nomination of arbitrators of Germany, India and Greece in accordance with Article 2 of the Schedule on Arbitration to the Protocol on Environmental Protection (XXII ATCM/IP26, Germany, XXII ATCM/IP83, India, XXII ATCM/IP119, Greece). The United States as Depository Government offered to maintain a list of designated arbitrators based on information provided by Parties to the Protocol through diplomatic channels.

(52) The Meeting welcomed the participation from invited Experts on a variety of issues.

b. - f. Matters covered by Annexes I - V

(53) The matters covered by Annexes I through V of the Protocol on Environmental Protection:

- Annex I: Environmental Impact Assessment,
- Annex II: Conservation of Antarctic Fauna and Flora,
- Annex III: Waste Disposal and Waste Management,
- Annex IV: Prevention of Marine Pollution, and
- Annex V: Area Protection and Management,

were discussed by the Committee for Environmental Protection. The Report of the Committee on these matters (items 4b-4f) is reproduced at Annex E. The ATCM took note of this Report.

In addition, the Meeting noted that CCAMLR had endorsed at its XVIth Meeting the draft text relating to Marine Areas. The Meeting, in consequence, adopted Decision 4 (1998), reproduced at Annex B.

ITEM 8: EMERGENCY RESPONSE AND CONTINGENCY PLANNING

(54) The Meeting recalled Resolution 1(1997) on Emergency Response Action and Contingency Planning adopted at the ATCM XXI.

(55) The discussion was based on three Working Papers (XXII ATCM/WP2, United Kingdom, XXII ATCM/WP12, Norway, and XXII ATCM/WP16, Germany) dealing with the issues of emergency response action and contingency planning as provided for in Article 15 of the Environmental Protocol. The United Kingdom presented its Working Paper, emphasising the draft resolution contained in the Paper. Norway presented its Working Paper, which contained a draft resolution that was similar in its intention to the draft resolution presented by the United Kingdom. Germany presented its Working Paper, emphasising the need to differentiate between measures needed for sea and land-based activities.

(56) The Meeting also had before it Information Paper (XXII ATCM/IP6) on emergency contingency planning in the Antarctic and Information Paper (XXII ATCM/IP62) on guidelines for reporting oil spill incidents in Antarctica, both submitted by COMNAP. Information Paper 6 contained a survey COMNAP was asked to carry out by ATCM XXI. In addition to the two Information Papers submitted by COMNAP, the IMO introduced Information Paper (XXII ATCM/IP96) with the text of the International Convention on Oil Pollution Preparedness. The IAATO introduced Information Paper (XXII ATCM/IP104) on oil spill contingency

planning. IAATO informed the meeting that all IAATO vessels carry Ship-board Oil Pollution Emergency Plans (SOPEPs).

(57) The Meeting endorsed the importance of applying the 1992 COMNAP Guidelines as well as the Guidelines for Reporting Oil Spill Incidents which Occur in Antarctica (XXII ATCM/IP62).

(58) The Meeting also drew attention to the need for the full application of paras 1 and 2 of Resolution 1 (1997) adopted at ATCM XXI. Those paragraphs state:

- That those Consultative Parties whose research stations and vessels operating in Antarctica are not covered by contingency plans should take the necessary steps to ensure that the operators of the stations and vessels introduce plans based on the 1992 Guidelines prepared by COMNAP.
- That the Consultative Parties, individually or collectively, should to the extent possible carry out regular contingency exercises, both theoretical and practical on land and at sea, to test and thereby refine their contingency plans, and report on the results of the exercises to the ATCM. Exercises at sea should be carried out in accordance with the relevant maritime conventions.

(59) The importance of continued reporting on the extent to which contingency plans have been put into place (para 4 of Resolution 1 (1997)) was underlined.

(60) Taking into account the Working Papers submitted by Norway, the United Kingdom and Germany, the Meeting adopted Resolution 6 (1998) (Annex C).

ITEM 9: THE QUESTION OF LIABILITY AS REFERRED TO IN ARTICLE 16 OF THE PROTOCOL

(61) Professor Wolfrum, Chairman of the Group of Legal Experts on Liability, introduced Working Paper (XXII ATCM/WP1) containing the report by the Group of Legal Experts prepared at the Group's meeting in Cape Town on 17-22 November 1997. Professor Wolfrum said that the Group of Legal Experts had fulfilled its mandate given by ATCM XXI by issuing Working Paper 1, which was received by the Meeting.

(62) Professor Wolfrum made a specific mention of the seven key issues contained in Working Paper 1 which the legal experts identified as requiring input from the ATCPs.

(63) The Meeting expressed its sincere appreciation to Professor Wolfrum for his work as Chair of the Group.

(64) The Chairman then outlined the procedural matters on which the Meeting would need to make decisions. These included:

- The appropriate forum in which the work on liability should be continued.
- A possible time-frame for completion of the work on liability.
- The expertise needed for the deliberations.
- Work on risk assessment and any related intersessional work.

- (65) On the question of the appropriate forum for the continuing work on liability, the Meeting agreed that Working Group I of the ATCM was the appropriate body. In this respect the importance of having sufficient time at ATCM XXIII for deliberations on liability, including factual and practical aspects thereof, was noted; and Parties were called upon, in preparation for ATCM XXIII, to liaise as appropriate on this issue, in the interim period.
- (66) Germany introduced Working Paper (XXII ATCM/WP15) on the need to bring data and facts, i.e. risk analysis, into the further deliberations on liability. The Meeting endorsed this proposal.
- (67) A number of Delegations pointed out that COMNAP and other expert bodies should provide input to ATCM XXIII on these practical aspects of the liability issue. The desirability of receiving the advice of the CEP on this matter, as well as information from other sources such as IAATO and SCAR was also underlined.
- (68) The Meeting adopted Decision 3 1998, reproduced at Annex B.
- (69) The Meeting requested the CEP to provide advice on the matters covered by para 3(c) of the Decision and also invited IAATO to submit an Information Paper on them. The Meeting further stressed the importance of the Parties themselves providing such information, including aspects of insurance, to ATCM XXIII.
- (70) The key issues discussed by the Meeting were those set forth on pages 17 and 18 of the Report of the Group of Legal Experts;
- (71) The first key issue was the question of whether work on an annex on liability should follow a comprehensive approach covering all categories of harmful impacts, or whether one should envisage more than one annex and should concentrate initially on an annex dealing with the failure to take response action in the event of environmental emergencies in accordance with Article 15 of the Protocol.
- (72) Delegations favouring the comprehensive approach, on the lines of the draft proposed by the Chairman of the Group of Legal Experts, emphasised that all aspects of liability should be covered in one single annex. Other Delegations favoured a step-by-step approach, dividing the rules and procedures on liability into two or more annexes. The United States suggested that environmental emergencies are the main threat to the Antarctic environment, and it would be appropriate to refer to the American proposal tabled in the Expert Group and annexed to its report.
- (73) Some Delegations that spoke in favour of a gradual approach suggested that initial focus should be given to environmental damage resulting from activities in violation of the Protocol. It was emphasised by others that it would be necessary to agree on all principles and key issues of an environmental liability regime before dealing with the first annex.
- (74) Some Delegations noted that the task of elaborating texts on liability for environmental damage in the Antarctic is a very complex and difficult one, and that many issues remain to be solved. For this reason they saw the need for new approaches to ensure a rapid solution to the issues concerning liability.

(75) The second key issue was whether an annex on liability should contain obligations for the operator to take (i) precautionary measures, (ii) response action, or (iii) remedial measures. Some Delegations considered that at least some of those obligations are not covered by the Protocol and that elaboration of such obligations should not be included in an annex or annexes on liability. The greatest concern reflected inclusion of obligations to take remedial measures, to which some Delegations had significant objections. Other Delegations disagreed and concluded that all three issues should be included in an annex on liability. Some Delegations, while speaking in favour of elaborating rules on these issues, preferred to deal with them in a separate annex.

(76) In this context the question was raised whether it was appropriate to create direct obligations for operators. Whereas some Delegations were in favour of only establishing State obligations, others thought it necessary to channel liability to the operator.

(77) The third key issue was whether all activities in the Antarctic Treaty Area should be addressed by an annex on liability in a uniform way, or whether scientific and associated logistic activities should be given preferential treatment and, if so, to what extent. In addition, what consideration should be given to any effects of a liability regime on co-operation among State Parties and/or their national programmes.

(78) It was pointed out that the rules and regulations on liability should be consistent with the objective of the Environmental Protocol designating Antarctica as a natural reserve, devoted to peace and science and that a liability regime should not undermine appropriate activities. Some Delegations spoke in favour of preferential treatment for science and associated logistic activities as far as liability was concerned. Other Delegations saw no justification for treating science differently.

(79) The fourth key issue was whether it would be appropriate to require compensation for environmental damage when either (i) nothing has been done to repair the damage or (ii) the damage could not have been repaired, and on what basis the amount of compensation for such unrepaired damage should be determined. Most Delegations spoke in favour of requiring compensation for environmental damage when nothing has been done to repair the damage when the damage is repairable, although others had difficulties with that view.

(80) As regards inclusion of compensation for irreparable damage there was disagreement. Some Delegations opposed this as there are considerable difficulties in identifying proper means of measuring compensation in such cases. Those Delegations in favour of including such a provision believed that an operator which has caused such damage should not be in a better position than an operator which has caused damage which has been repaired or has been the subject of response action. Other Delegations cautioned against introducing punitive elements in a liability regime. Certain other Delegations felt that the proposal under consideration did not give rise to punitive elements. It was also suggested that the issue of irreparable damage should be addressed separately at a later stage.

(81) The fifth key issue was whether an annex on liability should provide for the establishment of an Environmental Protection Fund and, if so, how it should be administered. It was recognised that the establishment of a fund was linked to issue no. 4 as the money such a fund would be likely to receive would be voluntary contributions or compensation for unrepaired damage. Some Delegations could in principle support the establishment of a fund, but several

questions on administration and legal personality remain to be solved. Some suggested that the fund might be administered by an existing secretariat. Other Delegations expressed views against the establishment of a fund.

(82) The sixth key issue was whether environmental impacts resulting from activities found acceptable by national authorities following EIA procedures should be excluded from a liability regime and, if so, whether the exclusion should apply to both IEEs and CEEs. Some Delegations held that environmental impacts assessed both in IEEs and CEEs should be excluded from a liability regime. Others favoured exclusion only for impacts assessed in CEEs. Some of those Delegations favouring these exemptions stated that EIAs should always properly scope the activity for possible adverse impacts. It was noted by several Delegations that there is no precedent in international law for linking the EIA process to exemptions from liability. Other Delegations noted that there were few international liability regimes in force, and that linkage in the context of Antarctica was necessary. Others did not want to use EIAs as a means of excluding impacts from the definition of damage.

(83) The final key issue was whether the harmful impact of activities which are lawful under the Protocol should nevertheless attract liability. (Such activities include marine discharges as permitted under Annex IV to the Protocol and cases of emergency related to the safety of human life).

(84) Some Delegations believed that no liability should be established for environmental impacts incurred from activities permitted under the Environmental Protocol. Others were of the opinion that not all permitted activities should be exempted from liability; such exclusion should depend on the type of activity and by whom the activity was being undertaken in deciding whether it should incur liability or not.

ITEM 10: SAFETY OF OPERATIONS IN ANTARCTICA

(85) COMNAP introduced Working Paper (XXII ATCM/WP13) and Norway introduced Working Papers (XXII ATCM/WP17 and 18) regarding the draft International Code of Safety for Ships Operating in Polar Waters (The Polar Code). The Meeting expressed its gratitude to Norway and COMNAP for their valuable contributions on this issue.

(86) The Meeting noted that a draft Polar Code has been developed with the aim of harmonising ship design rules and to enhance the safety of ship operations and environmental protection in the polar regions. It was also noted that the Outside Working Group (outside IMO) involved in preparing the draft Polar Code had been drawn from Northern Hemisphere maritime countries and, as a consequence, had not fully taken cognisance of the environmental, operational, legal and political differences between the Arctic and Antarctic. In 1997 the Outside Working Group lodged its draft code with the IMO for consideration.

(87) In Working Paper (XXII ATCM/WP18) by Norway, the need for Treaty Parties to work with the International Maritime Organisation (IMO) on the development of the Polar Code was underlined. It was also suggested that the Polar Code should be reconsidered at ATCM XXIII to allow Parties to develop further input to IMO on this issue.

(88) Working Paper (XXII ATCM/WP13) by COMNAP outlined the principal matters of concern to national Antarctic operators which COMNAP hoped would be considered by IMO.

COMNAP expressed appreciation for the considerable work done by the Outside Working Group and emphasised that further development of the Code, as well as other matters related to ship design and safety, should continue to be handled by IMO with input from Treaty Parties via their national maritime authorities.

(89) The Meeting recalled that the Antarctic Treaty Parties had addressed the issue of maritime safety in the Antarctic area through the Environmental Protocol and recognised that Parties retained primary responsibility for the implementation of the Protocol, including protection of the marine environment. The requirements of Article 10 of Annex IV relating to ship design, construction and operation were noted particularly.

(90) The invited IMO expert explained IMO's role regarding ship safety and marine environmental issues and informed the Meeting of the process of development which the draft Polar Code is undergoing within IMO. It is IMO's hope, at this stage, to finalise the Code within two years and to formally adopt it at the IMO Assembly in 2001. The IMO expert urged Treaty Parties to ensure that Antarctic matters are raised with IMO at the earliest possible stage and explained that the first opportunities to do so were during the meetings of IMO's Marine Environmental Protection Committee in November 1998 and the Maritime Safety Committee in December 1998.

(91) The Meeting considered the suggestions made by COMNAP that there should be special training and qualification requirements for ship's officers and crews operating in the Antarctic and that special navigation/communications equipment standards for Antarctica should also be examined.

(92) The Meeting asked COMNAP to develop guidelines on training requirements and to provide guidance on navigation/communication equipment. It was suggested that COMNAP make the information available to Treaty Parties through COMNAP channels at the earliest opportunity for use by Parties when preparing their contributions to the IMO review process. The meeting also requested COMNAP to report on the results of this work to ATCM XXIII.

(93) The Meeting considered that information on current best practices of Antarctic shipping activity would be useful to Parties in further developing the Antarctic elements of the Code. COMNAP was therefore requested by the Meeting to compile information on current standards of shipping in Antarctica, making use of existing sources of information where possible, and if feasible stating the categories of ships concerned (e.g. state ships, military ships, commercial ships, etc.). The Meeting requested that COMNAP make this information available to Parties through their national representatives and report back to ATCM XXIII on the results of the study.

(94) The Meeting agreed that a draft Polar Code, whether adopted as a mandatory or non-mandatory document within IMO, will have a significant influence on future shipping activity in Antarctica. Consequently, Parties should be actively involved in the development of the Code in order to ensure that Antarctic issues are adequately represented. The Meeting subsequently adopted Resolution 3 (Annex C).

(95) The Meeting also agreed that Parties should consider the following actions:

- ensure that their relevant authorities are aware of the proposed Polar Code and the development process that is currently underway within IMO;
- ensure that their relevant national authorities study the draft Polar Code carefully, considering the Polar Code requirements in the light of the operational, environmental and logistical challenges of working in Antarctica;
- provide information and comments through their relevant national maritime authorities, to IMO, to ensure that guidelines or regulations regarding polar shipping will be practical and relevant to both Arctic *and* Antarctic shipping.

(96) The meeting asked Norway, as host Government, to convey the COMNAP paper (ATCM XXII/WP13) to IMO.

ITEM 11: RELEVANCE OF DEVELOPMENTS IN THE ARCTIC AND THE ANTARCTIC

(97) Canada introduced Information Paper (XXII ATCM/IP79) on relevance of developments in the Arctic and the Antarctic. The Meeting was informed of the latest events in Arctic co-operation and made aware of the relevance of these developments for activities in the Antarctic. Of particular importance is the establishment of the Arctic Council in 1996, which is scheduled to hold its first meeting, at ministerial level, in September 1998. The Council oversees and co-ordinates programmes originally established under the Arctic Environmental Protection Strategy (AEPS): the Arctic Monitoring and Assessment Program (AMAP), Conservation of Arctic Flora and Fauna (CAFF), Protection of the Arctic Marine Environment (PAME), and Emergency Prevention, Preparedness and Response (EPPR). AMAP has recently completed two major reports: "State of the Arctic Environment Report" and "The AMAP Assessment Report", which may also be of interest to those concerned with pollution in the Antarctic.

(98) Canada further drew the attention of the Meeting to some other developments in the Arctic of relevance to the Antarctic: the International Code of Safety for Ships in Polar Waters; efforts to establish compatible guidelines related to environmentally protected areas, e.g. within the Circumpolar Protected Areas Network (CPAN); the reprogramming of RADARSAT enabling it to provide imagery of the Antarctic as well as the Arctic regions; the continuing co-operation between the International Arctic Science Committee (IASC) and SCAR; and the Danish Government's decision to provide long-term funding for the fundamental research station Zackenberg, Greenland, which has the potential to constitute a useful northern hemisphere reference for Antarctic studies.

(99) The Meeting thanked Canada for the report and echoed the view that there were several important points of convergence between the two polar areas, not the least with regard to the question of environmental protection. The Meeting referred to two information papers submitted by Norway in this connection and noted that the trip to Svalbard would be useful.

(100) Chile drew the attention of the Meeting to the Chilean-Canadian academic co-operation programme "Arctic-Antarctic - Poles Apart?". SCAR announced that it would be holding a bi-polar symposium with IASC entitled "Polar Aspects of Global Change" in Tromsø 24-28 August 1998.

ITEM 12: TOURISM AND NON-GOVERNMENTAL ACTIVITIES IN THE ANTARCTIC TREATY AREA

(101) The United Kingdom introduced Information Paper (XXII ATCM/IP1) providing an overview of yacht visits to Antarctica in the period 1970-98. The Meeting expressed its appreciation to the United Kingdom for the paper. The report shows that the number of yachts visiting Antarctica has increased steadily since the early 1970s. The United Kingdom also noted that yachts were increasingly taking fare paying passengers and that many commercial yacht operators are not IAATO members. IAATO was encouraged to continue their efforts to have yacht operators join their organisation.

(102) The United States, the United Kingdom and the Federal Republic of Germany introduced Information Paper (XXII ATCM/IP27), describing results to date of the Antarctic Visitor Site Inventory project. Two documents have been published since the conclusion of ATCM XXI: i) *Compendium of Antarctic Visitor Sites: A Report to the Governments of the United States and the United Kingdom*, and ii) *The Oceanites Site Guide to the Antarctic Peninsula*. The Compendium includes site descriptions, data on fauna and flora, orientation maps, and photographs of sites in the Antarctic Peninsula that are being visited by tourists. The Site Guide provides a summary of this information that can be readily utilised by visitors, Antarctic tour operators, and expedition staff. The Compendium makes a number of recommendations to help meet the assessment and monitoring requirements of the Protocol. The Compendium can be obtained from the US State Department, Office of Oceans Affairs, and the UK Foreign and Commonwealth Office, Polar Regions Section. The Site Guide can be obtained from Oceanites, Inc. (oceanites@aol.com).

(103) Several Delegations commented that the project is providing valuable information: data are being collected in accordance with CCAMLR Ecosystem Monitoring Program Standard Methods to ensure they contribute to the CCAMLR database and assessment and monitoring goals under the Protocol, including the assessment of potential cumulative effects of Antarctic tourism. IAATO noted that its efforts to meet obligations under the Protocol have been assisted by data and information compiled and made available by the Inventory.

(104) The importance of using accurate place names in site visit reports was noted by several Delegations. SCAR informed the Meeting that it is completing a gazetteer of all place names in Antarctica that may assist this effort. The gazetteer will be tabled at the SCAR meeting in Chile in July 1998.

(105) Australia informed the Meeting of its work in developing similar site information in East Antarctica, and stated that it will take account of the Antarctic Site Inventory project in its further work. The Meeting noted the usefulness of undertaking such inventory studies in other parts of the Antarctic.

(106) Argentina introduced Information Paper (XXII ATCM IP/116) reporting on tourism through Ushuaia in the 1997-98 season and IAATO introduced Information Paper (XXII ATCM/IP86) which provides an overview of Antarctic tourism including the number of tourist visits to the Antarctic during the 1997/98 season and an estimate for the 1998/99 season. The meeting expressed appreciation to Argentina and IAATO for the information provided in the reports.

(107) The Meeting noted that the information presented in the IAATO report is of great value. Several Delegations asked questions concerning the flagging of tourist vessels and the number of tourists visiting various sites. It was noted that it would be useful if future reports also included information on the flag state of tourist vessels, and information on the number of tourists that visit the various sites each season, in order to have information on the distribution of the possible effects of tourism on the individual sites.

(108) The Meeting also noted that all IAATO members operating ships in the Antarctic, regardless of the Flag State, are required to comply with IAATO Guidelines and Bylaws.

(109) The Meeting noted that there are tourist companies organising expeditions from non-Consultative Parties which have yet to ratify the Protocol. The Meeting repeated its call to non-Consultative Parties with a particular interest in, or responsibility for, tourist companies operating in the Antarctic to ratify the Protocol and its Annexes at the earliest opportunity and to introduce any necessary domestic enabling legislation to ensure compliance.

(110) IAATO tabled Information Paper (XXII ATCM 105) regarding the trial Post-Visit Report Form endorsed by the Parties at ATCM XXI in Christchurch (XXI ATCM/IP105). The Meeting thanked IAATO for its work in further refining the standard form for reporting on tourism and non-governmental activities. The Meeting agreed that the changes in the form recommended by IAATO should result in the compilation of more reliable information on the level of tourist activity at various sites. The Meeting agreed that the recommended revisions be adopted and that the form be kept under review. The revised form is attached at Annex J.

(111) The Meeting welcomed the investigation by IAATO concerning the development of a computer database version of the form which would facilitate compilation and analysis of visit reports. One Delegation asked IAATO to ensure that the database is made freely available to the Parties and other interested organisations and researchers.

ITEM 13: INSPECTIONS UNDER THE ANTARCTIC TREATY

(112) The Meeting noted that no inspections under Article VII of the Antarctic Treaty had been carried out since ATCM XXI. The Meeting noted the importance of inspections and the role that inspections by Parties have played in assuring effective implementation of the Treaty and co-operation among Parties. The Meeting further emphasised that inspections under Article VII can also play an important role in examining compliance with the Protocol on Environmental Protection. Parties were encouraged to continue carrying out such inspections, taking advantage of checklists that have been developed for this purpose.

(113) Australia again offered to make space available on its vessels to allow inspections in East Antarctica.

(114) Germany and Russia informed the Meeting that they intended to carry out inspections within the next few years.

ITEM 14: OPERATIONAL ISSUES

(115) The United States introduced Information Paper (XXII ATCM/IP28) regarding possible means of improving the system of annual exchange of information. The paper noted the following three issues regarding the current method of information exchange:

- Overlapping and in some cases duplicative information requirements;
- Outdated and inefficient mechanisms for the preparation and distribution of information;
- Loss in timely delivery of information.

(116) The Meeting expressed gratitude to the United States for submitting this paper. Several Delegations noted the usefulness of the World Wide Web as a tool for exchanging information. The Meeting noted the utility of developing a common format for meeting the exchange of information requirements. It was, however, added that there are at least two different types of information exchange requirements: one pre-season exchange of information and one post-season exchange of information. It was noted that there is a need to rationalise the information exchange system and that consideration should be given to what information is exchanged and why, as well as how the process could be improved. SCAR and COMNAP informed the Meeting that they were both intending to review their information exchange formats. The Meeting agreed that exchange of information would be a priority item on the agenda of ATCM XXIII, and that the issue should be further discussed at that Meeting.

(117) COMNAP submitted Information Paper (XXII ATCM/IP7) providing an overview of scientific and operational co-operation in Antarctica, indicating the extent of such co-operation in national Antarctic programmes. The Meeting welcomed this report.

(118) WMO submitted Information Paper (XXII ATCM/IP76) on the improvement of the meteorological network system in Antarctica through international co-operation. In this report it was noted that:

- The 12th WMO Congress emphasised the importance of the target time of “within three hours” for the reception of data at the Global Telecommunications System (GTS) Main Network Centres and at other Antarctic stations.
- The availability and appropriate use of satellite communications offers new opportunities for improvement in Antarctic telecommunications.
- Real time exchange of meteorological data will provide a clear advantage for operational and research activities in Antarctica.
- WMO surface and upper air weather observing networks over Antarctica and the Southern Oceans need to be designed so that they also will serve to support the Global Climate Observing System (GCOS).
- A plan should be established as to where Automatic Weather Stations (AWS) should in the future be installed and maintained so as to provide input to the GTS.

(119) WMO was congratulated on its report. One Delegation stressed the importance of long-term monitoring based on network collaboration to detect climate change and noted that global climate observation systems need a bi-polar approach. Another Delegation suggested

that WMO be requested to prepare a paper describing their vision for the future regarding the requirements for further co-operative action within this field. The Meeting requested SCAR to review these issues at its forthcoming 25th meeting and to advise ATCM XXIII on the outcome.

(120) Additional Information Papers were tabled by Peru describing the Peruvian Antarctic Station "Machu Picchu" (XXII ATCM/IP12), the geological characteristics of the station area (XXII ATCM/IP17), the use of alternative energy at the station (XXII ATCM/IP19) and the isotopic characteristics of the station's aquifer (XXII ATCM/IP20). It was noted that environmental impact assessments had been carried out in a preliminary fashion during the construction phase of the station, and now that the Protocol is in force a more substantial evaluation will be carried out.

(121) Uruguay tabled Information Paper (XXII ATCM/IP39) on the reconstruction of the former British "Hope Bay" Refuge, now the Uruguayan Antarctic Scientific Station "T/N Ruperto Elichiribehety" (ECARE).

(122) The Russian Federation tabled Information Paper (XXII ATCM/IP65) regarding plans for the development and modification of the infrastructure of the Russian Antarctic Expedition in 1998-2001.

(123) China tabled Information Paper (XXII ATCM/IP70) describing the oil spill contingency plan for the Chinese Antarctic vessel Xuelong.

(124) The Meeting emphasised the extreme operating conditions in the Antarctic. In this context the Meeting noted with sadness the disappearance of three members of a boat crew of the Argentine Antarctic expedition during the 1997/98 season, as well as the tragic loss of 5 members of the Russian Antarctic expedition in June 1998, in a helicopter accident. The Meeting expressed its deeply felt condolences and sympathy to the bereaved families and to the Antarctic programmes that have experienced these unfortunate accidents, and conveyed its condolences to the families through the relevant Delegations.

ITEM 15: SCIENCE ISSUES

(125) Peru introduced the following Information Papers: (XXII ATCM/IP11) containing a description of a technological study to obtain krill meal, (XXII ATCM/IP13) and (XXII ATCM/IP15) regarding environmental radioactivity on the "Machu Picchu" Antarctic Station, and (XXII ATCM/IP16) regarding preliminary results from a Peruvian radar project. It was noted that the information contained in the first paper (XXII ATCM/IP11) might be conveyed to the next CCAMLR Meeting. The Meeting commended the valuable work done by Peru, and some Delegations took the opportunity to thank Peru for the good scientific co-operation they had recently developed with them.

(126) Italy introduced Information Paper (XXII ATCM/IP36) regarding the international scientific co-operation in the Italian Antarctic Research Programme. The Republic of Korea submitted Information Paper (XXII ATCM/IP58) on international collaborations on scientific activities in the Antarctic.

(127) The Russian Federation submitted an Information Paper (XXII ATCM/IP64) describing research conducted at the subglacial Lake Vostok. The Russian Federation also introduced Information Paper (XXII ATCM/IP68) on deep drilling activities at the Vostok Station. The Meeting thanked Russia for its interesting Information Papers. The discovery of the subglacial Lake Vostok represents a unique event and offers the opportunity of further promising scientific research. The Meeting was encouraged to learn of the very careful and precautionary approach that the Russian Federation has taken. It was also noted that a Comprehensive Environmental Evaluation (CEE) is being prepared, and that the drilling has been halted pending that CEE. The Russian Federation will prepare regular updates on science and technological developments regarding the Lake Vostok project which will be discussed with SCAR.

(128) The Russian Federation also introduced Information Paper (XXII ATCM/IP67) on environmental monitoring at the Bellingshausen Station, drawing attention to an observed decrease in the number of Southern Giant Petrels.

(129) WMO tabled Information Paper (XXII ATCM/IP77) on Antarctic stratospheric ozone. The Meeting commended the valuable work and found the Paper gave an interesting overview on climate research.

(130) SCAR and COMNAP submitted Information Paper (XXII ATCM/IP85) on Antarctic Data Management and drew attention to major areas of concern related to: the difficulty of getting investigators to provide data to National Antarctic Data Centres (NADCs); that many Treaty Parties have still not nominated NADCs; and, the management of data so that free access is enabled. The Meeting noted that full implementation of the Antarctic Data Directory System is essential to maximise the value of data being collected in Antarctica. The Meeting agreed that specific action should be taken by Consultative Parties as set out in Resolution 4 (Annex C).

(131) SCAR introduced Information Paper (XXII ATCM/IP92) on SCAR's Global Change Research Programme and Information Paper (XXII ATCM/IP91) giving a broad overview of other areas of scientific research that are currently being undertaken in the Antarctic. The Meeting expressed its appreciation for the work done by SCAR.

(132) The Meeting welcomed Information Paper (XXII ATCM/IP109) tabled by ASOC on climate change. ASOC urged all Antarctic Treaty Parties to ratify the Climate Change Convention and to take immediate steps to meet the requirements of the Kyoto Protocol. Parties were furthermore urged to use their particular knowledge of Antarctica to raise awareness of the issues in appropriate fora.

(133) One Delegation remarked that in discussions in other intergovernmental fora, such as the Conferences of the Parties to the Framework Convention on Climate Change and the Convention on Biological Diversity, too little attention is paid to the results of scientific research in Antarctica. Some Delegations supported the suggestion that it might be useful for the ATCM to send a message to these other fora, alerting them to important changes in the Antarctic environment, caused by developments elsewhere.

(134) India submitted Information Paper (XXII ATCM/IP123) informing the Meeting about the international scientific and logistical co-operation within the Indian Antarctic Programme.

(135) Ukraine submitted Information Paper (XXII ATCM/IP57) on Scientific Priorities of the Antarctic Programme of Ukraine. Bulgaria submitted Information Paper (XXII ATCM/IP98) on the planned Bulgarian activities in Antarctica in the period 1998-2003.

(136) Sweden submitted Information Paper (XXII ATCM/IP128) on the Swedish Antarctic Expedition (SWEDARP) in the 1997/98 season.

ITEM 16: EDUCATION ISSUES

(137) The Meeting welcomed the Australian draft Antarctic Treaty Introductory Booklet contained in Working Paper (XXII ATCM/WP6), which Australia had offered to draft at ATCM XXI. The Meeting thanked Australia for the work it had done, and noted that the draft document would provide a valuable basis for individual Parties to further develop such information for their nationals. Parties were encouraged to provide Australia with written comments (e-mail: *Andrew_jac@antdiv.gov.au*), who in turn will undertake to revise the draft based on such comments and submit a revised document to ATCM XXIII.

(138) The Meeting also welcomed the COMNAP and IAATO Information Papers (XXII ATCM/IP5 and XXII ATCM/IP87, respectively) providing Parties with an overview of the range of educational and training programs undertaken by national Antarctic programmes and tour operators for people visiting or working in Antarctica. COMNAP and IAATO had agreed at ATCM XXI to collect such information and report back to ATCM XXII. The Meeting recalled that Chile, assisted by New Zealand, had offered to host a forum on education and training during the 10th COMNAP meeting to be held at Concepción during July 1998. The Meeting requested COMNAP to table the report of this forum at ATCM XXIII so that Parties could further consider what action, if any, Parties and the ATCM might need to take.

(139) Bulgaria noted that the overview given in the COMNAP Information Paper (XXII ATCM/IP5) did not include information on the Bulgarian Antarctic Institute's training program. Bulgaria informed the Meeting that before departure to Antarctica it organises a one week training course for those participating in its Antarctic expeditions.

(140) The Republic of Korea also noted that the Korean Antarctic Research Program's education and training program was not shown in the COMNAP Information Paper and informed the Meeting that a one week long education and training program on environmental protection and safety is provided to their expedition members prior to departure to Antarctica.

(141) The attention of the Meeting was drawn to the fact that during 1997/98 a number of commemorations, exhibitions, and symposia enhanced the awareness of the significance of the Antarctic and attracted wide public attention. The following were especially noted by the Meeting as positive examples of initiatives intended to raise the awareness of the Antarctic and its unique and universal values:

- a) Peru introduced Information Paper (XXII ATCM/IP18) regarding a university competition on the construction of a mock-up of Antarctica. Peru also presented an Antarctic video to be used as an educational tool for schools and the general public in Peru. Delegations congratulated Peru on the video and noted the great value of such videos as an educational tool.

- b) Japan introduced Information Paper (XXII ATCM/IP117) regarding an exhibition on Antarctic expeditions and on Antarctic matters in general held in connection with the 40th anniversary of the Japanese Antarctic Research Expedition. Japan noted that the exhibition contributed to the appreciation of Antarctic expeditions and raised the awareness of Antarctica in Japan.
- c) Sweden submitted Information Paper (XXII ATCM/IP127) describing the involvement of artists in the Swedish Polar Programme.

ITEM 17: PREPARATION OF THE XXIII CONSULTATIVE MEETING

a. Date and Place of the Next Meeting

(142) The Meeting welcomed the invitation of Peru to host the XXIII ATCM. Peru advised the Meeting that ATCM XXIII would take place in Lima, from 24 May to 4 June 1999.

b. Invitation of International and Non-Governmental Organisations

(143) In accordance with established practice, the Meeting agreed that the following organisations having a scientific or technical interest in Antarctica should be invited to send experts to attend ATCM XXIII: ASOC, IAATO, IHO, IMO, IOC, IUCN, PATA, UNEP, WMO and WTO.

c. Preparation of the Agenda at ATCM XXIII

(144) The Meeting approved a preliminary agenda for ATCM XXIII, which is attached at Annex M.

ITEM 18: OTHER BUSINESS

(145) The Meeting sent a message to the Stations in the Antarctic. The text of the message is reproduced at Annex H.

ITEM 19: CONSIDERATION OF BULGARIA'S NOTIFICATION

(146) Pursuant to ascertaining, in accordance with Article X of the Antarctic Treaty, on the basis of the information provided about scientific expeditions and the research carried out, that the activities of the Republic of Bulgaria were in accordance with the principles and purposes of the Treaty; and having recorded its acknowledgement that the Republic of Bulgaria had fulfilled the requirements established in Article IX, paragraph 2 of the Antarctic Treaty and that, as a consequence, was entitled, during such time as it continues in accordance with Article IX paragraph 2 of the Treaty to demonstrate its interest in Antarctica by conducting substantial scientific research there, to appoint representatives in order to participate in the Consultative Meeting provided for in Article IX, paragraph 1 of the Treaty; the Meeting

warmly welcomed the Republic of Bulgaria as a participant in such meetings. The Meeting adopted Decision 1 (1998) reproduced at Annex B.

(147) Bulgaria expressed gratitude to the Representatives of the Consultative Parties for their support. With reference to the entry into force of the Protocol on Environmental Protection for the Republic of Bulgaria on 21 May 1998, Bulgaria stated that relevant national legislative and administrative measures would be taken before the Antarctic campaign 1998/99. Bulgaria informed the Meeting that, should it resume harvesting activity in the CCAMLR area, it will notify the Depository Government for the Convention on the Conservation of Antarctic Marine Living Resources of its willingness to accept Conservation Measures in force and to apply for membership of the Commission.

ITEM 20: ADOPTION OF THE REPORT

(148) The draft Final Report was adopted by Parties on 5 June.

ITEM 21: CLOSING OF THE MEETING

ATCM XXII closed at 1315 on 5 June 1998.

APPENDIX 1**Item 5c) Consequences of the entry into force of the Protocol of Environmental Protection and related issues**

Presentation by the Delegation of Australia:

Australia noted that in offering Hobart as a possible location, it was conscious of the generous offer of Buenos Aires which has been on the table since 1992. Australia also noted, however, that it was equally conscious that unfortunately, and despite widespread support for Buenos Aires, Treaty Parties were no closer to agreement on the location of the Secretariat than they had been in 1992. Australia was keen to do what it could to assist Treaty Parties reach early agreement on this issue.

Australia commented further that the matter was of considerable practical importance given the pressing need to establish a secretariat, which had been recognised by Antarctic Treaty Parties since 1992. The urgent need for a permanent secretariat had become more pressing with the recent entry into force of the Madrid Protocol and the establishment, at this Meeting, of the Committee for Environmental Protection. This additional work has further increased the considerable burden involved in the hosting of Antarctic Treaty meetings.

Australia emphasised that its offer of Hobart was made in the spirit of assisting the achievement of consensus on an issue important to the future effectiveness of the Antarctic Treaty. Australia hoped that its offer would promote discussion and hopefully resolution of this matter. Australia noted that Hobart offered significant advantages in terms of cost-efficiency and effectiveness, given the location in Hobart of the CCAMLR Secretariat and COMNAP. Australia noted that Hobart was well known amongst Antarctic Treaty Parties as a site for Antarctic expertise and hospitality.

Australia welcomed the discussion on this matter, and commented that innovative thinking was necessary in order to find a solution to the long standing impasse on this important issue. It expressed its willingness to work with other delegates in an effort to find a solution to this important issue.

Presentation by the Delegation of Argentina:

Argentina expressed:

- That it shares the general view that a permanent Secretariat is indeed necessary.
- That it considers that Buenos Aires continues to be the quickest lane to a solution and that alternative sites would introduce unnecessary delays.
- That the support of the vast majority of the Consultative Parties, which time has consolidated, is an important aspect which must be considered.

- That it does not seem a healthy practice for the Antarctic Treaty System that the reservation of one single State, which has not gathered support, be allowed to prevail over the will of the rest of the Consultative Parties.
- That non interference of matters alien to the Antarctic within the Antarctic fora is a common and necessary practice which must be preserved.
- The importance of Article IV of the Antarctic Treaty and emphasised that any sort of discrimination should be unacceptable. Moreover it stated that such discrimination is inconsistent with current seat of SCAR and deposit of the Convention of Antarctic Seals.
- That Argentina is not in a position to accept consideration of alternative solutions in relation to the geographical location of the Antarctic Treaty Secretariat whilst it firmly reiterated its most ample disposition and flexibility in relation to all other aspects pertaining the establishment of the Secretariat in Argentina.
- That references made by the UK Delegation in relation to positions sustained at the beginning of the decade regarding the establishment of the Secretariat, are irrelevant and inaccurate. Argentina also expressed its desire to know the grounds for the UK reservation.
- In relation to WP 8 presented by Australia, Argentina expressed that independently of its intrinsic merits, Hobart's candidacy is not consistent with the prevailing opinion that Antarctic bodies should have a balanced geographical distribution.

Presentation by the Delegation of the United Kingdom:

Referring to WP 28 (Argentina) the Delegation of the United Kingdom said it wished to correct certain facts. The UK had very much welcomed the agreement at ATCM XVII that there should be a permanent Secretariat. The UK had always supported the idea, and remained firmly of the view that a permanent Secretariat was essential. In contrast, until 1992 Argentina had been opposed even to the principle of a permanent Secretariat. In 1991 the UK Government decided that it would not be appropriate for the UK, as one of the three counter-claimants, to be a candidate for host country of the Secretariat. We indicated very strongly to Argentina that if she were to offer herself as a candidate this would inevitably result in tension. Unfortunately, Argentina did not heed this warning. UK has always made it clear that it is prepared to join a consensus in favour any one of the other 24 ATCPs being the host country. In contrast, Argentina has made it clear on a number of occasions that it will not consider any other candidate. This inflexible position is quite contrary to the spirit of the ATCM; if consensus on a proposal cannot be reached, efforts are should be made to achieve consensus on an alternative. The UK welcomes the fact that another ATCP has now put itself forward as a candidate, and would urge all ATCPs to consider that and any other candidates with an open mind. If that is not done a resolution of the issue of the site for a permanent Secretariat will be further delayed.

APPENDIX 2

ITEM 17 C): PREPARATION OF THE XXIII CONSULTATIVE MEETING.

Intervention by the Chairman of Working Group II to the ATCM XXII Plenary Meeting, Friday June 5, 1998.

Mr. Chairman,

On behalf of Working Group II, I have the honour to request that the following items be included on the Agenda for ATCM XXIII, with the following text for the report:

The Meeting agreed to consider the following items at the ATCM XXIII:

- **Safety of Operations in Antarctica**
- **Tourism and Non-governmental Activities in the Antarctic Treaty Area**
- **Inspections under the Antarctic Treaty**
- **Science Issues, particularly Scientific Cooperation and Facilitation**
- **Operational Issues**
- **Education Issues**
- **Exchange of Information**

Mr, Chairman, in connection with the discussion of the items proposed, Working Group II had a preliminary exchange of views on questions related to the future ways and means of conducting its business more efficiently in support i..a. of Article IX of the Treaty. During that discussion, many valuable ideas were raised that the Group felt, should be brought forward to ATCM XXIII for more comprehensive consideration and decision at that stage. I would like to inform the Plenary about some of the ideas put forward in the exchange of views, and would like to mention the following in particular:

- **Priority put on scientific research and co-operation in support of main objectives set out in Article IX of the Antarctic Treaty.**
- **Focus and prioritise substantive issues of interest to all or at least a majority of Parties.**
- **Among major issues mentioned were: inspections under the Antarctic Treaty; specific science issues based i.a. on inputs from experts and observers; operations issues such as the Polar Code; rationalisation and information exchange and channels,**
- **Observers and expert groups should be invited to, in addition to their general reports to ATCM Plenary, present proposals on specific, important issues where ATCM consideration and follow-up action would seem particularly desirable. ATCM should in turn focus on the results of scientific research as reported i.a. by SCAR.**

- **During the meetings focus of discussion should be on Working Papers. Parties should be advised to not introduce Information Papers orally, unless they had been requested to do so by another Party or unless it felt that the paper was of special relevance to a major topic under discussion.**

PART TWO

Measures, Decisions and Resolutions adopted at ATCM XXII

Annex A Measures

MEASURE 1 (1998)**Antarctic Protected Areas System: Management Plans for Specially Protected Areas**

Number 27: Cape Royds Historic Site and its environs (Appendix A)

Number 28: Hut Point Historic Site (Appendix B)

Number 29: Cape Adare Historic Site and its environs (Appendix C)

The Representatives,

Recalling Recommendations XV-8 and XV-9;

Noting that Management Plans for the above Areas have been endorsed by the Scientific Committee on Antarctic Research (SCAR);

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

Recognising that these Areas have outstanding historic significance which require long-term protection to ensure that their values are maintained, and to avoid undue human disturbance;

Agreeing that pending entry into force of Annex V, proposals to designate and adopt management plans for the protection of particular historic values should be viewed as proposals for the designation of Specially Protected Areas (SPAs) in accordance with the Agreed Measures for the Conservation of Antarctic Flora and Fauna;

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

That the Management Plans for the Cape Royds Historic Site and its environs (SPA No 27), the Hut Point Historic Site (SPA No 28) and the Cape Adare Historic Site and its environs (SPA No 29) annexed to this Measure be adopted.

**Management Plan for Specially Protected Area (SPA No 27)
for Historic Site No. 15**
(containing the historic hut of Sir Ernest Shackleton and its precincts)

BACKDOOR BAY, CAPE ROYDS, ROSS ISLAND
(*Lat. 77° 33' 10.7" S, Long. 166° 10' 6.5" E*)

1 Description of Values to be Protected

This site was originally listed as Historic Site 15 in ATCM Recommendation VII-9 proposed by New Zealand.

The hut on which this Area is centred was built in February 1908 by the British Antarctic (*Nimrod*) Expedition of 1907-1909 which was led by Sir Ernest Shackleton. It was also periodically used by the Ross Sea Party of Shackleton's Imperial Trans-Antarctic Expedition of 1914-1917.

Structures associated with the hut include stables, kennels, a latrine and a garage created for the first motor vehicle in Antarctica. Other significant relics in the Area include an instrument shelter, supply depots, and a rubbish site. Numerous additional artefacts are distributed around the Area.

Cape Royds is one of the principal areas of early human activity in Antarctica. It is an important symbol of the Heroic Age of Antarctic exploration and, as such, has considerable historical and cultural significance. Some of the earliest advances in the study of earth sciences, meteorology, flora and fauna in Antarctica are associated with the *Nimrod* Expedition which was based at this site. The history of these activities and the contribution they have made to the understanding and awareness of Antarctica give this Area significant scientific, technical, architectural, aesthetic and social values.

2 Aims and Objectives

The aim of the management plan is to provide protection for the Area and its features so that its values can be preserved. The objectives of the Plan are to:

- avoid degradation of, or substantial risk to, the values of the Area;
- maintain the historic values of the Area through planned restoration and conservation work which may include:
 - a. an annual 'on-site' maintenance programme
 - b. a programme of monitoring the condition of artefacts and structures, and the factors which affect them
 - c. a programme of conservation of artefacts conducted on and off site;
- allow management activities which support the protection of the values and features of the Area including;

- a. mapping and otherwise recording the disposition of historic items in the hut environs
- b. recording other relevant historic data.
- prevent unnecessary human disturbance to the Area, its features and artefacts through managed access to the *Nimrod* hut.

3 Management Activities

- A regular programme of restoration and preservation work shall be undertaken on the *Nimrod* hut and associated artefacts in the Area.
- Visits shall be made as necessary for management purposes.
- Control of the number of visitors.
- National Antarctic Programmes operating in, or those with an interest in, the region shall consult together with a view to ensuring the above provisions are implemented.

4 Period of designation

Designated under Measure X(1998) for an indefinite period.

5 Maps

Map A: Cape Royds regional map. This map shows the location of the Area in relation to the existing SSSI No. 1 and significant topographic features in the vicinity. Inset: shows the position of the site in relation to other protected sites on Ross Island.

Map B: Cape Royds Area map. This map shows the boundaries of the Area and the adjacent SSSI No. 1. Also shown are the approaches, field camp and helicopter landing sites.

6 Description of the Area

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

Cape Royds is an ice free area at the western extremity of Ross Island, approximately 40 kilometres to the south of Cape Bird and 35 kilometres to the north of Hut Point Peninsula on Ross Island. The ice free area is composed of till covered basalt bedrock. The designated Area is located to the north east of Cape Royds adjacent to Backdoor Bay. It is immediately to the east of the existing SSSI No. 1, an Adélie penguin rookery. The Area is centred on Shackleton's *Nimrod* expedition hut.

The boundaries of the proposed Area are:

- South and East, by the shoreline of the eastern coast of Cape Royds including Arrival and Backdoor Bays.
- West, by a line following the boundary of SSSI No. 1, from the coastline to Pony Lake and then by a line following the eastern shore of Pony lake to its northern extremity.

- North / west, by a line extending from the northern extremity of Pony Lake along a gully leading to a point at 77° 33' 7.5" S, 166° 10' 13" E.
- North, by a line extended due east from a point at 77° 33' 7.5" S, 166° 10' 13" E to the coastline of Backdoor Bay.

A major feature of the Area is Shackleton's *Nimrod* expedition hut located in a sheltered basin. The hut is surrounded by many other historic relics including an instrument shelter, supply depots, and a dump site. Numerous additional artefacts are distributed around the site.

Adélie penguins (*Pygoscelis adeliae*) from the adjacent rookery at Cape Royds often transit the Area. Skuas (*Catharacta maccormicki*) nest in the vicinity.

6(ii) *Restricted zones within the Area*
None.

6(iii) *Structures within the Area*
Apart from a Treaty plaque all structures within the Area are of historic origin.

6(iv) *Location of other Protected Areas within close proximity*
SSSI No 1 Cape Royds is immediately adjacent to this Area. SSSI No 2 Arrival Heights, Hut Peninsula is 32 kilometres south of Cape Royds; and SSSI No 11 Tramway Ridge is 20 kilometres east of Cape Royds. SSSI No 10, New College Valley, and SPA No 20, Caughley Beach are located 35 kilometres north in the vicinity of Cape Bird. SPA No. 25, Cape Evans is 12 kilometres south, and SPA No. 26, Lewis Bay is 36 kilometres to the north east. All sites are located on Ross Island.

7 **Permit Conditions**

Entry to the Area is prohibited except in accordance with a permit.

Permits shall be issued only by appropriate national authorities and may contain both general and specific conditions. A permit may be issued by a national authority to cover a number of visits in a season. Parties operating in the Ross Sea Area shall consult together and with groups and organisations interested in visiting the Area to ensure that visitor numbers are not exceeded.

General conditions for issuing a permit may include:

- activities related to preservation, maintenance, research and/or monitoring purposes;
- management activities in support of the objectives of this plan;
- activities related to tourism, educational or recreational activities providing they do not conflict with the objectives of this plan;

- the permit should be valid for stated period;
- a copy of the permit must be carried within the Area.

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

Control of movement within the Area is necessary to prevent damage caused by crowding around the many vulnerable features within the Area. The maximum number in the Area at any time (including those within the hut) is: **40 people**

Control of numbers within the hut is necessary to prevent damage caused by crowding around the many vulnerable features within the hut. The maximum number within the hut at any time (including guides) is: **8 people**

Avoidance of cumulative impacts on the interior of the hut require an annual limit on visitor numbers. The effects of current visitor levels (approximately 1,000 per calendar year) suggest that an increase of more than 100% could cause significant adverse impacts. The annual maximum number of visitors is: **2000 people**

These limits have been based on current visitor levels and on the best advice available from conservation advisory agencies (which include conservators, archaeologists, historians, museologists and other heritage protection professionals). The limits are based on the proposition that any significant increase in the current level of visitors would be detrimental to the values to be protected. An ongoing monitoring programme of the effect of visitors is in place. This will provide the basis for future review of the management plan, in particular whether the current annual maximum number of visitors to the area is appropriate. This could result in the annual maximum number either increasing or decreasing.

Helicopter landings are prohibited within the Area as they have the potential to damage the site by blowing scoria and ice particles and to accelerate the abrasion of the hut and surrounding artefacts. Landings may be made at the designated landing sites (see Map B.). One site is approximately 50 metres to the north of the New Zealand shelter, outside the Area. A further designated site is located 100 metres further north east.

Vehicles are prohibited within the Area. Landings from the sea by boat, or vehicle travelling on the sea ice, may be made by approaching from Backdoor Bay.

7(ii) *Activities which may be conducted within the Area*

Activities which may be conducted within the Area includes:

- visits for restoration, preservation and/or protection;
- educational and/or recreational visits including tourism;
- scientific activity which does not detract from the values of the Area.

7(iii) Installation, modification and removal of structures

No new structures are to be erected in the Area, or scientific equipment installed, except for conservation or scientific activities that do not detract from the values of the Area as specified in 1. No historic structure relic or artefact shall be removed from the Area, except for the purposes of restoration and/or preservation and then only in accordance with a permit.

7(iv) Location of field camps

Use of the historic hut for living purposes is not permitted. Camping is prohibited within the Area. An existing field camp site and a New Zealand shelter is located at the north western boundary of the Area (see Map B).

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

No living animals or plant material shall be introduced to the Area.

No food products shall be taken into the Area.

Chemicals which may be introduced for management purposes shall be removed at or before the conclusion of the activity for which they are required.

Fuel or other materials are not to be left in depots in the Area, unless required for essential purposes connected with the preservation and conservation of the historic structures or the associated relics. All such materials are to be removed when no longer required.

Use of combustion type lanterns is not permitted in the hut under any circumstances.

Smoking in the Area is not permitted.

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

This activity is prohibited except in accordance with a separate permit issued by the appropriate national authority specifically for that purpose.

7(vii) Collection of anything not introduced by a visitor

Material may be collected and removed from the Area only for restoration, preservation or protection purposes, or scientific reasons consistent with the objectives of this plan, and only in accordance with a separate permit issued by the appropriate national authority specifically for that purpose.

Visitors must remove objects, substances and waste introduced by them during their time in the Area.

7(viii) Disposal of waste

All waste generated by work parties or visitors shall be removed from the Area.

7(ix) Measures that may be necessary to ensure that the aims and objectives of the plan continue to be met

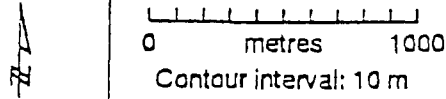
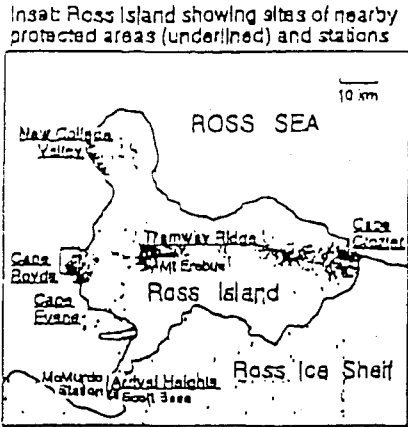
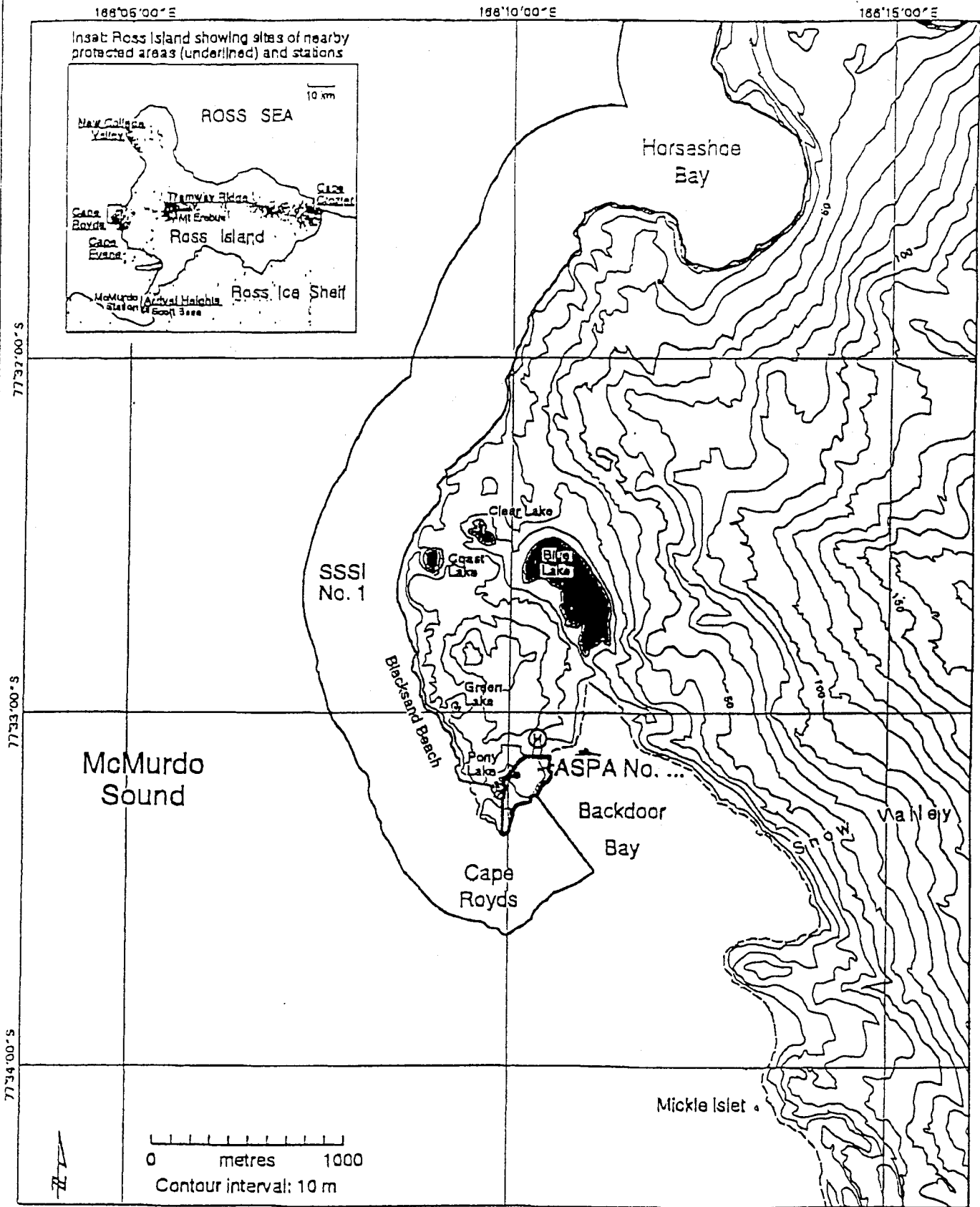
The provision of information for visitors.

The development of skills and resources, particularly those related to conservation and preservation techniques, to assist with the protection of the Area's values.

7(x) Requirements for reports

Parties should ensure that the principal holder for 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 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 reports in a publicly accessible archive to maintain a record of usage, to be used both for review of the Management Plan and in organising the use of the site.

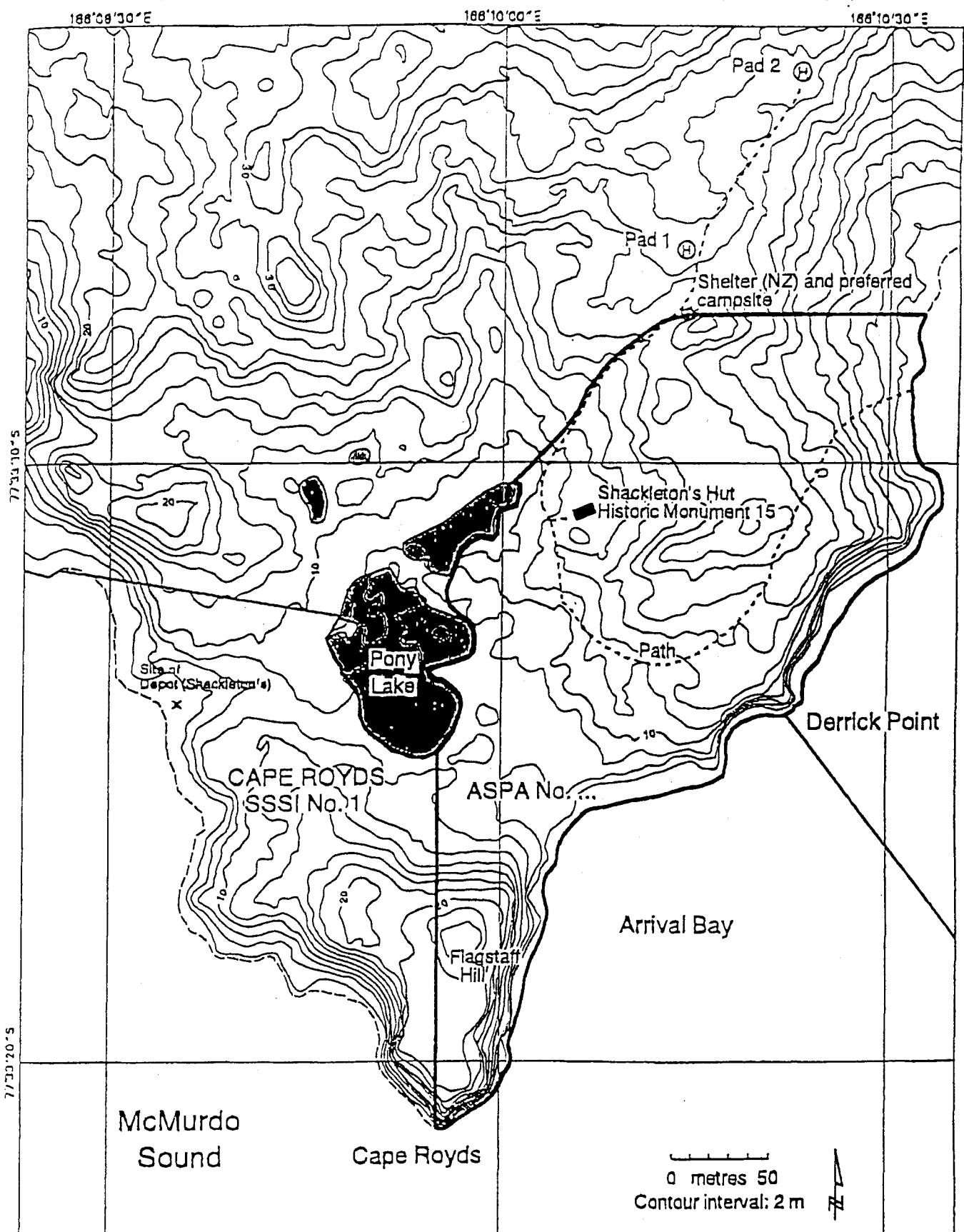
Map A - Cape Royds, Antarctic Specially Protected Area: regional topographic map









- Lakes/ponds
- Estimated coastline
- SSSI boundary
- Protected area boundary
- Historic building
- Helicopter landing area
- Landing place

Projection: Lambert conformal conic
Spheroid: WGS84
Sources: Cape Royds historic area management plan

Map B - Cape Royds, Antarctic Specially Protected Area: site topographic map



- | | | | | |
|--|---------------------|---|-------------------------|--|
|  | Lakes/ponds |  | Protected area boundary | Projection: Lambert conformal conic
Spheroid: WGS 1984
Source: Cape Royds historic area
management plan |
|  | Estimated coastline |  | Historic building | |
|  | SSSI boundary |  | Helicopter landing area | |

**Management Plan for Specially Protected Area (SPA No 28)
for Historic Site No. 18**
(containing the historic "*Discovery*" hut of Captain R F Scott)

HUT POINT, ROSS ISLAND
(Lat. 77° 50'50"S, Long 166° 38'E).

1 Description of Values to be Protected

This hut was originally listed as historic site No.18 in ATCM recommendation VII-9 proposed by New Zealand.

The hut was built in February 1902 during the National Antarctic (*Discovery*) Expedition of 1901 - 1904, led by Captain Robert Falcon Scott who later found it a valuable advance staging point for journeys on the "Barrier" during his 1910-1913 expedition. It was also used by Sir Ernest Shackleton during the 1907-1909 British Antarctic Expedition and later by his stranded Ross Sea Party during the Imperial Trans-Antarctic Expedition of 1914- 1917. This building was prefabricated in Australia to an 'outback' design with verandahs on three sides.

The Hut Point site is one of the principal sites of early human activity in Antarctica. It is an important symbol of the Heroic Age of Antarctic exploration and, as such, has considerable historical and cultural significance. Some of the earliest advances in the study of earth sciences, meteorology, flora and fauna in Antarctica are associated with the *Discovery* Expedition based at this site. The history of these activities and the contribution they have made to the understanding and awareness of Antarctica give this Area significant scientific, technical, architectural, aesthetic and social values.

2 Aims and Objectives

The aim of the management plan is to provide protection for the Area and its features so that its values can be preserved. The objectives of the Plan are to:

- avoid degradation of, or substantial risk to, the values of the Area;
- maintain the historic values of the Area through planned restoration and conservation work which may include:
 - a. an annual 'on-site' maintenance programme,
 - b. a programme of monitoring the condition of artefacts and structures, and the factors which affect them,
 - c. a programme of conservation of artefacts conducted on and off site;
- allow management activities which support the protection of the values and features of the Area including recording of any relevant historic data;
- prevent unnecessary human disturbance to the Area, its features and artefacts through managed access to the *Discovery* hut.

3 Management Activities

- A regular programme of restoration and preservation work shall be undertaken on the *Discovery* hut and associated artefacts in the Area;
- Visits shall be made as necessary for management purposes;
- Control of the number of visitors.
- National Antarctic Programmes operating in, or those with an interest in, the region shall consult together with a view to ensuring the above provisions are implemented;

4 Period of Designation

Designated under Measure X(1998) for an indefinite period.

5 Maps

Map A: Hut Point regional map. This map shows the wider environs of the Area with significant topographic features and the adjacent US McMurdo Station. Inset: shows the position of the site in relation to other protected sites on Ross Island.

Map B: Hut Point site map. This map shows the location of the historic hut, Vince's cross and other detail of the immediate environs.

6 Description of the Area

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

Hut Point is small ice free area protruding south west from the Hut Point Peninsula and situated to the west of the United States McMurdo Station.

The designated Area consists solely of the structure of the hut which is situated near the south western extremity of Hut Point.

6(ii) *Restricted zones within the Area*

None.

6(iii) *Structures within the Area*

The designated Area consists solely of the structure of the historic *Discovery* hut.

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

SSSI No 1 Cape Royds, is 32 kilometres north of Hut Point. SSSI No 2 Arrival Heights, is 2 kilometres north of Hut Point on Hut Point Peninsula. SPA No 25 Cape Evans, is 22 kilometres to the north of Hut Point. All sites are located on Ross Island.

7 Permit Conditions

Entry to the Area is prohibited except in accordance with a permit.

Permits shall be issued only by appropriate national authorities and may contain both general and specific conditions. A Permit may be issued by a national authority to cover a number of visits in a season. Parties operating in the Ross Sea area shall consult together and with groups and organisations interested in visiting the Area to ensure that visitor numbers are not exceeded.

General conditions for issuing a permit may include:

- activities related to preservation, maintenance, research and/or monitoring purposes;
- management activities in support of the objectives of this plan;
- activities related to tourism, educational or recreational activities providing they do not conflict with the objectives of this plan;
- the Permit should be valid for a stated period;
- a copy of the permit must be carried within the Area.

7(i) Access to and movement within the hut

Control of numbers within the hut is necessary to prevent damage caused by crowding around the many vulnerable features within the hut. The maximum number within the hut at any time (including guides) is:

8 people

Avoidance of cumulative impacts on the interior of the hut require an annual limit on visitor numbers. The effects of current visitor levels (approximately 1,000 per calendar year) suggest that an increase of more than 100% could cause significant adverse impacts. The annual maximum number of visitors is:

2000 people

These limits have been based on current visitor levels and on the best advice available from conservation advisory agencies (which include conservators, archaeologists, historians, museologists and other heritage protection professionals). The limits are based on the proposition that any significant increase in the current level of visitors could be detrimental to the values to be protected. An ongoing monitoring programme of the effect of visitors is in place. This will provide the basis for future reviews of the management plan, in particular whether the current annual maximum number of visitors to the area is appropriate. This could result in the annual maximum number either increasing or decreasing.

There are no designated helicopter landings sites in the vicinity of the hut as helicopters have the potential to damage the hut by blowing scoria and ice particles and to accelerate the abrasion of the hut and surrounding artefacts. Landings from the sea by boat may be made to the north of the hut. Vehicles may approach the hut along the road leading from the United States McMurdo Station.

7(ii) Activities which may be conducted within the Area

Activities which may be conducted within the Area include:

- visits for restoration, preservation and/or protection;
- educational and/or recreational visits including tourism;
- scientific activity which does not detract from the values of the Area.

7(iii) Installation, modification and removal of structures

No alteration to the structure shall be made except for conservation purposes or scientific activities that do not detract from the values of the Area as specified in 1. No historic relic or artefact shall be removed from the Area, except for the purposes of restoration and/or preservation and then only in accordance with a Permit.

7(iv) Location of field camps

Use of the historic hut for living purposes is not permitted.

7(v)

Restrictions on materials and organisms which may be brought into the Area

No living animals or plant material shall be introduced to the Area.

No food products shall be taken into the Area.

Chemicals which may be introduced for management purposes shall be removed at or before the conclusion of the activity for which they are required.

Fuel or other materials are not to be left in depots in the Area, unless required for essential purposes connected with the preservation and conservation of the historic structure or the associated relics. All such materials are to be removed when no longer required.

Use of combustion type lanterns is not permitted in the hut under any circumstances.

Smoking in the Area is not permitted.

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

There are no native flora or fauna within the designated Area.

7(vii) Collection of anything not introduced by a visitor

Material may be collected and removed from the Area only for restoration, preservation or protection purposes, or scientific reasons consistent with the objectives of this plan, and only in accordance with a separate permit issued by the appropriate national authority specifically for that purpose.

Visitors must remove objects, substances and waste introduced by them during their time in the Area.

7(viii) Disposal of waste

All waste generated by work parties or visitors shall be removed from the Area.

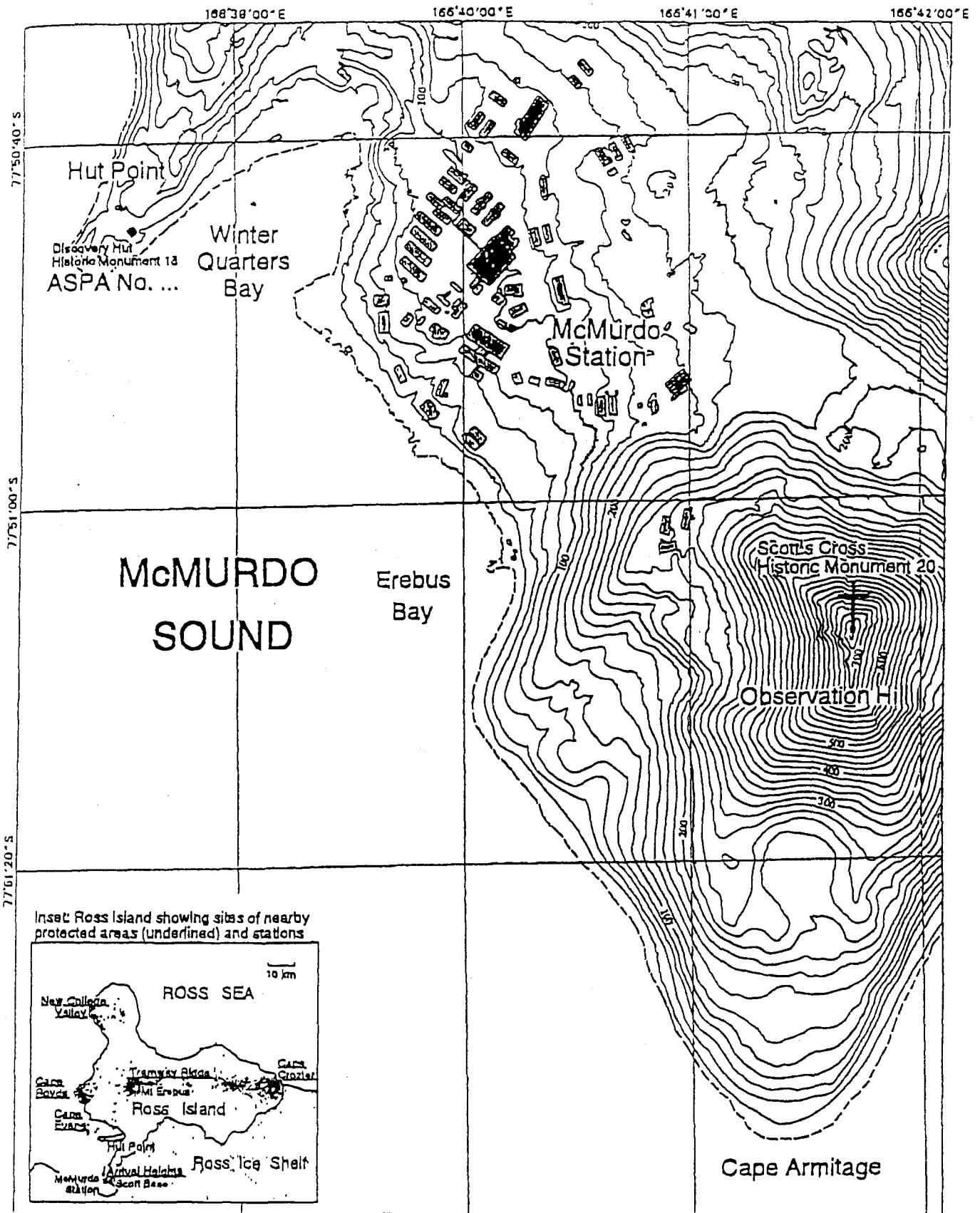
7(ix) Measures that may be necessary to ensure that the aims and objectives of the plan continue to be met

The provision of information for visitors.

The development of skills and resources, particularly those related to conservation and preservation techniques, to assist with the protection of the Area's values.

7(x) Requirements for reports Parties should ensure that the principal holder for 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 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 reports in a publicly accessible archive to maintain a record of usage, to be used both for review of the Management Plan and in organising the use of the site.

Map A - Hut Point, Antarctic Specially Protected Area: regional topographic map



0 metres 250

Note: Contours in feet
(Interval: 20 ft)

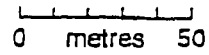
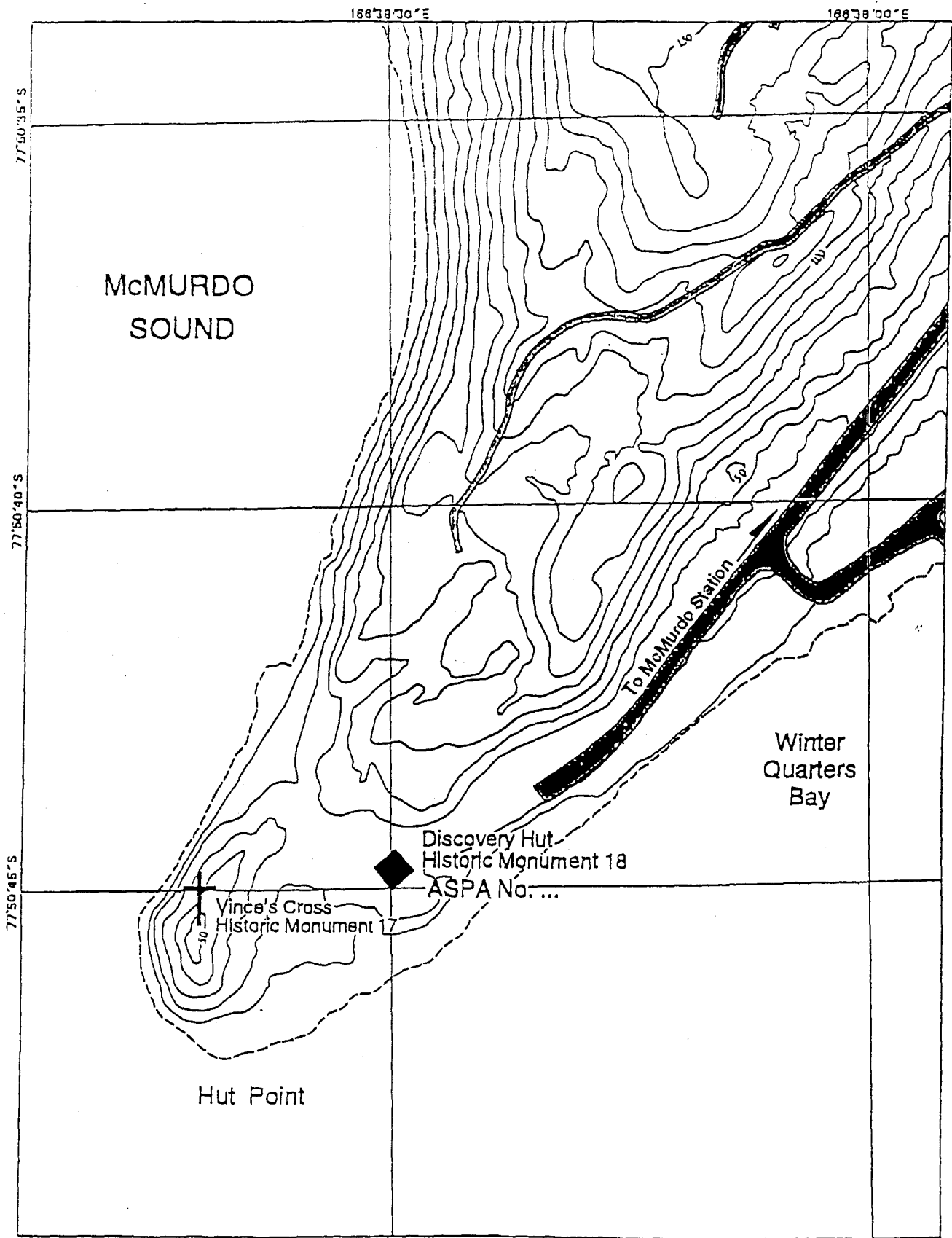


- Estimated coastline
- Historic building (protected area)
- Other buildings

Projection: Lambert conformal conic
Spheroid: WGS84

Source: Hut Point historic area
management plan

Map B - Hut Point, Antarctic Specially Protected Area: site topographic map



Note: Contours in feet
(interval: 10 ft)



- Estimated coastline
- Historic building (protected area)
- █ Roads

Projection: Lambert conformal conic
Spheroid: WGS84

Source: Hut Point historic area management plan

Appendix C

**Management Plan for Specially Protected Area (SPA) No. 29
for Historic Site No. 22**

(containing the historic huts of Carsten Borchgrevink and
Scott's Northern Party and their precincts)

CAPE ADARE

(Lat. 71°18'S, Long 170° 09'E).

1 Description of Values to be Protected

This Area was originally listed as Historic site 22 in ATCM Recommendation VII-9 proposed by New Zealand.

There are three main structures in the Area. Two were built in February 1899 during the British Antarctic (*Southern Cross*) Expedition led by C.E. Borchgrevink (1898-1900). One hut served as a living hut and the other as a store. They were used for the first winter spent on the Antarctic continent.

Scott's Northern Party hut is situated 30 metres to the north of Borchgrevink's hut. It consists of the collapsing remains of a third hut built in February 1911 for the Northern Party led by V.L.A. Campbell of R.F. Scott's British Antarctic (*Terra Nova*) Expedition (1910-1913), which wintered there in 1911.

In addition to these features there are numerous other historic relics located in the Area. These include stores depots, a latrine structure, two anchors from the ship "*Southern Cross*", an ice anchor from the ship "*Terra Nova*", and supplies of coal briquettes. Other historic items within the Area are buried in guano.

Cape Adare is one of the principal sites of early human activity in Antarctica. It is an important symbol of the Heroic Age of Antarctic exploration and, as such, has considerable historical and cultural significance. Some of the earliest advances in the study of earth sciences, meteorology, flora and fauna in Antarctica are associated with the two earliest expeditions based at this site. The history of these activities and the contribution they have made to the understanding and awareness of Antarctica give this Area significant technical, architectural, aesthetic and social values.

2 Aims and Objectives

The aim of the management plan is to provide protection for the Area and its features so that its values can be preserved. The objectives of the Plan are to:

- avoid degradation of, or substantial risk to, the values of the Area;
- maintain the historic values of the Area through planned restoration and conservation work which may include;
 - a. 'on-site' maintenance

- b. monitoring the condition of artefacts and structures, and the factors which affect them
 - c. conservation of artefacts to be conducted on and off site;
- allow management activities which support the protection of the values and features of the Area including;
 - a. mapping and otherwise recording the disposition of historic items in the hut environs
 - b. recording other relevant historic data;
- prevent unnecessary human disturbance to the Area, its features and artefacts through managed access to Borchgrevink's hut.

3 Management Activities

- A programme of restoration and preservation work shall be undertaken on the *Southern Cross* hut and associated structures and artefacts in the Area.
- Visits shall be made as necessary for management purposes.
- Control of the number of visitors.
- National Antarctic Programmes operating in, or those with an interest in, the region shall consult together with a view to ensuring the above provisions are implemented.

4 Period of Designation

Designated under Measure X(1998) for an indefinite period.

5 Maps

Map A: Cape Adare regional map. This map shows the Cape Adare region along with the boundaries of the Area with significant topographic features. It also shows the approximate location of significant historical items within the Area.

Map B: Cape Adare site map. This map shows the approximate location of specific historic relics and structures within the Area.

6 Description of the Area

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

Cape Adare is a generally ice free, prominent volcanic headland, at the northern extremity of Victoria Land, which marks the western approaches to the Ross Sea. The Area is located to the south west of the Cape on the southern shore of Ridley Beach, which encloses a large, flat, triangular area of shingle. The whole of the flat area and the lower western slopes of the Adare Peninsula are occupied by one of the largest Adélie penguin (*Pygoscelis adeliae*) rookeries in

Antarctica. Penguins have almost completely occupied the Area and the need to avoid disturbance often restricts access to the huts.

The boundaries of the proposed ASPA are:

- North, an east-west line drawn 50 metres north of the Northern Party Hut.
- East, a north-south line drawn 50 metres to the west of Borchgrevink's stores hut.
- West, a north-south line drawn 50 metres to the east of Borchgrevink's living hut.
- South, the shoreline of Ridley Beach.

Major features of the Area include Borchgrevink's Southern Cross expedition living hut and the unroofed stores hut. Scott's Northern Party hut is situated 30 metres to the north of Borchgrevink's living hut and is in a state of collapse.

In addition to these structures there are many other historic relics distributed around the Area. These include stores depots, a latrine structure, two anchors from the ship "*Southern Cross*", an ice anchor from the ship "*Terra Nova*", and supplies of coal. Many of these items are either partly or completely covered in the guano of the Adélie penguins which also occupy the Area.

Skuas (*Catharacta maccormicki*) nest in the vicinity and Weddell seals also haul up along the beach.

6(ii) *Restricted zones within the Area*

None

6(iii) *Structures within the Area*

Apart from a Treaty plaque all structures within the Area are of historic origin.

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

There are no other Protected Areas in the vicinity.

7 **Permit Conditions**

Entry to the Area is prohibited except in accordance with a permit.

Permits shall be issued only by appropriate national authorities and may contain both general and specific conditions. A permit may be issued by a national authority to cover a number of visits in a season. Parties operating in the Ross Sea area shall consult together and with groups and organisations interested in visiting the Area to ensure that visitor numbers are not exceeded.

General conditions for issuing a permit may include:

- activities related to preservation, maintenance, research and/or monitoring purposes;
- management activities in support of the objectives of this plan;

- activities related to tourism, educational or recreational activities providing they do not conflict with the objectives of this plan;
- the Permit should be valid for a stated period;
- a copy of the permit must be carried within the Area.

7(i) Access to and movement within the Area

Control of movement within the Area is necessary to prevent disturbance to wildlife and damage caused by crowding around the many vulnerable historic features within the Area. The maximum number in the Area at any time (including those within the hut) is: **40 people**

Control of numbers within Borchgrevink's hut is necessary to prevent damage caused by crowding around the many vulnerable features within the hut. The maximum number within the hut at any time (including guides) is: **4 people**

Avoidance of cumulative impacts on the interior of Borchgrevink's hut requires an annual limit on visitor numbers. The number of visitors to the hut varies considerably from year to year but the effect of visitors to other Ross Sea area historic huts suggests that similar limits should apply. The annual maximum number of visitors is: **2000 people**

These limits have been based on current visitor levels and on the best advice available from conservation advisory agencies (which include conservators, archaeologists, historians, museologists and other heritage protection professionals). The limits are based on the proposition that any significant increase in the current level of visitors would be detrimental to the values to be protected. An ongoing monitoring programme of the effect of visitors is in place. This will provide the basis for future reviews of the management plan, in particular whether the current annual maximum number of visitors to the area is appropriate. This could result in the annual maximum number either increasing or decreasing.

Helicopter landings are prohibited within the Area. There are no designated helicopter pads in the vicinity of the Area. For most of the access season it is unlikely that helicopters could be operated without causing harmful interference to wildlife.

Vehicles are prohibited within the Area. Landings from the sea by boat, or vehicles travelling on the sea ice, may be made directly onto the beach at several locations.

Movement on foot around the Area may need to be restricted to avoid harmful interference to penguins nesting around and on the structures and artefacts in the Area.

7(ii) Activities which may be conducted within the Area

Activities which may be conducted within the Area include:

- visits for restoration, preservation and/or protection;
- educational and/or recreational visits including tourism;
- scientific activity which does not detract from the values of the Area.

7(iii) Installation, modification and removal of structures

No new structures are to be erected in the Area, or scientific equipment installed, except for conservation or scientific activities that do not detract from the values of the Area as specified in 1. No historic structure relic or artefact shall be removed from the Area, except for the purposes of restoration and/or preservation and then only in accordance with a permit.

7(iv) Location of field camps

Use of the historic hut, or other structures in the Area, for living purposes is not permitted.

Camping is prohibited within the Area.

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

No living animals or plant material shall be introduced to the Area.

No food products shall be taken into the Area.

Chemicals which may be introduced for management purposes shall be removed at or before the conclusion of the activity for which they are required.

Fuel or other materials are not to be left in depots in the Area, unless required for essential purposes connected with the preservation and conservation of the historic structures or the associated relics. All such materials are to be removed when no longer required.

Use of combustion type lanterns, is not permitted in the hut under any circumstances.

Smoking in the Area is not permitted.

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

This activity is prohibited except in accordance with a separate permit issued by the appropriate national authority specifically for that purpose.

7(vii) Collection of anything not introduced by a visitor

Material may be collected and removed from the Area only for restoration, preservation or protection purposes, or scientific reasons consistent with the objectives of this plan, and only in accordance with a separate permit issued by the appropriate national authority specifically for that purpose.

Visitors must remove objects, substances and waste introduced by them during their time in the Area.

7(viii) Disposal of waste

All waste generated by work parties shall be removed from the Area.

7(ix) Measures that may be necessary to ensure that the aims and objectives of the plan continue to be met

The provision of information for visitors.

The development of skills and resources, particularly those related to conservation and preservation techniques, to assist with the protection of the Area's values.

7(x) Requirements for reports

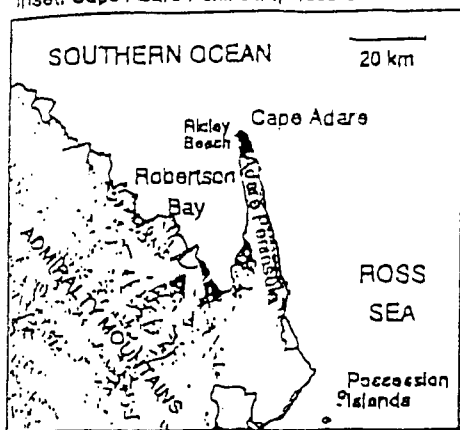
Parties should ensure that the principal holder for each Permit issued submits to the appropriate authority a report describing the activities undertaken. Such reports should include, as appropriate, the information identified in the Visit Report Form suggested by SCAR. Parties should maintain a record of such activities and, in the Annual Exchange of Information, should provide summary 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 reports in a publicly accessible archive to maintain a record of usage, to be used both for review of the Management Plan and in organising the use of the site.

Map A - Cape Adare, Antarctic Specially Protected Area: regional map.

170°10'00"E

170°12'00"E

Inset: Cape Adare Peninsula, Ross Sea



Cape Adare

The Sisters
Gartrude
Rose

Hanson's
Grave
Historic
Monument 23

North Beach

Estimated site of
1899 Provisions Depot

Ridley Beach

ASPA. No. ...

Scott's Northern Party Hut (derelict)

Borchgrevink's Hut
(Historic Site 22)

South Beach

Boulder Rock

0 metres 500

Note: Contours in feet
(primary interval: 100 ft)

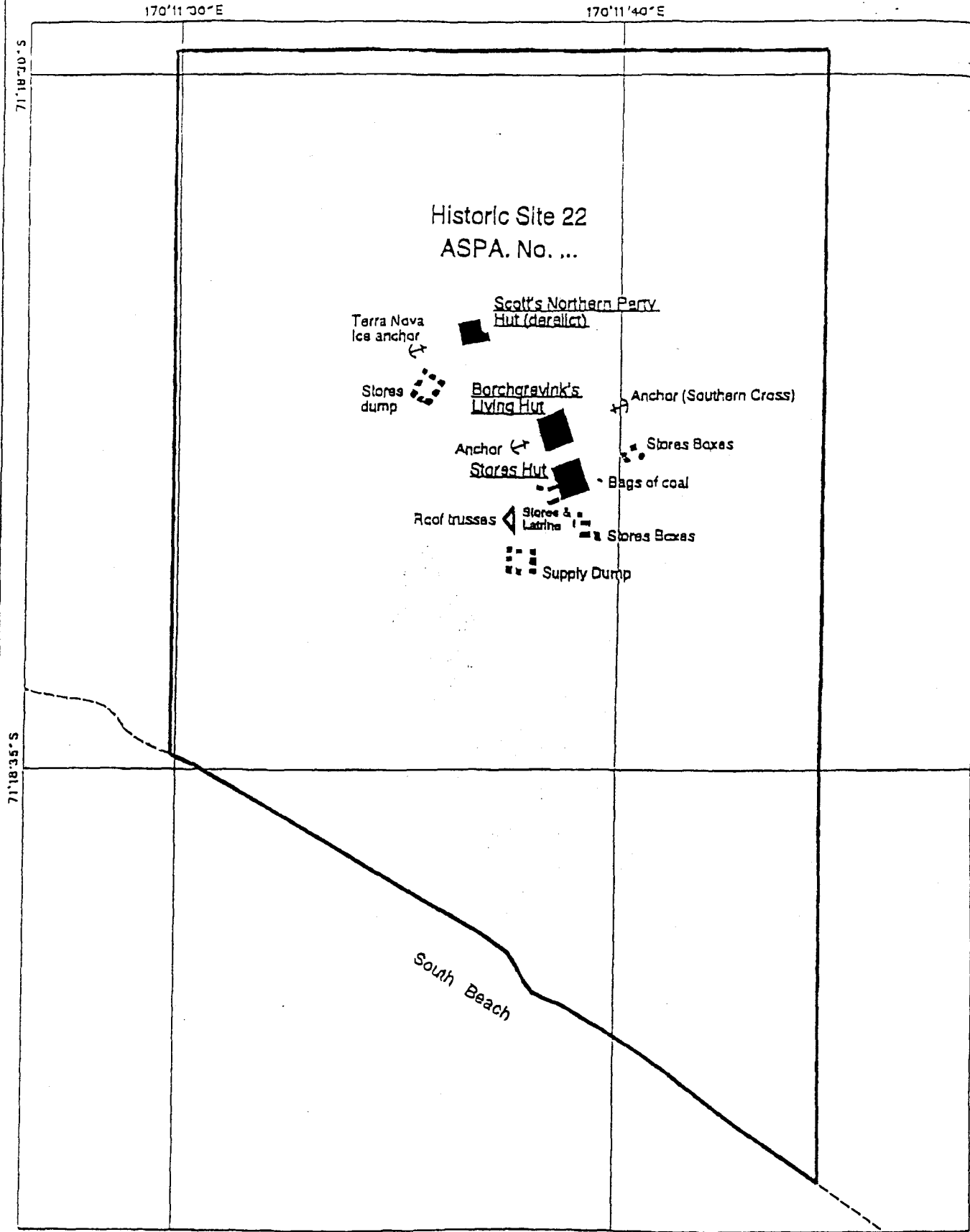


- Estimated coastline
- Protected area boundary
- Historic structures
- ▨ Lagoons

Projection: Lambert conformal conic
Spheroid: WGS84

Sources: Cape Adare historic area
management plan

Map B - Cape Adare, Antarctic Specially Protected Area: site map



0 metres 20



- Estimated coastline
- Protected area boundary
- Historic structures

Projection: Lambert conformal conic
Spheroid: WGS84

Source: Cape Adare historic area
management plan

MEASURE 2 (1998)**Antarctic Protected Areas System: Historic Sites and Monuments. South-West Coast of Elephant Island, South Shetland Islands**

The Representatives,

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

Noting the urgent need to protect the site containing wreckage from a large wooden sailing ship on the south-west coast of Elephant Island;

Aware that the identity of this wreckage is still not known and that further investigation at the site may be necessary to determine the historical significance of the wreckage;

Considering that Historic Site status should be conferred on the site;

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

The following site be added to the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" annexed to Recommendation VII-9 and that thereafter it be accorded the respect and protection required by the Recommendations recalled above:

The south-west coast of Elephant Island between the southern side of Mensa Bay (61°10'S, 55°24'W) and Cape Lookout (61°17'S, 55°13'W), including all of the fore-shore and intertidal areas, in which the wreckage of a large wooden sailing ship has been found.

Annex B

Decisions

DECISION 1 (1998)

The Representatives,

1. *Recalling* that the Republic of Bulgaria acceded to the Antarctic Treaty on 11 September 1978 in accordance with Article XIII;
2. *Recalling* further the notification of the Republic of Bulgaria setting forth its view that it has met the requirements of Article IX paragraph 2 of the Antarctic Treaty by conducting substantial scientific research in Antarctica, and its intent to approve measures adopted under Article IX;
3. *Recalling* Decision 2(1997);
4. *Recalling* also Paragraph 161 of the Final Report of ATCM XXI with regard to the Republic of Bulgaria's notification of its interest to achieve Consultative Party status and the wish of that Meeting to consider the matter again at an early stage during ATCM XXII should the Republic of Bulgaria have met the conditions set out in Decision 2 (1997);
5. *Noting* that Parties are encouraged to approve Recommendations adopted at earlier ATCMs, and in particular recalling Recommendation XVI-10, which includes the text of Annex V to the Protocol on Environmental Protection;
6. *Noting* the entry into force of the Protocol on Environmental Protection on 14 January 1998 and the subsequent deposit by the Republic of Bulgaria of its instrument of accession with the Depository on 21 April 1998, and that subsequently the Protocol entered into force for the Republic of Bulgaria on 21 May 1998, fulfilling the requirement of Article 22 (4) of the Protocol;
7. *Having ascertained*, in accordance with Article X of the Antarctic Treaty, on the basis of the information provided about scientific expeditions and the research carried out, that the activities of the Republic of Bulgaria are in accordance with the principles and purposes of the Treaty;
8. *Record* their acknowledgement that the Republic of Bulgaria has fulfilled the requirements established in Article IX, paragraph 2 of the Antarctic Treaty and that, as a consequence, is entitled, during such time as it continues in accordance with Article IX paragraph 2 of the Treaty to demonstrate its interest in Antarctica by conducting substantial scientific research there, to appoint representatives in order to participate in the Consultative Meeting provided for in Article IX, paragraph 1 of the Treaty; and thereby warmly welcome the Republic of Bulgaria as a participant in such meetings.

DECISION 2 (1998)

Rules of Procedure for the Committee for Environmental Protection

The Representatives

Decide:

To approve the following Rules of Procedure for the Committee for Environmental Protection² :

Rule 1

Where not otherwise specified the Rules of Procedure for the Antarctic Treaty Consultative Meeting shall be applicable.

Rule 2

For the purposes of these Rules of Procedure:

- a) the expression "Protocol" means the Protocol on Environmental Protection to the Antarctic Treaty, signed in Madrid on 4 October, 1991;
- b) the expression "the Parties" means the Parties to the Protocol;
- c) the expression "Committee" means the Committee for Environmental Protection as defined in Article 11 of the Protocol.

Part I Representatives and Experts

Rule 3

Each Party to the Protocol is entitled to be a member of the Committee and to appoint a representative who may be accompanied by experts and advisers with suitable scientific, environmental or technical competence.

Before each meeting of the Committee each member of the Committee shall, as early as possible, notify the Host Government of that meeting of the name and designation of each repre-

² These Rules of Procedure are also Annex 1 to the Report to ATCM XXII of the Committee for Environmental Protection (cf. Annex E to the Final Report).

sentative, and before or at the beginning of the meeting, the name and designation of each expert and adviser.

Part II Observers and Consultation

Rule 4

Observer status in the Committee shall be open to:

- a) any Contracting Party to the Antarctic Treaty which is not a Party to the Protocol;
- b) the President of the Scientific Committee on Antarctic Research, the Chairman of the Scientific Committee for the Conservation of Antarctic Marine Living Resources and the Chairman of the Council of Managers of National Antarctic Programmes, or their nominated Representatives;
- c) subject to the specific approval of the Antarctic Treaty Consultative Meeting, other relevant scientific, environmental and technical organisations which can contribute to the work of the Committee.

Rule 5

Before each meeting of the Committee each observer shall, as early as possible, notify the Host Government of that meeting of the name and designation of its representative attending the meeting.

Rule 6

Observers may submit documents to the Host Government of the meeting for distribution to members of the Committee.

Observers may participate in the discussions, but shall not participate in the taking of decisions.

Rule 7

In carrying out its functions the Committee shall, as appropriate, consult with the Scientific Committee on Antarctic Research, the Scientific Committee for the Conservation of Antarctic Marine Living Resources, the Council of Managers of National Antarctic Programmes and other relevant scientific, environmental and technical organisations.

Rule 8

The Committee may seek the advice of experts as required on an ad hoc basis.

Part III Meetings

Rule 9

The Committee shall meet once a year, in conjunction with the Antarctic Treaty Consultative Meeting, and at the same location. With the agreement of the ATCM, and in order to fulfill its functions, the Committee may also meet between annual meetings.

The Committee may establish informal open-ended contact groups to examine specific issues and report back to the Committee.

Rule 10

The Committee may establish, with the approval of the Antarctic Treaty Consultative Meeting, subsidiary bodies, as appropriate.

Such subsidiary bodies shall operate on the basis of the Rules of Procedure of the Committee as applicable.

Rule 11

When the Committee meets in conjunction with the Antarctic Treaty Consultative Meeting, the Rules of Procedure for the preparation of the Agenda of the Antarctic Treaty Consultative Meeting shall apply.

In other cases the Chairperson shall prepare a preliminary annotated Agenda for each such meeting of the Committee. The Host Government of the meeting shall distribute the preliminary annotated Agenda to all Members of the Committee no later than 100 days prior to the beginning of the meeting. In the event of emergencies or unforeseen developments it shall be distributed as early as possible.

The Host Government of a meeting of any subsidiary body, in consultation with the Chairperson of both the Committee and of the subsidiary body, shall prepare and distribute a preliminary annotated Agenda before each meeting of the subsidiary body.

Rule 12

Members of the Committee proposing supplementary items for the Agenda shall inform the Host Government of the meeting thereof no later than 30 days before the beginning of the meeting and accompany their proposal with an explanatory memorandum.

Part IV Submission of Documents

Rule 13

Members of the Committee should follow the Guidelines on Circulation and Handling of CEP Documents, as set out in Annex 3 to the Report of the Committee on Environment Protection to ATCM XXII³.

Part V Advice and Recommendations

Rule 14

The Committee shall try to reach consensus on the recommendations and advice to be provided by it pursuant to the Protocol.

Where consensus cannot be achieved the Committee shall set out in its report all views advanced on the matter in question.

Part VI Decisions

Rule 15

Where decisions are necessary, decisions on matters of substance shall be taken by a consensus of the members of the Committee participating in the meeting. Decisions on matters of procedure shall be taken by a simple majority of the members of the Committee present and voting. Each member of the Committee shall have one vote. Any question as to whether an issue is a procedural one shall be decided by consensus.

Part VII Chairperson and Vice-chairs

Rule 16

The Committee shall elect a Chairperson and first and second Vice-chairs from among the Consultative Parties. The Chairperson and the Vice-chairs shall be elected for a period of two years.

The Chairperson and the Vice-chairs shall not be re-elected to their post for more than one additional two-year term. The Chairperson and Vice-chairs shall not be representatives from the same Party.

The Vice-chairs to be elected at the first meeting of the Committee shall be elected for a one-year term to ensure that the terms of office of the Chairperson and Vice-chairs shall be staggered.

³ For convenience, the Guidelines are also attached as appendix to the present Decision.

Rule 17

Amongst other duties the Chairperson shall have the following powers and responsibilities:

- a) convene, open, preside at and close each meeting of the Committee;
- b) make rulings on points of order raised at each meeting of the Committee provided that each representative retains the right to request that any such decision be submitted to the Committee for approval;
- c) approve a provisional agenda for the meeting after consultation with Representatives and the Host Government;
- d) sign, on behalf of the Committee, the report of each meeting, and
- e) present the report on each meeting of the Committee to the Antarctic Treaty Consultative Meeting.

Rule 18

Whenever the Chairperson is unable to act, the first Vice-chair shall assume the powers and responsibilities of the Chairperson.

Rule 19

In the event of the office of the Chairperson falling vacant between meetings, the first Vice-chair shall exercise the powers and responsibilities of the Chairperson until a new Chairperson is elected.

Rule 20

The Chairperson and Vice-chairs shall begin to carry out their functions on the conclusion of the meeting of the Committee at which they have been elected, with the exception of the Chairperson and the Vice-chairs of the first meeting of the Committee who shall take office immediately upon their election.

Part VIII Administrative Facilities

Rule 21

As a general rule the Committee, and any subsidiary bodies, shall make use of the administrative facilities of the Government which agrees to host its meetings.

Part IX Languages

Rule 22

English, French, Russian and Spanish shall be the official languages of the Committee, and the subsidiary bodies referred to in Rule 10.

Part X Records and Reports

Rule 23

The Committee shall present a report on each of its meetings to the Antarctic Treaty Consultative Meeting. The report shall cover all matters considered at the meeting of the Committee, including at its intersessional meetings and by its subsidiary bodies as appropriate, and shall reflect the views expressed. The report shall be circulated to the Parties, and to observers attending the meeting, and shall thereupon be made publicly available.

Part XI Amendments

Rule 24

The Committee may adopt amendments to these rules of procedure, which shall be subject to approval by the Antarctic Treaty Consultative Meeting.

Appendix to Decision 2 (1998)

GUIDELINES

Circulation and Handling of CEP Documents

1. All Working Papers prepared by Parties and Observers referred to in Rule 4-a and -b of the CEP Rules of Procedure and Information Papers which a Representative of a Party requests be translated, should be received by the Host Government no later than 75 days before the meeting. The Host Government should circulate these papers in translation no later than 60 days before the meeting. It is suggested that Information Papers for which translation has been requested by a Party be limited to 30 pages. Those Information Papers for which translation has not been requested should also be submitted to the Host Government no later than 45 days before the meeting for pre-sessional circulation by the Host Government. Observers referred to in Rule 4-c may submit documents for distribution to the meeting as Information Papers.
2. Working Papers received before the Meeting but after the 75 days 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 CEP meeting, Working Papers will be translated and circulated and Information Papers will be circulated at that meeting.
5. Parties may request translation of any Information Paper either pre-sessionally or during the CEP meeting.
6. The Report referred to in Rule 23 should be presented to the ATCM in the official languages with a comprehensive list of that CEP Meeting's officially circulated Working and Information Papers.
7. The submission and circulation of all documents should be done by electronic means whenever feasible.

DECISION 3 (1998)**Liability**

The Representatives,

Recalling the obligation in Article 16 of the Protocol;

Determined to advance the process leading to full and effective implementation of that Article;

Welcoming the report by the Group of Legal Experts on Liability;

Decide:

1. That the Group of Legal Experts on Liability, by submitting its report, has fulfilled its task and its work is now completed;
2. That the further negotiation of an annex or annexes on liability be undertaken in Working Group I of the ATCM;
3. To this end, deliberations shall continue at ATCM XXIII, taking into account *inter alia*:
 - a) the Report of the Group of Legal Experts (XXII ATCM/WP1),
 - b) the emergency response work undertaken on the basis of Resolution 6 (1998),
 - c) inputs from SCAR, COMNAP and others on risk assessments, concentrating on facts, data and evaluations with regard to circumstances leading to and types of environmental damage, the financial magnitude of potential damages and the probable costs of response actions and remedial measures under the circumstances of Antarctica,
 - d) other pertinent inputs;
4. That Working Group I of the ATCM shall seek to elaborate draft texts, based on submission by Parties, for further consideration at ATCM XXIV.

DECISION 4 (1998)

Marine Protected Areas

The Representatives,

Noting the requirements in Annex V, Article 6, paragraphs 1 and 2, of the Protocol on Environment Protection to the Antarctic Treaty (the Protocol) that the views of the Commission of the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) must be sought on proposals for Antarctic Specially Protected Areas which contain marine areas;

Recalling the adoption at ATCM XXI of a draft text on marine areas;

Noting also the endorsement by CCAMLR at its XVIth Meeting of that draft text;

Decide:

1. To adopt the following:

For the purposes of implementation of Article 6(2) of the Environmental Protocol, draft management plans which require the approval of CCAMLR are those which include marine areas

- in which there is actual harvesting or potential capability for harvesting of marine living resources which might be affected by site designation, or
 - for which there are provisions specified in a draft management plan which might prevent or restrict CCAMLR-related activities;
2. That the sites listed in the appendix to this Decision meet the above criteria;
3. Proposals for designations of Antarctic Specially Protected Areas or Antarctic Specially Managed Areas which might have implications for CCAMLR Ecosystem Monitoring Programme (CEMP). Sites shall be submitted to CCAMLR for its consideration before any decision is taken on the proposals;
4. That the above procedures should be followed pending entry into force of Annex V.

Appendix to Decision 4 (1998)**List of SSSIs with Marine Areas of Interest to CCAMLR**

- SSSI 1: Cape Royds, Ross Island
- SSSI 20: Biscoe Point, Anvers Island
- SSSI 26: 'Chile Bay' (Discovery Bay), Greenwich Island, South Shetland Islands
- SSSI 27: Port Foster, Deception Island, South Shetland Islands
- SSSI 28: South Bay, Doumer Island, Palmer Archipelago
- SSSI 32: Cape Shirreff, Livingstone Island, South Shetland Islands
- SSSI 34: Lions Rump, King George Island, South Shetland Islands
- SSSI 35: Western Bransfield Strait off Low Island, South Shetland Islands
- SSSI 36: Eastern Dallmann Bay off Brabant Island, Palmer Archipelago

Annex C Resolutions

RESOLUTION 1 (1998)**Annex V. Protected Areas**

The Representatives,

Welcoming the entry into force of the Environmental Protocol, including its Annexes I-IV;

Conscious that this situation does not extend to Annex V on Area Protection and Management which was adopted under Recommendation XVI-10;

Aware that, to become effective, that Recommendation requires approval under the procedures of Article IX (4) of the Treaty;

Recommend that:

Those Consultative Parties which have yet to approve Recommendation XVI-10 under the procedures of Article IX(4), take steps to do so as soon as possible.

The Consultative Parties identified in the Appendix to this Resolution have responsibility for the preparation or revision of Management Plans for those sites listed.

Those Consultative Parties identified in the Annex should prepare a timetable for the preparation or revision of Management Plans for those sites for which they have principal responsibility, and should submit the timetable for information to ATCM XXIII.

Appendix to Resolution 1 (1998)

**NATIONAL RESPONSIBILITIES FOR REVISING MANAGEMENT PLANS OF
ANTARCTIC PROTECTED AREAS**

Australia

Sites of Special Scientific Interest

- 16. North-eastern Bailey Peninsula
- 17. Clark Peninsula
- 25. Marine Plain, Vestfold Hills

Chile

Specially Protected Areas

- 16. Coppermine Peninsula

Sites of Special Scientific Interest

- 5. Fildes Peninsula
- 6. Byers Peninsula (joint with UK)
- 26. Chile Bay, Greenwich Island
- 27. Port Foster, Deception Island
- 28. South Bay, Doumer Island
- 32. Cape Shirreff (joint with USA)
- 34. Ardley Island

New Zealand

Specially Protected Areas

- 4. Sabrina Island
- 22. Cryptogam Ridge

Sites of Special Scientific Interest

- 10. Caughley Beach
- 24. Summit of Mount Melbourne

Norway

Sites of Special Scientific Interest

- 23. Svarthamaren

Russia

Sites of Special Scientific Interest

- 7. Haswell Island

Poland

Sites of Special Scientific Interest

- 8. Western Shore, Admiralty Bay
- 34. Lions Rump, King George Island

Japan

Sites of Special Scientific Interest

- 22. Yukidori Valley

United Kingdom

Specially Protected Areas

- 8. Dion Island
- 9. Green Island
- 14. Lynch Island
- 18. North Coronation Island
- 19. Lagotellerie Island
- 21. Avian Island

Sites of Special Scientific Interest

- 6. Byers Peninsula (joint with Chile)
- 21. Parts of Deception Island
- 29. Ablation Point
- 31. Mount Flora

USA*Specially Protected Areas*

- 7. Cape Hallett
- 17. Litchfield Island
- 23. Forlidas Ponds

Sites of Special Scientific Interest

- 1. Cape Royds

- 2. Arrival Heights
- 3. Barwick Valley
- 4. Cape Crozier
- 18. North-western White Island
- 20. Biscoe Point
- 32. Cape Shirreff (joint with Chile)
- 35. Western Bransfield Strait
- 36. East Dallman Bay

RESOLUTION 2 (1998)

Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas

The Representatives,

Noting the requirement under Recommendation XVI-10 to prepare or revise Management Plans for existing Specially Protected Areas and Sites of Special Scientific Interest;

Recognising that all such Management Plans need to conform to the requirements of Article 5 of Annex V of the Protocol;

Conscious of the need to have in place Management Plans that provide for the adequate protection of designated sites;

Recommend that:

The Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas, appended to this Resolution, be used by those engaged in the preparation or revision of Management Plans.

Appendix to Resolution 2 (1998)

GUIDE TO THE PREPARATION OF MANAGEMENT PLANS

FOR

ANTARCTIC SPECIALLY PROTECTED AREAS

CONTENTS

Introduction

Purpose of this Guide

Format of Management Plans for ASPAs

Approval Process for Management Plans

APPENDICES

1. Text of Annex V to the Environmental Protocol (on Area Protection and Management).
2. Moe Island Management Plan.
3. Guidelines for the production of maps.
4. Reporting forms for visits to ASPAs.
5. Select bibliography
6. National Contact list.

GUIDE TO THE PREPARATION OF MANAGEMENT PLANS FOR ANTARCTIC SPECIALLY PROTECTED AREAS.

1. Introduction

Activities in Antarctica are governed by the Antarctic Treaty of 1961, which applies to the area south of 60 degrees South Latitude, including all ice shelves.

The concept of setting aside areas for special protection was introduced in 1964 when the Antarctic Treaty Consultative Parties (ATCPs) adopted the Agreed Measures for the Conservation of Antarctic Flora and Fauna. Under these and subsequent measures five categories of protected areas were established:

- Specially Protected Areas (SPAs)
- Sites of Special Scientific Interest (SSSIs)
- Historic Sites and Monuments (HSMs)
- Specially Reserved Areas (SRAs)
- Multiple-use Planning Areas (MPAs)

The Recommendations addressing the last two categories have not entered into force. In 1991 the ATCPs adopted the Protocol on Environmental Protection to the Antarctic Treaty to ensure comprehensive environmental protection in Antarctica. The Protocol designates the whole of Antarctica as "a natural reserve devoted to peace and science.

Annex V to the Protocol, adopted subsequently at ATCM XVI under Recommendation XVI-10, rationalises the protected area system. It introduces two new site designations: Antarctic Specially Protected Areas (ASPAs) and Antarctic Specially Managed Areas (ASMAs). On entry into force of Annex V, all SPAs and SSSIs will become ASPAs.

Annex V of the Protocol requires Management Plans to be produced for ASPAs and ASMAs for which Management Plans were not previously adopted. Annex V also prohibits entry into ASPAs except in accordance with a permit issued by an appropriate national authority in accordance with the requirements of the Management Plan. The text of Annex V is reproduced at Appendix 1 to this Guide.

1.1 ASPA Values.

Article 3 of Annex V of the Protocol states that any area, including any marine area, may be designated as an ASPA so as to protect outstanding environmental, scientific, historic, aesthetic or wilderness values and sets out a series of such values which ATCPs shall seek to incorporate into ASPAs.

In considering any new proposal for an ASPA, thought needs to be given as to how protected area status would address the values identified in Article 3 of Annex V, and whether such values are already adequately represented by protected areas in Antarctica.

2. Purpose of this Guide.

The objectives of this Guide are:

- to assist in the preparation of Management Plans for ASPAs; -to help achieve consistency of Management Plans and to expedite their review, adoption and implementation;
- to help ensure that Management Plans meet the requirements of the Protocol.

Caution:

This guide is intended as no more than an aide-mémoire to the production of Management Plans for ASPAs; it has no legal status. Anyone intending to prepare a Management Plan should examine the provisions of Annex V to the Protocol carefully and seek advice from their national authority at an early stage.

3. Format of Management Plans for ASPAs.

Annex V outlines the requirements of Management Plans and its Article 5 specifies the format that Management Plans should follow. The headings used in this Guide have been structured to follow that format, though for brevity the headings have been shortened (see Table 1).

Management Plan Section	Article 5 Reference
Introduction	
Description of Values	3 a
Aims and Objectives	3 b
Management Activities	3 c
Period of Designation	3 d
Area Description	3 e (i - iv)
Identification of Zones	3 f
Maps	3 g
Supporting Documentation	3 h
Terms and Conditions for entry Permits	3 i (i - x)

Table 1. Headings used in this Guide are cross-referenced to Article V.

In 1995 at Antarctic Treaty Consultative Meeting (ATCM) XIX, Resolution 9/95 was adopted. This recommended that the Moe Island (SPA number 13) Management Plan be regarded as a model for the preparation of new and revised Plans for certain ASPAs. The Moe Island Plan is provided in Appendix 2. It should be recognised that this plan will not be a useful model in all circumstances. Since the development of Management Plans for ASPAs is an evolving process, preparers of Management Plans are strongly urged to consult more recent examples agreed at subsequent ATCMs. Those preparing Plans should be aware of current best practice.

3.1 Introduction.

An introduction to the Management Plan is not a stated requirement of Article 5 of Annex V, but might provide a useful opportunity for a brief overview. Information might include a summary of the important features of the site, its history, the scientific research and other activities that have been carried out there.

Reasons why special protection is deemed necessary or desirable for a site should also be stated in the Management Plan, preferably in the introduction.

3.2 Description of values.

Justification for the site's designation should be given. The description of the value or values of the site should state, clearly and in detail, why it is that the site deserves special protection and how site designation will strengthen protection measures.

For example, if the designation of the site is intended to prevent interference with ongoing or planned scientific investigations this section should describe the nature and value of this research.

In cases where the intent is to protect the value of sites as reference areas or controls for long-term environmental monitoring programmes, the particular characteristics of the area relevant to long-term monitoring should be described. In cases where site designation is being conferred to protect historic, geological, aesthetic, wilderness or other values, those values should be described in this section.

In all cases the description should provide sufficient detail to enable readers to understand precisely what the site designation is intended to protect and how the Management Plan will achieve that aim.

3.3 Aims and Objectives.

This section should establish what is intended to be achieved by the Management Plan and how the Plan will address protection of the values described above. For example the aims of the Plan might be to:

- avoid certain specified changes to the site;
- prevent any human interference with specified features or activities in the area;
- allow only certain types of research that would not interfere with the reason for the site's designation.

It is important to note that the description of values and the objectives will be used by the national permitting authority to help decide activities they can, and cannot, be authorised to be conducted in the area. Consequently the values to be protected and the objectives of the plan must be described specifically not generally.

If the site contains a marine area the following objective might be included if appropriate:

- ensure protection to specified features or research which contributes to the objectives of the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR).

A marine area requiring approval of the CCAMLR Commission has been defined by ATCPs and CCAMLR as an area in which:

- there is actual harvesting or potential capability for harvesting of marine living resources which might be affected by site designation; or there are provisions specified in a draft management plan that might prohibit or restrict CCAMLR-related activities.

3.4 Management Activities.

Management activities outlined in this section should relate to the aims of the Management Plan and to the objectives for which the site was designated.

There should be a clear indication of what is prohibited, what should be avoided or prevented as well as what is allowed. The Plan should make it clear when permitted activities can take place. For example some activities may only be allowed outside the breeding season of sensitive species.

This section should describe such actions as will be taken to protect the particular values of the site (e.g. installation and maintenance of scientific instruments, or signs indicating that the site is an ASPA and that entry is prohibited except in accordance with a permit issued by an appropriate national authority). If the management activities require cooperative action by two or more Parties conducting or supporting research in the area, the arrangements for carrying out the required activities should be jointly developed, and described in the Management Plan.

It is important to remember, and to note, in the Management Plan that active management may require an environmental impact assessment to be undertaken in accordance with the requirements of Annex 1 of the Protocol.

If no special management activities are required, this section of the Plan should state, "None required".

3.5 Period of Designation.

Designation of an ASPA is for an indefinite period unless the Management Plan provides otherwise. It is a requirement under Article VI (3) of Annex V that the Management Plan is reviewed at least every five years, and updated as necessary.

If the intent is to provide protection for a finite period, while a particular study or other activity is conducted, an expiry date should be included in this section.

3.6 Description of the Area.

This section requires an accurate description of the site and its surrounding area to ensure that individuals planning to visit the site and national authorities responsible for issuing permits are sufficiently apprised of the special features of the area.

It is important that this section describes adequately those features of the site that are being protected, thus alerting users of the Management Plan to features of particular sensitivity.

The section is divided into four subsections:

3.6.1 Geographical co-ordinates, boundary markers and natural features.

The boundaries of the site should be delineated unambiguously and the important features of the site clearly described, as the boundary delineation will form the basis of legal enforcement.

The geographical co-ordinates should be as accurate as possible. They should be given as latitude and longitude and should be accurate to within minutes, or seconds for small sites. If possible, reference should be made to published maps or charts to allow the site boundaries to be delineated on the map. The survey and mapping methods employed at the site should be stated if possible along with the name of the agency producing the maps or charts referred to.

The boundary of the site should be carefully selected and described. It is preferable to describe a boundary that is identifiable at all times of the year. This is often difficult due to snow cover in winter, but at least in summer it should be possible for any visitor to determine the limits of the site. For sites near to areas frequented by tourists this is especially important. It is best to choose static boundary markers such as exposed rock features for the site. Features such as the edges of snow fields or glaciers are not always suitable. In some instances it may be advisable to install boundary markers where natural features are not sufficient.

When describing the physical features of the site, only place names formally approved by a Consultative Party should be used. All names referred to in the text of the Plan should be shown on the maps. Unofficial place names should not be used and the gazetteers published by several of the Consultative Parties should be used to determine the acceptable name(s) for particular features. Where additional names are known to apply they might usefully be included in bracketed subtext. If a new place name is needed, approval will be required by the appropriate national committee before using the new name on any maps and before submitting the plan.

The natural features of the site should include descriptions of, the local topography such as permanent snow/ice fields, the presence of any water bodies (lakes, streams, pools) and a brief summary of the local geology and geomorphology. An accurate, brief description of the biological features of the site is also useful including notes on major plant communities; bird and seal colonies and numbers of individuals or breeding pairs of birds. The locations of colonies or nesting areas and the presence of any seal haul-out sites, should be shown on attached maps.

3.6.2 Access to the area.

This subsection should include descriptions of preferred access routes to the site by land, sea or air. These should be clearly defined to prevent confusion and suitable alternatives provided if the preferred route is unavailable.

All access routes as well as marine anchorages and helicopter landing areas should be described and clearly marked on the accompanying map of the site. Helicopter landing areas should usually be located well outside the site's boundaries to ensure minimum interference with the integrity of the site.

The subsection should also describe preferred walking and, when permitted, vehicle routes within the area.

3.6.3 Location of structures within and adjacent to the site.

It is necessary to describe and accurately locate all structures within or adjacent to a designated site. These include, for example, boundary markers, sign boards, cairns, field huts, depots and research facilities. Where possible the date the structures were erected and the country to whom they belong should be recorded, as well as the details of any HSMs in the area.

3.6.4 Location of other protected areas in the vicinity.

There is no guidance as to the radius to be used when describing other sites "in the vicinity", but a distance of up to 50km has been used in plans adopted so far. All such protected areas (ie ASPAs, ASMAs, HSMs, CCAS Seal Reserves, CCAMLR CEMP sites etc.) in the vicinity should be given by name and, where appropriate, number together with the approximate distance and direction from the site in question.

3.7 Special Zones with the Area.

Special zones within the site might be established in which activities are prohibited, restricted or managed so as to achieve the aims and objectives of the Management Plan. For example, special zones might include bird colonies to which access is restricted during the breeding season or sections of the site where access is prohibited for specified scientific reasons. The reasons for the establishment of the zones should be stated in the Management Plan together with clear descriptions of the zones and their boundaries. The zones should also be clearly identified on the accompanying maps.

If there are no prohibited, restricted or specially managed zones within the site, the Management Plan should state this.

3.8 Maps.

Maps are a critical component of any Management Plan and should be clear and sufficiently detailed. Maps should be capable of retaining all detail if reduced or photocopied. Several maps may be necessary for a given Plan, but the minimum is likely to be two: one showing the general area in which the site is situated, as well as the position of all nearby protected areas; and a second map illustrating the details of the site itself.

It is essential that the maps clearly indicate the boundary of the Protected Area as described under section 3.6.1 above.

The recommended criteria for maps are set out in Appendix 3 together with a check-list of features to be included.

3.9 Supporting Documentation

This section should refer to any additional documents that may be relevant. These may include any scientific reports or papers describing the values of the site in greater detail, although as a general rule the various components of the site and the intended management activities should be explained in the various sections of the Management Plan itself. Any such papers or supporting documents should either be fully cited or appended as annexes to the Management Plan.

3.10 Terms and Conditions for Entry Permits.

Article 3 (4) of Annex V of the Protocol specifies that entry into ASPAs is prohibited except in accordance with a permit issued by a National Authority.

The Management Plan should set out the conditions under which a permit might be issued. When drafting Management Plans, authors should note that the authorities appointed to issue permits for entry into ASPAs will use the contents of this section to determine whether, and under what conditions, permits may be issued.

Article 7(3) of Annex V of the Protocol directs that each Party must require the permit holder to carry a copy of the permit whilst in the ASPA. This section of the Management Plan should note that all permits should contain a condition requiring the permit holder to carry a copy of the permit whilst in the ASPA.

Article 5 of Annex V sets out 10 separate issues that need to be addressed when considering the terms and conditions that might be attached to permits. These are set out below:

3.10.1 Access to, and movement within or over, the Area.

This section of the Management Plan should set out restrictions on the means of transport, points of access, routes and movement within the site. It should also address the direction of approach for aircraft and the minimum height for overflying the site. Such information should state the type of aircraft (e.g. fixed or rotary wing) on which the restrictions are based, that should be included as conditions of permits that are issued.

3.10.2 Activities which may be conducted in the Area.

This should detail what may be undertaken within the protected area and the conditions under which such activities are allowed. For example, to avoid interference with wildlife, only certain types of activity might be permitted.

If the Management Plan proposes that active management within the site may be necessary in the future, this should also be listed here.

3.10.3 Installation, modification or Removal of Structures.

It is useful to record what structures are permitted within the site. For example, certain scientific research equipment might be allowed to be installed within the Area.

If any existing structures are present (eg refuges) the Management Plan should also indicate action which might be authorised to modify or remove the structures.

Alternatively, if no structures are to be permitted within the site the Management Plan should make this clear.

3.10.4 Location of Field Camps.

It is likely that field camps would not usually be permitted within the boundaries of the site. However, it may be permissible under certain conditions such as overriding reasons of safety. If so the conditions under which field camps may be permitted should be stated. It is possible that field camps would only be acceptable in certain parts of the site. Such campsites should be identified and recorded on the supporting maps.

3.10.5 Restrictions on materials and organisms which may be brought into the site.

This section should set out prohibitions and give guidance on the management of any materials that are to be used or stored in the site. There is a complete prohibition on the introduction of non-native species, parasites and diseases under Article 4 of Annex II of The Protocol, except in accordance with a separate permit issued under the Authority provided for in Annex II.

It may be necessary, for example, to bring some chemicals into the site for research or management purposes. If so guidance should be provided as to how they must be stored, handled and removed. It may also be necessary to bring food and fuel into the site, and guidance about the use, storage and removal of such materials should be given.

In some instances special precautions may need to be taken to prevent the introduction of non-native species. If for example the site has been designated for its special microbial flora, it may be necessary to require all boots to be cleaned before entering the site or that sterile clothing should be worn within the site.

3.10.6 Taking of, or harmful interference with, native flora and fauna.

This is prohibited under Article 3 of Annex II of the Protocol except in accordance with a permit issued under the provisions of Annex II; this should be stated in all permits authorising activity in the area. The requirements under Article 3 of Annex II must be used as the minimum standard.

3.10.7 The collection, or removal, of materials not imported by the permit holder.

It may be permissible to remove from the site, materials such as beach litter, dead or pathological fauna or flora or abandoned relics and artefacts from previous activities. What items or samples can be removed by the permit holder should be clearly stated.

3.10.8 Disposal of waste.

Annex III of the Protocol deals with the management of wastes in Antarctica. This section of the plan should specify requirements for the disposal of wastes that should be included as conditions of permits. The requirements set out in Annex III must be used as the minimum standards for waste disposal in an ASPA.

All wastes should be removed from the site. Exceptions, which are in accordance with the provisions of The Protocol, should be identified as appropriate in the Management Plan.

3.10.9 Measures that may be necessary to continue to meet the aims of the Management Plan.

When appropriate this section should establish the conditions under which the issue of a permit may be necessary so as to ensure continued protection of the site. For example it may be necessary to issue permits to allow for monitoring of the site; to allow for repair or replacement of boundary markers and signs; or to allow for some active management as set out in section 3.4 above.

3.10.10 Requirements for Reports.

This section should describe the requirement for reports that should be included as a condition in permits issued by National Permitting Authorities. It should, as appropriate, specify the information that should be included in reports.

The Scientific Committee for Antarctic Research (SCAR) has developed a visit report form that could be useful in this regard. National permitting authorities may wish to make use of the SCAR form a condition of permits that they issue.

The SCAR visit Report Form is reproduced in Appendix 4 of this guide.

It may be useful to give a deadline by which time reports of a visit to the site must be made (eg within six months).

4. Approval Process for ASPA Management Plans.

Most draft Management Plans are put forward by Parties for adoption by the ATCM. However, a draft Management Plan can also be submitted by the Committee for Environmental Protection (CEP), SCAR or CCAMLR under Article 5 of Annex V of The Protocol.

The process by which Management Plans are handled from drafting through to acceptance is summarised by the flow chart in Figure 1. This is based on the requirements of Article 6 of Annex V.

In the initial stages of drafting the Management Plan, it is recommended that widespread consultation, both nationally and internationally, is undertaken on the scientific, environmental and logistical elements of the Plan as appropriate. This will aid the passage of the Plan through the more formal process at the ATCM.

The draft plan should be submitted to the CEP and SCAR, as well as CCAMLR if there is a significant marine component to the Plan (see Section 3.3 for definition).

The CEP will then consider the Management Plan along with any comments made by SCAR and, if appropriate, CCAMLR. If necessary the CEP may recommend modification of the Plan.

The CEP then formulates and submits its advice to the ATCM. The ATCPs will thereafter give consideration to the plan. It is still possible for the ATCM to suggest further redrafting.

If the ATCPs agree on the Plan a Measure is adopted at an ATCM in accordance with Article IX(1) of the Antarctic Treaty. Unless the Measure specifies otherwise, the Plan is deemed to have been approved 90 days after the close of the ATCM at which it was adopted, unless one or more of the Consultative Parties notifies the Depository, within that time period, that it wishes an extension of that period or is unable to approve the Measure.

The Management Plan shall be reviewed every five years in accordance with Article 6(3) of Annex V of the Protocol and updated as required. Updated Management Plans then follow the same course of agreement as before.

The approval process for an ASPA Management Plan has many critical stages, which can take a long time to complete. However, these stages are necessary as an ASPA Management Plan requires the agreement of all ATCPs at an ATCM.

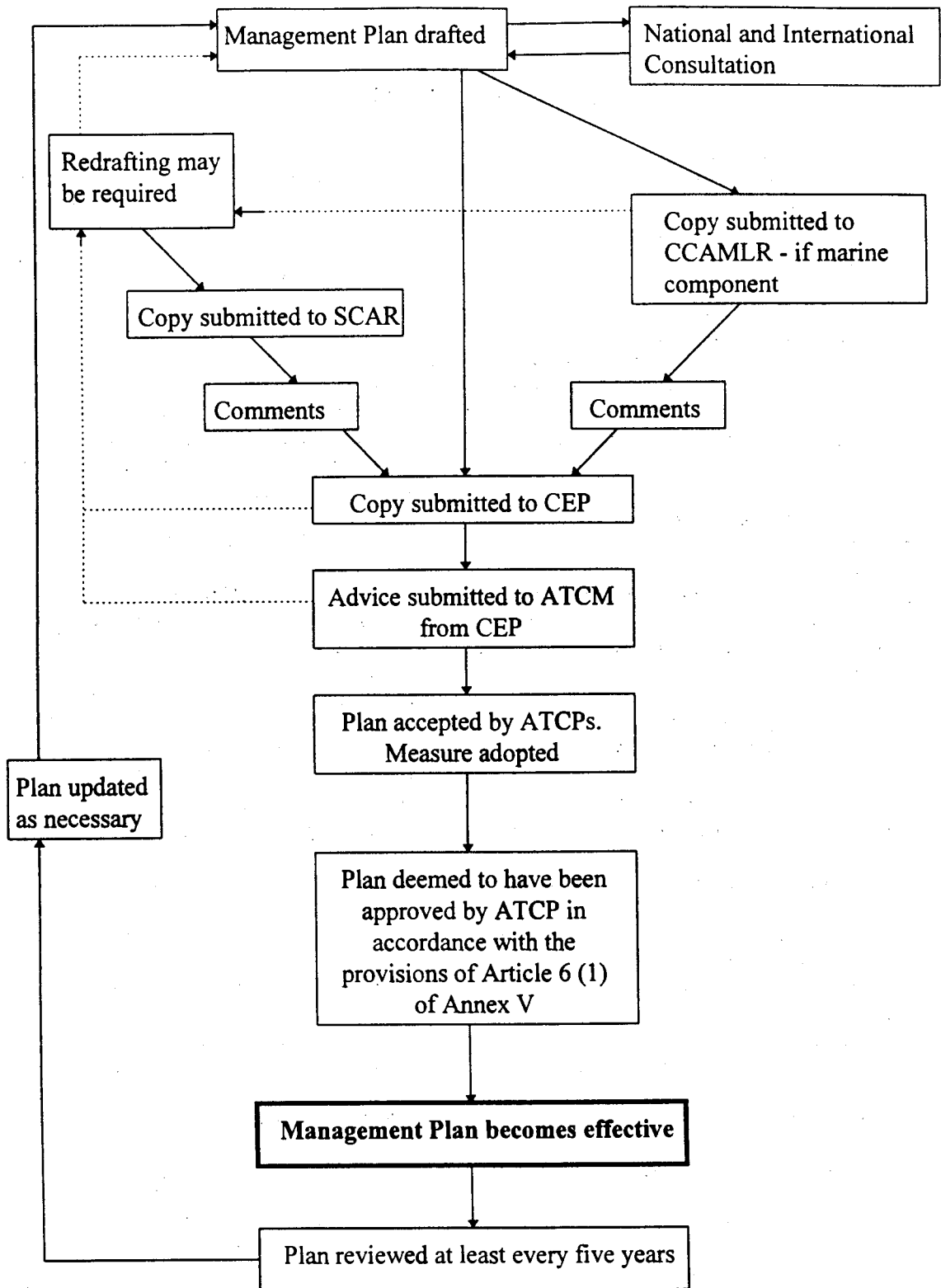


Figure 1. Flow chart showing the approval process for ASPA Management Plans

ANNEX V
TO THE PROTOCOL ON ENVIRONMENTAL PROTECTION
TO THE ANTARCTIC TREATY
AREA PROTECTION AND MANAGEMENT

ARTICLE 1
DEFINITIONS

For the purposes of this Annex:

- a) "appropriate authority" means any person or agency authorised by a Party to issue permits under this Annex;
- b) "permit" means a formal permission in writing issued by an appropriate authority;
- c) "Management Plan" means a plan to manage the activities and protect the special value or values in an Antarctic Specially Protected Area or an Antarctic Specially Managed Area.

ARTICLE 2
OBJECTIVES

For the purposes set out in this Annex, any area, including any marine area, may be designated as an Antarctic Specially Protected Area or an Antarctic Specially Managed Area. Activities in those Areas shall be prohibited, restricted or managed in accordance with Management Plans adopted under the provisions of this Annex.

ARTICLE 3
ANTARCTIC SPECIALLY PROTECTED AREAS

1. Any area, including any marine area, may be designated as an Antarctic Specially Protected Area to protect outstanding environmental, scientific, historic, aesthetic or wilderness values, any combination of those values, or ongoing or planned scientific research.
2. Parties shall seek to identify, within a systematic environmental-geographical framework, and to include in the series of Antarctic Specially Protected Areas:
 - (a) areas kept inviolate from human interference, so that future comparisons may be possible with localities that have been affected by human activities;
 - (b) representative examples of major terrestrial, including glacial and aquatic, ecosystems and marine ecosystems;
 - (c) areas with important or unusual assemblages of species, including major colonies of breeding native birds or mammals;
 - (d) the type locality or only known habitat of any species;
 - (e) areas of particular interest to ongoing or planned scientific research;

- (f) examples of outstanding geological, glaciological or geomorphological features;
- (g) areas of outstanding aesthetic and wilderness value;
- (h) sites or monuments of recognised historic value; and
- (i) such other areas as may be appropriate to protect the values set out in paragraph 1 above.

3. Specially Protected Areas and Sites of Special Scientific Interest designated as such by past Antarctic Treaty Consultative Meetings are hereby designated as Antarctic Specially Protected Areas and shall be renamed and renumbered accordingly.
4. Entry into an Antarctic Specially Protected Area shall be prohibited except in accordance with a permit issued under Article 7.

ARTICLE 4
ANTARCTIC SPECIALLY MANAGED AREAS

1. Any area, including any marine area, where activities are being conducted or may in the future be conducted, may be designated as an Antarctic Specially Managed Area to assist in the planning and co-ordination of activities, avoid possible conflicts, improve co-operation between Parties or minimise environmental impacts.
2. Antarctic Specially Managed Areas may include:
 - (a) areas where activities pose risks of mutual interference or cumulative environmental impacts; and
 - (b) sites or monuments of recognised historic value.
3. Entry into an Antarctic Specially Managed Area shall not require a permit.
4. Notwithstanding paragraph 3 above, an Antarctic Specially Managed Area may contain one or more Antarctic Specially Protected Areas, entry into which shall be prohibited except in accordance with a permit issued under article 7.

ARTICLE 5
MANAGEMENT PLANS

1. Any Party, the Committee, the Scientific Committee for Antarctic Research or the Commission for the Conservation of Antarctic Marine Living Resources may propose an area for designation as an Antarctic Specially Protected Area or an Antarctic Specially Managed Area by submitting a proposed

- Management Plan to the Antarctic Treaty Consultative Meeting.
2. The area proposed for designation shall be of sufficient size to protect the values for which the special protection or management is required.
 3. Proposed Management Plans shall include, as appropriate:
 - (a) a description of the value or values for which special protection or management is required;
 - (b) a statement of the aims and objectives of the Management Plan for the protection or management of those values;
 - (c) management activities which are to be undertaken to protect the values for which special protection or management is required;
 - (d) a period of designation, if any;
 - (e) a description of the area, including:
 - (i) the geographical co-ordinates, boundary markers and natural features that delineate the area;
 - (ii) access to the area by land, sea or air including marine approaches and anchorages, pedestrian and vehicular routes within the area, and aircraft routes and landing areas;
 - (iii) the location of structures, including scientific stations, research or refuge facilities, both within the area and near to it; and
 - (iv) the location in or near the area of other Antarctic Specially Protected Areas or Antarctic Specially Managed Areas designated under this Annex, or other protected areas designated in accordance with measures adopted under other components of the Antarctic Treaty System;
 - (f) the identification of zones within the area in which activities are to be prohibited, restricted or managed for the purpose of achieving the aims and objectives referred to in subparagraph (b) above;
 - (g) maps and photographs that show clearly the boundary of the area in relation to surrounding features and key features within the area;
 - (h) supporting documentation;
 - (i) in respect of an area proposed for designation as an Antarctic Specially Protected Area, a clear description of the conditions under which permits may be granted by the appropriate authority regarding:
 - (i) access to and movement within or over the area;
 - (ii) activities which are or may be conducted within the area, including restrictions on time and place;
 - (iii) the installation, modification, or removal of structures;
 - (iv) the location of field camps;
 - (v) restrictions on materials and organisms which may be brought into the area;
 - (vi) the taking of harmful interference with native flora and fauna;
 - (vii) the collection or removal of anything not brought into the area by the permit holder;
 - (viii) the disposal of waste;
 - (ix) measures that may be necessary to ensure that the aims and objectives of the Management Plan can continue to be met; and
 - (x) requirements for reports to be made to the appropriate authority regarding visits to the area;
 - (j) in respect of an area proposed for designation as an Antarctic Specially Managed Area a code of conduct regarding:
 - (i) access to and movement within or over the area;
 - (ii) activities which are or may be conducted within the area, including restrictions on time and place;
 - (iii) the installation, modification, or removal of structures;
 - (iv) the location of field camps;
 - (v) the taking of or harmful interference with native flora and fauna;
 - (vi) the collection or removal of anything not brought into the area by the visitor;
 - (vii) the disposal of waste; and
 - (viii) any requirements for reports to be made to the appropriate authority regarding visits to the area; and
 - (k) provisions relating to the circumstances in which Parties should seek to exchange information in advance of activities which they propose to conduct.

ARTICLE 6

DESIGNATION PROCEDURES

1. Proposed Management Plans shall be forwarded to the Committee, the Scientific Committee on Antarctic Research and, as appropriate, to the Commission for the Conservation of Antarctic Marine Living Resources. In formulating its advice to the Antarctic Treaty Consultative Meeting, the Committee shall take into account any comments provided by the Scientific Committee on Antarctic Research and, as appropriate, by the Commission for the Conservation of Antarctic Marine Living Resources. Thereafter Management Plans may be approved by the Antarctic Treaty Consultative Par-

- ties by a measure adopted at an Antarctic Treaty Consultative Meeting in accordance with Article IX(1) of the Antarctic Treaty. Unless the measure specifies otherwise, the Plan shall be deemed to have been approved 90 days after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or is unable to approve the measure.
2. Having regard to the provisions of Articles 4 and 5 of the Protocol, no marine area shall be designated as an Antarctic Specially Protected Area or an Antarctic Specially Managed Area without the prior approval of the Commission for the Conservation of Antarctic Marine Living Resources.
 3. Designation of an Antarctic Specially Protected Area or an Antarctic Specially Managed Area shall be for an indefinite period unless the Management Plan provides otherwise. A review of a Management Plan shall be initiated at least every five years. The Plan shall be updated as necessary.
 4. Management Plans may be amended or revoked in accordance with paragraph 1 above.
 5. Upon approval Management Plans shall be circulated promptly by the Depositary to all Parties. The Depositary shall maintain a record of all currently approved Management Plans.

ARTICLE 7 PERMITS

1. Each Party shall appoint an appropriate authority to issue permits to enter and engage in activities within an Antarctic Specially Protected Area in accordance with the requirements of the Management Plan relating to that Area. The permit shall be accompanied by the relevant sections of the Management Plan and shall specify the extent and location of the Area, the authorised activities and when, where and by whom the activities are authorised and any other conditions imposed by the Management Plan.
2. In the case of a Specially Protected Area designated as such by past Antarctic Treaty Consultative Meeting which does not have a Management Plan, the appropriate authority may issue a permit for a compelling scientific purpose which cannot be served elsewhere and which will not jeopardise the natural ecological system in that Area.
3. Each Party shall require a permit-holder to carry a copy of the permit while in the Antarctic Specially Protected Area concerned.

ARTICLE 8 HISTORIC SITES AND MONUMENTS

1. Sites or monuments of recognised historic value which have been designated as Antarctic Specially Protected Areas or Antarctic Specially Managed

Areas, or which are located within such areas shall be listed as Historic Sites and Monuments.

2. Any Party may propose a site or monument of recognised historic value which has not been designated as an Antarctic Specially Protected Area or an Antarctic Specially Managed Area, or which is not located within such an Area, for listing as a Historic Site or monument. The proposal for listing may be approved by the Antarctic Treaty Consultative Parties by a measure adopted at an Antarctic Treaty Consultative Meeting in accordance with Article IX(1) of the Antarctic Treaty. Unless the measure specifies otherwise, the proposal shall be deemed to have been approved 90 days after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or is unable to approve the measure.
3. Existing Historic Sites and Monuments which have been listed as such by previous Antarctic Treaty Consultative Meetings shall be included in the list of Historic Sites and Monuments under this Article.
4. Listed Historic Sites and Monuments shall not be damaged, removed or destroyed.
5. The list of Historic Sites and Monuments may be amended in accordance with paragraph 2 above. The Depositary shall maintain a list of current Historic Sites and Monuments.

ARTICLE 9 INFORMATION AND PUBLICITY

1. With a view to ensuring that all persons visiting or proposing to visit Antarctica understand and observe the provisions of this Annex, each Party shall make available information setting forth, in particular:
 - (a) the location of Antarctic Specially Protected Areas and Antarctic Specially Managed Areas;
 - (b) listing and maps of those Areas;
 - (c) the Management Plans, including listing of prohibitions relevant to each Area;
 - (d) the location of Historic Sites and Monuments and any relevant prohibition or restriction.
2. Each Party shall ensure that the location and, if possible, the limits of Antarctic Specially Protected Areas, Antarctic Specially Managed Areas and Historic Sites and Monuments are shown on its topographic maps, hydrographic charts and in other relevant publications.
3. Parties shall co-operate to ensure that, where appropriate, the boundaries of Antarctic Specially Protected Areas, Antarctic Specially Managed Areas and Historic Sites and Monuments are suitably marked on the site.

**ARTICLE 10
EXCHANGE OF INFORMATION**

1. The Parties shall make arrangements for:
 - (a) collecting and exchanging records, including records of permits and reports of visits, including inspection visits, to Antarctic Specially Protected Areas and report of inspection visits to Antarctic Specially Managed Areas;
 - (b) obtaining and exchanging information on any significant change or damage to any Antarctic Specially Managed Area, Antarctic Specially Protected Area or Historic Site or Monument; and
 - (c) establishing common forms in which records and information shall be submitted by Parties in accordance with paragraph 2 below.
2. Each Party shall inform the other Parties and the Committee before the end of November of each year of the number and nature of permits issued under this Annex in the preceding period of 1st July to 30th June.
3. Each Party conducting, funding or authorising research or other activities in Antarctic Specially Protected Areas or Antarctic Specially Managed Areas shall maintain a record of such activities and in the annual exchange of information in accordance with the Treaty shall provide summary descriptions of the activities conducted by persons subject to its jurisdiction in such areas in the preceding year.
4. Each Party shall inform the other Parties and the Committee before the end of November each year of measures it has taken to implement this Annex, including any site inspections and any steps it has taken to address instances of activities in contravention of the provisions of the approved Management Plan for an Antarctic Specially Protected Area or Antarctic Specially Managed Area.

**ARTICLE 11
CASES OF EMERGENCY**

1. The restriction laid down and authorised by this Annex shall not apply in cases of emergency involving safety of human life or of ships, aircraft, or equipment and facilities of high value or the protection of the environment.
2. Notice of activities undertaken in cases of emergency shall be circulated immediately to all Parties and to the Committee.

**ARTICLE 12
AMENDMENT OR MODIFICATION**

1. This Annex may be amended or modified by a measure adopted in accordance with Article IX(1) of the Antarctic Treaty. Unless the measure specifies otherwise, the amendment or modification shall be deemed to have been approved, and shall become effective, one year after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Antarctic Treaty Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or that it is unable to approve the measure.
2. Any amendment or modification of this Annex which becomes effective in accordance with paragraph 1 above shall thereafter become effective as to any other Party when notice of approval by it has been received by the Depositary.

MANAGEMENT PLAN FOR SPECIALLY PROTECTED AREA (SPA)

No. 13 MOE ISLAND, SOUTH ORKNEY ISLANDS

1. Description of Values to be Protected.

The Area was originally designated in Recommendation IV-13 (1966, SPA No. 13) after a proposal by the United Kingdom on the grounds that Moe Island provided a representative sample of the maritime Antarctic ecosystem, that intensive experimental research on the neighbouring Signy Island might alter its ecosystem and that Moe Island should be specially protected as a control area for future comparison.

These grounds are still relevant. Whilst there is no evidence that research activities at Signy Island have significantly altered the ecosystems there, a major change has occurred in the low altitude terrestrial system as a result of the rapidly expanding Antarctic fur seal (*Arctocephalus gazella*) population. Plant communities on nearby Signy Island have been physically disrupted by trampling by fur seals and nitrogen enrichment from the seals' excreta has resulted in replacement of bryophytes and lichens by the macro-alga *Prasiola crispa*. Low-lying lakes have been significantly affected by enriched run-off from the surrounding land. So far Moe Island has not been invaded by fur seals to any great extent and its topography makes it less likely that seals will penetrate to the more sensitive areas.

The values to be protected are those associated with the biological composition and diversity of a near-pristine example of the maritime Antarctic terrestrial and littoral marine ecosystems. In particular, Moe Island contains the greatest continuous expanses of *Chorisodontium-Polytrichum* moss turf found in the Antarctic. Moe Island has been visited on few occasions and has never been the site of occupation for periods of more than a few hours.

2. Aims and Objectives

Management of Moe Island aims to:

- avoid major changes to the structure and composition of the terrestrial vegetation, in particular the moss turf banks;
- prevent unnecessary human disturbance to the Area;
- permit research of a compelling scientific nature which cannot be served elsewhere, particularly research related to determining the differences between the ecology of an undisturbed island and that of an adjacent occupied and fur seal perturbed island.

3. Management Activities

Ensure that the biological condition of Moe Island is adequately monitored, preferably by non invasive methods, and that the sign-boards are serviced.

If fur seals were to gain access to the interior of Moe Island it would be necessary to take action to prevent damage to the vulnerable moss banks. This action would most likely consist of the erection of a seal-proof fence at the head of the gully at the northeast of Landing Cove. Any direct management activities in the Area would be subject to an environmental impact assessment before any decision to proceed is taken.

4. Period of Designation

Designated for an indefinite period.

5. Maps

Map 1 shows the location of Moe Island in relation to the South Orkney Islands. Map 2 shows Moe Island in greater detail.

6. Description of the Area

6(i) *Geographical co-ordinates, boundary markers and natural features*

Moe Island, South Orkney Islands, is a small irregularly-shaped island lying 300m off the southwestern extremity of Signy Island, from which it is separated by Fyr Channel. It is about 1.3km from the northeast to southwest and 1km from northwest to southeast. Its position on Admiralty Chart No. 1775, latitude 60°44'S, longitude 45°45'W, does not agree closely with that in Map 2 (lat. 60°44'S, long. 45°41'W).

The island rises precipitously on the northeastern and southeastern sides to Snipe Peak (226m altitude). There is a subsidiary summit above South Point (102m altitude) and lower hills on each of three promontories on the western side above Corral Point (92m), Conroy Point (39m) and Spaul Point (56m). Small areas of permanent ice remain on the east- and south-facing slopes with late snow lying on the steeply dipping western slopes. There are no permanent streams or pools.

The rocks are metamorphic quartz mica schists, with occasional biotite and quartz-rich beds. There is a thin bed of undifferentiated amphibolite on the northeastern coast. Much of the island is overlain with glacial drift and scree. Soils are predominantly immature deposits of fine to coarse clays and sands intermixed with gravels, stones and boulders. They are frequently sorted by freeze-thaw action in high or exposed locations into small-scale circles, polygons, stripes and lobes. There are deep accumulations of peat (up to 2m thick on western slopes), considerable expanses of the surface of which are bare and eroded.

The dominant plant communities are *Andreaea-Usnea* fellfield and banks of *Chorisodontium-Polytrichum* moss turf (the largest known example of this community type in the Antarctic). These moss banks constitute a major biological value and the reason for the designation of the Area. The cryptogamic flora is diverse.

The mites *Gamasellus racovitzai* and *Stereotydeus villosus* and the springtail *Cryptopygus antarcticus* are common under stones.

There were five colonies of chinstrap penguins (*Pygoscelis antarctica*) totalling about 11,000 pairs in 1978-79. A more recent visit (February 1994) noted fewer than 100 pairs on the northern side of Landing Cove and more than a thousand on the southern side. Numerous other birds breed on the island, notably about 2,000 pairs of cape petrels (*Daption capensis*) in 14 colonies (1966) and large numbers of Antarctic prions (*Pachyptila desolata*).

Weddell seals (*Leptonychotes weddellii*) and leopard seals (*Hydrurga leptonyx*) are found in the bays on the west side of the island. Increasing numbers of fur seals (*Arctocephalus gazella*), mostly juvenile males, come ashore on the north side of Landing Cove and have caused some damage to vegetation in that area. However, it is possible that the nature of the terrain will restrict these animals to this small headland where damage may intensify.

6(ii) Restricted zones within the Area

None.

6(iii) Location of structures within the Area

A marker board is located at the back of the small shingle beach in the northeast corner of Landing Cove, beyond the splash zone on top of a flat rock, to which it is bolted. The board was erected on 2 February 1994.

There is a cairn and the remains of a survey mast, erected in 1965-66, on Spaul Point. This mast is of interest for lichenometric studies and should not be removed. There are no other structures on Moe Island.

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

SPA No. 14, Lynch Island, lies about 10km north-north-east of Moe Island. SPA No. 18, North Coronation Island, lies about 19km away on the northern side of Coronation Island. SPA No. 15, Southern Powell Island, is about 35km to the east.

7. Permit Conditions

Entry into the Area is prohibited except in accordance with a Permit issued by appropriate national authorities.

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

- it is issued only for a compelling scientific purpose which cannot be served elsewhere;
- the actions permitted will not jeopardize the natural ecological system in the Area;
- any management activities are in support of the objectives of the Management Plan;
- the actions permitted are in accordance with this Management Plan;
- the Permit, or an authorised copy, must be carried within the Specially Protected Area;
- a report or reports are supplied to the authority or authorities named in the Permit.

7(i) Access to and movement within the Area

There are no restrictions on landing from the sea, which is the preferred method. No special access points are specified, but landings are usually most safely made at the northeast corner of Landing Cove.

Helicopter landings should be avoided where practicable. Helicopters may land only on the col between hill 89m and the western slope of Snipe Peak. To avoid overflying bird colonies approach should preferably be from the south, though an approach from the north is permissible.

It is forbidden to overfly the Area below 250m altitude above the highest point except for access to the landing point specified above.

No pedestrian routes are designated but persons on foot should at all times avoid disturbances to birds or damage to vegetation and periglacial features. Vehicles are prohibited on Moe Island.

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

- Compelling scientific research which cannot be undertaken elsewhere and which will not jeopardize the ecosystem of the Area
- Essential management activities, including monitoring

7(iii) Installation, modification or removal of structures

No structures are to be erected in the Area, or scientific equipment installed, except for essential scientific or management activities, as specified in the Permit.

7(iv) Location of field camps

Parties should not normally camp in the Area. If this is essential for reasons of safety, tents should be erected having regard to causing the least damage to vegetation or disturbance to fauna.

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

No living animals or plant material shall be deliberately introduced into the Area.

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

No herbicides or pesticides shall be brought into the Area. Any other chemicals, which may be introduced for a compelling scientific purpose specified in the Permit, shall be removed from the Area at or before the conclusion of the activity for which the Permit was granted.

Fuel, food and other materials are not to be deposited in the Area, unless required for essential purposes connected with the activity for which the Permit has been granted. All such materials introduced are to be removed when no longer required. Permanent depots are not permitted.

7(vi) Taking or harmful interference with native flora and 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 Use of Animals for Scientific Purposes in Antarctica, as a minimum standard.

7(vii) Collection and 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, except that debris of man-made origin may be removed from the beaches of the Area and dead or pathological specimens of fauna or flora may be removed for laboratory examination.

7(viii) Disposal of waste

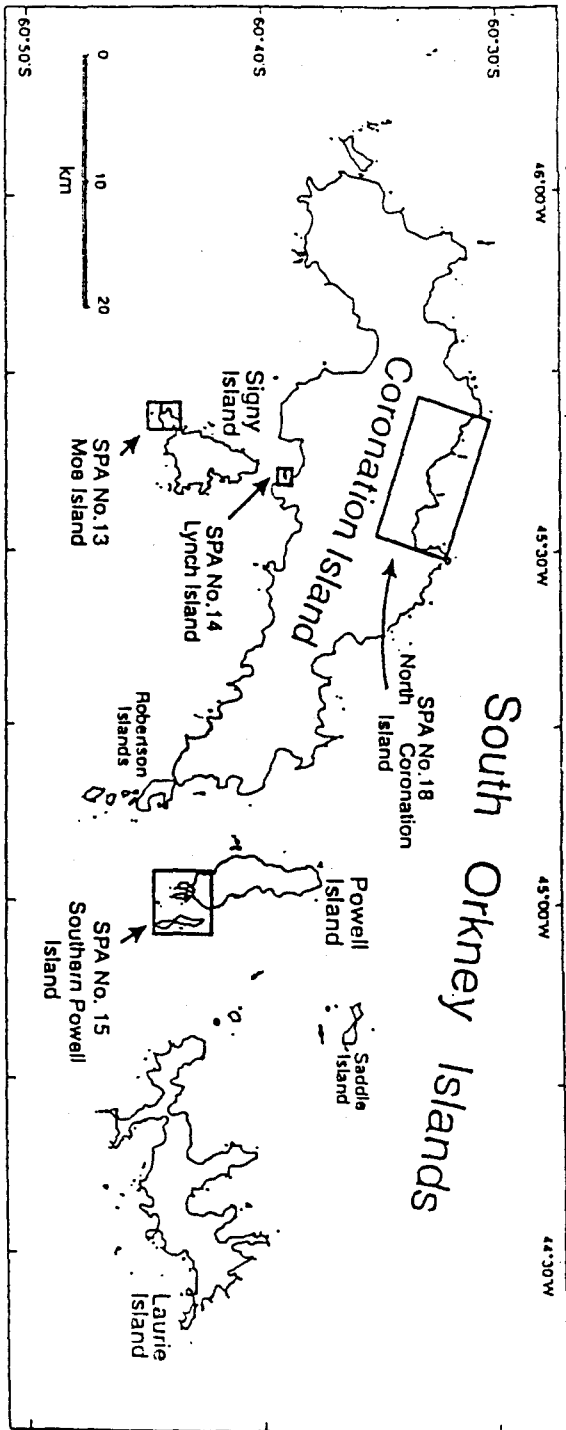
All non-human wastes shall be removed from the Area. Human waste may be deposited in the sea.

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

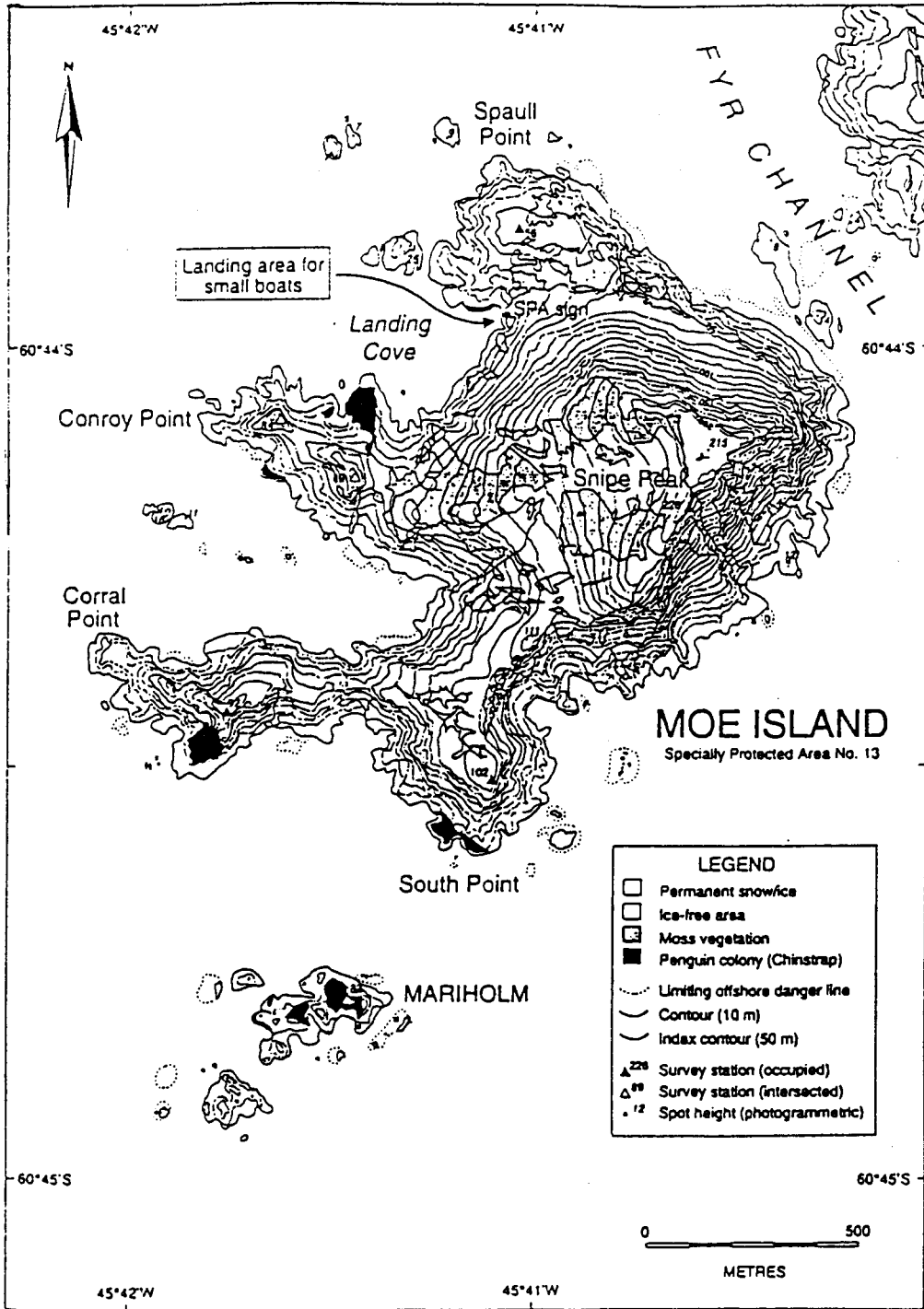
Permits may be granted to enter the Area to carry out biological monitoring and site inspection activities, which may involve the collection of small amounts of plant material or small numbers of animals for analysis or audit, to erect or maintain notice boards, or protective measures.

7(x) Requirements for reports

The Principal Permit Holder for each issued Permit shall submit a report of activities conducted in the Area using the accepted Visit Report form suggested by SCAR. This report shall be submitted to the authority named in the Permit as soon as practicable, but not later than 6 months after the visit has taken place. Such reports should be stored indefinitely and made accessible to interested Parties, SCAR, CCAMLR and COMNAP if requested, to provide the documentation of human activities within the Area necessary for good management.



Map I. Moe Island Specially Protected Area in relation to the South Orkney Islands



Map 2. Moe Island Specially Protected Area

GUIDANCE NOTES FOR PRODUCING MAPS FOR INCLUSION IN MANAGEMENT PLANS

Management Plans should include a general location map to show the position of the site and the location of any other protected areas in the vicinity, and at least one detailed map of the site showing those features essential for meeting the Management plan objectives.

1. All maps should include latitude and longitude as well as having scale bars. Avoid ratio scales - enlargement/reduction renders them useless. The spheroid (eg WGS 84) or reference framework used should be indicated as text beneath these scale bar.
2. The importance of GPS for fixing positions cannot be overstated. Over past years it has become clear that the original positioning of some protected sites is highly suspect. The opportunity to revise the plan for each site is an opportunity to use GPS, to provide clear locational information on boundaries. It is strongly recommended that plans are not submitted without such information.
3. It is important to use up-to-date coastline and glacier front data. Ice recession and advance continues to affect many areas with consequent changes to site boundaries. If an ice front is used as a boundary the date of the survey should be shown.
4. A map should show the following features: any specified routes; any restricted zones; boat and/or helicopter landing sites and access points; cam-sites; installations and huts; major animal concentrations and breeding sites; any extensive areas of vegetation and should clearly delineate between ice/snow and ice-free ground. In many instances it is useful to include a geological map of the Area. It is suggested that, in most cases, it is helpful to have contouring at an appropriate interval on all maps of the Area. But contouring should not be too close as to mark other features or symbols on the map.
5. Be aware when preparing the map that it will be reduced to about 150 x 200 mm size to fit into the ATCM official report. This is of importance in selecting the size of symbols, the closeness of contouring and the use of shading. Reproduction is always monochrome so do not use colours to distinguish features in the original. There may well be other versions of an Area map available but as far as the legal status of the management plan is concerned it is the version published on the Final Report of the Antarctic Treaty Consultative Meeting that is the definitive version which will be included in national legislation.
6. Photographs can be a valuable aid to using the plan in the field. Remember that good contrast prints are essential for adequate reproduction. Screening or digitising of photograph will improve reproduction when the plan is photocopied.
7. Some plans have already used 3-dimensional terrain models which again can provide important locational information when approaching a site, especially by helicopter. Such drawings need careful design if they are not to become confusing when reduced.

8. If the Area will require evaluation by CCAMLR the location of nearby CEMP sites should be indicated. CCAMLR has requested that the location of bird and seal colonies (for penguins and seals; and the access routes from the sea should be indicated on the map wherever possible.

A CHECKLIST OF FEATURES TO BE CONSIDERED FOR INCLUSION ON MAPS

1. Essential features

- 1.1 Title
- 1.2. Latitude and longitude co-ordinates
- 1.3. Scale bar with numerical scale
- 1.4. Comprehensive legend
- 1.5. Adequate and approved placenames
- 1.6. Map projection and spheroid
- 1.7. North arrow
- 1.8. Contour interval
- 1.9. If image data are included, date of image collection

2. Essential topographical features

- 2.1 Coastline, rock and ice
- 2.2 Peaks and ridge lines
- 2.3 Ice margins and other glacial features
- 2.4 Contours (labelled as necessary) survey points and spot heights

3. Natural Features

- 3.1 Lakes, ponds, streams
- 3.2 Moraines, scree, cliffs, beaches
- 3.3 Beach areas
- 3.4 Vegetation
- 3.5 Bird and seal colonies

4. Anthropogenic Features

- 4.1 Station
- 4.2 Field huts, refuges
- 4.3 Campsites
- 4.4 Roads and vehicle tracks, footpaths
- 4.5 Landing areas for fixed wing aeroplanes and helicopters
- 4.6 Wharf, jetties
- 4.7 Power supplies, cables
- 4.8 Aerials, antennae
- 4.9 Fuel storage areas

- 4.10 Water reservoirs and pipes
- 4.11 Emergency caches
- 4.12 Markers, signs
- 4.13 Historic sites or artefacts, archaeological sites
- 4.14 Scientific installations or sampling areas
- 4.15 Site contamination or modification

5. Boundaries

- 5.1 Boundary of Area
- 5.2 Boundaries of subsidiary zones areas. Boundaries of contained protected area
- 5.3 Boundary signs and markers (including cairns)
- 5.4 Boat/aircraft approach routes
- 5.5 Navigation markers or beacons
- 5.6 Survey points and markers

The same approach is obviously required of any inset maps.

At the conclusion of drafting a check should be made on cartographic quality to ensure:

- Balance between the elements.
- Appropriate shading to enhance features but which will not be confusing when photocopied and where degree should reflect importance.
- Correct and appropriate text with no features overlap.
- An appropriate legend using SCAR approved map symbols wherever possible.
- White text appropriately shadowed on all image data.

**Antarctic Specially Protected Area
VISIT REPORT**

1. Protected Area name and number:	
2. Name and address of Authority issuing permit:	3. Date Report filed:
4. Name and address of Authority to whom Report is made:	5. Person completing Report:
6. Name and address of Principal Permit Holder: International telephone: + International fax: + E-mail address:	7. List of all persons who entered the Area under the current Permit:
8. Objectives of the visit to the Area under the current Permit:	
9. Date(s) and duration of visit(s) under the current Permit:	
10. Mode of transport to/from the Area:	
11. Activities conducted in the Area:	
12. Descriptions and locations of samples collected (type, quantity, and details of any Permits for sample collection):	
13. Descriptions and locations of markers, instrumentation or equipment installed, or any material released into the environment (noting how long these are intended to remain in the Area):	
14. Descriptions and locations of markers, instrumentation or equipment removed:	

<p>15. Any departures from the provisions of the Management Plan during this visit, noting dates, magnitudes and locations:</p>
<p>16. Measures taken during this visit to ensure compliance with the Management Plan:</p>
<p>17. Observations of human effects on the Area, distinguishing between those resulting from the visit and those due to previous visitors:</p>
<p>18. Evaluation of whether the values for which the Area was designated are being adequately protected:</p>
<p>19. Note any features of special significance that have not been previously recorded for the Area:</p>
<p>20. Recommendations on further management measures needed to protect the values of the Area, including location and appraisal of condition of structures, markers, etc.:</p>
<p>21. Summary of scientific research undertaken in the Area:</p>
<p>22. On an attached photocopy of the map of the Area, please show (as applicable) camp site location(s), land/sea/air movements or routes, sampling sites, installations, deliberate release of materials, any impacts, and features of special significance not previously recorded:</p>
<p>23. Any other comment or information:</p>

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RESOLUTION 3 (1998)

International Code of Safety for Ships in Polar Waters

The Representatives,

Noting the draft International Code of Safety for Ships in Polar Waters (Polar Code), being developed by the International Maritime Organisation (IMO);

Recognising the benefits of having a Code of Practice for Ship Safety for vessels operating in Antarctic waters;

Noting also that a Polar Code should meet the requirements of Article 10 of Annex IV to the Protocol on Environmental Protection to the Antarctic Treaty;

Recommend that:

Consultative Parties provide input to IMO, via their national maritime authorities, on the draft Polar Shipping Code as it relates to shipping operations within the Antarctic Treaty area.

RESOLUTION 4 (1998)**Antarctic Data Management**

The Representatives,

Recalling the Commitment of Parties under Article III (1)(c) of the Treaty to promote international co-operation in scientific investigation by exchanging, and making freely available, scientific observations and results from Antarctica;

Welcoming the establishment by SCAR and COMNAP of the Joint Committee on Antarctic Data Management and the Antarctic Data Directory System; and

Recognising the enhanced efficiency for Antarctic research to be gained from effective data management;

Recommend that

1. Consultative Parties, who have not yet done so, establish National Antarctic Data Centres and link these to the Antarctic Data Directory System managed by the Joint Committee on Antarctica Data Management of SCAR and COMNAP.
2. Consultative Parties and their National Antarctic Data Centres encourage their scientists, through a process of education, support and the development of policies and procedures, to provide in a timely manner appropriate information to their National Antarctic Data Centres for distribution through the Antarctic Data Directory System.
3. Consultative Parties give priority consideration as to how the requirement for freedom of access to scientific information, in accordance with Article III (1)(c) of the Treaty, is achieved within their national data management systems.

RESOLUTION 5 (1998)

ATCM Home Page

The Representatives

Recommend that:

1. The Host Government of an Antarctic Treaty Consultative Meeting be encouraged to consider the establishment of an Internet home page on the World Wide Web (*ATCM Home Page*).
2. The *ATCM Home Page* should *inter alia* contain:
 - a) in an area freely accessible to the general public:
 - general information on Antarctica and the Antarctic Treaty system;¹
 - within the resources available, and in accordance with paragraph 3 of this Resolution, an archive of official documentation from the Antarctic Treaty Consultative Meetings, containing working and information papers submitted to the Meetings, as well as the Final Reports of the Meetings with text of annexes.
 - b) in a password protected area accessible only to the Antarctic Treaty Parties, the Antarctic Treaty System Observers², experts invited by the Antarctic Treaty Consultative Meeting and any other entities that the Meeting decides should have such access:
 - official documents submitted electronically to the Host Government in advance of an Antarctic Treaty Consultative Meeting;
 - any practical information related to the Antarctic Treaty Consultative Meeting, which the Host Government may wish to communicate this way.
3. As from the closure of an Antarctic Treaty Consultative Meeting, and if no Delegation has indicated its intention to the contrary when submitting a document, the Host Government should enable free public access to all the official documents which have been placed on the *ATCM Home Page*, by removing the password protection from these.
4. Norway, as the Host Government of the XXII Antarctic Treaty Consultative Meeting shall, based on the Home Page prepared in advance of the XXII Meeting, establish the *ATCM Home Page*, and shall maintain it until three months after the closure of ATCM XXII.

5. Thereafter, within the resources available and pending any more permanent solution agreed upon by the Antarctic Treaty Consultative Parties, the *ATCM Home Page* should be maintained by any subsequent Host Government of the Antarctic Treaty Consultative Meeting, from three months after the closure of the previous Meeting until three months after the closure of the Meeting it hosts³.

¹ Developed in pursuance of paragraph 132 of the Final Report of the XXI Antarctic Treaty Consultative Meeting.

² As referred to in Rule 2 of the Revised Rules of Procedure for Antarctic Treaty Consultative Meetings (1997)

³ Cf. Guidelines for Pre-sessional Document Circulation and Document Handling, paragraph 7.

RESOLUTION 6 (1998)

Emergency Response Action and Contingency Planning

The Representatives,

Welcoming the entry into force of the Protocol on Environmental Protection to the Antarctic Treaty (Environmental Protocol);

Noting the provisions of Article 15 of the Environmental Protocol on emergency response action and contingency planning;

Aware that the reduction of risk of emergencies or accidents is best achieved through effective measures on preparedness, emergency response action and contingency planning;

Desiring to ensure that a comprehensive framework for such measures is in place;

Welcoming the continuing work that has been undertaken by COMNAP and IAATO;

Recalling Resolution 1(1997);

Recommend that:

1. The Consultative Parties adopt the COMNAP/SCALOP Guidelines, annexed to this Resolution, specifically:
 - Recommended Procedures for Fuel Oil Handling at Stations and Bases;
 - Recommendations for Spill Prevention and Containment of Fuel Oil at Stations and Bases;
 - Guidelines for Oil Spill Contingency Planning;
 - Guidelines for the Reporting of Oil Spill Incidents Which Occur in Antarctica.
2. COMNAP/SCALOP be requested to review, and if necessary revise, as appropriate, these recommendations and guidelines and keep them under periodic review.
3. The Consultative Parties take steps to ensure full application of the provisions of paragraphs 1 and 2 of Resolution 1(1997).
4. COMNAP/SCALOP be requested to undertake an assessment of the risks of environmental emergencies arising from activities in Antarctica, including but not limited to an analysis of incidents which have occurred over the past ten years within the Antarctic Treaty area, and the types of future incidents that could occur in connection with operations at stations and bases.
5. COMNAP/SCALOP also be requested to identify and formulate additional steps in relation to emergency response action and contingency planning for incidents other

than oil spills (including guidelines on co-ordination, communication and equipment requirements).

6. COMNAP/SCALOP be further requested to report on the above work to ATCM XXIII, with the report to be provided to the Committee for Environmental Protection so that the Committee can provide advice to ATCM XXIII.

NOTE: Paragraph 3 of this Resolution refers to paragraphs 1 and 2 of Resolution 1(1997) which state:

1. That those Consultative Parties whose research stations and vessels operating in Antarctica are not covered by contingency plans should take the necessary steps to ensure that the operators of the stations and vessels introduce plans based on the 1992 Guidelines prepared by COMNAP.
2. That the Consultative Parties, individually or collectively, should to the extent possible carry out regular contingency exercises, both theoretical and practical on land and at sea, to test and thereby refine their contingency plans, and report on the results of the exercises to the ATCM. Exercises at sea should be carried out in accordance with the relevant maritime conventions.

Annex to Resolution 6 (1998)

(Originally annexed the COMNAP Report to XVII ATCM)

**Recommended Procedures for
Fuel Oil Transfer at Stations and Bases**

Preface

This document outlines the procedures to be followed, within the competence of individual national operators, when transferring fuel oils between ships and shore facilities, or between individual storages at stations or bases in Antarctica.

The document was prepared under the direction of the Standing Committee on Antarctic Logistics and Operations (SCALOP) by the SCALOP Subgroup on Oil Spill Prevention and Response. The Subgroup was established by SCALOP in June 1990 with Representatives from Australia, Canada, Germany, Norway, South Africa, United Kingdom and United States of America.

This document was approved by the Council of Managers of National Antarctic Programmes (COMNAP) at its meeting in June 1992.

Dr. Mario Zucchelli
Chairman COMNAP

Recommended Procedures for Fuel Oil Transfer at Stations and Bases

1. Introduction

1.1 The transfer of fuel oils from resupply vessels to shore based storage facilities, and between individual storage facilities on stations or bases, are potentially hazardous operations. It is incumbent on national antarctic operators to ensure that procedures are in place, and are implemented, to minimise the risk of oil spillage and environmental pollution during such fuel transfer operations.

1.2 The procedures outlined in this document cover the documentation, operation, inspection and maintenance of fuel transfer facilities and the training requirements for operational staff. Individual national antarctic operators may deem it necessary to supplement these minimum requirements to satisfy national standards, or to meet specific operational needs.

2. Procedures

Documentation

2.1 Personnel who are responsible for, or are required to undertake, fuel oil transfer operations are to be provided with clear and comprehensive documentation prescribing the procedures to be followed, and precautions to be observed, in conducting fuel transfer operations.

2.2 The documentation is to include up-to-date layout drawings or diagrams indicating storage tanks, reticulation systems, pumps, valves and safety devices.

2.3 All tanks, valves and pumps are to be allocated unique identity numbers which are to appear on the layout drawings and in a prominent place on installed equipment. The written procedures are to make reference to the identity numbers.

Training

2.4 All personnel who are responsible for, or required to undertake, fuel oil transfer operations are to receive instruction or training in the operation of the equipment, spillage prevention and other measures.

2.5 The above personnel will also receive training on oil spill contingency planning procedures and duties.

Operations

2.6 Fuel transfer equipment must be inspected for serviceability prior to the commencement of pumping operations.

2.7 Except during fuel transfer operations, all isolation valves on storage tanks are to be closed.

2.8 When transferring fuel oil between ships and shore facilities or fuel farms and remote holding tanks (e.g., at power houses), personnel must be stationed at both locations to monitor the transfer operation and must also maintain regular contact via VHF radio or similar. The fuel transfer pipes must be monitored for leaks during transfer operations.

2.9 During fuel transfer operations only one tank shall be active (i.e., valve open) except at the overlap period when switching from the access tank to the next tank. Such operations must be continuously monitored.

2.10 All staff responsible for, and associated with, fuel transfer operations are to take whatever action is deemed appropriate to minimise and avoid the risk of fuel spills .

2.11 If personnel have any doubts about the adequacy of existing procedures and systems, these must be brought to the immediate attention of the responsible authority.

2.12 Records of all fuel transfers and spillages shall be maintained by personnel on site and the national operating authority.

Inspection

2.13 All fuel storage tanks are to be visibly inspected on a weekly basis, and as soon as possible following adverse weather, to check the integrity of the storage systems and associated plumbing. In addition, all storage tanks are to be checked monthly to verify contents.

2.14 Bulk storage tanks shall be thoroughly inspected on an annual basis. A record of these inspections including the internal cleaning of tanks shall be maintained at the station.

Maintenance

2.15 All pumps, valves and associated equipment are to be maintained in good working order.

2.16 Any defective fixtures or fittings shall be replaced or repaired as soon as is practicable.

(Annex 4)

**Recommendations for Spill Prevention and
Containment of Fuel Oil at Stations and Bases**

Preface

This document outlines recommendations to be followed, within the competence of individual national operators, for the design of fuel storage facilities at Antarctic stations and bases with particular reference to measures for spillage prevention, containment, detection and recovery.

The document was prepared under the direction of the Standing Committee on Antarctic Logistics and Operations (SCALOP) by the SCALOP Subgroup on Oil Spill Prevention and Response. The Subgroup was established by SCALOP in June 1990 with Representatives from Australia, Canada, Germany, Norway, South Africa, United Kingdom and United States of America.

This document was approved by the Council of Managers of National Antarctic Programmes (COMNAP) at its meeting in June 1992.

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Recommendation for Spill Prevention and Containment of Fuel Oil at Stations and Bases

1. Introduction

1.1. Fuel oils are used at Antarctic stations and bases for a variety of operational needs including power generation and the fuelling of vehicles and aircraft. The spillage of fuel oils as a result of equipment failure, accidental damage or human error poses a potential environmental threat. It is therefore incumbent on national Antarctic operators to design, install and operate fuel oil storage facilities to minimise such risks.

1.2 The design recommendations outlined in this document are intended to minimise the possibilities of fuel spillage to the environments. The recommendations apply to new and, where practicable, existing installations. The design philosophy incorporates:

- * spillage prevention;
- * spillage containment;
- * spillage detection;
- * spillage alert and
- * spillage recovery.

2. Design Recommendations

Spillage Prevention

2.1 Installation shall be sited and designed to minimise the deleterious effects of the environment, such as from ice build-up on valves and fittings.

2.2 Installations shall be sited to minimise damage from operational activities such as heavy vehicular traffic and where this is not practicable the installation shall be protected by means such as bollards, guards and signs.

2.3 Tanks, valves and fittings shall be of first grade materials suitable for petroleum products and site specific climatic conditions.

2.4 Lever operated ball valves shall preferably be used which give clear visual indication of the "open" and "shut" positions.

2.5 Manufacture, fabrication and site construction of facilities shall be inspected, tested beyond application conditions if possible, and approved for use by a competent authority.

2.6 The installation shall avoid undue complexity so as to reduce the risk of human error through confusion or misunderstanding.

2.7 Tanks shall be piped for top fill and top draw off.

2.8 All tanks shall be numbered and have the maximum capacity clearly marked. All valves shall be tagged or numbered to facilitate clear and unambiguous description in operating procedures.

2.9 Adjacent tanks shall be fitted with overflow equalising connections between them, where practicable.

2.10 Tanks shall have calibrated dip-sticks, continuous level monitoring gauges, or other means of assessing the quantity of fuel stored.

2.11 Fuel pumps for bulk handling shall have a lockable switch or other appropriate mechanism to prevent accidental pumping.

2.12 The delivery pump shall have an emergency stop switch or other appropriate mechanism located in a prominent, accessible position. Alternatively, a master valve shall be fitted immediately downstream of the pump to facilitate emergency.

Spillage Containment

2.13 The containment facility shall have the capacity to contain the contents of at least the largest tank should a spill occur plus an allowance for snow, ice or water accumulation.

2.14 Containment may take various forms including, for example:

- (i) bounding around the installation or around individual tanks;
- (ii) remote bounding with interconnection drainage from the tank installation;
- (iii) double skin tanks, horizontal or vertical, with the outer skin being the containment; or
- (iv) flexible bladders within a containment structure.

Spillage Detection

2.15 Installations shall have, where practicable, sensors to detect fuel spillage. This may be in the form of electronic fuel sensors fitted in appropriate locations for example between the walls of double skin tanks or in the sump of the containment structure. Low level sensors in tanks may serve to indicate loss from a tank.

Spillage Alert

2.16 Audible and/or visual alarms shall be installed in locations which are frequented regularly, or are obvious during fuel transfer operations.

2.17 All bulk storages shall, where practicable, have a high level alarm which is audible and/or visible to an operator. Such alarms shall signify a potential overflow before the tank reaches capacity.

Spillage Recovery

2.18 Installations shall have the capacity to store any recovered fuel up to quantities at least matching the capacity of the largest tank. This provision may be met by additional storage capacity such as a spare tank, or by underfilling tanks to provide the reserve storage by transfer pumping.

**Guidelines for
Oil Spill Contingency Planning**

Preface

This document provides guidance to national Antarctic operators on the recommended format for, and the information to be included in, oil spill contingency plans for facilities and geographic areas of Antarctica.

The document was prepared under the direction of the Standing Committee on Antarctic Logistics and Operations (SCALOP) by the SCALOP Subgroup on Oil Spill Prevention and Response. The Subgroup was established by SCALOP in June 1990 with Representatives from Australia, Canada, Germany, Norway, South Africa, United Kingdom and United States of America.

This document was approved by the Council of Managers of National Antarctic Programmes (COMNAP) at its meeting in June 1992.

Dr. Mario Zucchelli
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1. Introduction
2. Tiered Approach to Contingency Planning
3. Format of Plans
4. Plan Effectiveness

APPENDIX Format for Contingency Plans

Guidelines for Oil Spill Contingency Planning

1. Introduction

1.1 The need to develop and implement measures to alleviate and combat the pollution of Antarctic waters has been the subject of several Recommendations adopted at Antarctic Treaty Consultative Meetings (ATCMs) in recent years. At the 1989 ATCM, Recommendation XV-4 specifically called on the Governments of Treaty Parties to establish contingency plans for marine pollution response in Antarctica, including plans for vessels carrying oil.

1.2 The need to develop contingency plans for response to marine pollution incidents is also requirement of Annex IV of the "Protocol to the Antarctic Treaty on Environmental Protection".

1.3 This COMNAP document defines a recommended format and specifies the information to be included in oil spill plans which are to be prepared by national antarctic operators for facilities or larger geographic areas in Antarctica.

2. Tiered Approach To Contingency Planning

2.1 Most oil spills in Antarctica are likely to be small and confined to a station or base and the adjoining waters. In the event that the spill is beyond the station or base capability, or is likely to affect a larger area, an enhanced response may be necessary involving support from other national operators.

2.2 This tiered response to oil spill incidents requires the development of compatible contingency plans for individual facilities and, where appropriate, contingency plans for larger geographic areas encompassing a number of operators, as defined below:

Facility Plans

These are to be developed for individual stations or bases and their local environs, where appropriate. The plans will be prepared by individual national operators responsible for the management of a specific facility.

Multi-Operator Plans

These are to be developed to encompass a geographic area where a coordinated and compatible response by two or more national operators is feasible. This will apply where it is effective and feasible to pool and deploy response equipment and supplies.

3. Format of Plans

3.1 The recommended format for Facility and Multi-operator contingency plans are given in the Appendix. The plans are to be divided in two parts plus annexes as follows:

Part I: Strategic Information

This is a descriptive policy document providing background information including a description of the facility and an evaluation of oil spill scenarios.

Part II: Operational Response

This describes the recommended procedures for the development of an operational response to oil spills. The format of the Operational Plan corresponds to the expected chronological order of events. The text of this document should be supplemented, to the maximum extent, with decision tree diagrams or checklists to simplify and speed interpretation. In particular the Operational Plan, Chapter 6, shall be in the form of tree diagrams or checklists.

Annexes

These include detailed reference information relating to specific aspects of the contingency plans, eg Communications, Health and Safety, Training, etc.

3.2 It is recommended that all national operators adopt the formats specified in this document. This will enable the plans to be easily understood and assist with the integration and compatibility of the facility plans with multi-operator plans, where applicable. Plans should be complete in themselves and not involve reference to other supporting documents which may cause delays. Plans should preferably be produced in loose leaf form to facilitate regular update.

4. Plan Effectiveness

4.1 The International Tanker Owners Pollution Federation consider that the adequacy of contingency plans may be assessed against the following ten questions:

- (1) Has there been a realistic assessment of the nature and size of the possible threat, and of the resources most at risk, bearing in mind the probable movement of any oil spilled?
- (2) Have priorities for protection been agreed, taking into account the viability of the various protection and clean-up options?
- (3) Has a strategy for protecting and cleaning the various areas been agreed and clearly explained?
- (4) Has the necessary organisation been outlined and the responsibilities of all those involved been clearly stated with no "grey areas" - will all who have a task to perform be aware of what is expected of them?
- (5) Are the levels of equipment, materials and manpower sufficient to deal with the anticipated size of spill? If not, have back-up resources been identified and, where necessary, have mechanisms for obtaining their release and entry to the country been established?
- (6) Have temporary storage sites and final disposal routes for collected oil and debris been identified?
- (7) Are the alerting and initial evaluation procedures fully explained as well as arrangements for continual review of the progress and effectiveness of the clean-up operation?
- (8) Have the arrangements for ensuring effective communication between shore, sea and air been described?
- (9) Have all aspects of the plan been tested and nothing significant found lacking?
- (10) Is the plan compatible with plans for adjacent areas and other activities?

Format of Title Page

* FORMAT CONTINGENCY PLAN

OR

*MULTI-OPERATOR CONTINGENCY PLAN

OR

§ NAME OF FACILITY OF MULTI-OPERATOR AREA

Council of

Managers of National Antarctic Programmes

° Date

- * Chose titles according to plan type
- § State name of facility or multi-operator
- ° Date of plan

Facility Plan**PART 1: STRATEGIC INFORMATION****I INTRODUCTION**

- 1.1 Background
- 1.2 Purpose
- 1.3 Scope of Plan
- 1.4 How to Use the Plan

2 SPILL RISK ENVIRONMENT

- 2.1 Facility Description
- 2.2 Oil Stored at Facility
- 2.3 Oil Transfer Operations

3 SPILL RISK ASSESSMENT

- 3.1 Migration Pattern of Spills
- 3.2 Sensitive Locations
- 3.3 Spill Scenarios

PART II: OPERATIONAL RESPONSE**4 FACILITY ORGANIZATION**

- 4.1 Response Organization Structure
- 4.2 Facility Organization

5 RESPONSE NOTIFICATION

- 5.1 Initial Assessment
- 5.2 Initial Notification

6 OPERATIONAL PLAN

- 6.1 Response Team Deployment
- 6.2 Personnel Safety
- 6.3 Response Strategies
- 6.4 Communications
- 6.5 Spill Surveillance
- 6.6 Environmental Assessment
- 6.7 Clean-up Methods
- 6.8 Restoration

7 WASTE DISPOSAL

- 7.1 Storage of Waste
- 7.2 Disposal of Waste

Multi-Operator Plan**PART 1: STRATEGIC INFORMATION****1 INTRODUCTION**

- 1.1 Background
- 1.2 Purpose
- 1.3 Scope of Plan
- 1.4 How to Use the Plan

2 SPILL RISK ENVIRONMENT

- 2.1 Geographic Description of Area
- 2.2 Oil Transported in Area

3 SPILL RISK ASSESSMENT

- 3.1 Mitigation Pattern of Spills
- 3.2 Sensitive Locations
- 3.3 Spill Scenarios

PART II: OPERATIONAL RESPONSE**4 MULTI-OPERATOR ORGANIZATION**

- 4.1 Response Organisation Structure
- 4.2 Area Response Infrastructure

5 RESPONSE NOTIFICATION

- 5.1 Initial Assessment
- 5.2 Initial Notification

6 OPERATIONAL PLAN

- 6.1 Request for Assistance
- 6.2 Joint Response Operations
- 6.3 Personnel Safety
- 6.4 Response Strategies
- 6.5 Communications
- 6.6 Spill Surveillance
- 6.7 Environmental Assessment
- 6.8 Clean-up Methods

7 WASTE DISPOSAL

- 7.1 Storage of Waste
- 7.2 Disposal of Waste

Facility Plan

- 8 DEMOBILIZATION
 - 8.1 Personnel Decontamination
 - 8.2 Equipment Decontamination/
Maintenance
- 9 POST SPILL MONITORING
- 10 REPORTING

Multi-Operator Plan

- 8 DEMOBILIZATION
 - 8.1 Personnel Decontamination
 - 8.2 Equipment Decontamination/
Maintenance
- 9 POST SPILL MONITORING
- 10 REPORTING

FORMAT OF CONTINGENCY PLANS

PART I: STRATEGIC INFORMATION

Facility Plan	Multi-Operator Plan
<p>I INTRODUCTION</p> <p>1.1 Background</p> <ul style="list-style-type: none"> • Define the requirement, authority and applicability of plan in relation to the national program, relevant national agencies and other countries. • Describe relevant Antarctic Treaty obligations and related national legislation or requirements. <p>1.2 Purpose</p> <ul style="list-style-type: none"> • Describe the objectives of the plan which are to reduce loss and damage resulting from oil spills by: <ul style="list-style-type: none"> - identifying the potential risks, - describing response actions, - outlining available resources, and - defining functions and responsibilities, etc. <p>1.3 Scope of Plan</p> <ul style="list-style-type: none"> • Define facility/area covered by the plan and the boundaries. • Describe involvement of other countries participating in the plan where applicable. <p>1.4 How to Use the Plan</p> <ul style="list-style-type: none"> • Explain how the plan is structured and how it is designed to be used. 	<p>1 INTRODUCTION</p> <p>1.1 Background</p> <ul style="list-style-type: none"> • Define the requirement, authority and applicability of plan in relation to the national program, relevant national agencies and other countries. • Describe relevant Antarctic Treaty obligations and related national legislation or requirements. <p>1.2 Purpose</p> <ul style="list-style-type: none"> • Describe the objectives of the plan which are to reduce loss and damage resulting from oil spills by: <ul style="list-style-type: none"> - identifying the potential risks, - describing response actions, - outlining available resources, and - defining functions and responsibilities, etc. <p>1.3 Scope of Plan</p> <ul style="list-style-type: none"> • Define the geographic area covered by the plan. • Nominate the operators participating in the plan. <p>1.4 How to Use the Plan</p> <ul style="list-style-type: none"> • Explain how the plan is structured and how it is to be used.

Facility Plan
<p>2 SPILL RISK ENVIRONMENT</p> <p>2.1 Facility Description</p> <ul style="list-style-type: none"> • Describe in detail the physical layout of facility including buildings, access ways, storage facilities, reticulation systems, etc. • Describe oil storage facilities and capacities including piping/pumping systems, mobile oil transfer equipment and safety control devices eg relief valves, emergency shutdown systems, alarms, etc. • Describe existing containment measures and firefighting systems, site electric supplies, mobile/portable generator capacity and waste disposal systems. <p>2.2 Oil Stored at Facility</p> <ul style="list-style-type: none"> • Describe typical quantities and location of oil stored on site giving seasonal variations. • Provide specifications of products and define characteristics, eg toxicity, persistence, flammability. <p>2.3 Oil Transfer Operations</p> <ul style="list-style-type: none"> • Describe the normal methods and frequency of receiving and transferring oil on site. • Describe how oil products are used. <p>3 SPILL RISK ASSESSMENT</p> <p>3.1 Migration Patterns of Spills</p> <p>Describe potential migration paths of spilled oil during transfer operations or from storage facilities.</p>

Multi-Operator Plan
<p>2 SPILL RISK ENVIRONMENT</p> <p>2.1 Geographic Description of Area</p> <ul style="list-style-type: none"> • Describe main geographic features of the area including the location of stations. • Describe natural hazards in area based on hydrographic, sea ice and weather data. <p>2.2 Oil Transported in Region</p> <ul style="list-style-type: none"> • Identify vessels transiting or visiting the area and the quantity of oils carried onboard. • Determine and plot shipping routes and transit frequency. • Define specifications of oil products carried on vessels and define characteristics, eg toxicity, persistence, flammability. <p>3 SPILL RISK ASSESSMENT</p> <p>3.1 Migration Patterns of Spills</p> <p>Describe potential migration paths of oil spills as a result of marine accidents at high risk locations.</p>

Facility Plan

3.2 Sensitive Locations

- Identify environmentally sensitive locations within the geographic boundaries of the plan with reference to seasonal variations.
- Define priorities for protection.

3.3 Spill Scenarios

- Describe the most probable and worst case spill scenarios taking into account oil storages, transfer operations, refuelling points, vehicle suitability, etc.
- Describe possible seasonal and local climatic impacts.
- Describe terrain and accessibility to potentially threatened areas.

Multi-Operator Plan

3.2 Sensitive Locations

- Identify environmentally sensitive locations within the geographic boundaries of the plan with reference to seasonal variations.
- Define priorities for protection.

3.3 Spill Scenarios

- Describe the most probable and worst case spill scenarios.
- Describe possible seasonal and local climatic impacts.
- Describe terrain and accessibility to potentially threatened areas.

PART II: OPERATIONAL PLAN**Facility Plan**

4 FACILITY ORGANIZATION

4.1 Response Organization Structure

- Describe the management structure of the facility and the report/authority hierarchy for spill response.
- Describe the roles and responsibilities of response team members.
- Describe the management linkages and command structure between the facility and the responsible national authority for spill response.
- Describe linkages with other countries participating in the plan, where applicable.
- Make reference to Annex S as source of relevant telephone numbers.

Multi-Operator Plan

4 MULTI-OPERATOR ORGANIZATION

4.1 Response Organization Structure

- Describe arrangements for the assumption of the lead role by one of the participating operators in the event of a spill.
- Describe the command structure and liaison arrangements for joint response.
- Make reference to Annex S as source of relevant telephone numbers.

Facility Plan
<p>4.2 Facility Organization</p> <ul style="list-style-type: none"> • Describe typical seasonal staffing levels of facility including scientific, trades, administrative, etc. • Describe the availability of specialist support personnel including medical, firefighting, SAR. • Identify specialist scientific expertise at facility or in the national agency in such fields as marine biology, chemistry, environmental monitoring. <p>5 RESPONSE NOTIFICATION</p> <p>5.1 Initial Assessment</p> <ul style="list-style-type: none"> • Facility manager, or responsible officer, to assess initial report of spill and take action to protect safety of life and property, and halt or minimize further spill where possible. <p>5.2 Initial Notification</p> <ul style="list-style-type: none"> • As soon as practicable, and not necessarily before mobilizing response team, advise national authority of incident, stating: <ul style="list-style-type: none"> - Time of spill - Source of spill - Identity of material spilled - Cause of spill, if known - Estimate of amount spilled and likelihood of further spillage and amount - Resources under threat, if any. • Advise details of spill to other operators, where applicable and necessary.

Multi-Operator Plan
<p>4.2 Area Response Infrastructure</p> <ul style="list-style-type: none"> • Describe the availability of specialist support personnel in the area including medical, SAR, aircraft, shipping and specialist scientific expertise in such fields as marine biology, chemistry, environmental monitoring. <p>5 RESPONSE NOTIFICATION</p> <p>5.1 Initial Assessment</p> <ul style="list-style-type: none"> • On receipt of spill information, the responsible officer or authority is to assess the initial report and determine whether response action is necessary or possible. <p>5.2 Initial Notification</p> <ul style="list-style-type: none"> • As soon as practicable, and not necessarily before mobilizing response team, advise appropriate authority of incident, stating: <ul style="list-style-type: none"> - Time of spill - Source of spill - Identity of material spilled - Cause of spill, if known - Estimate of amount spilled and likelihood of further spillage and amount - Resources under threat, if any. • Advise details of spill to other operators participating in the plan.

Facility Plan**6 OPERATIONAL PLAN****6.1 Response Team Deployment**

- Subject to weather and safety considerations, mobilize response team and appropriate equipment.
- Adopt appropriate response strategy to halt or minimize further spill, contain existing spill and protect threatened resources to the extent possible.

6.2 Personnel Safety

- Ensure that safety equipment is issued and used in accordance with H&S Plan.
- Alert medical personnel of operations so that appropriate preparations can be made.

6.3 Response Strategies

- Outline response action for the most probable and worst case spill scenarios.
- Describe seasonal effects on oil spill response actions.
- Identify the available equipment options, eg booms, skimmers, absorbents etc, to contain spill and/or protect resources.

6.4 Communications

- Establish a communications/command post to ensure that contact can be maintained with response team and other support personnel.
- Provide regular update on spill response progress to national authority.

6.5 Spill Surveillance

- Use aircraft, where available, or other safe means to determine extent of offshore spills and the trajectory.
- Estimate track of spill and identify threatened resources.

Multi-Operator Plan**6 OPERATIONAL PLAN****6.1 Request for Assistance**

- Define the procedures to be followed to activate response assistance from other operators participating in the plan.
- Identify national and commercial resources that may be available to supplement available area resources and possible logistics support

6.2 Joint Response Operations

- Describe command structure and liaison/coordination arrangements for joint response operations.

6.3 Joint Response Operations

- Ensure that safety equipment is issued and used in accordance with H&S Plan.
- Alert medical personnel of operation so that appropriate preparations can be made.

6.4 Response Strategies

- Outline response action for the most probable and worst case spill scenarios.
- Describe seasonal effects on oil spill response actions.

- Identify the available equipment options eg booms, skimmers, absorbents etc, to contain spill and/or protect resources.

6.5 Communications

- Describe procedure for setting up a central communications/command post to facilitate coordination with response team and the operators participating in the response action.
- Define the frequency and content of reports between command post and participating operators and national authorities.

Facility Plan
<ul style="list-style-type: none"> • Advise national authority and other countries, where appropriate, of spill trajectory. <p>6.6 Environmental Assessment</p> <ul style="list-style-type: none"> • Undertake ongoing assessment of environmental impacts. <p>6.7 Clean-Up Methods</p> <ul style="list-style-type: none"> • Liaise with national authority and on-site experts, if available, to determine appropriate restoration measures. <p>7 WASTE DISPOSAL</p> <p>7.1 Storage of Waste</p> <ul style="list-style-type: none"> • Identify storage facilities or temporary arrangements suitable for storing recovered oil and oily wastes. <p>7.2 Disposal of Waste</p> <ul style="list-style-type: none"> • Outline arrangements for disposal or transport of oil or oily wastes. • Ensure that transport arrangements comply with relevant national and international regulations.

Multi-Operator Plan
<p>6.6 Spill Surveillance</p> <ul style="list-style-type: none"> • Use aircraft, where available, or other safe means to determine extent of offshore spills and the trajectory. • Estimate track of spill and identify threatened resources. • Advise operators participating in the plan, and other countries where their operations may be affected, of spill trajectory. <p>6.7 Environmental Assessment</p> <ul style="list-style-type: none"> • Undertake ongoing assessment of environmental impacts. <p>6.8 Clean-Up Methods</p> <ul style="list-style-type: none"> • Liaise with relevant national authorities and on-site experts, if available, to determine appropriate clean-up techniques for contaminated shorelines, snow, ice, etc. <p>6.9 Restoration</p> <ul style="list-style-type: none"> • Liaise with relevant national authorities and on-site experts, if available, to determine appropriate restoration measures. <p>7 WASTE DISPOSAL</p> <p>7.1 Storage of Waste</p> <ul style="list-style-type: none"> • Identify storage facilities or temporary arrangements suitable for storing recovered oil and oily wastes. <p>7.2 Disposal of Waste</p> <ul style="list-style-type: none"> • Outline potential arrangements for disposal or transport of oil or oily wastes. • Ensure that transport arrangements comply with relevant national and international regulations.

Facility Plan**8 DEMOBILIZATION****8.1 Personnel Decontamination**

- Provide facilities and materials for personnel decontamination.
- Arrange for screening of personnel by facility medical staff.

**8.2 Equipment Decontamination/
Maintenance**

- Arrange cleaning of equipment and identify maintenance needs.

9 POST SPILL MONITORING

- Liaise with national authority to determine need for post spill monitoring program.
- Arrange for comprehensive post-spill photographic record of affected areas.

10 REPORTING

- Prepare report on oil spill incident outlining the cause, extent of spill, response action, effectiveness of action, known environmental impact, damage or loss of assets or resources, debrief outcome, costs, further action.

Multi-Operator Plan**8 DEMOBILIZATION****8.1 Personnel Decontamination**

- Provide facilities and materials for personnel decontamination.
- Arrange for screening of personnel by facility medical staff.

**8.2 Equipment Decontamination/
Maintenance**

- Arrange cleaning of equipment and identify maintenance needs.

9 POST SPILL MONITORING

- Liaise with other participating operators to determine need for, and implementation of post spill monitoring program.

10 REPORTING

- Prepare report on oil spill incidents in conjunction with national participants outlining the cause, extent of spill, response action, effectiveness of action, known environmental impact, damage or loss of assets or resources, debrief outcome, costs, further action.

ANNEXES

ANNEX A: FACILITY AREA MAP (OR AREA MAP)

ANNEX B: SPILL RISK ASSESSMENT MAP

ANNEX C: COMMUNICATION PLAN

ANNEX D: RESPONSE TEAM ORGANIZATION

ANNEX E: RESPONSE EQUIPMENT AND MATERIALS

ANNEX F: HEALTH AND SAFETY PLAN

ANNEX G: TRAINING PLAN

ANNEX H: PUBLIC RELATIONS/MEDIA PLAN

ANNEX J : COST ACCOUNTING PLAN

ANNEX K: DOCUMENTATION PLAN

ANNEX L: DISPERSANT USE

ANNEX M: IN-SITU BURNING

ANNEX N: BIOREMEDIATION USE

ANNEX P: BIRD AND MAMMAL CLEANING

ANNEX Q: EQUIPMENT AND PERSONNEL CLEANING

ANNEX R: DEFINITIONS AND ABBREVIATIONS

ANNEX S: COMMUNICATIONS CONTACT NUMBERS

Facility Plan**A FACILITY AREA MAP**

- Map illustrating the extent of facility covered by contingency plan.

B SPILL RISK ASSESSMENT MAP

- Map identifying potential spill risk sources, spill migration paths and sensitive locations.

C COMMUNICATION PLAN

- Identify staff positions responsible for execution of the Communication Plan.
- Identify communication systems and frequencies available for local communication with response teams in remote locations and with reconnaissance aircraft/helicopters and surface units.
- Describe external communication assets, including telefax, computer modem and other satellite and relay station telephone capabilities.

D RESPONSE TEAM ORGANIZATION

- Identify members of the response team by position description.
- Define each member's role and responsibilities.

Multi-Operator Plan**A AREA MAP**

- Map illustrating area covered by contingency plan.

B SPILL RISK ASSESSMENT MAP

- Map identifying potential spill risk sources, spill migration paths and sensitive locations.

C COMMUNICATION PLAN

- Identify communication systems and frequencies available for communication with each of the stations participating in the plan and the respective national authorities.
- Describe external communication assets, including telefax, computer modem and other satellite and relay station telephone capabilities.
- Describe reporting requirements and procedures, including sample message formats.

D RESPONSE TEAM ORGANIZATION

- Identify the position and responsibilities of the response coordinator for each of the stations participating in the plan.
- Describe the response team organization and command structure for each of the stations participating in the plan.

Facility Plan**E RESPONSE EQUIPMENT AND MATERIALS**

- Identify staff positions responsible for equipment storage and readiness.
- Identify all local assets of containment, cleanup, waste storage and disposal equipment and their location on site.
- Describe when and how to use the various types of equipment and materials.
- Describe how to clean and maintain the equipment.
- Identify other response resources/capabilities available from other sources, national Government agencies, contractors, other countries.
- Describe how to request additional equipment and predicted time to receive.

F HEALTH AND SAFETY PLAN

- Identify local medical support resources.
- Describe how to request additional medical assistance.
- Identify potential personnel hazards relating to materials which could be spilled in the area, operating the response equipment and weather/elements exposure.
- Describe Health and Safety training requirements for personnel handling oil products.
- Describe use of the Material Safety Data Sheet (MSDA) by response team personnel.
- Identify local assets of protective clothing and equipment and describe when and how to use.
- Describe medical evacuation procedures.

Multi-Operator Plan**E RESPONSE EQUIPMENT AND MATERIALS**

- Identify regional assets for containment, cleanup, waste storage and disposal and their location.

F HEALTH AND SAFETY PLAN

- Identify medical and evacuation support assets in the area.
- Describe how to request additional medical assistance.
- Identify potential personnel hazards relating to materials which could be spilled in the region.

Facility Plan**G TRAINING PLAN**

- Define training requirements for all members of response team.
- Define training requirements for response administrators and advisors at national organization headquarters.
- Describe plan for field messing.
- Describe plan for response team personnel rotation.

H PUBLIC RELATIONS/MEDIA PLAN

- Identify staff positions responsible for executing the Public Relations/Media Plan.
- Provide format for initial and follow-on written press releases.
- Identify all media personnel who may be in the local area and their location.

J COST ACCOUNTING PLAN

- Identify staff positions responsible for execution of the Cost Accounting and Documentation Plan.
- Identify costs which should be tracked and how they should be recorded.
- Identify sources of funding and how to request.

K DOCUMENTATION PLAN

- Provide format for recording actions taken during spill incidents and cleanup to facilitate after action reporting requirements and the consideration of lessons learned.

L DISPERSANT USE

- Describe policy on use of dispersants and decision making process, if applicable.

Multi-Operator Plan**G TRAINING PLAN**

- Define training requirements for response coordinators with regard to area response activities.

H PUBLIC RELATIONS/MEDIA PLAN

- Identify methods by which media advice will be coordinated between countries participating in response action.

J COST ACCOUNTING PLAN

- Provide format for recording actions taken during spill incident and cleanup.
- Identify costs which should be traced and how they should be recorded.

K DOCUMENTATION PLAN

- Provide format for recording actions taken during spill incident and cleanup to facilitate after action reporting requirements and the consideration of lessons learned.

L DISPERSANT USE

- Describe policy on use of dispersants and decision making process, if applicable.

Facility Plan
<p>M IN-SITU BURNING</p> <ul style="list-style-type: none"> • Describe policy on in-situ burning and decision making process, if applicable.
<p>N BIOREMEDIATION USE</p> <ul style="list-style-type: none"> • Describe policy on bioremediation use and decision making process, if applicable.
<p>P BIRD AND MAMMAL CLEANING</p> <ul style="list-style-type: none"> • Describe the effects of oil on birds and mammals. • Define methods of cleaning, including cleaning materials and equipment.
<p>Q EQUIPMENT AND PERSONNEL CLEANING</p> <ul style="list-style-type: none"> • Describe materials available and procedures for cleaning personnel of oil contamination. • Describe procedures for cleaning and checking serviceability of response equipment.
<p>R DEFINITION AND ABBREVIATIONS</p> <ul style="list-style-type: none"> • Define acronyms, technical terms and abbreviations which are used in the plan.
<p>S COMMUNICATIONS CONTACT NUMBERS</p> <ul style="list-style-type: none"> • List telephone/fax/telex numbers and names of personnel involved in response action within the facility and the national authority headquarters, including national agencies which can provide assistance. • List contact numbers, where applicable, of other national operators participating in plan or which may be able to provide assistance.

Multi-Operator Plan
<p>M IN-SITU BURNING</p> <ul style="list-style-type: none"> • Describe policy on in-situ burning and decision making process, if applicable.
<p>N BIOREMEDIATION USE</p> <ul style="list-style-type: none"> • Describe policy on bioremediation use and decision making process, if applicable.
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<p>R DEFINITION AND ABBREVIATIONS</p> <ul style="list-style-type: none"> • Define acronyms, technical terms and abbreviations which are used in the plan.
<p>S COMMUNICATIONS CONTACT NUMBERS</p> <ul style="list-style-type: none"> • List telephone/fax/telex numbers and names of personnel involved in response action at each station and in the respective national authorities of countries participating in the plan.

GUIDELINES FOR THE REPORTING OF OIL SPILL INCIDENTS WHICH OCCUR IN ANTARCTICA

PREFACE

This document outlines the procedure to be used by national Antarctic operators for reporting to the COMNAP Secretariat oil spill incidents which occur in Antarctica.

The document was prepared under the direction of the Standing Committee on Antarctic Logistics and Operations (SCALOP) by the SCALOP Sub-group on Oil Spill Prevention and Response. The Sub-group was established by SCALOP in June 1990 with representatives from Australia, Canada, Germany, Norway, South Africa, United Kingdom and United States of America.

The Council of Managers of National Antarctic Programs (COMNAP) approved the reporting procedure at its meeting in Christchurch, New Zealand during June 1993.

Dr Mario Zucchelli
Chairman COMNAP

GUIDELINES FOR THE REPORTING OF OIL SPILL INCIDENTS WHICH OCCUR IN ANTARCTICA

1. INTRODUCTION

- 1.1 The intention of this procedure is to provide an archival record of oil spill incidents which occur in the Antarctic Treaty area in order to assist national operators to determine whether there is a need to modify or improve oil handling practices.

2. OIL SPILL REPORTING PROCEDURE

- 2.1 In the event of an oil spill incident in excess of 200 litres (and for oil spills less than 200 litres, if considered significant) national Antarctic operators are to lodge a COMNAP Oil Spill Report with the COMNAP Secretariat.
- 2.2 The report is to be provided in English and lodged with the COMNAP Secretariat within 30 days of the incident occurring.
- 2.3 In the event of a major spill, a copy of the press release or publicly released statement on the incident should be provided to COMNAP members through the COMNAP Secretariat.

3. REPORTING FORMAT

- 3.1 The format and content of the COMNAP Oil Spill Report, which is to be lodged with the COMNAP Secretariat, is given in Annex A. A description of the information to be provided in the report is described against each heading.

4. OIL SPILL SITREP

- 4.1 To facilitate the collection of information in a format which will assist in the compilation of the COMNAP Oil Spill Report, a suggested Situation Report (SITREP) format is given in Annex B. It should be noted that the SITREP is intended for the internal use of national operators only, and is not to be lodged with the COMNAP Secretariat.

FORMAT OF COMNAP OIL SPILL REPORT

ANNEX A

COMNAP OIL SPILL REPORT

TO: COMNAP Secretariat

FM: *(Name, address, fax or E-mail of contact person)*

COUNTRY: *(Country of national operator lodging the report)*

1. STATION/VESSEL:
(General location of spill)
2. TIME AND DATE SPILL OCCURRED:
3. SPILL LOCATION:
(Specific location of spill, eg name of building and/or area, latitude/longitude of vessel)
4. WEATHER CONDITIONS:
(Weather conditions at time of spill and impact of weather conditions on subsequent response action)
5. OPERATION UNDERWAY WHEN SPILL OCCURRED:
(Fuelling, defuelling, transfer, transport, other)
6. TYPE OF FUEL SPILLED:
(Diesel, lubricating oil, hydraulic oil, etc)
7. AMOUNT SPILLED IN LITRES:
(Best estimate of spill in litres)
8. AMOUNT RECOVERED:
(State in litres the estimated amount recovered and per cent recovered of total litres spilled)
9. SPILL CAUSE:
(Describe cause of incident, if known, eg structural failure, hose failure or leak, tank rupture, operator error, etc)
10. SLICK DESCRIPTION AND MOVEMENT:
(Describe extent of slick if spill occurred or reached open water and the extent of movement)
11. AREAS DAMAGED:
(Describe or name areas damaged, eg nature and extent of land damage, bodies of water affected, damage to wildlife or other natural resources, any threats still existing)
12. FUEL/WATER SAMPLES WERE/WERE NOT TAKEN:
(State number of samples taken, if any, and what is being done with them)
13. CONTAINMENT METHOD USED:
(Describe containment action taken, eg repaired damaged container, using another container, dyking, damming, diverting, boom deployment, other)
14. SPILL REMOVAL METHOD USED:
(Describe clean-up measures taken - ie absorbent, skimming, pumping, excavating, type of container used, etc. Also describe: disposal or retrograde plans)
15. PERSONNEL INVOLVED IN SPILL REMOVAL:
(Describe typical number of personnel involved at each stage of the response activity)
16. ADDITIONAL COMMENTS:
(Use this space to report what measures have been taken to prevent recurrence of a spill, ie repairs made, removal of faulty equipment, changes in procedure, etc)

SUGGESTED FORMAT FOR OIL SPILL SITREP
(For internal use only. Not to be sent to the COMNAP Secretariat)

ANNEX B**OIL SPILL SITREP**

TO: *(Name of responsible person in national operator organisation)*

FM: *(Originator of report and name of station/base/vessel)*

TIME/DATE: *(Time and date of initial and subsequent SITREPS)*

1. **STATION/VESSEL:**
(General location of spill)
2. **TIME AND DATE SPILL OCCURRED:**
3. **SPILL LOCATION:**
(Specific location of spill, eg name of building and/or area, latitude/longitude of vessel, etc)
4. **WEATHER CONDITIONS:**
(Weather conditions at time of spill in initial SITREP and current weather conditions in subsequent SITREPS)
5. **OPERATION UNDERWAY WHEN SPILL OCCURRED:**
(Fuelling, defuelling, transfer, transport, other)
6. **TYPE OF FUEL SPILLED:**
(Diesel, lubricating oil, hydraulic oil, etc)
7. **AMOUNT SPILLED IN LITRES:**
(Best estimate of spill in initial SITREP and revised estimate in subsequent SITREPS in litres)
8. **AMOUNT RECOVERED TO DATE:**
(State in litres the estimated amount recovered to date and per cent recovered of total litres spilled)
9. **SLICK DESCRIPTION AND MOVEMENT:**
(If spill occurred or reached open water describe: size:- length and width; colour:- barley, visible, silvery, faint colour or sheen, bright colour, dull brown, etc; wind conditions: - direction, speed, sea state, slick; movement: - direction, speed)
10. **AREAS DAMAGED OR THREATENED:**
(Describe or name area damaged or threatened in initial SITREP and indicate any change in subsequent SITREPS, eg if slick is approaching any SPAs or SSIs,, indicate distance from and best estimate of arrival. If birds or mammals affected, indicate numbers, mortality count and cleaning treatment status)
11. **CONTAINMENT METHOD:**
(Describe equipment or techniques being used)
12. **SPILL REMOVAL AND EFFECTIVENESS:**
(Provide assessment of spill response effectiveness)
13. **ADDITIONAL COMMENTS:**
(Include any additional comments such as preventative measures, repairs, request for any outside area assistance, etc)

PART THREE

Opening Addresses and Reports from ATCM XXII

Annex D

Opening Addresses

ANNEX D: OPENING ADDRESSES

Speech by the Norwegian Minister of Foreign Affairs, Mr. Knut Vollebæk, at the Opening of the XXII Antarctic Treaty Consultative Meeting, Tromsø, 30 May 1998

Madame Mayor, Ladies and Gentlemen,

On behalf of the Government of Norway, it is a great pleasure for me to welcome you all here to Tromsø. We are honoured to host the XXII Antarctic Treaty Consultative Meeting just here, in the capital of Northern Norway. I hope you will agree with me that the choice of Tromsø as the venue for this meeting is an apt one. No other town in Norway is so closely linked with polar exploration and with our long traditions as a bipolar nation. These traditions include exploration, whaling and sealing, research and mapping in both the Arctic and the Antarctic. Roald Amundsen and Fridtjof Nansen, our two best-known polar explorers, and many of their Norwegian and foreign colleagues and competitors, have walked the streets of Tromsø. This city on the coast of the Arctic Ocean has been the point of departure for many a daring expedition. Roald Amundsen, the first explorer to reach the South Pole, the first to sail the Northwest Passage and the first to cross the North Pole in an airship, set out from Tromsø seventy years ago to search for the Italian explorer Umberto Nobile and his crew. He never returned from that voyage. You have probably already seen the statue of him in the harbour looking out over the sea. The memory of Umberto Nobile, who survived the crash of his airship, is also honoured in Tromsø.

However, our polar history is not the only reason why we have chosen Tromsø for this year's consultative meeting. We are proud of this lively town situated at 70 degrees North, well above the Arctic Circle. If it does not immediately strike you as a freezing Arctic town, this is due to the Gulf Stream, which brings warmth to our northern shores and makes the land habitable. I think both habitants and guests would like a little more of warmth these days, but it will come. Actually we like to refer to Tromsø as the "Paris of the North" because of its vibrant cultural life and many cafés and restaurants. I hope you already have found or will find time for some extracurricular exploration of the fascinating things Tromsø has to offer. I see from the programme that you have already had an opportunity to acquaint yourselves with Tromsø as a modern centre of learning, accommodating our newest university, founded in 1968. Many of its scientists are involved in research on subjects related to polar areas. This spring the new Polar Environmental Centre has been established here, bringing together a number of institutions under one roof for environmental and polar research. The Norwegian Polar Institute constitutes the core of the centre and is the flagship of this research, embodying our long traditions in this field both in the Arctic and Antarctic regions. The institute has made a major contribution to the preparations for this meeting, for which I would like to express my gratitude.

I have already used the adjective bipolar to describe Norway's involvement in polar affairs. The reason should be quite clear, since we are gathered here north of the Arctic Circle to deliberate Antarctic issues. To Norwegians, the Arctic and the Antarctic are two sides of one and the same coin. To keep before you this perspective of bipolarity we are using both the massive polar bear of the north and the elegant penguin of the south as a logo for the XXII Antarctic Treaty Consultative Meeting. Coming from the opposite ends of the earth, they re-

present the differences between these two polar regions as well as the wonderful variety of life which it is our responsibility to safeguard for future generations, be it in the Arctic, Antarctic or elsewhere on our shrinking globe. The polar bear and the penguin - may they symbolize our joint commitment to the conservation of the unique and pristine nature of the polar regions which has such a strong attraction for all of us.

In a year's time we will be celebrating the 40th anniversary of the signing of the Antarctic Treaty in 1959. This will be an opportunity for us to assess cooperation under the treaty in a long term perspective. Since its inception during the Cold War period, the parties have managed to put to one side conflicts over sovereignty issues and safeguard Antarctica as a continent of peace and scientific research, and to keep it free of military involvement and nuclear weapons. This was a historic, unique and enduring achievement to which all parties have held true. The key to this achievement lies in Article 4 of the Treaty, which - one might say most appropriately in this context - laid on ice disagreements over claims and sovereignty. This formula - which was not a solution, but an agreement to disagree - has been and remains at the very core of Antarctic diplomacy. Throughout its existence Antarctic cooperation has met and survived the challenges posed by pressures for resource exploitation. The Convention on the Protection of Seals was concluded at an early stage and was followed by the Convention on the Conservation of Antarctic Marine Living Resources. It took a major effort to negotiate the Convention for Regulation of Antarctic Mineral Resources, which did not enter into force. But then in course of only one year, the Protocol on Environmental Protection was negotiated and signed in Madrid in 1991. Today Antarctic cooperation is broadly based on three pillars - peace, science and environmental protection. These are the achievements of a continuous cooperative process and consensus diplomacy. Of course, the consultative meetings have been at the core of this process, and its basis has been the Antarctic Treaty. It is not at all surprising that the process has had its ups and downs. It is more astonishing that it has survived so many serious challenges, and continued to evolve. In preparing for the Tromsø meeting we have had before us these longer term perspectives as well as future opportunities.

Like so many earlier hosts of Antarctic Treaty Consultative Meetings, we have been looking for ways to deal with the question of establishing an Antarctic Treaty secretariat on which consensus has so long eluded us. As host to this meeting we have experienced the lack of practical support from a permanent secretariat as an additional burden. I understand, however, that there is agreement in principle on the need for a permanent secretariat. I sincerely hope that you will take a fresh look at this question for the sake of the Antarctic cooperation, to which we all attach such great importance. We believe that the establishment of a permanent secretariat is essential both to the functioning of the Antarctic Treaty System as a whole and to the implementation of the Environmental Protocol in particular. We are concerned that the location question may continue to distract Parties from other key issues. The resolution of this issue would be an appropriate step as we approach the 40th anniversary of the signing of the Antarctic Treaty.

This is the first Antarctic Treaty Consultative Meeting since the entry into force of the Treaty's Protocol on Environmental Protection. This marks a major development of the Antarctic Treaty System, and has brought the negotiation and signing of the Madrid Protocol in 1991 to its conclusion. The effective implementation of the Protocol is now the overriding priority. I would like to congratulate you on the fine start made by the Committee on Environmental Protection at its inaugural meeting here in Tromsø. It is essential that the Committee concentrate on its important tasks without delay. With the establishment of the Committee,

a new, significant and, I hope, dynamic structural element has been added to Antarctic cooperation. With the Environmental Protocol now in force and the Committee on Environmental Protection having started its work, I feel confident that the Tromsø meeting will take its place among the more successful Antarctic Treaty Consultative Meetings

Norway is firmly committed to Antarctic cooperation, which we see as an important contribution to a more stable and better organized world. In view of our long-standing research and mapping activities, our territories in the Antarctic, and our active participation in most aspects of Antarctic cooperation, Norway thinks it has a contribution to make.

We are determined that our role shall continue to be active, constructive and supportive of consensus solutions in questions of importance to the future of the Antarctic. This is also why we hope that the Tromsø meeting will mark further progress in implementing the aims and principles of the Antarctic Treaty, which for so long has served peace, stability and cooperation on the seventh continent.

I am also pleased to note that the agenda of this meeting includes an item dealing with the interrelationship of developments in the Arctic and the Antarctic. The history of international cooperation in the Antarctic is quite different from that in the Arctic region. Cooperation in Antarctica has a long history, whereas multilateral cooperation in the Arctic region is of recent date. Arctic cooperation first started with the historic Rovaniemi process and was further formalised in 1996 with the establishment of the Arctic Council. Since 1993 we have also been successfully developing the Barents cooperation with the Nordic countries, Russia and the EU as direct participants. I just arrived from Murmansk and North-West Russia yesterday. Earlier this week we signed an agreement with Russia that will open up for an important cooperation in the field of handling nuclear waste.

I see that you are leaving for Svalbard this evening. I am sure you will be greatly impressed by your journey to this northernmost Arctic region of Norway.

The Svalbard archipelago is among the most accessible Arctic areas in the world, not only because of climate and geography, but also by virtue of the principles of equal treatment and access accorded to nationals of the parties to the Spitsbergen Treaty of 1920. The archipelago of Svalbard therefore offers unique opportunities for research on a wide variety of subjects related to the Arctic. Over the years scientists from a number of countries have done extensive work on these islands, and every year they are visited by a large number of scientific expeditions. The Norwegian Polar Institute has concentrated the main part of its research activities on the archipelago, and Norwegian universities and other research institutes are also active here.

One important reason why Norway was granted sovereignty over Svalbard following World War I was the prevailing desire to keep the archipelago outside great power rivalry. The Spitsbergen Treaty prohibits the establishment of naval bases and the use of the archipelago for warlike purposes. In accordance with the provisions of the Treaty, Norway's overriding objectives are the maintenance of peace and stability in the area, and the orderly development of economic activities while preserving the unique environment of the region.

If some of the clauses of the Spitsbergen Treaty remind you of the Antarctic Treaty, this is because it served in many ways as a model for the latter.

Today the unique importance of the polar regions for life on earth is widely recognized. They play a key role in the development of the global climate, as the cooling system for the global weather machine and as the pumping station for water circulation in the oceans. We can read the history of the world climate in the polar ice of the Arctic and the Antarctic. Research in both regions is of fundamental importance to the understanding of our common physical environment. With all due respect to the members of this audience, I am not sure that even our scientists fully comprehend the overwhelming dimensions of Antarctica, the world's coldest, driest, highest and most icebound continent. We may find it difficult to accept the frightening calculation that if all the ice in Antarctica were to melt, the sea level would rise 70 meters and flood most of the larger cities of the world. On the other hand, a thirsty world may take comfort in the fact that the ice in Antarctica constitutes three-quarters of all fresh water, and the amount of ice calved each year exceeds the total annual consumption of water throughout the world. I have been told that one iceberg alone could supply a city like Los Angeles with fresh water for a thousand years. Given these facts, it is easy to see the vital importance of research and cooperation in Antarctica, and the wide perspectives this opens up. In the future, cooperation and new technology may allow new research projects on an unprecedentedly large scale.

We can safely predict that the next century will increase even further the importance of Antarctica to life on our planet. However, we must also be prepared for scenarios which are less desirable. A growing world population, limited space, scarce water, food and other resources may put greater pressure on Antarctica and the Southern Ocean area. This underlines the importance of having in place efficient regimes for the sustainable management of living resources and for the protection of the unique environment of the Antarctic. The Convention on the Conservation of Antarctic Marine Living Resources and the Environmental Protocol represent historic achievements. It is of the utmost importance that we have the will and the capacity to make them work in practice. We have before us the example from the Southern Ocean of overfishing of the Patagonian toothfish, which is threatening to decimate this species, a fate that befell the great whales some decades ago. I hope we shall have learnt from history, and act in time to save the Patagonian toothfish and other species and ensure that resource utilization takes place only in a sustainable manner in conformity with international management regimes.

Looking ahead, I am confident that our Antarctic Treaty System of cooperation will successfully meet future challenges as it has in the past. However, we should not neglect any possibility of strengthening and furthering our cooperation, basing ourselves on the long-standing tradition of seeking solutions through consensus. And in this endeavour we should not underestimate the importance of securing public understanding and support. Antarctic affairs cannot be the exclusive domain of scientists and other experts. The importance of Antarctica to everyday life and to the future of mankind makes it essential that the public as a whole should have an informed basis for making judgements about what is at stake in research and cooperation on the seventh continent. That is why it is important to secure openness and transparency in Antarctic affairs. Antarctic cooperation has much to gain from greater interest on the part of an informed public. In my view, Antarctic cooperation also deserves greater attention from the media. It might be well worth time and resources for Antarctic Consultative Treaty Meetings to look for ways and means of using modern information technology, to increase the flow of information and stimulate public interest in Antarctic affairs.

Just a hundred years ago, Antarctica was largely unknown territory. Today, more than twenty-five nations are engaged in scientific research on this vast continent, and more than one mil-

lion books have been written about the polar regions. Nevertheless, Antarctica is still the part of the world we know least about. There are plenty of unrevealed secrets and huge areas of unexploited land in Antarctica for future generations to explore.

I hope that this XXII Consultative Meeting will build on the best traditions in the history of Antarctic cooperation. I wish you every success in your deliberations on the many important tasks on the agenda.

Opening Address by Dr. Horacio E. Solari, Head of the Argentine Delegation

Mr. Chairman,

On behalf of the Argentine delegation I would like to congratulate you for your election as Chairman of the XXII Antarctic Treaty Consultative Meeting. We are fully convinced of the success of this meeting under your able chairmanship.

Through you I would also like to thank the Government of Norway for hosting this meeting in this beautiful city of Tromsø, which today in such a special way links the Arctic with Antarctic affairs. I would also like to express the appreciation of the Argentine delegation for the warm welcome we have received as well as for the excellent organisation of the meeting which will, no doubt, aid us in our discussions that will include a number of important matters.

The entry into force of the Protocol to the Antarctic Treaty on Environmental Protection as well as the initiation of the activities of the Committee for Environmental Protection (CEP) represent an auspicious moment for the future of all the Antarctic community. Moreover both events strengthen the Consultative Parties commitments to act efficiently and with awareness in order to carry out an adequate protection of the Antarctic environment of such unique characteristics .

Argentina continues its firm efforts aimed at effectively implementing the Protocol's dispositions. Education and training programmes are constantly updated so as to further improve the adequate preparation of all those people that take part in the Antarctic activities undertaken by our country and so assure compliance with current international dispositions. Argentina has also continued to develop its scientific research programmes as well as its international cooperation, always placing particular emphasis on matters related to the protection of the Antarctic Environment.

In this respect I would specially like to mention our Environmental Review Programme currently underway in relation to Argentine activities taking place in Antarctica. Both last year's presentation of the Esperanza Station Environmental Review and this year's assessment as to the state of the environment surrounding Marambio Station are a precise indicator of the concern with which these matters are currently being addressed and the firm determination with which solutions are being sought after.

Mr. Chairman

I would once again like to express Argentina's special appreciation for the continued support given by the Consultative Parties to Argentina's proposal of Buenos Aires for the location of

the Antarctic Treaty Secretariat. I would like to express special gratitude to Brazil, Chile, Ecuador, Peru and Uruguay for their support which was renewed through the presentation of the ATCM/XXI/1 17IP paper last year. I would also like to thank Spain and the United States for their support expressed in their respective opening addresses at the XXI ATCM and several other delegations who have recently renewed their firm support for Argentina's proposal.

It does not escape the Argentine delegation's attention that several countries have expressed their interest in a prompt solution to the question of the establishment of the Secretariat. It also cannot go unnoticed that due to the present situation, the matter will be addressed during the course of the present ATCM.

In relation to this question I would like to express that I consider that Australia's presentation of Hobart as an alternative proposal, far from facilitating a prompt solution, draws the attention of the Consultative Parties away from what is really the main issue in relation to this question.

For more than five years, Argentina's proposal has received the support of the vast majority of the Consultative Parties and its concretion has only been thwarted by the reservation sustained by the United Kingdom.

My delegation reiterates its understanding that, on the basis of a genuine joint negotiation effort, the establishment of the Antarctic Treaty Secretariat will have an adequate solution which includes the designation of Buenos Aires as its sight.

At this stage we must point out the support of the vast majority of the Consultative Parties for the proposal that Buenos Aires be designated as headquarters of the Secretariat, as well as the fact that other Parties have withdrawn their proposals for alternative seats in order to support the Argentine candidacy.

This overwhelming support has persisted over the years. It is therefore in no way beneficial for the consolidation of the spirit of harmony and co-operation which has always prevailed in the Consultative Meetings that, in this case, a single reservation, which throughout the past five years has not obtained any support, be enabled to thwart the will of the vast majority of the Consultative Parties. The acceptance of this position certainly indicates an unusual use of the consensus mechanism which could imply potentially hazardous consequences for the correct operation of the Antarctic Treaty System in the future.

Of the implied motives for the formulation of a reservation against the Argentine proposal, we could infer a discrimination between States Party to the Antarctic Treaty which goes clearly against both it's text and it's spirit, and affects one of the Treaty's fundamental pillars such as Article IV.

In effect the word and the spirit of the Antarctic Treaty have allowed for its effective operation despite global, regional or bilateral conflicts which have occurred outside its field of application.

Non interference of matters alien to the Antarctic within our fora has been a common and necessary practice for over 35 years and it is, at the same time, one of the essential elements of the success of the Antarctic Treaty System as well as of its effectiveness, even during times of

great international tensions such as, for instance, during the Cold War. This healthy practice must therefore be preserved.

Also worthy of note is the consensus among the Consultative Parties aimed at achieving an adequate geographical balance as regards the headquarters of the various components of the Antarctic Treaty System. Consequently, the candidacy of Buenos Aires is highly reasonable and appropriate to achieve this aim.

For the reasons mentioned above, my country is not in a position to analyse any other alternative or temporary solutions regarding the geographical location of the Secretariat, but is, on the other hand fully willing to consider with ample flexibility all other aspects related to the establishment of the Secretariat in Argentina.

We hope that this Consultative Meeting will be the appropriate framework in which the converging will of the vast majority of the Consultative Parties is achieved in relation to a matter of such importance for a correct and more effective operation of the Antarctic Treaty System, and once again we reiterate the Argentine delegation's ample flexibility to reach a satisfactory solution.

Thank you very much Mr. Chairman.

Opening Statement by Ms Gillian Bird, Head of the Australian Delegation

Mr Chairman

The Australian Delegation is pleased to be here in Tromsø for the Twenty-Second Antarctic Treaty Consultative Meeting. I would like to take this opportunity to thank our Norwegian Hosts for the hospitality they have shown and for choosing this unique setting for ATCM XXII.

This meeting of the Antarctic Treaty Parties is particularly important given the recent entry into force of the Madrid Protocol. This is an important milestone for the Antarctic Treaty System, representing a concrete commitment by the Parties to the comprehensive protection of the Antarctic environment. We must now ensure that this commitment is given effect through the establishment of the Committee on Environmental Protection and the program of work we give it.

The Australian delegation is keen to see the CEP working effectively focusing on providing timely and scientifically based advice to the Treaty Parties. In this regard, we welcome the nomination of Dr Olav Orheim of Norway as Chair of the CEP and the high quality experience he brings to the Committee.

A further priority for the meeting will be to make progress on the elaboration of rules relating to liability for environmental damage. Now that the Protocol has entered into force Parties must deliver on their obligation under Article 16 of the Protocol to develop a liability regime. Discussions in a Group of Legal Experts under the able Chairmanship of Professor Rudiger Wolfrum of Germany have made good progress on legal aspects of the Annex. The most recent intersessional discussions in Cape Town produced a report identifying a range of policy issues. We hope that this meeting will focus on the report and be in a position to provide

guidance on the matters raised. In our view, now is the appropriate time to shift discussions on the Liability Annex from a Legal Group to a policy forum.

Mr Chairman,

The entry into force of the Madrid Protocol provides another reminder of the urgent need for Parties to address the question of the Treaty Secretariat. At last year's meeting the Australian delegation indicated that if no resolution was found to this problem we would offer Hobart as an alternative site. In view of the continued lack of progress, and in recognition of the continuing need for a permanent secretariat, Australia has proposed that Parties give careful consideration to Hobart as the site of the Secretariat. This offer is made in the spirit of assisting the achievement of consensus on an issue important to the future effectiveness of the Antarctic Treaty System.

Hobart offers a number of advantages as a Secretariat site. It has long established links with Antarctica, and is host to the Secretariat for the Commission for the Conservation of Antarctic Marine Living Resources and to the Secretariat for the Council of Managers of National Antarctic Programs. There are obvious advantages in terms of efficiency and cost-effectiveness in having a shared location for three bodies that play a central role in the deliberations of the Antarctic Treaty System.

Australia looks forward to hearing the views of others on this crucial matter.

Mr. Chairman, I would like to draw your attention to a proposal by Australia that 14 January be declared 'Antarctic Environment Day'. This declaration would represent a symbolic acknowledgement of the entry into force of the Madrid Protocol and provide a focal point for practical activities in Antarctica. The Australian delegation hopes that the meeting will be able to endorse this proposal.

I am pleased to note that the Madrid Protocol has now entered into force. However the Australian delegation is concerned that Annex V, which provides for an improved protected areas system, is not yet in force. My delegation takes this opportunity to urge Parties that have not yet approved Recommendation XVI-10 to do so as soon as possible so that this important part of the Protocol can be given full effect.

Mr Chairman,

Many parties will be aware of the continuing problem of illegal and unregulated fishing in the subantarctic. The Government of Australia, which has expressed great concern about this problem, recognises that this is primarily a matter for the Commission on the Conservation of Antarctic Marine Living Resources. Nevertheless, my delegation is keen to explore initiatives with Antarctic Treaty Parties to develop an effective cooperative response. As Consultative Parties we have a legitimate concern. If the problem remains unchecked it has the potential to impact on the Antarctic environment and, ultimately, to discredit the Antarctic Treaty system.

Mr Chairman,

This year marks the 40th anniversary of the conclusion of the International Geophysical Year. IGY represented a turning point for the Antarctic. It led directly to the adoption of the Antarctic Treaty, and the commitment that we all share to continued peaceful uses of Antarctica and

close scientific cooperation. Over the past year, my Government has taken the opportunity to examine the future directions of the Australian Antarctic science program. The recommendations put to the Government provided for essential guidance for the program for the year 2000 and beyond. The Australian Government reaffirms its commitment to maintaining an active program of research in the Antarctic that will contribute information fundamental to understanding the Antarctic and its interaction with the global environment.

My delegation looks forward to working with our colleagues in Tromsø in giving effect to the Treaty and ensuring continued cooperation in Antarctica.

Opening Address by the Representative of Belgium

Mister Chairman

The Belgian delegation would like to express its thanks for the hospitality offered by the Norwegian government for the ATCM XXII.

Like other delegations we would like to express our satisfaction about the entry into force of the Madrid Protocol on Environmental Protection in Antarctica, and about the consequent installation of the Committee for Environment Protection.

Belgium has elaborated a draft implementation law, that, after the advice from the Conseil d'Etat, will be submitted to Parliament in September, and might be into force by the end of the year. It follows closely the content of the Madrid Protocol, but adds supplementary permit obligations, under the responsibility of the Federal Secretary of State for the Environment. Belgium will notify, in conformity with art 13.3 of the Protocol, these texts to the other Parties, as soon as they are adopted. We would like to add, that a systematic compilation through ATCM and CEP, of the existing implementation texts of the Parties, would be highly useful.

Belgium hopes that ATCM XXII will allow progress on the issue of the liability annex, to be developed under art 16 of the Protocol. We are of the opinion that, on the basis of the useful work by the Wolfrum Group, there is a need for a new forum, and an accelerated pace including intersessional work, with a view to finalising the text at ATCM XXIV at the latest. The liability annex remains an essential element to strengthen the preventive effect of the Protocol. Terms of reference for a new negotiation forum need to come out of this ATCM.

Thank you.

Opening Address by the Head of the Brazilian Delegation

Firstly, on behalf of the Brazilian Government, I would like to thank the Norwegian Government for its warm and generous hospitality. We are also deeply grateful for the invaluable support provided for all delegations and the impeccable preparation of the Meeting, which is taking place in such a lovely city as Tromsø. The fact that, for the first time, some of the documents are available on the INTERNET certainly facilitated much of the work of the delegations when preparing for this meeting.

The Brazilian Delegation is convinced that the present meeting will foster important results, which, in their turn, will have a significant positive effect on furthering the consolidation of the Antarctic Treaty System. Moreover, we believe that the present meeting will reflect, as always, the spirit of harmony and co-operation that has always guided the search for solutions within the Antarctic Treaty System. My Delegation believes this meeting will be a step future in the continual improvement of the Antarctic Treaty System.

The entry into force of the Protocol on Antarctic Environmental Protection (Madrid Protocol) will certainly ensure that Antarctica will remain being used for peaceful purposes only as well as in the interest of science and all mankind. To complement this instrument, it is vital that a regime governing liability for damage to the environment does not prevent the feasibility of scientific research. The liability regime should not discourage collaborative effort in scientific research, environmental protection and logistic support.

Fundamental in this ATCM will be the establishment of rules of procedures for the work of the Committee for Environmental Protection (CEP). This will complete the entry into force of the Madrid Protocol establishing the legal authority on environmental policy in the Antarctic Treaty System.

The extra work imposed by the entry into force of the Protocol and the implementation of the CEP demands an urgent solution to the question of the Antarctic Treaty Secretariat. This remains a critical issue for the operation of the Antarctic Treaty System. We hope progress in this matter will be achieved during this meeting.

The Brazilian Government is conscious of the utmost importance of environmental protection in Antarctica as well as its associated ecosystems. Numerous measures have been internally adopted to standardise procedures, to train and educate personnel in environmental matters, to better equip facilities and to promote the development of research projects related to environmental monitoring.

The creation of the ASMA of Admiralty Bay, adopted at the XX Consultative Meeting in Utrecht, encouraged the adoption of mechanisms to foster the development of scientific research activities based in the principles of environmental protection of the area and its associated ecosystems. In this sense, this Delegation has presented an Information Paper reporting the progress of the work towards the implementation of the Management Plan. We hope that this effort will result in the establishment of environmental parameters to be used in environmental monitoring, assessment of the state of the Admiralty Bay's environment, identification of sites of scientific interest and, consequently, in the improvement of the Management Plan. We trust that the collaborative effort of the Parties involved will deliver the desired results.

Finally, Mr, President, may I express with great satisfaction, on behalf of Brazilian Government and therefore of my Delegation, our full commitment to the provisions of the Antarctic Treaty and the Madrid Protocol and our full conviction of the responsibilities that we share with the other fellow members in the Antarctic community.

Opening Address by Mr. Aliocha Nedeltchev, Head of the Delegation of the Republic of Bulgaria

Mr. Chairman,

On behalf of the Bulgarian delegation I would like to congratulate you on your election as Chairman of the XXII Antarctic Treaty Consultative Meeting. Your experience in Antarctic affairs as well as your contribution to the development of the Antarctic Treaty System makes us confident that you will guide our deliberations in the most successful manner.

My delegation would like to express its sincere gratitude to the Government of Norway for the excellent way it is hosting the present Meeting. Our thanks also go to the Municipality and people of Tromsø for their warm hospitality shown to all of us during our stay in your beautiful city.

Mr. Chairman,

The XXII ATCM will be marked with the beginning of a new stage of co-operation between the Consultative Parties based on the practical implementation of the Madrid Protocol on Environmental Protection to the Antarctic Treaty. Bulgaria demonstrates its interest in Antarctica by conducting scientific research there. For that reason Bulgaria felt it is a matter of priority to accede to the Protocol and by doing so she joins the efforts of other states in protecting the Antarctic environment for the present and future generations. We welcome the establishment of the Committee on Environmental Protection which under able chairmanship of Dr. Olav Orheim is expected to provide necessary assistance to the Consultative Meetings in their work to reach the noble objectives of the Environmental Protocol.

The entry into force of the Madrid Protocol should give us additional impetus to make progress on the elaboration of rules related to liability for environmental damage. We note the results which have been achieved so far in the Group of Legal Experts and we would like to thank Prof. Rudiger Wolfrum for his able chairing over its deliberations on this topic. The report of the Group identifies several key issues on which there are divergent views and a guidance by ATCM is needed. While sharing the understanding to accelerate the work through meaningful negotiations, this delegation wishes to underline that our approach on this issue should be cautious, pragmatic and realistic so as to attract the approval of all Consultative Parties. In this respect the view of some delegations that comprehensive goal might be achieved through gradual steps deserves careful consideration. We believe that the XXII ATCM will be able to meet the expectations of the Antarctic community on this important issue.

Another question on which the Meeting is called upon to make progress is the consideration of organisational matters, including establishment of a permanent Secretariat. My delegation hopes that the spirit of co-operation and consensus will prevail in order to find acceptable solutions on all aspects of this issue.

Mr. Chairman,

Twenty years after its accession to the Antarctic Treaty the Republic of Bulgaria is participating for the first time in ATCM as Consultative Party. At this point of stage I would like to assure you that my delegation is fully committed to the success of our Meeting and will spare no efforts towards this goal.

Thank you, Mr. Chairman.

Opening Address by the Representative of Canada

Mr. Chairman

On behalf of Canada, I am pleased to congratulate you on your election as chairman of this meeting of the Antarctic Treaty Consultative Parties. My country also expresses its gratitude to the Government of Norway for its hospitality in hosting this meeting and for the thorough and excellent arrangements that have been made to facilitate our discussions. Your country's long and proud tradition of exploration and involvement in polar affairs, both north and south, and also her international leadership and domestic progress in environmental protection and concern for wise use of natural resources come together to make Norway a fitting and appropriate location put into operation one of the most significant steps forward in international co-operation for care of a major part of the polar region:- the coming into force of the Protocol for Environmental Protection and the establishment of the Committee for Environmental Protection.

I wish also to express our warm gratitude to the City and people of Tromsø, long a centre of polar activity, which has now a new importance in international polar circles because of the recent growth of science-based polar institutes here. I am pleased to take this opportunity to bring special greetings from the twenty or so Canadian towns and communities which, like Tromsø, enjoy being north of the Polar Circle. Our northern towns, like Tromsø, appreciate the long spring days at this time of the year; but in northern Canada we do not yet share your gardens and flowers!

Canada continues its modest but, we hope, constructive involvement in Antarctic affairs. Canada particularly values the Antarctic Treaty System, not only because of its importance and success in managing and protecting a large and important part of our planet, but also as an example of international co-operation and the use and sharing of scientific knowledge as a basis for this management and protection. In this respect the Protocol for Environmental Protection is of central importance. Although we have not yet been able to ratify the Protocol, I wish to confirm Canada's intention to ratify, and to state that we are well embarked on the necessary legal procedures which, in a federal state with divided jurisdictions, are complex for an instrument as comprehensive as this.

Canada is pleased to note that the agenda for this meeting again includes an item on "relevance of developments in the Arctic and Antarctic". An increasing number of the issues and topics important to the international governance and scientific activities in Antarctica have bi-polar and global relevance. Canada looks forward to these discussions and hopes to participate constructively in them.

As was reported at the last ATCM, the Arctic Council was established in 1996. The member countries of the Council are those with territories north of the north Polar Circle; all except Iceland are also adherents to the Antarctic Treaty. The Arctic Council has been created to facilitate international co-operation in northern circumpolar regions, and in some subject areas will be the appropriate body to provide liaison with the Antarctic Treaty on matters of bi-polar significance. As with many new multilateral intergovernmental bodies, it has taken some time to organise procedure matters; but the Council is now ready for work, and as current chair of the Council, Canada will report on progress and plans later in this meeting.

Canadian scientists continue to take part in research in Antarctica and in bi-polar studies, particularly in areas where our north polar scientific expertise can be useful. Delegates to this meeting may be interested that Canada has now formed a formal Canadian Committee for Antarctic Research, through which an application has been submitted for full membership in the ICSU Scientific Committee for Antarctic Research, SCAR.

Mr. Chairman, Canada wishes you and all delegates success in our forthcoming discussions. We look forward to the establishment and operation of the Committee on Environmental Protection, and will do all that we can to ensure that it, and the whole Antarctic Treaty System, not only serves to ensure protection of the Antarctic environment and ecosystems and preserve Antarctica as a place devoted to peace and science, but also as a foremost example of international co-operation to carry out a shared responsibility for the planet upon which we all live. Canada is pleased to be part of this shared responsibility.

Opening Address by the Representative of Chile

Mr. Chairman,

May I congratulate you on your election and recall your outstanding contribution to the negotiation of the Madrid Protocol and to the Antarctic Treaty System. My country expresses its gratitude to the Government of Norway and to the authorities of Tromsø for their warm hospitality and for the excellent arrangements made for this meeting, including the exciting prospect of a visit to Svalbard. The Svalbard Treaty, approved by the Chilean Parliament in 1927, or rather the Oslo Conferences which preceded in Peace Conference in Paris, contained the intellectual background for the Chilean proposal of 1948 consolidated some 11 years after in Article IV of the Antarctic Treaty. In the past through the International Polar Years, through the somehow forgotten International Polar Committee and Institute which briefly flourished in Belgium under Georges Lecoq, and through International Geophysical Year, the Arctic and the Antarctic were part of a united effort for the exploration of the polar regions.

Now, in a different context, we are aware of the differences but also so much more persuaded of the need for a bipolar perspective, a view which arises naturally in Tromsø, this Arctic capital that shares many of the experiences of the "gateway" cities to the Antarctic. This July we shall host in Concepcion the Xth COMNAP Meeting and the XXXVth SCAR Meeting but in November, the University of Magallanes will host the Second Arctic-Antarctic Symposium, and Punta Arenas shall take the relay from Ottawa to that end.

Both the Arctic-Antarctic perspective and the Sub-Antarctic dimension expand the scope of co-operation in the borders of the Southern Ocean and we are happy that the Joint Committee on Antarctic Data Management has adopted a comprehensive definition of the Antarctic and that environmental management of Sub-Antarctic Islands is given prominence since the SCAR/IUCN Workshop convened in Paimpont, France. Finally, in addition to the bipolar perspective and the Sub-Antarctic gateway contribution, the Antarctic Treaty is the cornerstone for an emerging nuclear weapon free zone in the Southern Hemisphere. In the wake of recent nuclear explosions, we stress that the prohibitions of the Comprehensive Test Ban Treaty complete those contained in Article V of the Antarctic Treaty and that Chile is committed to support an International Monitoring System through its stations in Rapa Nui (Easter

Island) and Puerto Limon near Punta Arenas, the latter being also connected to our Antarctic Regional Meteorological Centre at the Frei Base.

The Tromsø Consultative Meeting marks the successful entry into force of the Madrid Protocol and the inaugural meeting of the Committee on Environmental Protection under the able Chairmanship of Dr. Olav Orheim. We sincerely hope that it will provide a new impetus to the negotiation of a truly Antarctic Liability Regime. But it is also the occasion to reflect on the changes that may be required to improve the operation of the Antarctic Treaty System and, to quote the Norwegian Minister for Foreign Affairs Mr. Knut Vollebæk, the celebration of the 40th Anniversary of the signing of the Antarctic Treaty in 1959 should allow us "to assess co-operation under the Treaty in a long term perspective". We look forward to constructive discussion on the implementation of Article 6 of the Protocol through a new Decade of Antarctic International Scientific Co-operation at the XXII ATCM to be held in Peru, whose Government we thank wholeheartedly; we express great appreciation for New Zealand's offer the host a Ministerial Meeting in the Antarctic Continent as the most suitable preparation for the Lima commemorations; we support the Australian proposal for the Antarctic Environmental Day and we offer for the same purpose our Draft Declaration on the protection of the Antarctic environment which we would suggest that we call the "Tromsø Declaration" if this suggestion is acceptable to the Meeting.

Statement by Ambassador XU Guangjian, Head of the Chinese Delegation

Mr. Chairman:

First of all, please allow me, on behalf of the Chinese delegation and that of my own, to congratulate you on your election to the Chairmanship of the XXII Antarctic Treaty Consultative Meeting. I believe that your wisdom and diplomatic expertise will ensure this meeting very fruitful and successful. Meanwhile, we are deeply impressed by the excellent arrangements and hospitality provided by our Norwegian host for the meeting, while we are enjoying the fascinating scenery and delightful weather in Tromsø. May I, Mr. Chairman, through you, convey our sincere gratitude and best regards to the people and government of Norway.

Mr. Chairman,

The Protocol on Environmental Protection to the Antarctic Treaty came into force in January of this year, and the Committee for Environmental Protection will be established at this meeting accordingly. These important events are opening a new chapter for the development of the Antarctic Treaty System. This delegation welcomes entry into force of the Protocol as well as the establishment of the Committee for Environmental Protection. It shows that the Parties to the Treaty are able to fully take their responsibilities for management of activities in Antarctica and the operation of the Antarctic Treaty system as well as protection of the Antarctic environment and its dependent and associated ecosystems.

Mr. Chairman,

Elaboration of the Annex or Annexes on liability is an important task before us. Under the intelligent leadership of Professor Ruediger Wolfrum, progress has been made in this regard.

The report submitted to this meeting by Professor Ruediger Wolfrum on behalf of the Group of Legal Experts has comprehensively summarized the overall work undertaken on the Annex or Annexes on liability. It has laid a solid basis for the future discuss of the issue. While we appreciate the results achieved, we would focus on major outstanding problems lying before us, especially those key issues which are seeking the guidance from this meeting. In order to facilitate the future deliberation, this delegation would like to reiterate the necessity to maintain a delicate balance between protection of environment and encouragement of scientific activities in the content of the Annex or Annexes on liability.

Mr. Chairman,

As a Consultative Party, The Chinese Government is always doing its best to fulfill its commitments. It attaches great importance to promotion of public awareness on the environmental protection and scientific research and activities in the Antarctica through education. This delegation has submitted to the meeting the following two reports: the Chinese Antarctic Environment Report 1997/1998 season and the Oil Spill Contingency Plan for Chinese Xuelong Vessel in Antarctica.

Mr. Chairman,

We are confident that the operation of the Antarctic Treaty system will be more and more efficient with the entry into force of the Protocol on Environmental Protection and the establishment of the Committee for Environmental Protection. As always, China will positively participate in the ATCM activities, and will cooperate actively and closely with other Contracting Parties to make the Antarctica better serve the mankind.

I thank you, Sir.

Opening Address by the Representative of Ecuador

Mr. Chairman,

On behalf of the Republic of Ecuador, it is for me a great honor to greet all the countries participating in this XXII Antarctic Treaty Consultative Meeting.

I would also like to congratulate you for having been elected President of this Meeting and take this opportunity to thank the Norwegian Government for the kind hospitality they have shown in this splendid region of the Arctic which reminds us of our dear Antarctic.

Ecuador considers that this very Consultative Meeting is particularly important as it is the first one after the entry into force of the Madrid Protocol on Environmental Protection, to which my country adhered almost immediately after it was adopted. Ever since, it has become a guide for the implementation of our Antarctic activities.

I would like to take this opportunity to assert our country's interest in the establishment of the Permanent Secretariat of the Antarctic Treaty, stemming from a proposal introduced by the Latin American countries during the XXI Antarctic Treaty Consultative Meeting in New Zealand. In our opinion, the balanced geographical distribution concept rooted in the Antarc-

tic continent would be achieved by adopting that proposal. Hence, we would count on an appropriate administrative structure before the beginning of the next millennium.

The Delegation of Ecuador joins in the efforts of the other Antarctic Treaty Member Countries to achieve the most positive and constructive results in managing the White Continent.

Thank you, Mr. Chairman.

Statement by Ambassador Heikki Puurunen, Head of the Finnish Delegation

Mr Chairman,

Let me congratulate you on behalf of the Finnish delegation on your election as the Chairman of the XXII Antarctic Treaty Consultative Meeting. I am confident that our meeting will be in able hands under your chairmanship. I would also like to express my gratitude to the Government of Norway for the excellent way of hosting this meeting here in Tromsø and for the kind hospitality shown to us all.

Mr Chairman,

First of all I would like to emphasize that Finland is very pleased with the establishment of the Committee for Environmental Protection at this meeting. It took a long time for the Madrid Protocol to enter into force but now all the requirements have been met for the Committee to start carrying out its functions.

The Committee for Environmental Protection has an important role in further developing practices relating to the environmental impact assessment as well as to the exchange of data and information on the implementation of the Protocol. Finland finds it also valuable that the report on the state of the Antarctic environment will be prepared and considers that in this connection it would be useful to draw on some of the experiences of the excellent AMAP report on the state of the Arctic environment.

Another central issue on the agenda of our meeting this year is the discussion on the report of the Group of Legal Experts. A considerable amount of effort has already been put into fulfilling the obligation undertaken in Article 16 of the Protocol to elaborate rules and procedures relating to liability for damage. The Group of Legal Experts and its Chairman have provided us with an analysis of different elements of a liability regime and outlined solutions in many respects. However, mutual determination is needed to overcome the challenges that still remain. Finland continues to believe that an effective liability regime is needed for the protection of the Antarctic environment.

Mr Chairman,

As far as the national implementation of the Madrid Protocol is concerned I would like to note that the Finnish Act on the Environmental Protection of Antarctica, which was passed in October 1996, took effect on 14 January 1998, simultaneously with the Madrid Protocol and its four Annexes. The law is designed for the

comprehensive protection of the Antarctic environment and its dependent and associated ecosystems. The Ministry of the Environment is in charge of issuing permits for activities in the Antarctic area and of overseeing the observance of the law. The Act has been supplemented by a Decree on the Environmental Protection of Antarctica issued in February 1998.

In addition to the approval of Annex V to the Madrid Protocol, Finland has informed the depositary last year of its approval of a number of other measures adopted at the Antarctic Treaty Consultative Meetings after Finland became a Consultative Party in 1989. Finland hopes that these measures, and Annex V in particular, could also soon become effective.

Mr Chairman,

Close cooperation between Finland and the other Nordic countries has a long tradition. During the past years several joint Nordic expeditions have been carried out by research vessels to the Antarctic. The Antarctic cooperation between Finland, Norway and Sweden was extended from logistics to include also the environmental aspects following the establishment of the Antarctic Environmental Officers Network (AEON) in 1996.

The Nordic environmental officers have focused on drawing up a Nordic Environmental Handbook for use in the Antarctic. A copy of the Waste Management Handbook has been distributed to each delegation. The fruitful Nordic cooperation has also included common environmental impact assessment procedures and contingency plans.

Finland has actively conducted scientific research in the Antarctic. During the Austral summer 1997/98 10 Finnish scientists participated in the Nordic Antarctic Research Expedition organised by Swedish Antarctic Research Programme (SWEDARP). The Finnish Antarctic Research Programme expedition (FINNARP 97) was organised by the Finnish Institute of Marine Research. During the expedition geophysical, geological and meteorological studies were carried out in Vestfjella and Heimefrontfjella mountains in Western Dronning Maud Land. The Finnish research station Aboa was occupied during the FINNARP 97.

The Finnish Meteorological Institute continued ozone sounding in cooperation with the Argentine Meteorological Centre at the Vicecomodore Marambio research station.

Mr Chairman,

I would like to conclude by noting that we are now commencing a new phase in the Antarctic cooperation as the Madrid Protocol has entered into force and the Committee for Environmental Protection has started its work. We hope that this development will further advance our common efforts aimed at the improvement of the Antarctic Treaty System.

Opening Address by Ambassador Dr. Jochen Trebesch, Head of the Delegation of the Federal Republic of Germany

Mr. Chairman, allow me first of all on behalf of the German delegation to congratulate you on your election to the chair of the XXIIInd Consultative Meeting of the Antarctic Treaty Parties. We are fortunate to have an individual of your experience and proven ability to lead us through our substantive agenda.

On behalf of my delegation I would also like to express our deep appreciation to the Government of Norway and the City of Tromsø for hosting this Consultative Meeting, for the hospitality already shown to us and for the excellent preparation of this conference.

On 14th of January 1998 the Protocol on Environmental Protection to the Antarctic Treaty, with Annexes I to IV has entered into force. This date marks a milestone and at the same time a turning point in the cooperation of Consultative Parties in the field of environmental protection. There is no doubt that here our cooperation will make a quantitative and qualitative leap. The most obvious change consists in the establishment of the Committee for Environmental Protection subject to the final decision of this XXIIInd Antarctic Treaty Consultative Meeting. But not only our international cooperation enters into a new era. Also our national authorities and institutions will be faced with new tasks and challenges.

It is to be regretted that Annex V to the Protocol on Environmental Protection up to now has not entered into force. Recommendation XVI - 10 on the review of the Antarctic protected area system adopted 1991 in Bonn, concerns an aspect of Environmental Protection which should not be underestimated, i.e. the protection of outstanding environmental, scientific, historic, aesthetic or wilderness values in Antarctica. Therefore the Federal Republic of Germany as other consultative Parties has ratified Annex V to the Protocol at an early stage.

In accordance with the mandate given by the XXIst Consultative Meeting the Group of Legal Experts on liability, chaired by Germany, has prepared a report, which describes the results achieved, identifies the major problems with respect to the draft texts and sets out different alternatives and approaches. Thus the Group of Legal Experts - meeting regularly since 1993 under German chairmanship - has further filled out the mandate given to it by the XVIIInd Antarctic

Treaty consultative Meeting in Venice and regularly prolonged since then by subsequent Consultative Meetings.

In order to go ahead with the implementation of Article 16 of the Protocol as quickly as possible, the XXIIInd ATCM has been asked for guidance on several key issues. After an intensive discussion of these key issues and of the question as to how the deliberations on the annex or annexes on environmental liability should proceed, it should be envisaged eventually to continue negotiations on the liability annex or annexes in a different framework and on an appropriate level.

The time available till then must be used further to examine and assess data and facts with regard to possible environmental damages in Antarctica. A risk analysis is essential to complement the thorough analysis of legal aspects as reflected in the report of the Group of Legal Experts. A solution of several key liability issues depend on the consideration of pertinent data and facts. Therefore it is essential to get a better understanding of typical cases of damages, the financial magnitude of risks, their insurability as well as the budgetary consequences (e.g. insurance premiums) of liability. To this end the XXIIInd Antarctic Treaty Consultative Meeting should invite the competent scientific bodies as well as COMNAP, the International Association of Antarctic Tour Operators (IAATO) and the Committee for Environmental Protection to submit information papers to the XXIIIrd ATCM. A corresponding proposal is contained in an working paper submitted by Germany with regard to the question of liability as referred to in Article 16 of the Protocol.

Following Resolution 1 of the XXIst ATCM in Christchurch the Meeting will also have to discuss in depth the question of "Emergency Response Action and Contingency Planning". Germany has prepared a working paper covering this agenda item.

Furthermore due consideration should be given to the important deliberations on a range of organisational and support questions. One of these questions and indeed the most important one is the establishment of a Secretariat to assist the work of the Antarctic Treaty System. The German position with regard to this question is well known. Thus I would like to limit myself to mentioning that the legal working group under the chairmanship of Prof. Wolfrum has continued to discuss the legal aspects concerning a future Secretariat.

Mr. Chairman, the agenda before us offers the opportunity to put a dynamic and responsive Antarctic Treaty Consultative mechanism to work;. The aim of promoting and supporting scientific research in Antarctica as well as the aim to preserve the unique environment on the 6th continent should inspire our task of practical implementation and realisation of the objectives of the Antarctic Treaty System.

Convinced that the thorough preparations by the Norwegian Government and the hospitality of the beautiful City of Tromsø will facilitate our work, the German delegation looks forward to a profitable and productive meeting under your chairmanship.

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 XXIIth Antarctic Treaty Consultative Meeting. May I also through you Mr. Chairman, express my gratitude to the Government of Norway for hosting this meeting in the beautiful city of Tromsø and also my thanks for its warm hospitality.

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

Mr. Chairman, Greece as a state party of the Protocol on Environmental Protection to the Antarctic Treaty of 1991, likes to express its gratitude, for the entry into force of this Protocol:

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. The "intermediary solution" regarding this matter, is neither good nor practical and it will have, in our view, non positive effects as far as the exchange of information about Antarctica is concerned. At the same time Mr. Chairman, I like to express my deep satisfaction regarding the establishment of the Final Draft of the Rules of Procedure for the Committee for Environmental Protection and the considerable progress, which has been made regarding the Liability Annex.

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 the non-governmental organisations ECO and ASOC, necessary to ensure the earliest possible recovery of the ozone layer.

Finally Mr. Chairman I would like to inform this meeting, that Greece, in particular the National Centre for Marine Research, in collaboration with other Greek Institutions, has already started to implement the National Program of Greece for Antarctica.

Thank you, Mr. Chairman

Opening Address by Dr.A.E.Muthunayagam, Secretary, Head of the Indian Delegation

Mr Chairman, ladies and gentlemen,

I consider it a great privilege to be invited to take part in ATCM XXII in this beautiful city of Tromsø.

Antarctic Treaty is one of the finest examples of international cooperation in the area of science. Last one year has seen growth of bilateral cooperation between India and other treaty countries in the field of Antarctic Research. India has signed MOUs with Argentina and Peru to extend cooperation in Antarctica. Joint experiments on ice-core studies, microbiology, human physiology and medicine are contemplated between France and India. A collaborative experiment on planetary geodetic studies for establishing a permanent GPS station at Maitri is on with the help of German scientists as a part of SCAR International Programme, GIANT. Bilateral programmes on geomagnetic studies have been initiated between India and Italy. The Krill Programme between India and Poland is making good progress.

1997 also saw the seventeenth Indian expedition sailing to Antarctica, It had onboard three German scientists from the University of Dresden. This expedition has undertaken new experiments pertaining to VLF propagation, planetary geodetic, human immune response studies, desiccation tolerance of cyanobacteria and biodiversity of various species like lichens, snowbank fungi and moss inhibiting fauna The commendable job done by the Environment Task Force sent especially during the 16th expedition was continued.

During the current session of the ATCM, proposals relating to Liability Annex will be further discussed. I am confident that the deliberations would yield a solution which would ensure a balance between the competing needs of science and environment I am sure the presentations made by various scientific groups during ATCM XXI at Christchurch would act as a useful guide in this regard.

I take this opportunity to reiterate India's commitment to the Antarctic Treaty System and assure all those present here of India's constructive contribution to the furtherance of the cause of the Treaty.

Thank you,

Opening address by the Head of the Italian Delegation

Mr. Chairman,

on behalf of my government I wish to congratulate you on your election as Chairman of this XXII meeting of the Antarctic Treaty Parties.

The Italian Delegation also expresses its gratitude to the government of Norway for its kind hospitality in this beautiful town of Tromsø, for the excellent preparation of our discussions and for all the facilities that have been provided.

Italy is fully aware of Antarctica's great importance as a peace zone, free of nuclear weapons and devoted to scientific research. In this context our delegation considers that protecting its environment for the further generations is a great challenge, which demands a concerted effort in order to consolidate the mechanisms of the Antarctic Treaty System.

With the entry into force of the Protocol for the Environmental Protection, a new stage of the journey of the Antarctic Treaty System begins. Actually, the implementation of the Protocol will mark a turning point in the relationships between the Consultative Parties, as it will demand a higher degree of cooperation and coordination within the System.

The prospect of an enhanced cooperation among the member countries makes more urgent the establishment of a permanent Antarctic Treaty Secretariat. At this regard, Italy still supports the offer of the Argentinian government to host its headquarters in Buenos Aires. Given the importance and the urgency of this issue, we hope that it will be addressed by the present ATCM in view of a final decision to be adopted in a spirit devoid of prejudice. Italy, for its part, is keen to do what it can to assist member countries to reach early agreement.

The setting up of the Committee for Environmental Protection requires the approval by this ATCM of the rules of procedure. The Italian Delegation agrees with the draft rules of procedure which have been prepared under the coordination of the Norwegian Delegation.

We think that the Secretariat, once established, and the CEP should work in close cooperation and be mutually supporting. To this effect, it would be advisable to assign them the same location, also in consideration of the potential advantages in terms of efficiency and cost effectiveness in shared location of the two bodies.

The elaboration of a liability regime regarding environmental damage in the Antarctic is one of our important tasks. We recognise the efforts brought about by the Group of Experts under the excellent guidance of Professor Wolfrum, whose accomplishment shall be reflected in Annex VI of the Environmental Protocol. We hope that major steps could be made during this meeting, so that a final draft on an Annex can soon be presented for approval to the next ATCM.

Two months ago the Italian Antarctic Programme concluded its thirteenth summer campaign. It was a successful campaign, most major objectives were reached.

Italy has a wide spectrum of international co-operations, both in scientific and logistic activities. Italian scientists take part in a number of international programmes and projects sponsored by SCAR and in some programmes sponsored by European organisations. Among the

most important, the CONCORDIA Project, with France, but open to other countries, aiming at the construction of a research station on the Antarctic Plateau at Dome C. At the same site an ice deep drilling operation is in progress, part of the EPICA Project. The purpose of the drilling is the reconstruction of the history of climatic changes up to 500.000 years ago. Another significant project is the Cape Roberts Project, aiming at the reconstruction of climatic and tectonic history between 20 and 100 million years ago through a deep drilling operation in marine sediments.

Logistically, Italy co-operates with the USA and the NZ Antarctic Programmes in the Ross Sea Region in an air transport pool and in weather forecasting and in the regional contingency planning.

Mr. Chairman,

Italy has been a member of the Antarctic Community for more than seventeen years. We remain fully committed to the Antarctic Treaty and we hope that this meeting under your leadership will mark further steps forward in the life of the Antarctic Treaty System.

Opening Address by Mr. Wataru Iwamoto, Director of International Scientific Affairs Division, Ministry of Education, Japan

Mr. Chairman

On behalf of the Japanese delegation, I would like to congratulate you on your election to the chair of the XXII Antarctic Treaty Consultative Meeting. Our delegation is pleased to have the honour of working with you and our colleagues here in Tromsø.

Last year was 40th anniversary of Japanese Antarctic expedition. To commemoration, 'The Exhibition of Antarctica' was held at National Science Museum in Tokyo from July to November under the supervision of National Institute of Polar Research. Displays on the history of Antarctic expeditions, and creature, geology and environment of Antarctica demonstrate how research and expedition are being carried out in the Antarctic.

Over 287,000 people attended this Exhibition, and we were particularly delighted that many students studied the Antarctic as part of their school curriculum thanks to this Exhibition. We believe that the concept of the Exhibition has thus been fully understood and that it has surely contributed not only to the promotion of the visitors' appreciation of the activities of Antarctic expeditions but also to the enhancement of the awareness of the importance of Antarctica itself.

We also celebrate this XXII Meeting. Namely, this is going to be the first such gathering after the Madrid Protocol entered into force on January 14 this year following ratification acceptance or approval of the 26 Consultative Parties. Japan strongly hopes that the Protocol, which deals with broad aspects of environmental protection, will be an effective instrument for supplementing the current Antarctic Treaty System.

The entering into force of this Protocol implies that the Committee for Environmental Protection (CEP) will be established by means of transfer from the Transitional Environmental Working Group (TEWG). We take great pleasure in joining the establishment process of it.

Japan would like to request CEP, which functions as a centre of information, to compile such kind of vital information as other ATCP's domestic implementation law of the Protocol, since it is beneficial not only to narrow the gap between each ATCP's law but to strengthen Antarctic treaty system.

Article 16 of the Madrid Protocol is another effective measurement for the protection of environment of Antarctica. Legal expert group discussion of Liability began in 1993. Through a series of expert meetings, we have been able to successfully combine various aspects, and we have taken sound steps toward structuring a new instrument.

Meanwhile, we also acknowledge that the establishment of a new instrument is always a painful task. The latest legal expert meeting of liability held at Cape Town last November was an appropriate venue at which to remind each Consultative Party of what the liability regime would be like. In this context, we are looking forward to making further progress toward frameworking an appropriate liability instrument for the environmental protection of Antarctica at this XXII Meeting with our colleagues under the chairmanship of Dr. Rudiger Wolfrum from Germany.

Finally, our delegation would like to thank the Government of Norway for organizing this XXII Meeting. We also wish to express our sincere appreciation for the warm hospitality of the people in Tromsø. Our delegation hopes that there will be fruitful discussions toward the post Madrid Protocol era.

Opening Address by the Head of the Delegation of the Republic of Korea

Mr. Chairman,

On behalf of the delegation of the Republic of Korea, I would like to congratulate you on your election as Chairman of the XXII Antarctic Treaty Consultative Meeting. I firmly believe that this meeting will bear constructive and fruitful result under your chairmanship. I would also like to express my gratitude to the Government of Norway for hosting this Consultative Meeting here in Tromsø and for its excellent preparations.

Mr. Chairman,

I am pleased to note that this year, 1998, will be remembered as a historic year in the Antarctic Treaty system. The entry into force of the Protocol on Environmental Protection to the Antarctic Treaty as of 14 January 1998, followed by the establishment of the Committee on Environmental Protection(CEP), has put to a higher orbit the environmental protection regime of the Antarctic. Although the establishment of the CEP is the most tangible progress in our endeavours to strengthen the Antarctic Treaty System, my delegation believes, due consideration should be given to the point that the responsibilities of the CEP should be discharged in a manner not to restrict the essential scientific activities in the Antarctic. My delegation would also like to share the views of other Consultative Parties that the timely establishment of domestic implementation laws will be essential to the effective functioning of the Madrid Protocol. The development of a liability regime is an urgent task for Consultative Parties to ensure further protection of the Antarctic environment. The Korean delegation notes with satisfaction that sustained efforts among Consultative Parties to identify and narrow down the differences for the finalization of the draft Annex on Environmental Liability to the Protocol

will bear fruit in the future. Taking note of this, my delegation commends the excellent work done by Professor Rudiger Wolfrum from Germany and the members of the Experts Group.

Mr. Chairman,

Another important issue facing this meeting is the early establishment of a permanent Secretariat which is essential to the proper functioning of the Madrid Protocol. Despite the unresolved issue of the location of such a Secretariat, all Consultative Parties generally agree on the need for an efficient and cost-effective Secretariat. Given the entry into force of the Madrid Protocol early January of this year and the establishment of the CEP under the Protocol, it is of vital importance that the Secretariat is in place as soon as possible. Renewed constructive and pragmatic efforts with the spirit of cooperation and compromise are needed to reach a consensus decision on the location of the Secretariat. In this connection, the Government of the Republic of Korea will continue to work in cooperation with other Consultative Parties in order that a compromise on this issue can be sorted out in the near future.

Mr. Chairman,

The commitment of the Republic of Korea to the Antarctic Treaty system has been remained through its active participation in ATCM's efforts for the promotion of the protection of the Antarctic environment as well as its scientific research activities in Antarctica since the establishment of King Sejong Station on King George Island in 1988. I would like to take this opportunity to report on some of our recent scientific activities conducted jointly with other countries. During the 1997/1998, a glaciological survey was conducted with Uruguay on Livingstone Island and the South Shetland Islands. Also a geological survey in the Hurd Peninsula on Livingstone Island was conducted jointly with Bulgaria.

Let me in conclusion, Mr. Chairman, assure you my delegation's commitment to ensuring the success of this meeting under your able guidance.

Thank you.

Opening Address by Mr. Jan Peter Bosman, Head of the Delegation of the Netherlands

Mr. Chairman,

The emperor, Charles V, ruled over an empire in which the sun never set. You preside over an Antarctic Treaty Consultative Meeting in the course of which the sun will not set. As the ATCMs before 1994 in Kyoto used to be held in the autumn, this is very likely to be the first ATCM over which the sun will keep shining. This may or may not qualify for the Guinness Book of Records, but if we take it as an omen, it must be a good one. We shall all have plenty of time to look on the sunny side.

The above is not, of course, the only way in which this is a special ATCM. It is also the first ATCM since the Protocol on Environmental Protection to the Antarctic Treaty has entered into force, and therefore the first ATCM to be preceded by a meeting of the Committee for Environmental Protection. I am happy to be able to tell you that the Netherlands implementation legislation for the Protocol has become law as well. This has enabled our Foreign Office's legal department to start working on a document specifying the Netherlands' acceptance of

previous Recommendations, which will be sent to the Depositary in the not too distant future. We have prepared three Information Papers about our Protection of Antarctica Act, one of which is an English translation of the Act itself. We expect this will contribute to other countries' insight into the way in which we have implemented the Protocol, and we hope other countries will contribute to our insight by providing similar documents.

This is, moreover, the first ATCM that will itself go into the substance of the negotiations on the rules and procedures relating to liability for damage arising from activities taking place in the Antarctic Treaty area and covered by the Protocol. Seven key issues, and key issues they are indeed, wait to be decided upon by us. Seven tough nuts to crack. May we have a go at them in a spirit of compromise, for we shall only be able to crack them if we try and do so together.

In most ways, however, this is not a first ATCM but very much the twenty-second, in which, as always, we shall be building upon the results reached in previous meetings. Compliance with the Protocol, Emergency Response Action, Tourism and NGO Activities, Education Issues - we have discussed these and other items on our agenda before and they are well worth being discussed again. I am certain, Mr. Chairman, that under your chairmanship we shall make progress on many issues.

I hope that among such issues there will also be the problem that just will not go away, the problem that has dogged our meetings since 1992. I am, as you will all have guessed, referring to the Secretariat. If only we could see the end of intransigence on this matter, it would be easy to take a decision. After all, no ATCM ever had a better opportunity to make hay while the sun shines.

Thank you, Mr. Chairman.

Opening Address by the Head of the New Zealand Delegation

Mr Chairman

New Zealand celebrates the historic and landmark occasion of the inaugural meeting of the Committee of Environmental Protection where work will begin to bring the Environmental protocol regime into effect. The CEP must remain a practical and realistic instrument for the protection of Antarctica. A key task for us in Tromsø is to ensure that the Committee gets off to a strong and purposeful start to enable significant progress to be made on the environmental management regime envisaged by the Environmental Protocol. We need to consider and define the responsibilities and a possible work-programme for the CEP. New Zealand views the Committee as the ATCM's scientific, environmental and technical advisory body on the Protocol.

We hope that ATCP will work on the priority areas identified by ATCM XXI for the CEP's work. New Zealand considers the work on a comprehensive State of the Antarctic Environment Report as one such priority. Progress on standardising Environmental Impact Assessment is another. We also want to see much greater use of the Antarctic Specially Managed Area concept to develop our management of particularly sensitive parts of Antarctica. New Zealand has begun work on a Ross Sea Region State of the Environment Report and is cur-

rently considering the feasibility of developing a Antarctic Specially Managed Area for the region. Both initiatives should go some way in achieving that objective.

We look forward to continuing our progress at Tromsø on the elaboration of the Liability Annex to the Protocol. This is a key area of unfinished business. We hope that it will not be long before we can embark on formal negotiation of this Annex with the participation of observers and interested groups.

The qualities of foresight, leadership and commitment that have produced the successes of the Treaty's first four decades will be required if the System is to remain an innovative and dynamic means of governance for Antarctica in the twenty-first century. The world is changing rapidly. New perspectives and agendas are developing in the environmental area as nations address the challenge of sustainably managing the world's resources. The Antarctic Treaty has been innovative in the past in this area. We are confident that it can continue to provide strong environmental leadership in the future.

We must begin to look beyond the Protocol and consider the next generation of key issues for Antarctica. Parties will also consider at Tromsø how best to further the development of the Antarctic Treaty System. We need to do more work on marine ecosystem management. Of vital importance to us all is the need for solutions to be found to the increasing problem of illegal and unregulated fishing which is taking in CCAMLR waters around Antarctica. The growth of tourism and adventure activities, the rapid development of civilian air activities and increasing educational usages, are among the many new challenges that the Treaty faces.

We cannot necessarily resolve all these problems ourselves. We should look to involve other nations in the work of the Treaty System, broadening its membership to reflect better the dynamic world in which we live. For its part, New Zealand will continue to develop an Antarctic dimension to its relationship with its friends and partners in the Asia/Pacific region.

We would like other Parties to take a proactive approach and encourage wider subscription to the Treaty. We feel also that it is timely to consider our current approach to Consultative status. The changing nature and dynamics of the Treaty System and the growing international recognition of the critical significance of Antarctica in global processes suggest the need for a new interpretation of what constitutes commitment to our common cause of protecting and managing Antarctica.

We will be taking another the opportunity for developing a strategic focus and sharing ideas on the problems, challenges and opportunities facing the Treaty System. We will shortly be extending an invitation to all Consultative Parties for a Ministerial meeting on the ice in early 1999. The purpose of this meeting is:

- to mark the 40th anniversary of the Antarctic Treaty;
- to highlight the value of the Antarctic Treaty System;
- to showcase international collaboration on the ice; and,
- to provide an opportunity for ATCP Ministers to discuss some of the challenges affecting management of Antarctica in the Environmental Protocol era.

We hope that each of your respective Ministers will take up this opportunity which intended to be seen as an example of New Zealand's commitment to Antarctica.

Mr Chairman

As a Southern Hemisphere Antarctic Gateway country New Zealand has a special affinity with Antarctica. We will remain committed to working with our neighbours and friends to ensure that it continues to be a continent devoted to peace and science.

Opening statement by Ambassador Dagfinn Stenseth, Advisor on Arctic and Antarctic affairs, Royal Ministry of Foreign Affairs, Norway

Mr. Chairman,

In congratulating you on your election to the chair of the XXII Antarctic Treaty Consultative Meeting, I would in my capacity as Norwegian Representative also warmly welcome all colleagues to Tromsø which has the honour to host the first ATCM to be held north of the Arctic Circle. I trust that our deliberations on Antarctic issues in an Arctic setting will contribute to a fuller understanding of the relevance of Arctic and Antarctic developments - to the further recognition of the global importance of both polar regions.

The Tromsø meeting is the first ATCM after the Protocol for Environmental Protection to the Antarctic Treaty entered into force on 14th January 1998. Tromsø is also the venue for the inaugural meeting of the Committee on Environmental Protection. The XXII ATCM marks indeed a major new development of the Antarctic Treaty System.

The first priority now before us is to ensure the full and efficient implementation of the Protocol. We should see to it that the Committee on Environmental Protection is off to a good start and from its very beginning able to focus on the substantial issues on which the ATCM will need its expert advice. It is essential that there should be clarity on the place and role of the committee both within the ATCM and with regard to SCAR, COMNAP and CCAMLR.

We would very much like the XXII ATCM to mark progress in important areas such as environmental monitoring, environmental impact assessment, emergency response action, protected areas, exchange of scientific data as well as in securing an adequate role for consultative parties in the further development of the Polar Code of navigation now underway in IMO.

In particular the XXII ATCM should make progress on the complex question of developing a liability regime for environmental damage. Taking note of the work done by the Group of Legal Experts under the able chairmanship of Professor Wolfrum we should now look for constructive and pragmatic ways to bring this work towards its completion within a reasonable time frame.

Now as before, the Norwegian delegation is convinced of the need for a permanent Secretariat in support of Antarctic Treaty Consultative Meetings. The coming into force of the Environmental Protocol and the establishment of the Environmental Committee only accentuate this need. It is time that we resolve this question as we now approach the 40th anniversary of the signing of the Antarctic Treaty.

Norway is firmly committed to the aims and principles of the Antarctic Treaty. We are convinced of the undiminished importance of Antarctic co-operation. We believe that Antarctic co-operation deserves greater attention from our public. We would like to see increasing

transparency of the work undertaken within the Antarctic Treaty System and would like the ATCM to devote more attention to the spreading of information about the Antarctic Treaty and about activities within the Treaty System.

Opening Address by the Head of the Delegation of Peru

Distinguished Chairman of the XXII ATCM:

On behalf of the Peruvian delegation, allow me to express our satisfaction and to congratulate you on your election as Chairman of this meeting, a task for which you are exceptionally qualified. Also, Mr. Chairman, I wish to convey through you our special appreciation to the Government of Norway for its warm hospitality and excellent arrangements for this meeting.

Peru, a Consultative Party for the last ten years, has just concluded its ninth Antarctic expedition. These nine expeditions, the increased activity in our Macchu Picchu station, our scientific research and work, the support provided by our research vessel "Humboldt," as well as the reports we have submitted to this meeting, show Peru's active adherence to the Antarctic Treaty, its principles and goals.

The scientific, technological, and logistic cooperation agreements we have entered into with other Consultative Parties — most recently with India and Uruguay — also show our willingness to increase our cooperation with the Parties to achieve common goals.

A country such as Peru, where present and future welfare and prosperity are linked to an environment which is largely influenced by Antarctica, is excited and honored by the prospect of hosting the XXIII Antarctic Treaty Consultative Meeting next year.

Ours is perhaps a unique country, encompassing three different longitudinal regions with their own and distinct ecosystems: a 3,000-km long coast, mostly deserted, on the Pacific Ocean, whose potential and resources — closely related to Antarctica — we strive to preserve together with our partners in the South Pacific Commission; the Andes mountain region, known for its harsh weather, guarded by rock and ice giants up to 6,000 meters high; and the Peruvian Amazonian region, crossed by the longest river in the world, which is part of the greater Amazon — the world's lungs — and whose preservation is a responsibility we share with our partners in the Amazonian Cooperation Treaty.

This diverse and complex territory is a melting pot of peoples and cultures — native American, European, Asian, and African — inspired by the ideals of unity and greatness of the Inca Empire, which encompassed an area now divided among six Latin American countries, and rooted in the Andes. Reemerging in the icy Antarctic waters after plunging in the depths at the Southern tip of the hemisphere, this magnificent mountain range gives momentum and a community spirit to the Andean Integration Agreement, headquartered in Peru, a founding member.

On this soil, Latin America has chosen its destiny on many occasions and forever sealed its independence with the contribution of all of its peoples. Like other developing countries, Peru faces today the challenge of building a more modern, egalitarian, and participative society, defeating poverty not only through development, but also through justice.

The celebration during the XXIII ATCM of the 40th anniversary of the Antarctic Treaty and the 10th anniversary of our status of Consultative Party will provide an opportunity to pride ourselves on the success of a Treaty which over four decades has proved to be a fully effective tool to respond to recurring political, legal, and technical challenges and has become a living, continually evolving legal system which, in essence, has already fulfilled its mission.

Against this background of successful results, the lack of a Permanent Secretariat stands out. Today, more than ever, we must strive to achieve the right balance in the location and composition of the Secretariat, a position that Peru has maintained and wishes to reiterate today with the same firmness and solidarity.

This will help us find ways and means to respond to emergencies and to protect Antarctica against environmental damage through the application of the relevant liability provisions. In addition, it will allow us to achieve the key objectives of the Madrid Protocol, which we are beginning to implement.

The conclusion of these tasks will be our best tribute to the commendable work carried out jointly by the Consultative Parties over almost half a century to achieve the historical objective of the 1959 Treaty, to wit, to turn Antarctica into an unpolluted and peaceful area where scientific cooperation takes place harmoniously for the benefit of mankind.

Opening statement by Mr. Andrzej Makarewicz, Head of the Delegation of Poland

Mr. Chairman,

It gives me a great pleasure to congratulate you, Sir, on your election as Chairman of the XXII Antarctic Treaty Consultative Meeting (ATCM) and I would like to assure you of the fullest support of the Polish Delegation. We are convinced that your skill and experience will contribute to the success of our deliberation.

We would also like to offer our special thanks to the Government of Norway for hosting this Meeting and for providing as with such excellent working conditions we are enjoying here. We have special reasons to be satisfied with the choice of the county and site of our Meeting. Not far away from here, at Hornsund on Spitsbergen, since forty years a Polish research station has been operated. Its existence and operation are the result of a close and effective scientific cooperation between Poland and Norway, which we highly appreciate. Our exchange of views on crucial Antarctic issues, just here in the Arctic, assumes a symbolic dimension. We are deeply convinced that this very special location of our Meeting will have a beneficial effect on the discussion of our agenda item concerning the relevance of developments in the Arctic and the Antarctic.

Poland, a country situated in the Northern Hemisphere and active member of IASC and SCAR was for years deeply involved in investigations in both Polar Regions. Consequently, it has always attached great importance to that relevance in all its aspects, not only scientific and logistic. We welcome, therefore, any measures facilitating interaction concerning scientific activities in the Arctic and Antarctic. Thus, we look forward with keen interest and expectation to the forthcoming Ministerial Meeting of the Arctic Council to be held next September in Canada.

Mr. Chairman,

The agenda we have set for ourselves demonstrates that our work will never be complete. But our increasing activity has its priorities on which I would like to concentrate in this opening statement, leaving room to the detailed considerations of the subsequent agenda items before us.

For many years, but in particular since the signing of the Madrid Protocol in 1991, the focal point of most discussions held at our Meeting was the protection of the Antarctic environment in its wide perspective. Practically, all of our agenda items are in one or another way linked with that crucial matter. The prompt adoption of Rules of Procedure for the Committee for Environmental Protection will not only bring us closer to its inaugural meeting, but it will provide us with an effective instrument of compliance with the Protocol on Environmental Protection. Thus, the Polish Delegation will lend its support to the submitted Final Draft Rules of Procedure.

But, we can hardly imagine any effective environmental legal regime in Antarctica without clear rules and procedures relating to liability for damage arising from activities within the Treaty Area. Reserving the right to further, more detailed comments on the submitted Report (XXII ATCM/WP 1, April 1998), the Polish Delegation would like to express its appreciation and to extend congratulations on the work done so far by the group of Legal Experts elaborating an annex or annexes on liability for environmental damage in Antarctica.

The recent accidental events demonstrate the fragile nature of the Antarctic ecosystem. They also confirm the importance and urgency of measures to be adopted for the protection of the Antarctic environment. Our agenda shows that there is virtually no area of cooperation in Antarctica that does not involve that crucial matter. The Polish Delegation welcomes any new initiatives expanding environmental protection within the framework of the Antarctic Treaty System.

Mr Chairman,

The agenda before us contains a number of extremely important issues whose solution may have a crucial impact on the future functioning of the nearly forty years old Antarctic Treaty System. We welcome its expanding cooperation with international governmental and non-governmental organisations concerned with the global and comprehensive improvement of the world environment, the important part of which is Antarctica, often called "nature reserve and land of science".

Our Meeting is taking place at a time when there are growing universal dangers like climate change, the depletion of the ozone layer, pollution of the oceans contiguous to Antarctica and many other. At this juncture I have to emphasize the importance of our contribution to the relevant international research projects such as Global Change and others.

May I now turn to the investigations carried out in Antarctica which are covered by more items of our agenda than the one entitled "(15) Science Issues". Next January Poland will mark the 40-th anniversary of the inauguration of the Dobrowolski Station, its first research base established in Antarctica. For more than twenty years the Polish Academy of Sciences has been operating a permanent year round Arctowski Station on King George Island. Last

November, the 22-nd Polish Antarctic Expedition has started to overhaul that Station. To us environmental concern is not just an empty slogan - it is basic to all our actions in Antarctica. I wish to emphasize that the undergoing modernisation of our Arctowski Station is aimed among other at its adaptation to the environmental requirements set up in the rules and regulations of the Antarctic Treaty System.

Mr Chairman,

The Delegation of Poland cannot conclude without congratulating the Belgian Delegation on the Centennial of the "Belgica" expedition (1837-1899) which occupies an exceptional place in the history of Antarctic exploration. Besides its innovative multinational composition, it was the first Antarctic expedition of a purely scientific nature and was also the first to spend winter in Antarctica. To the Polish people that expedition was of particular importance due to the participation in it of two of our prominent countrymen Professors Henryk Arctowski and Antoni Boleslaw Dobrowolski, whose names bear now our research Stations in Antarctica.

In conclusion, Mr Chairman, allow me to assure you that the Polish Delegation is willing to render a constructive contribution to our debates and decisions. Having acceded the Antarctic Treaty in 1961 and to its Consultative status in 1977, Poland was always determined to pursue its activities with a view to strengthen the Antarctic Treaty System in order to meet its objectives which are of utmost importance to our planet and to the mankind. Acting in that spirit, we are willing to make this Meeting a real success by cooperating in a constructive manner with participating Contracting Parties.

Opening Address by 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 XXII Antarctic Treaty Consultative Meeting and through you express our gratitude to the Norwegian Government for the opportunity to meet in this beautiful Arctic city of Tromsø and discuss the issues of operations and collaboration in far away Antarctica.

Basic principles of the Antarctic Treaty proclaimed almost forty years ago remain the fundamental elements of the international legal regime in the South Pole region of our planet which guarantees future successful cooperation for the benefit of our countries and humanity. Based on research conducted in Antarctica, we can say that the Antarctic plays a vital role in understanding many aspects of environmental processes not only in the Southern, but also Northern Hemisphere. Established as a priority research and international cooperation area under the 1959 Antarctic Treaty, the cold Antarctic has become a carrier of warm and sincere traditions of mutual understanding, partnership, mutual assistance and non-politicised relations.

The history of the Antarctic Treaty has had many brilliant pages which reflect joint efforts of the Parties aimed at preserving the pristine purity of Antarctic nature. The most recent of these pages is signature of the 1991 Madrid Protocol on Environmental Protection to the Antarctic Treaty.

Fully recognising the significance of the Protocol for strengthening and efficiency improvement of the Antarctic Treaty System, the Russian Party consistently implemented a set of environmental protection activities at its Antarctic stations and seasonal field bases even before the formal effectiveness of the Protocol using both its own resources and international cooperation.

Now that the Protocol has entered into force all states should double their efforts in order to preserve the unique Antarctic nature for future generations. At the same time, we should not forget that over the years of human activity in Antarctica the continent has become a huge research laboratory which is also working for the benefit of mankind. Therefore, environmental protection in the Antarctic should not impair scientific investigation in that area whose freedom was proclaimed by the Antarctic Treaty.

Russia continues to support the earliest possible establishment of the Antarctic Treaty Secretariat which will undoubtedly ensure a considerable coordination of actions taken by the Treaty Parties on various operational aspects (primarily, on the operation of structures envisaged by the Protocol), a better awareness of the international community of measures implemented in the Antarctic for the conservation of its unique ecosystem, and a quicker exchange of information between the Parties.

The last ATCMs conducted heated discussions of issues such as tourism and non-governmental activity in the Antarctic. It is clear that the problem will be among the priorities for this Meeting. Therefore, we would like to note that Russia does not organise tourist trips to the Antarctic and that the Russian Antarctic Expedition has no direct tourism project support contacts. At the same time, pursuant to the Madrid Protocol the Russian Antarctic stations have prepared rules for tourists visiting station facilities and rules regulating access to specially protected areas. Besides, pursuant to the Procedures for Consideration and Issue of Permits to Legal Entities and Individuals to Conduct Activity in the Antarctic Treaty Area to be approved by the Government of the Russian Federation and already implemented by Governmental agencies, all Russian ships leased by foreign tour operators for cruises in the Antarctic Area shall obtain such permits as from 1998.

The National Antarctic Expeditions are the most active operators of the Antarctic Treaty Parties. It is them who have to do major work related to the implementation and monitoring of basic provisions of the Protocol, contacts with tourists and other organisational issues which inevitably arise in the course of research programmes and logistic operations.

The Delegation of the Russian Federation would like to express its willingness to actively cooperate with the other ATCM Delegations, come to mutual understanding and constructive decisions on all issues under consideration.

Opening Address by Dr F Hanekom, Head of the Delegation of the Republic of South Africa

Mr Chairman,

On behalf of the Delegation of the Republic of South Africa, I would like to thank the government of Norway for hosting the XXIIInd ATCM in this beautiful city of Tromsø.

During the inter-sessional period my country was honoured to host a meeting of the legal experts group on liability from 17 to 21 November 1997 in Cape Town. This group was called upon to prepare a written report on the work undertaken to elaborate an annex or annexes on liability for damage to the Antarctic environment. My delegation is of the opinion that the report prepared and submitted as a working paper to this ATCM sufficiently reflects the discussions conducted and the results achieved thus far and identifies the outstanding problems and different alternatives and approaches that would enable the ATCM to provide further direction and guidance on this important issue.

It is the view of my delegation that there can no longer be any doubt as to the importance of providing a mechanism that would help to ensure the comprehensive protection of that uniquely fragile yet hostile Antarctic environment. At the same time we must also ensure that such a regime does not become an impediment to the conduct of scientific investigation and international co-operation allowed for and encouraged by the Antarctic Treaty and aimed at a better understanding of the Antarctic environment and dependent and associated ecosystems. These are complex issues which present enormous challenges and which call for innovative thinking and progressive development of rules and procedures.

It is our hope that this matter can be brought to a successful conclusion in the near future.

Mr Chairman,

We believe that the entry into force of the Madrid Protocol on 14 January 1998 and the establishment of the Committee on Environmental Protection heralded a new phase in the operation of the Antarctic Treaty System. Despite the many new challenges laying ahead and the need for providing assistance to the ATCM and the CEP in performing their functions we note with concern the intransigence over the establishment of an Antarctic Treaty Secretariat. My delegation, like many other delegations would like to see an early resolution of this matter and we are willing to work with delegations in considering other options and alternatives towards finding a solution to this long standing impasse.

Mr Chairman,

My delegation welcomes the initiative contained in Resolution 1 (1997), adopted at ATCM XXI, which calls on Consultative Parties who do not have contingency plans in place for their research stations and vessels operating in Antarctica to take the necessary steps towards the development of such plans and to carry out contingency exercises. Based on the submission of documentation to this meeting, the development of contingency plans is still a matter of concern. It is our view that serious thought should be given to these concepts and that Consultative Parties should be encouraged to make every effort to expedite this process.

In addition, my delegation supports the proposal to review the issue of emergency response action in view of the objectives contained in Article 15 of the Protocol and to further elaborate on the obligations imposed on Consultative Parties in this regard. The idea of conducting a risk assessment of activities in Antarctica would be helpful towards proper planning and to address some of the most pressing needs in Antarctica.

As a gateway country, we also realise the necessity of developing Regional Contingency Plans, and in this vein, South Africa is interested in becoming involved in developing plans

with counterparts working in the same region, bearing in mind the limited number of ships operating in our area of interest and that effective responses might be dependant on support from vessels and stations in the area.

We assure you, once again, of South Africa's commitment to the high ideals of the Antarctic Treaty and our whole-hearted support within a spirit of cooperation and consensus.

Opening Address by the Head of the Spanish Delegation

Mr. Chairman,

Let me begin by congratulating you on your election as chairman of the XXII Antarctic Treaty Consultative Meeting. Likewise, I would like to express my gratitude to the Norwegian authorities for their warm welcome here in Tromsø.

The entry into force, on January 14, 1998, of the Madrid Protocol, is a special highlight as it entails a conclusive development of the Antarctic System.

Spain firmly joins in the common endeavor consisting of implementing the purpose of the Protocol, i.e., a global protection of the Antarctic environment and its dependent and associated ecosystems. The establishment of the Committee for Environmental Protection will be instrumental to reach this goal.

The development of rules and procedures relating to damages caused by activities taking place in the Antarctic Treaty area and covered by the Madrid Protocol is critical if a real environmental protection is to be achieved. The task carried out by the ATCP Group of Legal Experts will certainly provide for a much easier path towards reaching an agreement.

As the Protocol for the Environmental Protection enters into force, the need for a permanent Secretariat of the Antarctic Treaty System becomes ever more obvious. As such, it would be highly desirable to finally reach a consensus so that Buenos Aires may become the seat of our organization.

In 1998 we celebrate the tenth anniversary of Spain becoming a consultative member of the Antarctic Treaty. Over that period, our country has become ever more interested in Antarctica.

The Spanish research activities in Antarctica have increased, and the growing importance of scientific and logistics cooperation with the Antarctic programs of other Parties is worth mentioning.

Mr. Chairman, the Spanish Delegation fully trusts that the paramount goals set forth for the XXII Antarctic Treaty Consultative Meeting will come to a positive end. In this vein, Spain offers its full cooperation.

Opening Statement by Ambassador Wanja Tornberg, Head of the Swedish Delegation

Mr Chairman,

On behalf of the Delegation of Sweden I wish to thank the Government of Norway for hosting the ATCM in the beautiful city of Tromsø. Under your experienced chairmanship we look forward to a constructive and fruitful Meeting.

Sweden welcomes the introduction of a WEB-side and use of electronic means to distribute ATCM documents, and congratulates Norway on the efficient way in which documents and information have been put on the WEB.

The recent entry into force of the Madrid Protocol makes this Meeting particularly important. The first meeting of the CEP was convened last week and some important progress was achieved on EIA, Protected Areas and the State of the Antarctic Environment Report. This means that the work of the CEP should lead to early results and suggestions for further actions on these issues. It is, however important that the CEP also gives attention to the "peer review" of the "Draft Comprehensive Environmental Evaluation" which is an important task for CEP.

A Secretariat is essential to ensure an effective functioning of the Antarctic Treaty System and of the Protocol in particular. Sweden believes that, considering the delay in establishing a secretariat, some kind of interim secretarial services are needed.

Now that the Protocol on Environmental Protection has entered into force we need to ensure that Article 16 of the Protocol is implemented. Therefore the "Liability Process" should be lifted to involve diplomats and policy-makers, not only legal experts. Sweden believes that real negotiations on the Liability Annex should commence in connection with ATCM XXII.

Concluding we should like to reiterate our pleasure to be here in Tromsø and to work with you for the success of the meeting.

Opening Address by Mrs. Evelyne Gerber, Head of the Swiss Delegation

Mr. Chairman,

Allow me first of all to congratulate you on your election as Chairman of the XXII Antarctic Treaty Consultative Meeting. The Swiss Delegation is confident that the discussions of this Meeting will be fruitful under your leadership. The Swiss Delegation also wishes to heartfully thank the Norwegian authorities for the warm welcome of all participants in this beautiful city of Tromsø which we are discovering.

Like others, the Swiss Delegation is highly pleased by the entry into force of the Protocol on Environmental Protection to the Antarctic Treaty. Now that this Protocol has entered into force, those Member States which only have a Contracting Status may also envisage to ratify this instrument. Switzerland will cautiously examine such possibility, even more so since the Swiss Delegation in Madrid was actively engaged in preparing the corresponding text, inasmuch as it was allowed to do so.

The Swiss Delegation is concerned by the extremely slow procedure that should take us to a Liability Annex for damage to the Antarctic environment. We hope that these negotiations will soon lead to a simple text emphasizing the classical principle regarding the international liability of States.

Once again, Switzerland will take part in the XXII Consultative Meeting sessions as an observer. The nonconsultative Party status, however, does not prevent us from having an active role on the Sixth Continent where 2 groups of scientists are carrying out leading edge activities. The first group works in close cooperation with New Zealand scientists, within the framework of the Joint Swiss and New Zealand Declaration on Antarctic Cooperation, adopted on March 30, 1995. The second group is working, together with 11 countries of the European Union, on the EPICA (European Project of Ice Core in Antarctica) project, the terms of reference of which have just been extended for five years.

To conclude, Mr. Chairman, the Swiss Delegation wishes the work of the XXII Consultative Meeting will be highly successful.

Opening Address of the Delegation of Ukraine

Mr. Chairman,

It is a great honour for me to extend greetings from the Ukrainian Government at the XXII Antarctic Treaty Consultative Meeting. I am also especially delighted to congratulate you on your election as Chairman of the Meeting and, through you, thank the Government of Norway for the opportunity to meet in the beautiful northern Tromsø and discuss the issues of practical activities and co-operation in faraway Antarctica.

Ukraine as a contracting Party fully realizes that basic principles of the Antarctic Treaty guarantee successful co-operation for the benefit of many countries and international scientific community. It is well known that the Antarctica region plays a major role in understanding many aspects of global natural phenomena. Ukrainian scientists always participated in scientific research in this region and continue to do it at present being an operator in Antarctic since 1996. The Ukrainian Antarctic station "Akademik Vernadsky" (former British station Faraday which was kindly provided to Ukraine by the Government of Her Majesty the Queen of Great Britain and Northern Ireland) and national scientific potential open the opportunity not only to conduct research in various fields of natural sciences, but also integrate in wide international activities on environmental protection. The Ukrainian Antarctic Center as an agency responsible for implementation of the State Programme of Antarctic Research undertakes all necessary efforts to achieve high level of national infrastructure in Antarctic and its logistic support in spite of unfavourable economic situation in the country.

The 1998 Protocol on Environmental Protection has become one of the most significant elements of the Antarctic Treaty System. Ukraine will support all measures aimed at the conservation of the unique Antarctic nature and abide the necessary practical rules of work in this region.

The Ukrainian delegation, following sincere traditions of understanding, partnership, mutual assistance and depolitisation, would like to express its willingness to actively co-operate with other ATCM delegations in order to obtain constructive results in all issues under consideration.

Thank you, Mr. Chairman.

Opening Address by the Head of the Delegation of Uruguay

Mr. Chairman:

On behalf of the Delegation of Uruguay I want to thank you for the warm and cordial hospitality which has been shown to us by the people and authorities of the city of Tromsø. I would also like to take this opportunity to congratulate you and, through you, the Government of the Kingdom of Norway, for the excellent arrangements that have been made to facilitate our work.

We have ahead of us two weeks of intensive work which will be merely an approximation to the many complex issues arising from the presence of all our countries in Antarctica. Bigger steps will be required to safeguard Antarctica for future generations.

Uruguay understands that the conservation of the Antarctic environment is of utmost importance due not only to its intrinsic values and its significance to science, but also because my country's geographical proximity to Antarctica is in many ways a major factor. In this context, we are pleased with the recent entry into force of the Madrid Protocol, to which Uruguay has long adhered in all of its Antarctic activities. Although the entry into force of the Protocol may appear to be a merely formal step, we are faced with the challenge of ensuring the effective and sound protection of Antarctica.

We believe environmental protection can be reconciled with peace and science — the aims of our presence on the seventh continent. To this end, we understand that international scientific cooperation is one of the principles enshrined in the Treaty and should not be weakened.

Antarctica is an area where reality takes precedence over theory. It is therefore essential to achieve consensus on a Liability Annex which will take such reality into consideration. This Consultative Meeting should now reflect on the scope of the instrument we want, bearing in mind its potential impact on scientific cooperation and Antarctic science. A study of this issue so far has only shown its complexity, different alternatives, and different legal interpretations. We believe it is time to adopt a practical and realistic approach, free from visions which perhaps could apply to other parts of the world, leading to a liability regime which will not limit scientific pursuits and related logistic activities. Additionally, we understand that these activities should be addressed specifically and receive special treatment, because science is the main reason for our countries' presence in the area. These activities are financed and carried out with great effort by individual States, but they benefit mankind as a whole.

As was communicated in due time, Uruguay has extended its activities to the Antarctic Peninsula, as a result of the transfer by the Government of the United Kingdom of Great Britain and Northern Ireland, on December 10, 1997, of a facility which has been transformed into the T/N Ruperto Elichiribehety scientific station, named after the Antarctic pioneer who at the beginning of this century showed the early interest of our country in this region.

Our country has started this new stage with close scientific cooperation as its primary goal, in order to protect with maximum efficiency the Antarctic areas which receive the largest permanent and seasonal human load. For this reason, we attribute great importance to the development of joint emergency response plans, in accordance with Article 15 of the Madrid Proto-

col. Uruguay will focus its efforts in the Antarctic Peninsula on the joint development of plans aimed at protecting the environment through prevention.

We firmly believe that a Permanent Treaty Secretariat is necessary. If established, it will allow the System to operate better. At the same time, we are convinced that we must find an adequate balance in the location of Antarctic institutions. Since the XIX ATCM, our country has supported the proposal to headquarter this body in Latin America, specifically in Buenos Aires.

To conclude, Mr. Chairman, we cannot think of an Antarctic System without the ongoing support of SCAR and COMNAP, which contribute their experiences to improve our understanding of the challenges we face in our Antarctic activities.

Thank you.

Opening Address by Mr. R. Tucker Scully, Head of Delegation of the United States of America

Mr. Chairman,

I take this opportunity to congratulate you on your election to the Chair of this meeting. It is a great pleasure to see you, who have contributed so much to the Antarctic Treaty System, once again guiding our work.

On behalf of my delegation, I want to thank the Government of Norway and the Municipality of Tromsø for the warm hospitality which has been shown to us during this XXIIInd Antarctic Treaty Consultative Meeting.

As representative of the Depositary Government, it is with great pleasure that I report that the Protocol on Environmental Protection together with Annexes I through IV entered into force on 14 January 1998. We, the Parties to the Treaty, must now redouble our effort to ensure the effectiveness of the Protocol by encouraging all Parties to approve Recommendation XVI-10 containing Annex V, thus allowing this Annex to enter into force. We must encourage additional Parties, and especially those from whose territory expeditions are organized or proceed to Antarctica, to ratify or accede to the Protocol. Looking ahead, we must now turn our efforts from the negotiation of text of the Protocol to the implementation of the text to which we all agreed. My delegation looks forward to working with others to this end.

We welcome the establishment of the Committee for Environmental Protection to provide advice and formulate recommendations to the Parties for consideration at Consultative Meetings. We are pleased to nominate Dr. Olav Orheim as Chairman of the Committee. Dr. Orheim has the breadth of knowledge and experience to meet the challenge of guiding the CEP in its founding years. He chaired the Transitional Environmental Working Group and has long experience with the Antarctic Treaty System, having participated in the negotiation of the Protocol.

Mr. Chairman, I would like to take this opportunity to renew our continued support for the establishment in Buenos Aires of a modest, cost-effective Secretariat to assist the work of the Antarctic Treaty System.

I also note that we need to give direction to our work on the issue of liability. The Group of Experts on liability has prepared a report setting forth options for our future work and has identified key issues to be addressed by the Consultative Parties. The ATCM will need to consider practical alternatives for this future work. For our part, the United States has put forward a draft for a first annex on liability which we believe constitutes the best approach for achieving concrete progress on this important issue.

Mr. Chairman, I wish to take this opportunity to thank the Government of Norway for the initiative it has shown in starting the process of establishing a system for the distribution of conference documents by electronic means. We found it very helpful to be able to find and read documents through the web site which the Norwegian Government established. We are convinced – though we understand the limits of this technological revolution - that electronic exchange of information will help us to manage our work. We believe that the electronic posting of documents will make information more readily available not only to the Parties, but to the public in general, thus promoting a better understanding of, and appreciation for, the Antarctic Treaty System.

In conclusion, I want to thank again our Norwegian hosts who have arranged for us to meet in this fine Polar Circle environment which Tromsø has offered us.

Thank you very much.

Annex E
Report of the Committee
for Environmental Protection

**REPORT OF THE MEETING OF THE COMMITTEE FOR ENVIRONMENTAL PROTECTION,
TROMSØ, 25 - 29 MAY 1998**

Item 1 Rules of Procedure

(1) In accordance with paragraph 159 of the Final Report of the ATCM XXI, the draft CEP Rules of Procedure were discussed and adopted under the "Temporary Chair", provided by Norway, Prof. Olav Orheim. The Rules of Procedure are reproduced in Decision 2 (1998). (Annex 1⁴)

Item 2 Election of Officers

(2) Prof. Olav Orheim (Norway) was elected chairperson. Prof. Jorge Berguño (Chile) and Ms. Gillian Wratt (New Zealand) were elected as First and Second Vice Chairs respectively. In accordance with Rule 15 of the Rules of Procedure, Prof. Orheim was elected for a period of two years and Prof. Berguño and Ms. Wratt were elected for one-year terms.

Item 3 Adoption of the Agenda and Work Schedule

(3) A provisional agenda was submitted by Norway in accordance with paragraph 159 of the Final Report of the ATCM XXI. The agenda was adopted and is attached at **Annex 2**, together with the list of documents

(4) An open-ended contact group was set up to consider elaboration of Rule 13 of the Rules of Procedure on document circulation. The issues addressed included procedures for submission of papers to the CEP, consideration of categories of documents, and the use of web-pages and e-mail. The group was chaired by France. The agreed guidelines on circulation and handling of CEP documents are attached at **Annex 3**.

Item 4 CEP Workplan**4 a) General Matters relating to the Protocol and operation of the CEP.**

(5) The discussion was based on three Working Papers, (XXII ATCM/WP20) submitted by Norway, (XXII ATCM/WP 23) submitted by New Zealand and the Netherlands, and (XXII ATCM/WP24) submitted by the United Kingdom. These dealt with the consequences of the establishment of the CEP, and were acknowledged as valuable contributions on this important matter. The discussion focused on seven main topics as outlined below:

Prioritisation of work for the CEP in the immediate future

(6) Most members considered that Environmental Impact Assessment, Protected Areas and the State of the Antarctic Environment Report should be given priority in the work of the

⁴ Annex 1 is reproduced as Decision 2 (1998), at Annex B to the Final Report.

CEP. Considerable work had already been achieved and the CEP could therefore make further substantial progress on these matters. Strong support was also given for the issues of Data and Information Exchange as well as Environmental Monitoring to be considered as further priorities. The Committee recognised that Emergency Response Action and Contingency Planning were also important subjects. The Committee saw the need to maintain a flexible approach, both in regards to emergency situations, and in regards to requests coming from the ATCM.

(7) The CEP agreed on the following priority agenda and actions for its next meeting:

- EIA. The Committee established an open-ended contact group chaired by Argentina which will present a draft guide on EIA procedures for consideration at the next CEP.
- Protected Areas. A follow-up workshop on protected areas, hosted by Peru, will be organised immediately prior to ATCM XXIII.
- Environmental Monitoring. SCAR and COMNAP were invited to submit a Working Paper, including recommendations, to the next CEP meeting based on the two SCAR/COMNAP workshops (Oslo 1995, Texas 1996).
- State of The Antarctic Environment Report (SAER). The Committee established an open-ended contact group chaired by Sweden which will report back to the next CEP.
- Emergency Response Action and Contingency Planning. COMNAP was invited to provide a paper summarising its valuable work on this issue for consideration by the CEP at its next meeting.
- Data and Information Exchange. Norway will establish a CEP Home Page prior to the next CEP meeting to facilitate information exchange. Parties were encouraged to submit Working Papers for consideration.
- Introduced alien species. A workshop on the Introduction of Diseases to Antarctic Wildlife will be organised by Australia in August 1998. Australia agreed to produce a report on the workshop for the next CEP meeting.

(8) ASOC suggested that the issue of energy management and alternative energy sources in the Antarctic be added to the CEP's agenda as a sub-item in the future. The Committee considered that, as this work has operational implications, it might be useful for this issue to be considered first by Working Group II.

CEP Structure

(9) The CEP confirmed the value of using intersessional open-ended informal contact groups. These had been both cost-effective and efficient in moving matters forward. However, it was agreed that the following guidelines for intersessional open-ended informal contact groups of the CEP could assist in their operation:

- The Chair/Convener/Leader of the contact group should be agreed by the CEP during its meeting.

- The e-mail address of the Chair/Convener/Leader should be included in the Final Report of the Committee.
- The terms of reference for the contact group should be agreed by the CEP and included in the Final Report of the Committee.
- The contact group should be open-ended.
- Representatives who wish to be involved in a group should register their interest with the Chair/Convener/Leader by e-mail.
- A list of the members of the contact group, including e-mail addresses, should be produced by the Chair/Convener/Leader and circulated to all members of the group. This should be updated when a new member joins the group.
- All correspondence should be circulated to all members of the group.
- When providing comments to the Chair/Convener/Leader, members of the group should state for whom they are speaking (e.g., if they are representing the views of an organisation or a Party).
- If appropriate, an informal face-to-face meeting should be organised prior to the next meeting of the CEP, (eg on the day prior to the CEP meeting).

Division of Labour between the CEP and Working Group II

(10) The Committee noted its functions listed under Articles 12 and 14 of the Protocol in considering this issue. In view of the fact that items listed under these Articles which had previously been discussed in Working Group II, may in the future be considered by the CEP, the Committee noted there was a need for the ATCM to clarify the division of labour between the CEP and Working Group II in order to avoid duplication of work.

(11) It was understood by the Committee that issues related to environmental protection in Antarctica should generally be referred to the CEP while operational and scientific issues would continue to be referred to Working Group II. It was recognised that some issues have aspects relating to science, operations and environmental protection. The Committee further agreed that it was premature to ask the ATCM to consider transferring tasks between the two groups at this stage, particularly since the CEP is still at a formative stage and already has a full agenda for next year.

(12) The Committee considered that the priority of issues should be reviewed at future meetings, so that the CEP can gradually meet all its responsibilities under Articles 12 and 14 of the Protocol.

Interaction with observers and experts

(13) The CEP agreed that information and advice provided by observers and experts will be essential to the ongoing work of the Committee. The Committee in this context expressed its appreciation for the work of CCAMLR, COMNAP and SCAR as well as other observers. The

special role of the CEP in providing comprehensive advice to the ATCM on environmental issues was noted. At the same time it was recognized that the ATCM can draw upon the advice of CCAMLR, COMNAP and SCAR, as well as other organisations.

Information Exchange and Data Management

(14) The report from the open-ended Contact Group referred to in para. (4) addressed the following main topics:

- categorisation of papers;
- reporting requirements of the Protocol;
- timetable for the submission and circulation of papers;
- translation requirements.

The following was agreed by the Committee:

Categorisation of papers.

(15) The Committee noted the proposal from New Zealand and the Netherlands for a unified classification of CEP papers. It was felt that this would create difficulties in determining translation requirements. Most members favoured retention of the traditional distinction between Working Papers and Information Papers. The former would be papers addressing issues of substance which would be discussed. Both categories would, however, be clearly marked as CEP papers.

(16) There was agreement that Observers under Rule 4(a) and (b) should be entitled to submit Working Papers to the CEP, and Observers under Rule 4(c) would be entitled to submit Information Papers. Experts should also be able to submit working papers if requested to do so by the Committee. Several delegations thought that Observers under Rule 4 (c) should be also entitled to submit Working Papers to the Committee.

Reporting Requirements of the Protocol.

(17) A summary of the reporting requirements and different ways of circulating information to Parties was noted by the Committee, but was not considered in detail.

(18) The Committee considered what the format of the report referred to in Article 17(2) of the Protocol should be. The Committee considered that further elaboration of a standard format for such reports could be useful. These might be divided into two sections:

- 1) legal and administrative matters to address the requirements of Article 13, and
- 2) technical issues to address the reporting requirements elsewhere in the Protocol and Annexes. The Committee was of the view that such reports should preferably be submitted as Information Papers.

(19) Australia advised that it would be prepared to make all information required under the Protocol available on its web server and suggested that this could then be linked to other web pages to allow integration of information. This work will be done by Mr. Rex Moncur, Australian Antarctic Division, Tasmania (e-mail address: rex_mon@antdiv.gov.au)

Timetable for submission and circulation of papers.

(20) In view of the potential technical complexity of CEP papers, the Committee felt that the time limit for submission and circulation of CEP papers needed to be extended, and proposed that all papers should be received by Members at least 60 days prior to each meeting of the Committee. To achieve this, the deadline for submission of CEP papers to the Host Government would need to be 75 days ahead of the Committee meeting.

Translation.

(21) The Committee recommended that the translation requirements, as set out in the ATCM XX 1996 Guidelines, should remain unaltered.

(22) The Committee agreed on the Guidelines on Circulation and Handling of CEP Documents (**Annex 3**), and accordingly requested ATCM XXII to approve the following new text of Rule 13 of the CEP Rules of Procedure in accordance with Rule 24 of the Rules of Procedure:

“Members of the Committee should follow the Guidelines on Circulation and Handling of CEP Documents, as set out in Annex 3 of the Report of the Committee on Environmental Protection to ATCM XXII. (Appendix 1)”

Other aspects of information exchange and data management.

(23) The Committee discussed other aspects of CEP information exchange and data management procedures, in particular questions related to the address where documents are sent. The Committee agreed that all ATCM documents, including CEP papers, should be sent to the host nation of the next meeting for further handling, including translation and circulation. The Committee further agreed that copies of CEP papers should also be forwarded to the Chairperson of the CEP.

(24) The Committee also discussed ways and means to establish an efficient database and data management system. In this connection, the Committee welcomed the offer of Norway, as host country of the Chair of the CEP, to develop and establish a temporary CEP Home Page, to be ready for use in advance of the next meeting of the Committee. Furthermore, Norway would provide the CEP, at its next meeting, with a working paper discussing various aspects of the operations of a CEP Home Page that would need to be clarified before a permanent CEP Home Page is established. Peru, as host nation for ATCM XXIII, informed the Committee that it was in the process of establishing an ATCM Home Page for the next Treaty Meeting, and it was agreed that these two home pages should be linked.

CEP consideration of draft CEEs.

(25) New Zealand raised some matters of principle and practice regarding recent experience with the submission of a draft Comprehensive Environmental Evaluation (CEE). The majority of delegations expressed the view that given the potential environmental significance of major activities the CEP should provide advice to the ATCM on all draft CEEs. The US was of the view that the CEP should take the opportunity to review draft CEEs only when a member of the Committee believed that there was a particular scientific, technical, or procedural matter

requiring consideration. Chile was concerned with the need for the future practice of the CEP in this matter to conform strictly with the provisions of the Protocol and its Annex I.

(26) The Committee agreed that the Protocol gives the CEP the opportunity to consider and give advice on scientific, technical or procedural issues on draft CEEs. Furthermore, as laid down in Article 3(4) of Annex I, the Committee recognized that draft CEEs are to be forwarded to the CEP, at the same time as they are circulated to the Parties, and at least 120 days before the next ATCM for consideration as appropriate. Norway offered, as host country of the chair, to receive and make such documents available electronically on its CEP HomePage. For the time being this will have the following e-mail address: *njaastad@npolar.no*.

(27) Norway introduced Information Paper (XXII ATCM/IP 22) on behalf of Finland, Norway and Sweden, informing Parties about Nordic cooperation in matters pertaining to the protection of the Antarctic environment. The paper also referred to the "Antarctic Environmental Officers Network" (AEON), which is organised through COMNAP. The Committee welcomed the paper as a good example of how to cooperate and coordinate activities in protecting the Antarctic environment.

4 b) Matters covered by Annex I (Environmental Impact Assessment).

(28) Argentina introduced Working Paper (XXII ATCM/WP 14) on the interpretation of the EIA procedures in Annex I of the Protocol on Environmental Protection to the Antarctic Treaty. The Paper contained a proposal to establish a set of guidelines. Many members commended Argentina on its valuable paper. The Committee supported the proposal and decided that an open-ended intersessional contact group should be established to prepare a draft guide on EIA procedures to be presented at the next meeting of the CEP for further consideration. Such a guide should be very useful both to Parties with considerable experience in EIA procedures, and to those with little experience in such work. The COMNAP EIA Guidelines will form the basis for this work. The issue of cumulative environmental impacts considered by the 1996 IUCN workshop will also be considered. The Committee welcomed the offer made by Argentina to coordinate this intersessional work. Members interested in participating in the intersessional work should contact the Environmental Officer of the Instituto Antartico Argentino, Mr. Jose María Acero (e-mail address: *jmacero@abaconet.com.ar*).

(29) The Committee agreed that an important part of its role was to facilitate the exchange of information on EIA procedures used by different Parties. Members of the Committee were encouraged to circulate information on national procedures for EIA as called for in Article 6 of the Protocol.

(30) Australia introduced Working Paper (XXII ATCM/WP 19) which reported on the intersessional work it had coordinated to consider the usefulness of existing EIA guidelines in obtaining a better understanding of the terms "minor" and "transitory" contained in Annex I of the Protocol. The Russian Federation also introduced Information Paper (XXII ATCM/IP 66) on this topic. Both reports were welcomed by the CEP as helpful efforts to move this complicated discussion forward. It was recognised, however, that it may not be possible to make precise definitions and that the concepts will evolve from practical experience.

(31) The United Kingdom commented on the EIA circulated by the US National Science Foundation on 23 January 1998 concerning the replacement of Amundsen-Scott South Pole

Station. The United Kingdom had provided the USA with written comments on this proposed activity but was unsure as to whether the EIA was an IEE, draft CEE or final CEE. The USA explained that the document was a draft CEE as explained in the covering letter sent to Parties, and that comments from Treaty Parties would be taken into account in the preparation of the final CEE.

(32) Several information papers were introduced that contributed to the discussion. New Zealand presented Information Paper (XXII ATCM/IP 23) on the follow-up to the final CEE regarding the Antarctic Stratigraphic Drilling East project at Cape Roberts. Norway as the host nation introduced Information Paper (XXII ATCM/IP 24, Rev. 2) containing a summary of EIAs, environmental audits and reviews and related documents prepared for activities in Antarctica, and Information Paper (XXII ATCM/IP 25, Rev. 2) containing a list of EIAs prepared by Parties since ATCM XXI as required by Resolution 6 (1995). Argentina presented an Information Paper (XXII ATCM/IP 49) on an Environmental Review of the Argentine Activities at Marambio Station. Several delegations congratulated Argentina on its comprehensive and valuable review. South Africa presented Information Paper (XXII ATCM/IP 55) which was a follow-up report on the implementation of the final CEE of the SANAE IV base building project, detailing their Environmental, Health and Safety Management System (EHSMS). The Russian Federation introduced Information Paper (XXII ATCM/IP 68) on the environmental impact of the Deep Drilling Project at Vostok Station. The issue of whether to continue drilling into the large sub-glacial lake underneath Vostok Station raised a number of questions related both to science and to environmental impact assessment. The Russian Federation indicated that it intends to produce a draft Comprehensive Environmental Evaluation for the proposed drilling into the sub-glacial lake before the next CEP, as called for in Annex I, Article 3, para. 4 of the Protocol.

4 c) Matters covered by Annex II (Conservation of Antarctic fauna and flora).

(33) Several information papers were introduced regarding Antarctic fauna and flora. Peru introduced Information Paper (XXII ATCM/IP 10) providing a compilation of information on the Antarctic wildlife and phytoplankton gathered during the Peruvian ANTAR Expeditions. The Russian Federation presented Information Paper 67 (XXII ATCM/IP 67) on environmental monitoring work at the Bellingshausen Station, King George Island, regarding the declining status of the southern giant petrels in the area. In respect of the Russian report, a general decline in the southern giant petrel numbers had also been noted by SCAR, which was already investigating the reasons for this.

(34) Australia presented Information Paper (XXII ATCM/IP 4) on a workshop regarding the "Introduction of diseases to Antarctic Wildlife" to be held in Hobart 25-28 August 1998. IUCN submitted Information Paper (XXII ATCM/IP 53) on the "Introduction of Non-native Species in the Antarctic Area". The Committee considered that such critical aspects as the introduction of micro-organisms into the Antarctic environment and their effects on the Antarctic eco-systems were little studied. The pathways for the introduction and transport of non-native species can be both through the atmosphere, by migratory species, and by human activities. IMO informed the meeting about its work regarding proposed international restrictions on the discharge of ballast water at sea to prevent the accidental introduction of non-native species. Several delegations commented on the importance of the Australian workshop to further knowledge of this issue. The Committee asked Australia that the results of the

workshop be tabled at the next meeting of the CEP. Some members suggested that, following the workshop, the Committee might consider development of a contingency plan to respond to unusual die-offs of flora and fauna in Antarctica.

4d) Matters covered by Annex III (Waste disposal and waste management).

(35) USA introduced Information Paper (XXII ATCM/IP 29) describing the pollution prevention measures and investment in pollution abatement carried out by the US National Science Foundation since 1987 at McMurdo Station. Italy submitted Information Paper (XXII ATCM/IP 35) about waste management at Terra Nova Bay Station. Japan discussed waste management at Syowa Station. China introduced Information Paper (XXII ATCM/IP 69), concerning the Chinese Antarctic Environment Report for the 1997/98 season. The report of China was acknowledged. Several members complimented the countries for the important work being done on waste management at the large Antarctic research stations.

4 e) Matters covered by Annex IV (Prevention of marine pollution)

(36) Peru introduced Information Paper (XXII ATCM/IP 14) on the handling of solid waste and waste water on board the "Humboldt" scientific research vessel. Italy also described its experience with waste disposal onboard its research vessels.

(37) Chile introduced Information Papers (XXII ATCM/IP 42 and 44) which respectively summarised the results from monitoring activities carried out by Chile in the SSSI No. 32 "Cape Shirreff and San Telmo Islets", Livingston Island and surveillance of baseline pollution levels in the waters of Fildes Bay in order to adopt timely preventive environmental measures. These reports indicated that marine debris pollution in the Southern Ocean is an increasing problem.

(38) COMNAP introduced Information Paper (XXII ATCM/IP 62) on the COMNAP Guidelines for Reporting Oil Spill Incidents which occur in Antarctica.

(39) The Committee welcomed the efforts being made by Treaty Parties to minimise marine pollution in Antarctica.

4 f) Matters covered by Annex V (Area protection and management) including the Report from the Antarctic Protected Areas Workshop

(40) New Zealand introduced Working Paper (XXII ATCM /WP 10 Rev. 1) on draft Management Plans for Specially Protected Areas, for Historic Sites and Monuments No. 15, 18 and 22.

(41) The Committee recommended that the Management Plans for Historic Sites and Monuments No. 15, 18 and 22 be adopted by the ATCM, under the designation of SPAs, by means of the attached Measure (**Appendix 2**⁵). The Committee recognised that, under the criteria set out in the Agreed Measures of 1964, Historic Sites and Monuments might not be eligible for SPA designation. The Committee noted however that the only means at present to provide the necessary mandatory protection, with control over access, was through SPA designation.

⁵ Appendix 2 is reproduced as Measure 1 (1998), at Annex A to the Final Report.

Given the vulnerability of these particular sites to visitor pressure, the Committee advised the ATCM to consider some mechanism to extend the designation criteria of SPAs to certain specified Historic Sites and Monuments pending the entry into force of Annex V.

(42) The United Kingdom introduced Working Paper (XXII ATCM/WP 21) containing a proposal for adding the wreck of a wooden sailing vessel located on the South-West Coast of Elephant Island to the "List of Historic Sites and Monuments Identified and Described by the Proposing Government or Governments". The CEP recommended that Measure 2 (1998) be adopted by the ATCM. (**Appendix 3⁶**)

(43) The United Kingdom introduced Working Paper (XXII ATCM/WP 3) on the Antarctic protected area system. This recommended that Consultative Parties which have not yet approved Annex V of the Environmental Protocol should be encouraged to do so. Recognising the SCAR attribution list for protected areas, the paper also suggested that Consultative Parties should prepare a timetable for the preparation and updating of Management Plans for SPAs and SSSIs for those sites for which they have principal responsibility. The Committee recommended that Resolution 1 (1998) be adopted by the ATCM. (**Appendix 4⁷**)

(44) The United Kingdom introduced Working Paper 5 (XXII ATCM/WP 5), produced by the Secretariat, which contained a draft guide to the preparation of Management Plans for Antarctic Specially Protected Areas. Many delegations expressed strong support for the guide, although it was recognised that it would need periodic review. The guide was further revised by a small open-ended contact group. The Committee recommended that Resolution 2 to which the Guide is appended be approved by the ATCM. (**Appendix 5⁸**)

(45) Stemming from paragraph 59 of the Final Report of ATCM XXI, a workshop on Antarctic Specially Protected Areas involving both Treaty Parties and non-governmental organisations was held on 23 May 1998 in Tromsø. A summary report of the workshop containing ten recommendations for further action to develop the Antarctic protected area system was presented by Norway and the UK (XXII ATCM/WP 26).

(46) The Committee welcomed the workshop report on this important issue and expressed support for the substance of several of the recommendations contained therein.

(47) SCAR presented Working Paper (XXII ATCM/WP 27) suggesting that the CEP should work towards developing a coherent overall protected areas strategy for Antarctica by convening a second international scientific workshop prior to the next CEP meeting. Several members noted that a strategy for the protection of the Antarctic environment should take into account that the Protocol and its four Annexes in force provide protection to the whole Antarctic area. Protected area categories used in more polluted parts of the globe could thus be inapplicable. Nevertheless, it was concluded that the use of Annex V is necessary.

(48) The Committee acknowledged that Antarctic protected areas should be examined in the wider context of the protection given to Antarctica by the Environmental Protocol and Annexes I - IV, as well as the protection provided by Annex V. Particular attention needs to be given to protecting areas where there are fauna, flora or other values at high risk of being

⁶ Appendix 3 is reproduced as Measure 2 (1998), at Annex A to the Final Report.

⁷ Appendix 4 is reproduced as Resolution 1 (1998), at Annex C to the Final Report

⁸ Appendix 5 is reproduced as Resolution 2 (1998), at Annex C to the Final Report

damaged by human activities. There are also gaps in the system with some protected area categories as set out in Article 3(2) of Annex V being very poorly represented or not represented at all.

(49) The Committee recommended that a second workshop should be convened to address Antarctic Protected Areas with the following Terms of Reference:

- i) Examine how the overall Antarctic protected areas framework envisioned in Article 3(2) of the Protocol Annex V could be developed. This framework should:
 - a) identify and take into account threats to the different categories and special features of protected areas listed in Article 3(2) of Annex V and thus provide priorities for protection;
 - b) provide guidelines to identify areas needing special protection;
 - c) propose criteria to evaluate proposals for establishing new protected areas keeping in mind that all of Antarctica has been designated as a natural reserve devoted to peace and science.
- ii) Develop better systems for categorising protected areas in Antarctica making good use of existing knowledge and methods;
- iii) Undertake a gap analysis based on the values for site protection identified in Article 3 of Annex V, in order to make recommendations for new protected areas, with particular attention given to identifying:
 - a) areas kept inviolate from human interference so that future comparisons may be possible with localities that have been affected by human activities;
 - b) representative examples of major terrestrial, including glacial and aquatic, ecosystems and marine ecosystems.
- iv) Suggest how the CEP could best review draft management plans for ASPAs and assist proposers in developing plans.

(50) The CEP recommended that participants in the workshop should have appropriate scientific, technical or environmental expertise and include representatives from Treaty Parties, and from interested Observers and Experts, including SCAR, CCAMLR and IUCN.

(51) The CEP recommended that the workshop be organised by a small Steering Committee chaired by Chile working during the intersessional period via e-mail. This would be led by Dr. Jose Valencia, Antarctic Institute of Chile (e-mail address: JVALENCI@Abello.dic.uchile.cl). The CEP further recommended that representatives from Norway, Peru, UK, SCAR and IUCN be invited to serve on the Steering Committee.

(52) The CEP recommended that the workshop should last one and a half days so that the Terms of Reference of the workshop could be sufficiently addressed.

(53) Peru offered to host the workshop on the Saturday and Sunday immediately preceding

ATCM XXIII. The CEP recommended that the ATCM should accept the offer.

(54) The CEP requested that the summary report of the second ATCM Antarctic Protected Areas Workshop be tabled as a Working Paper for consideration at ATCM XXIII in Lima, Peru in 1999.

(55) United Kingdom presented Information Paper (XXII ATCM/IP 2) on wilderness and aesthetic values in Antarctica. Peru introduced Information Paper (XXII ATCM/IP 9) on Peruvian activities bearing on compliance with the Protocol on Environmental Protection to the Antarctic Treaty. Norway introduced Information Paper (XXII ATCM/IP 41), informing the Parties on the status of Historic Site No. 25. This site no longer exists. IUCN presented Information Paper (XXII ATCM/IP 30) on cumulative environmental impacts in Antarctica and Information Paper (XXII ATCM/IP 51) on marine protection in the Southern Ocean. Brazil presented Information Paper (XXII ATCM/IP 37) containing a progress report on aspects of the utilisation of the Management Plan for the ASMA of Admiralty Bay. The CEP expressed its gratitude for these papers.

4g) Data and Information Exchange

(56) The United States presented Information Paper (XXII ATCM/IP 28) on improving the annual exchange of Antarctic information. The paper noted that overlap and duplication exists in the requirements for exchange of information required by the ATCM and by SCAR. It was also noted that the Protocol introduces extensive additional requirements for exchange of information. During the discussion it was noted that COMNAP has also established requirements for exchange of information and that these also overlap with other information exchange requirements. It was agreed that there is a need to simplify the means for information exchange and that the use of electronic mail would be valuable. It was agreed that this is an important issue for the CEP and should be considered again at the next meeting of the Committee. It was also agreed that this would be an important issue for the ATCM to discuss. The CEP recommended that this issue be considered further at ATCM XXIII.

4h) Environmental Monitoring

(57) The United States introduced Information Paper (XXII ATCM/IP34) informing the Parties about the work in progress on a US environmental monitoring programme to measure the impacts of science and logistical operations at its research stations in Antarctica. The monitoring programme is being developed by The United States Antarctic Program (USAP) and is based on the recommendations of the SCAR/COMNAP workshop reports (*Monitoring of Environmental Impacts from Science and Operations in Antarctica, SCAR, 1996*). The programme seeks to implement these recommendations in a cost effective and scientifically sound manner. COMNAP introduced Information Paper (XXII ATCM/IP54) presenting an updated version of a draft summary of environmental monitoring activities carried out in Antarctica. The Committee expressed appreciation of the work carried out by USAP, which might be a valuable model for others to follow. It further expressed gratitude to COMNAP on their extensive work on monitoring and the plans COMNAP have to develop a monitoring handbook in collaboration with SCAR, which would be of use to all Parties. COMNAP was invited to submit an updated paper on this topic at the next CEP meeting which will be an occasion to discuss environmental monitoring more fully.

4 i) State of the Antarctic Environment Report.

(58) New Zealand introduced Working Paper (XXII ATCM/WP 11) reporting on its intersessional work on the State of the Antarctic Environment Report (SAER), and Information Paper (XXII ATCM/IP 46) describing ongoing efforts to develop a Ross Sea Region State of the Environment Report. Norway presented Information Paper (XXII ATCM/IP 40) on the Development of "State of the Environment" Reports in the Arctic. Several members thanked New Zealand for its intersessional work, but some remained concerned that key questions had not been adequately answered. These included: who the target audience should be, the nature of the report (i.e. summary or comprehensive) and the resource implications. Some members indicated their preference for a summary document as this was likely to be the easiest to achieve and yet still provide a useful scientific baseline report. SCAR noted that it had established an ad hoc group to maintain a watching brief on this issue and remained prepared to provide advice and assistance if required. One member noted, however, that higher priority might be given to implementing the advice provided in the SCAR/COMNAP report on "Monitoring of Environmental Impact from Science Operations in Antarctica."

(59) Most members felt that the conclusions and the recommendations for further action given in the New Zealand Working Paper should be strengthened in order to give guidance for further work on the SAER. Some members, however, were particularly concerned about resource implications despite New Zealand's offer to contribute towards the cost. It was therefore agreed that further work was required to demonstrate adequately the case for a SAER.

(60) The Committee decided to establish an open-ended intersessional contact group which should:

- i) further clarify the Report framework conditions as identified in the report from XXI ATCM, paras. 143-150, and in Working Paper XXII ATCM/WP11 as further elaborated during the debate of the CEP;
- ii) consider questions of financial and human resource implications and commitments;
- iii) consider the possible role of SCAR and experts; and
- iv) report back to the CEP.

(61) The meeting gratefully accepted the offer of Sweden to chair the open-ended intersessional contact group. All interested members, observers and experts were invited to notify Mr. Anders Modig, Swedish Polar Research Secretariat (e-mail: andersm@polar.kva.se) of their interest in participating in the intersessional work to be carried out by the group

**CEP Agenda and Working Papers and
Information Papers Organised by Item**

Item 1 Rules of Procedure

Item 2 Election of Officers

Item 3 Adoption of the Agenda and Work Schedule

Item 4 CEP Workplan

4 a) General matters relating to the Protocol

ATCM XXII	Paper No.	Title	Submitted by
7a + WGI	WP 20	Committee for Environmental Protection (CEP) - Consequences of Establishment	Norway
7a + WGI	WP 23	Committee for Environmental Protection: Establishment Issues	New Zealand/ NL
7a + WGI	WP 24	Committee for Environmental Protection: A discussion paper	United Kingdom
7a	IP 22	Nordic Co-operation in Matters pertaining to the Protection of the Antarctic Environment	Norway
4 b) Matters covered by Annex I (Environmental Impact Assessment)			
7b	WP 14	Los Procedimientos de Evaluación de Impacto Ambiental del Anexo I del Protocolo de Madrid	Argentina
b	WP 19	Environmental Impact Assessment - The Role of EIA Guidelines in Understanding "Minor" and "Transitory"	Australia
7b	IP 23	Follow-up final CEE - Antarctic Stratigraphic Drilling East of Cape Roberts	New Zealand
7b	IP 24	A Summary of EIAs, Audits/reviews and related documents prepared for activities in Antarctica	Secr.
7b	IP 25	Environmental Impact Assessments - Circulation of Information according to Resolution 6 (1995)	Secr.
7b	IP 49	Environmental Review of the Argentine Activities of Marambio Station	Argentina
7b	IP 55	Environmental, Health and Safety Management System (EHSMS)	South Africa
7b	IP 66	Application of the "minor or transitory impact" criterion for EIA in different regions of Antarctica	Russia
7b,15	IP 68	Project of Deep Drilling at Vostok Station and its Environmental Impact	Russia

4 c) Matters covered by Annex II (Conservation of Antarctic fauna and flora)

7c	IP 04	Introduction of diseases to Antarctic Wildlife: Proposed Worksho	Australia
7c	IP 10	Compilation of information on the Antarctic Wildlife and Phytoplankton gathered during the Peruvian ANTAR Expeditions	Peru
7	IP 53	Introduction of Non-native Species in the Antarctic Area: An Increasing Problem	IUCN
7	IP 67	Environmental Monitoring Works at the Bellinghausen Station (King George Island)	Russia

4 d) Matters covered by Annex III (Waste disposal and waste management)

7d	IP 29	Pollution Abatement at McMurdo Station, Antarctica	USA
7d	IP 35	Waste Management at the Italian Terra Nova Bay Station	Italy
7a	IP 69	Chinese Antarctic Environmental Report 1997/1998 Season	China

4 e) Matters covered by Annex IV (Prevention of marine pollution)

7e	IP 14	Manejo de Despedicios y Aguas Residuales a bordo del Buque de Investigacion Cientifica "Humboldt"	Peru
7e	IP 42	Progress Report to ATCM on Marine Debris Pollution: A Matter of Present Concern and Suggestions for Future Actions to Attempt to Minimize the Problem.	Chile
7e	IP 44	Vigilancia y Control de la Contaminacion del Ecosistema Marino en el Area de Bahia Fildes y Zona Adyacente.	Chile
7e/8	IP 62	Guidelines for Reporting Oil Spill Incidents which Occur in Antarctica.	COMNAP

4 f) Matters covered by Annex V (Area protection and management) including Report from the Antarctic Protected Areas Workshop

7f	WP 03	Antarctic Protected Area System	UK
7f	WP 05	Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas	Secr.
7f	WP 10	Historic Site Management Plans	New Zealand
7f	WP 21	Antarctic Protected Area System. Historic Sites and Monuments. South-west Coast of Elephant Island, South Shetland Islands, Antarctica	UK
7f	WP 26	Report of the Antarctic Protected Areas Workshop	Norway/UK
7f	WP 27	Developing The Protected Areas System in Antarctica	SCAR
7f	IP 02	Wilderness and Aesthetic Values in Antarctica	UK
7f	IP 09	Actividades Peruanas relacionadas al cumplimiento del Protocolo al tratado antartico sobre protection del medio ambiente	Peru

7f	IP 30	Cumulative Environmental Impacts in Antarctica: Minimisation and Management	IUCN
7f	IP 37	Progress Report on Aspects of the Implementation of the Management Plan for the ASMA of Admiralty Bay	Brazil
7f	IP 41	Status of Historic Site No. 25: Framnesodden, Peter I Øy	Norway
7f	IP 51	Marine Protection in the Southern Ocean	IUCN

4 g) Data and Information Exchange

7	IP 28	Improving Annual Exchange of Antarctic Information - Facilitating Information Exchange	USA
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4 h) Environmental Monitoring

7	IP 34	Developing an Environmental Monitoring Program - a Work in Progress	USA
7	IP 54	Summary of Environmental Monitoring Activities in Antarctica. COMNAP Information Paper	COMNAP

4 i) State of the Antarctic Environmental Report

7	WP 11	State of the Antarctic Environment Report (SAER)	New Zealand
7	IP 40	Development of "State of the Environment" Reports in the North - Experiences with the EEA and AMAP Processes	Norway
7	IP 46	Ross Sea Region of the Environment Report	New Zealand

Item 5 Operation of the CEP

Item 6 Adoption of the Report

GUIDELINES

CIRCULATION AND HANDLING OF CEP DOCUMENTS

1. All Working Papers prepared by Parties and Observers referred to in Rule 4-a and -b of the CEP Rules of Procedure and Information Papers which a Representative of a Party requests be translated, should be received by the Host Government no later than 75 days before the meeting. The Host Government should circulate these papers in translation no later than 60 days before the meeting. It is suggested that Information Papers for which translation has been requested by a Party be limited to 30 pages. Those Information Papers for which translation has not been requested should also be submitted to the Host Government no later than 45 days before the meeting for pre-sessional circulation by the Host Government. Observers referred to in Rule 4-c may submit documents for distribution to the meeting as Information Papers.
2. Working Papers received before the Meeting but after the 75 days 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 CEP meeting, Working Papers will be translated and circulated and Information Papers will be circulated at that meeting.
5. Parties may request translation of any Information Paper either pre-sessionally or during the CEP meeting.
6. The Report referred to in Rule 23 should be presented to the ATCM in the official languages with a comprehensive list of that CEP Meeting's officially circulated Working and Information Papers.
7. The submission and circulation of all documents should be done by electronic means whenever feasible.

COMMITTEE FOR ENVIRONMENTAL PROTECTION.

RULES OF PROCEDURE.

PROPOSED NEW TEXT OF RULE 13.

In accordance with Rule 24 of the CEP Rules of Procedure, the Committee requests ATCM XXII to approve the following new text of Rule 13 of the CEP Rules of Procedure:

“Members of the Committee should follow the Guidelines on Circulation and Handling of CEP Documents, as set out in Annex 3 of the Report of the Committee on Environmental Protection to the ATCM XXII”.

(The former Rule 13 reads as follows:

“Pending the adoption of rules relating to the submission of documents, Members of the Committee should follow the Guideline on Pre-sessional Document Circulation and Handling, as set out in Annex D of the Final Report of ATCM XX”).

Annex F
Reports of ATS (5a)

**REPORT OF THE DEPOSITARY GOVERNMENT OF THE
ANTARCTIC TREATY AND ITS PROTOCOL (USA)
IN ACCORDANCE WITH RECOMMENDATION XIII-2**

1. This report covers events with respect to the Antarctic Treaty and to the Protocol on Environmental Protection.
2. Since the last report, presented at the XXIst Antarctic Treaty Consultative Meeting, there have been no accessions to the Treaty.
3. Since the last report, three Consultative Parties have ratified or accepted the Protocol on Environmental Protection. As a result, the Protocol, together with Annexes I through IV, entered into force on 14 January 1998. In addition, Bulgaria acceded to the Protocol on 21 April 1998. The Protocol entered into force for Bulgaria on 21 May 1998. There are now twenty-eight Parties to the Protocol.
4. Annex V of the Protocol on Environmental Protection has not as yet entered into force.
5. The Depositary circulated under cover of diplomatic note dated 6 May 1998 a Note dated 4 May 1998 from the Republic of Bulgaria recalling the notification from the Government of the Republic of Bulgaria that it considers itself entitled to Consultative Party status.
6. The following countries have notified the Depositary that they had designated the persons so designated as Arbitrators in accordance with Article 2(1) of the Schedule to the Protocol on Environmental Protection:

 India: Mr. H. P. Rajan;

 Japan: Professor Soji Yamamoto;

 United States of America: Professor Daniel Bodansky, Mr. David Colson.
7. Lists of Parties to the Treaty, to the Protocol and of Recommendations and their approvals are attached.

Status of

ANTARCTIC TREATY

Signed at Washington December 1, 1959

by

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

State	Date of deposit of instrument of ratification	Date of deposit of instrument of accession	Date of entry into force
Argentina	June 23, 1961		June 23, 1961
Australia	June 23, 1961		June 23, 1961
Austria		August 25, 1987	August 25, 1987
Belgium	July 26, 1960		June 23, 1961
Brazil		May 16, 1975	May 16, 1975
Bulgaria		Sept. 11, 1978	Sept. 11, 1978
Canada		May 4, 1988	May 4, 1988
Chile	June 23, 1961		June 23, 1961
China		June 8, 1983	June 8, 1983
Colombia		Jan. 31, 1989	Jan. 31, 1989
Cuba		Aug. 16, 1984	Aug. 16, 1984
Czech Republic ⁷		Jan. 1, 1993	Jan. 1, 1993
Denmark		May 20, 1965	May 20, 1965
Ecuador		Sept. 15, 1987	Sept. 15, 1987
Finland		May 15, 1984	May 15, 1984
France	Sept. 16, 1960		June 23, 1961
Germany ¹		Feb. 5, 1979	Feb. 5, 1979
Greece		Jan. 8, 1987	Jan. 8, 1987
Guatemala		July 31, 1991	July 31, 1991
Hungary		Jan. 27, 1984	Jan. 27, 1984

[Antarctic Treaty]

- 2 -

State	Date of deposit of instrument of ratification	Date of deposit of instrument of accession	Date of entry into force
India		Aug. 19, 1983	Aug. 19, 1983
Italy		Mar. 18, 1981	Mar. 18, 1981
Japan	Aug. 4, 1960		June 23, 1961
Korea, DPR of		Jan. 21, 1987	Jan. 21, 1987
Korea, Rep. of		Nov. 28, 1986	Nov. 28, 1986
Netherlands		Mar. 30, 1967 ²	Mar. 30, 1967
New Zealand	Nov. 1, 1960		June 23, 1961
Norway	Aug. 24, 1960		June 23, 1961
Papua New Guinea		Mar. 16, 1981 ⁵	Sept. 16, 1975 ⁶
Peru		Apr. 10, 1981	Apr. 10, 1981
Poland		June 8, 1961	June 23, 1961
Romania		Sept. 15, 1971 ³	Sept. 15, 1971
Russian Federation	Nov. 2, 1960		June 23, 1961
Slovak Republic ⁷		Jan. 1, 1993	Jan. 1, 1993
South Africa	June 21, 1960		June 23, 1961
Spain		Mar. 31, 1982	Mar. 31, 1982
Sweden		Apr. 24, 1984	Apr. 24, 1984
Switzerland		Nov. 15, 1990	Nov. 15, 1990
Turkey		Jan. 24, 1996	Jan. 24, 1996
Ukraine		Oct. 28, 1992	Oct. 28, 1992

[Antarctic Treaty]

- 3 -

State	Date of deposit of instrument of ratification	Date of deposit of instrument of accession	Date of entry into force
United Kingdom of Great Britain & Northern Ireland	May 31, 1960		June 23, 1961
United States of America	Aug. 18, 1960		June 23, 1961
Uruguay		Jan. 11, 1980 ⁴	Jan. 11, 1980

1 On October 2, 1990, the Embassy of the Federal Republic of Germany informed the Department of State "that, through the accession of the German Democratic Republic to the Federal Republic of Germany with effect from October 3, 1990, the two German states will unite to form one sovereign state, which, as a contracting party to the Antarctic Treaty, will remain bound by the provisions of the Treaty and subject to those recommendations adopted at the 15 consultative meetings which the Federal Republic of Germany has approved. From the date of German unity, the Federal Republic of Germany will act under the designation of 'Germany' within the framework of the antarctic system....".

Prior to unification, the German Democratic Republic and the Federal Republic of Germany had acceded to the Treaty on November 19, 1974 and February 5, 1979, respectively.

2 The Netherlands accession is for the Kingdom in Europe, Suriname and the Netherlands Antilles. Aruba as a separate entity as of January 1, 1986.

3 The Romanian instrument of accession was accompanied by a note of the Ambassador of the Socialist Republic of Romania, dated September 15, 1971, containing the following statement of the Council of State of the Socialist Republic of Romania:

"The Council of State of the Socialist Republic of Romania states that the provisions of the first paragraph of the article XIII of the Antarctic Treaty are not in accordance with the principle according to which the multilateral treaties whose object and purposes are concerning the international community, as a whole, should be opened for universal participation."

4 The instrument of accession by Uruguay accompanied by a Declaration, a copy of which is attached, with translation.

5 Date of deposit of notification of succession.

[Antarctic Treaty]

- 4 -

6 Date of independence.

7 Effective date of succession. Czechoslovakia deposited an instrument of accession to the Treaty on June 14, 1962. 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.

Department of State,

Washington, MAY 20 1998

DEPARTMENT OF STATE
DIVISION OF LANGUAGE SERVICES

(TRANSLATION)

DECLARATION BY THE ORIENTAL REPUBLIC OF URUGUAY

The Government of the Oriental Republic of Uruguay considers that, through its accession to the Antarctic Treaty signed at Washington (United States of America) on December 1, 1959, it helps to affirm the principles of using Antarctica exclusively for peaceful purposes, of prohibiting any nuclear explosion or radioactive waste disposal in this area, of freedom of scientific research in Antarctica in the service of mankind, and of international cooperation to achieve these objectives, which are established in said Treaty.

Within the context of these principles Uruguay proposes, through a procedure based on the principle of legal equality, the establishment of a general and definitive statute on Antarctica in which, respecting the rights of States as recognized in international law, the interests of all States involved and of the international community as a whole would be considered equitably.

The decision of the Uruguayan Government to accede to the Antarctic Treaty is based not only on the interest which, like all members of the international community, Uruguay has in Antarctica, but also on a special, direct, and substantial interest which arises from its geographic location, from the fact that its Atlantic coastline faces the continent of Antarctica, from the resultant influence upon its climate, ecology, and marine biology, from the historic bonds which date back to the first expeditions which ventured to explore that continent and its waters, and also from the obligations assumed in conformity with the Inter-American Treaty of Reciprocal Assistance which includes a portion of Antarctic territory in the zone described in Article 4, by virtue of which Uruguay shares the responsibility of defending the region.

In communicating its decision to accede to the Antarctic Treaty, the Government of the Oriental Republic of Uruguay declares that it reserves its rights in Antarctica in accordance with international law.



DECLARACION DE LA REPUBLICA ORIENTAL DEL URUGUAY

El Gobierno de la República Oriental del Uruguay considera que, con su adhesión al Tratado de la Antártida suscrito en Washington (Estados Unidos de América) el 1º de diciembre de 1959 contribuye a afirmar los principios del uso de la Antártida exclusivamente para fines pacíficos, de prohibición de toda explosión nuclear y de la eliminación de desechos radioactivos en esa área, de la libertad de investigación científica en la Antártida puesta al servicio de la Humanidad y de la cooperación internacional para el logro de esos objetivos, que consagra el mencionado Tratado.

Dentro del marco de esos principios, el Uruguay propugnará mediante cualquier procedimiento basado en el principio de igualdad jurídica, por el establecimiento de un estatuto general y definitivo para la Antártida, en el que, respetándose los derechos que reconocen a los Estados el Derecho Internacional, se contemplan equitativamente los intereses de todos los Estados involucrados y de la Comunidad internacional en su conjunto.

La decisión del Gobierno uruguayo de adherir al Tratado de la Antártida se funda no solamente en el interés que, como todo miembro de la Comunidad Internacional, tiene el Uruguay en la Antártida sino, además, en un interés especial, directo y sustancial derivado de su situación geográfica, del enfrentamiento de su costa atlántica al Continente antártico, de la influencia que éste ejerce en su clima; en su ecología y en su biología marina, de los vínculos históricos que lo ligan desde las primeras expediciones que se aventuraron a explorar dicho Continente y sus aguas, así como de las obligaciones asumidas conforme al Tratado Interamericano de Asistencia Recíproca que incluye una parte del territorio antártico en la zona descrita en el artículo 4º, por virtud de lo cual el Uruguay coparticipa en la responsabilidad de la defensa de la región.

En ocasión de comunicar su decisión de adherir al Tratado de la Antártida, el Gobierno de la República Oriental del Uruguay declara que deja reservados los derechos que le correspondan en la Antártida de acuerdo con el Derecho Internacional.

PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY

Signed at Madrid on October 4, 1991*

State	Date of Signature	Date deposit of Ratification or Acceptance or Approval	Date deposit of Accession	Date of entry into force	Date Acceptance ANNEX V**	Date of entry into force of Annex V
CONSULTATIVE PARTIES						
Argentina	Oct. 4, 1991	Oct. 28, 1993 ³		Jan. 14, 1998		
Australia	Oct. 4, 1991	Apr. 6, 1994		Jan. 14, 1998	Apr. 6, 1994 (A)	
Belgium	Oct. 4, 1991	Apr. 26, 1996		Jan. 14, 1998	June 7, 1995 (B)	
Brazil	Oct. 4, 1991	Aug. 15, 1995		Jan. 14, 1998	Apr. 26, 1996 (A)	
Chile	Oct. 4, 1991	Jan. 11, 1995		Jan. 14, 1998	May 20, 1998 (B)	
China	Oct. 4, 1991	Aug. 2, 1994		Jan. 14, 1998	Mar. 25, 1998 (B)	
Ecuador	Oct. 4, 1991	Jan. 4, 1993		Jan. 14, 1998	Jan. 26, 1995 (AB)	
Finland	Oct. 4, 1991	Nov. 1, 1996		Jan. 14, 1998	Nov. 1, 1996 (AB)	
France	Oct. 4, 1991	Feb. 5, 1993		Jan. 14, 1998	Apr. 26, 1995 (B)	
Germany	Oct. 4, 1991	Nov. 25, 1994		Jan. 14, 1998	Nov. 25, 1994 (A)	
India	July 2, 1992	Apr. 26, 1996		Jan. 14, 1998		
Italy	Oct. 4, 1991	Mar. 31, 1995		Jan. 14, 1998	May 31, 1995 (A)	
Japan	Sept. 29, 1992	Dec. 15, 1997		Jan. 14, 1998	Feb 11, 1998 (B)	
Korea, Rep. of	July 2, 1992	Jan. 2, 1996		Jan. 14, 1998	Dec. 15, 1997 (AB)	
Netherlands	Oct. 4, 1991	Apr. 14, 1994		Jan. 14, 1998	June 5, 1996 (B)	
New Zealand	Oct. 4, 1991	Dec. 22, 1994		Jan. 14, 1998	Mar. 18, 1998 (B)	
Norway	Oct. 4, 1991	June 16, 1993		Jan. 14, 1998	Oct. 21, 1992 (B)	
Peru	Oct. 4, 1991	Mar. 8, 1993		Jan. 14, 1998	Oct. 13, 1993 (B)	
Poland	Oct. 4, 1991	Nov. 1, 1995		Jan. 14, 1998	Mar. 8, 1993 (A)	
Russian Federation	Oct. 4, 1991	Aug. 6, 1997		Jan. 14, 1998		
South Africa	Oct. 4, 1991	Aug. 3, 1995		Jan. 14, 1998	June 14, 1995 (B)	
Spain	Oct. 4, 1991	July 1, 1992		Jan. 14, 1998	Dec. 8, 1993 (A)	
Sweden	Oct. 4, 1991	Mar. 30, 1994		Jan. 14, 1998	Mar. 30, 1994 (A)	
United Kingdom	Oct. 4, 1991	Apr. 25, 1995		Jan. 14, 1998	Apr. 7, 1994 (B)	
United States	Oct. 4, 1991	Apr. 17, 1997		Jan. 14, 1998	May 21, 1996 (B)	
Uruguay	Oct. 4, 1991	Jan. 11, 1995		Jan. 14, 1998	Apr. 17, 1997 (A)	
					May 6, 1998 (B)	
					May 15, 1995 (B)	

The following denotes date relating either

State	Date of Signature	Ratification Acceptance or Approval	Date deposit of Accession	Date of entry into force	Date Acceptance ANNEX V**	Date of entry into force of Annex V
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NON-CONSULTATIVE PARTIES

Austria	Oct. 4, 1991					
Bulgaria			April 21, 1998	May 21, 1998		
Canada	Oct. 4, 1991					
Colombia	Oct. 4, 1991					
Cuba						
Czech Rep. ^{1,2}	Jan. 1, 1993					
Denmark	July 2, 1992					
Greece	Oct. 4, 1991	May 23, 1995		Jan. 14, 1998		
Guatemala						
Hungary	Oct. 4, 1991					
Korea, DPR of	Oct. 4, 1991					
Papua New Guinea						
Romania	Oct. 4, 1991					
Slovak Rep. ^{1,2}	Jan. 1, 1993					
Switzerland	Oct. 4, 1991					
Turkey						
Ukraine						

• 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 at XVIth Antarctic Consultative Meeting.

1. 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.
2. Effective date of succession in respect of signature by Czechoslovakia which is subject to ratification by the Czech Republic and the Slovak Republic.
3. Accompanied by declaration with informal translation, copy of which is attached at Tab A.

Department of State,

EMBASSY
OF THE
ARGENTINE REPUBLIC

(UNOFFICIAL TRANSLATION)

The Embassy of the Argentine Republic presents its compliments to the Department of State and has the honour to enclose, in compliance with specific instructions from its Government, the following Declaration to be registered together with the Instrument of Ratification of the Protocol of the Antarctic Treaty on the Protection of the Environment, adopted in Madrid on October 3rd, 1991.

"The Argentine Republic declares that in as much as the Protocol to the Antarctic Treaty on the Protection of the Environment is a Complementary Agreement of the Antarctic Treaty and that its Article 4 fully respects what has been stated in Article IV, Subsection 1, Paragraph A) of said Treaty, none of its stipulations should be interpreted or be applied as affecting its rights, based on legal titles, acts of possession, contiguity and geological continuity in the region South of parallel 60, in which it has proclaimed and maintained its sovereignty".

The Embassy of the Argentine Republic avails itself of this opportunity to reiterate to the Department of State the assurances of its highest consideration.

Washington, D.C., October 28, 1993.

TO THE DEPARTMENT OF STATE
WASHINGTON, D.C.

TAB A

*Embassy
of the
Argentine Republic*

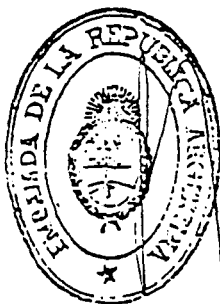
DE 718

La Embajada de la República Argentina presenta sus atentos saludos al Departamento de Estado y tiene el honor de acompañar, en cumplimiento de expresas instrucciones de su Gobierno, la siguiente Declaración que deberá ser registrada conjuntamente con el Instrumento de Ratificación del Protocolo al Tratado Antártico sobre Protección del Medio Ambiente, adoptado en Madrid el 3 de Octubre de 1991.

"La República Argentina declara que dado que el Protocolo al Tratado Antártico sobre Protección del Medio Ambiente es un Acuerdo Complementario del Tratado Antártico, y que su Artículo 4 respeta totalmente lo dispuesto por el Artículo IV inciso 1, párrafo A) de dicho Tratado, ninguna de sus estipulaciones deberá interpretarse o aplicarse como afectando sus derechos, fundados en títulos jurídicos, actos de posesión, contiguidad y continuidad geológica en la región comprendida al sur del paralelo 60, en la que ha proclamado y mantiene su soberanía".

La Embajada de la República Argentina tiene el honor de reiterar al Departamento de Estado las seguridades de su más alta y distinguida consideración.

Washington, D.C. Octubre 28 de 1993.



TO THE DEPARTMENT OF STATE
Washington, D.C.

Approval, as notified to the Government of the United States of America, of measures relating to the furtherance of the principles and objectives of the Antarctic Treaty

	16 Recommendations adopted at First Meeting (Canberra 1981)	10 Recommendations adopted at Second Meeting (Buenos Aires 1982)	11 Recommendations adopted at Third Meeting (Brussels 1984)	28 Recommendations adopted at Fourth Meeting (Santiago 1986)	9 Recommendations adopted at Fifth Meeting (Paris 1986)	15 Recommendations adopted at Sixth Meeting (Tokyo 1970)
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina	ALL					
Australia	ALL	ALL	ALL	ALL	ALL	ALL
Belgium	ALL	ALL	ALL	ALL	ALL	ALL
Brazil (1983)+	ALL	ALL	ALL	ALL	ALL	ALL
Chile	ALL	ALL	ALL	ALL	ALL	(except 10)
China (1985)+	ALL	ALL	ALL	ALL	ALL	ALL
Ecuador (1990)+						(except 10)
Finland (1989)+						
France	ALL	ALL	ALL	ALL	ALL	ALL
Germany (1981)+	ALL	ALL	(except 8)	(except 1-11 and 13-19)	(except 5* and 6)	(except 9 and 10)
India (1983)+	ALL	ALL	ALL	ALL	ALL	ALL
Italy (1987)+	ALL	ALL	(except 8***)	(except 18)		(except 9 and 10)
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
U.K.	ALL	ALL	ALL	ALL	ALL	ALL
Uruguay (1985)+	ALL	ALL	ALL	ALL	ALL	ALL
U.S.A.	ALL	ALL	ALL	ALL	ALL	ALL

* IV-6, IV-10, IV-12, and V-5 terminated by VIII-2

*** Accepted as interim guideline

+ Year attained Consultative Status. Acceptance by that State required to bring into force Recommendations or Measures of meetings from that year forward

Approval, as notified to the Government of the United States of America, of measures relating to the furtherance of the principles and objectives of the Antarctic Treaty

	9 Recommendations adopted at Seventh Meeting (Wellington 1972)	14 Recommendations adopted at Eighth Meeting (Oslo 1975)	9 Recommendations adopted at Ninth Meeting (London 1977)	9 Recommendations adopted at Tenth Meeting (Washington 1978)	3 Recommendations adopted at Eleventh Meeting (Buenos Aires 1981)	8 Recommendations adopted at Twelfth Meeting (Canberra 1983)
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina	ALL	ALL	ALL	ALL	ALL	ALL
Australia	ALL	ALL	ALL	ALL	ALL	ALL
Belgium	ALL	ALL	ALL	ALL	ALL	ALL
Brazil (1983)+	ALL (except 5)	ALL	ALL	ALL	ALL	ALL
Chile	ALL	ALL	ALL	ALL	ALL	ALL
China (1985)+	ALL (except 5)	ALL	ALL	ALL	ALL	ALL
Ecuador (1990)+						
Finland (1989)+						
France	ALL	ALL	ALL	ALL	ALL	ALL
Germany (1981)+	ALL (except 5)	ALL (except 1, 2, 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)+	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 (except 1 and 9)	ALL (except 1 and 9)	ALL (except 1)	ALL
Sweden (1988)+						
U.K.	ALL	ALL	ALL	ALL	ALL	ALL
Uruguay (1985)+	ALL	ALL	ALL	ALL	ALL	ALL
U.S.A.	ALL	ALL	ALL	ALL	ALL	ALL

* IV-6, IV-10, IV-12, and V-5 terminated by VIII-2

*** Accepted as interim guideline

+ Year attained Consultative Status. Acceptance by that State required to bring into force Recommendations or Measures 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 1994)
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina	ALL	ALL	ALL	ALL except XVI-10		
Australia	ALL	ALL	ALL	ALL	ALL	
Belgium	ALL	ALL				
Brazil (1983)+	ALL	ALL		XVI-10	ALL	ALL
Chile	ALL	ALL	ALL	XVI-10		
China (1985)+	ALL	ALL	ALL	ALL		
Ecuador (1990)+						
Finland (1989)+						
France	ALL	ALL	ALL	ALL	ALL	ALL
Germany (1981)+	ALL	ALL	ALL	ALL	ALL	ALL
India (1983)+	(except 10 to 13)		(except 3,4,6,10,11,22)	(except 4, 6, 7, 8, 9 & 10)	(except 2,3)	
Italy (1987)+						
Japan	ALL	ALL	ALL	ALL	ALL	ALL
Korea, Rep. (1989)+	ALL	ALL	ALL	XVI-10		ALL
Netherlands (1990)+			(except 1-11, 16,18,19)	ALL	ALL	ALL
New Zealand	ALL	ALL	ALL	(except 12)	(except 1)	
Norway	ALL	ALL	ALL	XVI-10		
Peru (1989)+				ALL	ALL	ALL
Poland (1977)+	ALL	ALL	ALL	ALL		
Russia	ALL	ALL	ALL			
South Africa	ALL	ALL	ALL			
Spain (1988)+						
Sweden (1988)+						
U.K.	ALL	ALL	ALL	ALL	ALL	ALL
Uruguay (1985)+	ALL	(except 2)	(except 3,4,6,10,11)	(except 4,6,8,9)		ALL
U.S.A.	ALL	ALL	ALL	ALL	ALL	ALL
			except 1-4, 10, 11			

* 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 or Measures 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 1995)	2 Measures adopted at Twentieth Meeting (Utrecht 1996)	6 Measures adopted at Twenty-First Meeting (Christchurch 1997)	Measures adopted at Twenty-Second Meeting ()	Measures adopted at Twenty-Third Meeting ()
	Approved	Approved	Approved	Approved	Approved
Argentina					
Australia					
Belgium					
Brazil (1983)+	ALL				
Chile					
China (1985)+					
Ecuador (1990)+					
Finland (1989)+	ALL				
France					
Germany (1981)+					
India (1983)+					
Italy (1987)+	ALL				
Japan					
Korea, Rep. (1989)+	ALL				
Netherlands (1990)+					
New Zealand					
Norway	ALL				
Peru (1989)+					
Poland (1977)+		ALL			
Russia					
South Africa					
Spain (1988)+					
Sweden (1988)+					
U.K.					
Uruguay (1985)+					
U.S.A.	ALL	ALL	ALL	ALL	ALL

+ Year attained Consultative Status. Acceptance by that state required to bring into force Recommendations or Measures of meetings from that Year forward.

Office of the Assistant Legal Adviser for Treaty Affairs
 Department of State
 Washington

21 May 1998

REPORT OF THE CCAMLR OBSERVER TO ATCM XXII

1. As part of the regular overview of the Antarctic Treaty System conducted in accordance with Recommendation XIII-2 of ATCM, CCAMLR is pleased to report on recent developments in areas of its competence.

Membership

2. Since ATCM-XXI there has been no changes in the CCAMLR Membership.

Fisheries in the 1996/97 and 1997/98 seasons

3. Fisheries in the CCAMLR Convention Area during the 1997 split-year (1 July 1996 to 30 June 1997) targetted Patagonian toothfish (*Dissostichus eleginoides*), krill (*Euphausia superba*) and squid (*Martialia hyadesi*). The total reported catch of finfish was 10 562 tonnes, of which Patagonian toothfish comprised 97%. The total reported catch of krill was 82 508 tonnes. A new fishery for squid in CCAMLR Statistical Subarea 48.3, initiated under a joint venture conducted by the Republic of Korea and the UK, yielded 28 tonnes in June and 53 tonnes in July 1997. There was no fishing for crabs in the Convention Area during the 1997 split-year.

4. Twelve new or exploratory fisheries were notified and agreed for the 1997/98 fishing season. Most of these fisheries are conducted with longlines. The Commission decided that detailed fishery statistics and biological information should be collected for these fisheries, and a special data collection plan was developed (Conservation Measure 133/XVI).

5. The Commission adopted conservation measures for each of the 1997/98 fisheries, as well as general measures for regulating fishing activities and reporting fisheries information within the Convention Area. These are published in the Schedule of Conservation Measures in Force 1997/98.

Illegal, unreported and unregulated fishing in the convention area

6. CCAMLR is greatly concerned about the increasing amount of illegal and unregulated fishing in the Convention Area. The total catch from illegal, unreported and unregulated fisheries, particularly in fisheries for toothfish (*Dissostichus* spp.) in the Indian Ocean sector of the Convention Area, was estimated to be between 107 000 and 115 000 tonnes.

This issue was considered at CCAMLR-XVI under a separate Agenda item.

7. The Commission considered the evidence of illegal, unreported and unregulated fishing in the Convention Area submitted by Members in accordance with Articles X and XXII of the Convention and with the System of Inspection, and also presented by the Chairman of the CCAMLR Scientific Committee as part of his report to the Commission.
8. There was general agreement among Members of CCAMLR that:
- (i) the evidence of large-scale illegal, unreported and unregulated fishing in the Convention Area submitted by CCAMLR Members during 1996/97 and in the beginning of the 1997/98 season seriously undermined the work of CCAMLR in achieving the Convention's objective;
 - (ii) the extent of existing illegal, unreported and unregulated fishing posed a serious threat to the conservation of stocks of *Dissostichus* spp. in the immediate future and also to the survival of several species of seabirds in the Southern Ocean taken as incidental by-catch in longline fishing operations;
 - (iii) all information received points to a blatant disregard by non-Contracting Parties of the CCAMLR conservation regime and of the sovereign rights of Coastal States in the Convention Area;
 - (iv) not only vessels of non-Contracting Parties to CCAMLR, but also vessels of CCAMLR Contracting Parties were reported fishing in the Convention Area in contravention of CCAMLR conservation measures in force; and
 - (v) the situation called for collective efforts within CCAMLR, measures by Flag States and Coastal States and steps vis-a-vis non-Contracting Parties to enhance enforcement and compliance with conservation measures regarding living resources in the Convention Area.
9. CCAMLR has started developing an integrated set of political and legal measures for resolving this complex situation. The set of measures adopted by CCAMLR in 1997 includes new Conservation Measures 118/XVI (Scheme to Promote Compliance by non-Contracting Party Vessels with CCAMLR Conservation Measures) and 119/XVI (Requirement for Contracting Parties to Licence their Flag Vessels in the Convention Area), Resolution 12/XVI on Vessel Monitoring Systems, amendments to the text of the System of Inspection and mechanisms to address the actions of non-Contracting Parties. Some measures were drawn from the experience of other fisheries organisations, in particular NAFO and ICCAT; other measures took into account recent developments in international law.
10. Bearing in mind Articles 19 to 23 of the 1995 UN Straddling Stock Agreement, the Commission agreed that CCAMLR should establish a system of exchange of information on all vessels known to have fished in contravention of CCAMLR conservation measures.

11. With regard to concerted political action which may be taken by the Commission and by individual Members vis-a-vis non-Contracting Parties, the Commission decided to continue the existing procedure of drawing the CCAMLR Commission's concerns to the attention of non-Contracting Parties, by means of a letter from the Chairman of the Commission.

12. The Commission also decided to invite the Governments of Mauritius and Namibia to participate as observers at the Seventeenth Meeting of the Commission with a view to encouraging these States to accede to the Convention and also to cease providing port or landing facilities for vessels which carried out unregulated fishing in the Convention Area.

13. CCAMLR urged Members to consider the acceptance of the 1993 FAO Compliance Agreement, noting that it would contribute to the elimination of unregulated fishing by non-Contracting Parties.

14. At the conclusion of CCAMLR-XVI a letter was sent, on behalf of the CCAMLR Executive Secretary, to all international and regional fisheries organisations with which CCAMLR cooperates, and some of which have jurisdiction over waters adjacent to the CCAMLR Convention Area, to inform them of all CCAMLR initiatives with respect to illegal, unreported and unregulated fishing in the CCAMLR Convention Area. CCAMLR has invited these organisations to cooperate in combating illegal, unreported and unregulated fishing activities on the high seas and to join in the exchange of information on the matter.

15. In particular, CCAMLR is seeking the cooperation of these organisations in the implementation of CCAMLR Conservation Measure 118/XVI which relates to the refusal of landings and transshipment of fish caught in violation of CCAMLR Conservation Measures and other requirements under the CCAMLR Convention. CCAMLR would especially welcome any information about the international trade in *Dissostichus* spp (including where catches are landed, transhipped or imported and under what product names these fish species are being marketed); on the feasibility of imposing trade-restrictions on non-Contracting Parties, and also on any other measures to combat illegal, unreported and unregulated fishing activities.

16. At this year's meeting in November 1998, CCAMLR will review the effectiveness of the adopted measures and, if necessary, develop additional measures. In particular, CCAMLR will further consider measures related to Port State control, as well as trade-related measures.

Observation and inspection

17. During the 1996/97 fishing season, 43 CCAMLR Inspectors were designated by five CCAMLR Members. Inspectors operated mostly in the Atlantic and Indian Ocean sectors of the Convention Area. A total of four inspections were undertaken off South Georgia.

18. Also during the 1996/97 season, international scientific observers provided 100% coverage of all longline fisheries, including the new fisheries. This level of coverage will continue during the 1997/98 fishing season.

19. At CCAMLR-XVI, the text of the System of Inspection was amended to include procedures for processing reports of inspection and the providing information on vessels harvesting in the Convention Area. The text of the Scheme of International Scientific Observation was also revised to improve the provision of information on observation programs.

Ecosystem monitoring program

20. Work under the CCAMLR Ecosystem Monitoring Program (CEMP) continued on a conceptual model of ecosystem monitoring and management. CEMP continues to focus on developing of our understanding of the linkages between harvested species (e.g. krill), dependent species (e.g. penguins), the environment and fisheries.

21. Data on dependent species continue to be collected annually from the following sixteen sites within the Convention Area in accordance with CEMP standard methods:

Subarea 48.1:

Anvers Is, Esperanza Station, Cape Shirreff, Stranger Point, Admiralty Bay and Seal Island

Subarea 48.2:

Signy Island and Laurie Island

Subarea 48.3:

Bird Island

Subarea 48.6:

Bouvet Island and Svarthamaren

Division 58.4.2

Béchervaise Island and Syowa Station

Subarea 58.7:

Marion Island

Subarea 88.1:

Edmonson Point and Ross Island

22. Progress has been made on the analysis of cemp indices. In particular, SC-CAMLR endorsed the further development of multivariate analyses, including studies to combine indices that summarise a large number of indices into a smaller set which can be more easily examined. Work is continuing on ways of incorporating CEMP indices into the CCAMLR for managing strategy for Antarctic marine living resources.

23. Following substantial revision, a new edition of the CEMP Standard Methods was published in August 1997. It includes a number of new standard methods, observation protocols and techniques, as well as a set of reference materials.

24. Intersessional activities during 1998 will include a workshop on Area 48, further planning for a synoptic survey of krill in Area 48, and a meeting of WG-EMM. The workshop on Area 48 will examine processes within the South Atlantic Sector of the Southern Ocean and, in particular, determine the extent of between-season and within-season variation in key indices of the environment, harvested species, and dependent species. The synoptic survey steering committee will meet in conjunction with the workshop on Area 48 to outline a survey for the plan is scheduled for the austral summer 1999/2000.

Prevention of incidental mortality of seabirds during fishing operations

25. In recent years, CCAMLR has pursued a major campaign to reduce the incidental capture and mortality of seabirds in longline fisheries. The species mainly affected are black-browed, grey-headed and yellow-nosed albatrosses, and white-chinned petrels.

26. While the implementation of CCAMLR measures has already resulted in the reduction of incidental catch and related mortality of seabirds in longline fisheries, according to estimates about 6 600 seabirds were killed in longline fishing operations off South Georgia, and Prince Edward and Marion Islands during 1996/97. Much of this seabird mortality reflects a lack of full compliance of some vessels of CCAMLR flag-states with adopted measures. In order to improve compliance these measures were clarified and some inconsistencies were removed. The Commission adopted a revised Conservation Measure 29/XV "Minimisation of the Incidental Mortality of Seabirds in the course of Longline Fishing or Longline Fishing Research in the Convention Area".

27. In addition, during 1996/97, the incidental mortality of seabirds was estimated to be at least 20 times greater, in the unregulated fisheries for toothfish, mainly due to the large number of vessels fishing and their disregard for CCAMLR conservation measures. CCAMLR Members agreed to take the strongest possible action to eliminate unregulated fishing, which, if left unchecked, is likely to cause the collapse of the populations of several species of albatross and white-chinned petrel.

28. Data collected by scientific observers designated under the CCAMLR Scheme of International Scientific Observation confirmed that interactions between seabirds and longline fishing peaked during the austral summer. Importantly, it was concluded that incidental catches may be further reduced by delaying the start of the longline fishing seasons (from March to May). As a result, it was agreed that the opening date for longline fisheries, in areas of high risk to seabirds, will be moved progressively towards May over a period of two years, allowing Members to adjust their fisheries legislation as necessary.

29. As in previous years, work on the reduction of incidental mortality continues intersessionally, steered by the Working Group on Incidental Mortality of Seabirds Arising from Longline Fisheries (WG-IMALF).

30. As part of CCAMLR's campaign to reduce the incidental mortality of seabirds in longline fisheries, the book *Fish the Sea not the Sky* was published in 1996 in all four languages of the Commission. In addition, a flier and stickers promoting the message of the book were produced in 1998. CCAMLR Members have undertaken to make every possible effort to ensure that this book, fliers and stickers will be made available on board every vessel fishing under their flags in the Southern Ocean. This educational material has been also sent to many international fisheries organisations as well as international and national agencies with a vested interest in the protection of seabirds and fisheries management.

31. CCAMLR decided to initiate the exchange of information on incidental mortality with a number of international fisheries and conservation organisations. Such information exchange has been already established with the Commission for the Conservation of Southern Bluefin Tuna (CCSBT). CCAMLR also informed the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and the Convention on Biological Diversity (CBD) of CCAMLR's work on the prevention of incidental mortality of seabirds during fishing operations, and drew their attention to the interactions between albatrosses and longline fisheries as an example of harmful biological effects caused by anthropogenic factors. FAO was also approached with a proposal that it would be very appropriate and useful for experts within CCAMLR to be able to comment on the draft Guidelines and Plan of Action that is developed during the meeting of the FAO Technical Group on the Reduction of Incidental Catch of Seabirds in Longline Fisheries (STWG) held in March 1998 in Tokyo.

MONITORING OF MARINE DEBRIS AND ITS IMPACT ON MARINE ANIMALS

32. ATCM-XXI took note of CCAMLR's initiatives aimed at preventing and assessing the level of marine debris in Antarctic waters and its impact on marine biota. In particular, CCAMLR was requested to report on progress in assessing and dealing with the problem of marine debris. This is summarised below.

33. Since its inception, CCAMLR has introduced measures to monitor and assess the level of marine debris and its impact on marine living resources in Antarctic waters. These include

requirements to collect and report flotsam debris from vessels, to conduct surveys of marine debris on beaches near seal and seabird colonies, and to report instances of entanglement in or ingestion of marine debris by marine animals. Conservation Measure 63/XV "Regulation of the use and disposal of plastic packaging bands on fishing vessels" prohibited from the 1995/96 season the use of plastic packaging bands to secure bait boxes and also prohibited from the 1996/97 season the use of other plastic packaging bands on fishing vessels not equipped with on-board incinerators. An educational leaflet on the environmental impact of marine debris pollution and a placard describing ways of dealing with waste generated by fishing and other vessels operating in Antarctic waters were published and widely distributed. CCAMLR has encouraged all its Members to ratify and implement Annex V to MARPOL 73/78.

34. Long-term surveys of beached marine debris have been initiated at several Sub-Antarctic and Antarctic sites by Australia, Brazil, Chile, UK, USA and South Africa. Marine debris surveys are aimed at monitoring levels of marine debris and its impact on marine living resources in the CCAMLR Convention Area.

35. In order to standardise the collection of data, in 1993 CCAMLR prepared and adopted the Standard Method for Surveys of Beached Marine Debris. Monitoring at Bird Island (South Georgia), Cape Shirreff (Livingston Island, Antarctic Peninsula) and the Prince Edward Islands has already been carried out in accordance with this method for three years.

36. All data are submitted to the CCAMLR Data Centre and stored in a specially designed database for future analysis. Once a series of datasets have been accumulated for a number of years it will be possible to put an exact figure on the current level of marine debris pollution in the area of that time and to statistically evaluate any trends in this level. It will also enable scientists to determine how effectively measures adopted to prevent the pollution of Antarctic waters have been implemented. Examples of such measures are CCAMLR Conservation Measure 63/XV, provisions of the Antarctic Treaty, MARPOL 73/78 (Annex V) and the London (Dumping) Convention, 1972.

37. Since the beginning of studies initiated by CCAMLR, a decreasing trend in the amount of marine debris and in the level of entanglement of marine mammals and birds has been observed at several monitoring sites in the Convention Area. Reports received by CCAMLR in 1996 and 1997, however, indicate that this decreasing trend has not been sustained.

38. There is much evidence, particularly from studies carried out at South Georgia, that the recent three-fold increase in the amount of debris removed from beaches there relates directly to increased fishing activity in the area. Nylon lines, mainly identical to those used in the longline fishery, comprised 80% of fishery-related debris found at Bird Island, South Georgia. The increased fishing activity around South Georgia has also resulted in an increase of fishery-related items, most notably longline hooks, found in or near the nests of albatrosses. The number of sightings of fur seals entangled in marine debris is also again on the increase.

39. In order to counteract the current trend of increasing pollution from marine debris in the CCAMLR Convention Area, most of which appears to originate from fishing vessels, CCAMLR decided to undertake a new educational initiative. The proposed educational brochure will include references to the international (including CCAMLR) regulations in force, explanations of the ecological and environmental reasons for avoiding marine debris pollution and advice on all appropriate procedures to avoid the discharge of such debris at sea. This brochure will be published and distributed in June 1998.

40. CCAMLR constantly reviews the topic of marine debris pollution. The evaluation of the incidence of marine debris and its impact on marine biota is a permanent item on the agendas of the CCAMLR Commission and Scientific Committee.

Issues of cooperation with elements of the Antarctic Treaty System

41. The complementary nature of the objectives of the Antarctic Treaty Consultative Parties (ATCP) and CCAMLR in protecting the marine environment was enhanced by the coming into force of the Protocol on Environmental Protection to the Antarctic Treaty. The Commission noted that the Chairman of the CCAMLR Scientific Committee would participate as an observer in the work of the Committee on Environmental Protection (CEP).

42. CCAMLR is aware 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.

43. CCAMLR endorsed the definition of 'marine area' as provided by ATCM-XXI. CCAMLR also took note of the list of nine Sites of Special Scientific Interest (SSSIs) which include such marine areas. It was understood that, in accordance with Annex V, Article 6(2) of the Protocol, the draft management plans for these areas will be, submitted to CCAMLR for approval.

44. In the past, CCAMLR took note of SCAR's intention to consult CCAMLR, among others, with a view to providing a proposal to ATCM-XXI on how to prepare a report on the state of the Antarctic environment. The draft SCAR proposal indicated that substantial input would be required from CCAMLR and from scientists associated with its work. CCAMLR therefore agreed that no action on this matter should be taken by CCAMLR until it had been clarified by the ATCM.

45. Following established cooperation with SCAR, CCAMLR observers continue to participate at meetings of the latter's various bodies and CCAMLR receives information about

SCAR programs of relevance to CCAMLR's objectives. SCAR continues to be invited to send its observers to annual meetings of CCAMLR.

The 1995 UN Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.

The 1993 FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas.

**REPORT SUBMITTED BY THE DEPOSITARY GOVERNMENT OF THE
CONVENTION ON THE CONSERVATION OF ANTARCTIC
MARINE LIVING RESOURCES (AUSTRALIA)**

Agenda Item 5 (a) (iii)

(Submitted by Australia)

1. Australia, in its capacity as depositary of the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR), provides the following report on the status of CCAMLR.

2. In summary, no accessions to CCAMLR and no applications for membership of the Commission have been lodged since ATCM XXI.

CONVENTION ON THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES (CCAMLR)

(Canberra, 20 May 1980)

(Convention entered generally into force on 7 April 1982)

Participant	Signature	Date of Deposit of Instrument of Ratification, Accession, Acceptance or Succession	Date Entry into Force
Argentina °	11 Sep 1980	28 May 1982	27 Jun 1982
Australia °	11 Sep 1980	6 May 1981	7 Apr 1982
Belgium °	11 Sep 1980	22 Feb 1984	23 Mar 1984
Brazil °		28 Jan 1986	27 Feb 1986
Bulgaria		1 Sep 1992	30 Sep 1992
Canada		1 Jul 1988	31 Jul 1988
Chile °	11 Sep 1980	22 Jul 1981	7 Apr 1982
European Community °		21 Apr 1982	21 May 1982
Finland		6 Sep 1989	6 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	7 Apr 1982
Korea, Republic of °		29 Mar 1985	28 Apr 1985
Netherlands		23 Feb 1990	25 Mar 1990
New Zealand °	11 Sep 1980	8 Mar 1982	7 Apr 1982
Norway °	11 Sep 1980	6 Dec 1983	5 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	7 Apr 1982
South Africa °	11 Sep 1980	23 Jul 1981	7 Apr 1982
Spain °		9 Apr 1984	9 May 1984
Sweden °		6 Jun 1984	6 Jul 1984
Ukraine °		22 Apr 1994	22 May 1994
United Kingdom °	11 Sep 1980	31 Aug 1981	7 Apr 1982
United States of America °	11 Sep 1980	18 Feb 1982	7 Apr 1982
Uruguay °		22 Mar 1985	21 Apr 1985

° Members of the CCAMLR Commission

12 May 1998

May, 1998
Original, English

REPORT SUBMITTED TO THE XXIIND 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)

REPORT SUBMITTED TO THE XXIIND 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 1997 to the present. Events prior to May 1997 were reported to the XVIIIth, XIXth and XXth and XXIst Antarctic Treaty Consultative Meetings (see Annex B, Annex F, Annex F and Annex E 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 25 June 1997. The results are reproduced as Annex A to this report.
3. As agreed at the above informal meeting the UK as depositary will remind Parties that returns for 1998 (for the period 1 March 1997 to 28 February 1998) should be transmitted to the UK and SCAR by 30 June 1998.
4. Since the XXIst 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).

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 1996 to 28
February 1997.

<u>Contracting Party</u>	<u>Captured</u>	<u>Killed</u>
Argentina	Nil	Nil
Australia	Nil	Nil
Belgium	Nil	Nil
Brazil	Nil	Nil
Canada	Nil	Nil
Chile*	602	Nil
France	Nil	Nil
Germany	Nil	Nil
Italy	Nil	Nil
Japan	Nil	Nil
Norway**	14	6
Poland	Nil	Nil
Russia	Nil	Nil
South Africa	Nil	Nil
UK	Nil	Nil
USA	Nil	Nil

* 602 Antarctic Fur Seals (*Arctocephalus gazella*) captured and released. (600 seal cubs captured to monitor weight gains using CCAMLR Standard Method C2B; 2 adult seals captured and released from plastic collars).

** 6 seals (various species) killed in pollution and diet studies; 14 seals (various species) captured, equipped with satellite sender and released.

Polar Regions Section
South Atlantic and Antarctic Department
Foreign and Commonwealth Office
London SW1A 2AH

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 ¹	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 ^{1 2 4}	9 June 1972	8 February 1978
United Kingdom ²	9 June 1972	10 September 1974 ³
United States of America ²	28 June 1972	19 January 1977
Australia	5 October 1972	1 July 1987
France ²	19 December 1972	19 February 1975 (A)
Chile ¹	28 December 1972	7 February 1980
Japan	28 December 1972	28 August 1980 (A)

ACCESSIONS

<u>State</u>	<u>Date of Deposit of Instrument of Accession</u>
Poland	15 August 1980
Germany, Federal Republic of ¹	30 September 1987
Canada	4 October 1990
Brazil	11 February 1991
Italy	2 April 1992

1. Declaration or Reservation
2. Objection
3. The instrument of ratification included the Channel Islands and the Isle of Man
4. Former USSR

INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS
SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH



SCAR REPORT TO XXII ATCM

TROMSØ, NORWAY

1998

XXII ANTARCTIC TREATY CONSULTATIVE MEETING
Tromsø, Norway, 25 May – 5 June 1998

INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS
SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH

SCAR REPORT TO XXII ATCM
TROMSØ, NORWAY
25 MAY– 5 JUNE 1998

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SCAR REPORT TO XXII ATCM

TROMSØ, NORWAY

25 MAY– 5 JUNE 1998

REPORT UNDER RECOMMENDATION XIII-2

PROFESSOR A C ROCHA-CAMPOS

PRESIDENT

SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH

EXECUTIVE SUMMARY

SCAR is pleased to participate in XXII ATCM, welcomes especially the establishment of the Committee for Environmental Protection (CEP), and looks forward to contributing towards its success. SCAR intends to continue its cooperation with the ATCM towards better understanding and management of the Antarctic environment by developing an effective dialogue with the CEP.

During the year 1997–98, since XXI ATCM, the SCAR Executive Committee has met in Cape Town, South Africa, 25–29 August 1997, in parallel with the annual meeting of the Council of Managers of National Antarctic Programmes (COMNAP). These meetings provided an opportunity for the Executive Committees to hold a joint meeting. 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.

The Full Membership of SCAR has not changed.

SCAR continues to be active in initiating, promoting and coordinating a diversity of scientific activities, but only a few can be noted briefly here.

The SCAR Global Change Programme coordinates all SCAR global change research in the Antarctic so that there were seven individual programmes within the overall global change programme. The SCAR Global Change Programme Office is operational at the Cooperative Research Centre for the Antarctic and Southern Ocean Environment, University of Tasmania, Hobart, and there is a full-time Programme Coordinator. A proposal to XXV SCAR will suggest that some of these programmes should develop closer links with the relevant Working Groups of

SCAR REPORT TO XXII ATCM

SCAR because they also address much wider research fields than global change studies. The Group of Specialists will continue to serve as 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 Bremerhaven, Germany, during July 1996 and will meet in Basel, Switzerland, during September 1998. The work of GOSEAC is relevant to the Protocol on Environmental Protection to the Antarctic Treaty. Three new management plans for protected areas have been endorsed by SCAR and are due to be tabled at this meeting.

The ANTOSTRAT project has provided advice to the Ocean Drilling Program. This has resulted in a successful leg being undertaken in the Antarctic Peninsula region during the 1997-98 season when nine holes were drilled. A second drilling season in the region of Prydz Bay is planned for the 1999-2000 season.

Some Working Groups have organized workshops on a variety of topics during the year with the general aims of reviewing progress and determining future lines of research. Further information is given in the body of this report.

SCAR is also maintaining a close interest in the developments relating to further research into Vostok Lake. Scientists from the US National Aeronautical and Space Administration (NASA) are proposing to use the opportunity of Vostok Lake as a fore-runner to the planned mission to Europa, the frozen moon of Jupiter. The proposal to send a remote probe into the lake to relay data on the water, and possibly the underlying sediment, is a very exciting prospect. However, SCAR is very much aware of the potential environmental impact on any existing ecosystem that could result from entering the lake and will continue to urge caution and recommend that a Comprehensive Environmental Evaluation is undertaken prior to the start of any invasive procedures.

The development of the Antarctic Master Directory (AMD) at the International Centre for Antarctic Information and Research (ICAIR) in Christchurch, New Zealand is progressing and some 600 metadata records are now accessible. The SCAR-COMNAP Joint Committee on Antarctic Data Management (JCADM) continues to support Antarctic data management, the development of the AMD, and the effective links to National Antarctic Data Centres.

These are some of the highlights of SCAR's diverse activities. SCAR is planning to table four Information Papers (one jointly with COMNAP) at this meeting. In these and other ways SCAR wishes to maintain its key role as the scientific observer to the Antarctic Treaty System by continued input of independent scientific advice.

SCAR REPORT TO XXII ATCM

TROMSØ, NORWAY

25 MAY-5 JUNE 1998

Report under Recommendation XIII-2

1. INTRODUCTION

Since XXI ATCM in Christchurch, New Zealand, May 1997, the SCAR Executive Committee held a meeting in Cape Town, South Africa, during August 1997 in parallel with the annual meeting of the Council of Managers of National Antarctic Programmes (COMNAP X). During these meetings, the SCAR and COMNAP Executive Committees held a joint meeting. The next meeting of SCAR, XXV SCAR, will be held in Concepción, Chile, 20-31 July 1998. This year will mark the fortieth anniversary of the founding of SCAR at The Hague in February 1958.

The membership of SCAR is unchanged at 25 Full Members and 7 Associate Members (see Appendix 1). There have been no changes in the membership of the Executive Committee (Appendix 2) but the Chief Officers of two SCAR subsidiary groups (Appendix 3) have changed.

A list of papers to be presented to XXII ATCM is given at Appendix 4 and a list of SCAR publications is given at Appendix 5.

2. SCAR-COMNAP COOPERATION

SCAR and COMNAP continue to maintain routine contact through their Secretariats. A joint meeting of the SCAR and COMNAP Executive Committees was held in Capetown, South Africa, during August 1997. Among the issues discussed were more effective ways of reporting scientific developments to COMNAP, particularly the development of international science programmes, to provide improved advance notice of major logistic support requirements.

3. ENVIRONMENTAL AFFAIRS AND CONSERVATION

The Group of Specialists on Environmental Affairs and Conservation held its ninth meeting (GOSEAC IX) in Bremerhaven, Germany, during July 1997, and will hold its tenth meeting (GOSEAC X) in Basel, Switzerland, during September 1998. Many topics were discussed, in particular management plans for three new protected areas. These plans have been accepted by SCAR National Committees and are listed below:

- New Area: Cape Royds, Ross Island
- New Area: Cape Adare
- New Area: Hut Point, Ross Island

4. ANTARCTIC DATA

The Antarctic Master Directory (AMD) is now established at the International Centre for Antarctic Information and Research (ICAIR) in Christchurch, New Zealand, and some 600 metadata records are included. The SCAR-COMNAP Joint Committee on Antarctic Data Management (JCADM) is supporting Antarctic data management and the development of the AMD. A JCADM web site has been established and 'Guidelines for National Antarctic Data Centers' are available on the above web site. A separate report on data management has been prepared by JCADM and has been submitted as an Information Paper jointly by SCAR and COMNAP to this meeting.

5. THE ANTARCTIC AND GLOBAL CHANGE

The Group of Specialists on Global Change and the Antarctic (GLOCHANT) held its fifth annual meeting (GLOCHANT V) in Hobart, Tasmania, Australia, during July 1997 and its sixth meeting (GLOCHANT VI) in Cambridge, United Kingdom during April 1998. The SCAR Global Change Programme Office, hosted by the Cooperative Research Centre for the Antarctic and Southern Ocean Environment at the University of Tasmania in Hobart, Australia, continues to provide support for the programme. Following GLOCHANT V there were seven individual programmes that operated under the umbrella of the Global Change Programme:

- Antarctic Ice Margin Evolution (ANTIME)
- Antarctic Sea-Ice Processes and Climate (ASPeCt)
- Biological Investigations of Terrestrial Antarctic Systems (BIOTAS)
- Ecology of the Antarctic Sea-Ice Zone (EASIZ)
- Ice Sheet Mass Balance and Sea-level (ISMAS)
- International Trans-Antarctic Scientific Expeditions (ITASE)
- Palaeoenvironments from Ice Cores (PICE)

At GLOCHANT VI it was suggested that some of these programmes should develop closer links with the relevant SCAR Working Groups because they also address much wider research fields than global change studies. This would allow the overall global change programme to focus support and activity on those programmes that are making significant progress and are providing major datasets for global change research. The other programmes will continue to provide global change data although their primary thrust will be in other directions. These proposals will be presented to the SCAR Delegates at the XXV SCAR Meeting in July 1998. GLOCHANT will continue to provide a forum for the interaction of global change programmes in the Antarctic.

A separate Information Paper on global change research in the Antarctic will be submitted by SCAR to this meeting.

It is anticipated that these changes will require changes to the membership of the Group of Specialists but that the Group of Specialists will continue to form the START Regional Committee for the Antarctic.

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A symposium on "Polar Aspects of Global Change", jointly sponsored by the International Arctic Science Committee (IASC) and SCAR, will be held in Tromsø, Norway, during September 1998. This will provide an opportunity for the two polar scientific communities to meet and discuss common problems. It will also draw attention to the major contrasts between the two polar regions.

6. ATMOSPHERIC AND SOLAR-TERRESTRIAL SCIENCES

The First Regional Observing Study of the Troposphere (FROST) project is nearing completion of the analysis of Antarctic weather forecasts and the monitoring of the Global Telecommunications System of the World Meteorological Organization (WMO). These activities have allowed improvements to be made to weather forecasting and data communications.

The depletion of Antarctic Stratospheric Ozone continues to be recorded each spring. During the last few years the level of depletion has continued to be very deep but, at present, there is no clearly discernible trend of either an increase or decrease in the level of depletion.

The Antarctic Geospace Observatory Network (AGONET) database, hosted by Italy, is continuing to support the collation and integration of data on magnetometry, riometry, Very Low Frequency (VLF) radio waves, and the horizontal vector velocity of the ionosphere. This international programme is now providing spatial and temporal information about geospace.

7. EARTH SCIENCES AND GLACIOLOGY

The first practical season of the Cape Roberts Drilling Project, to investigate the history of uplift of the Transantarctic Mountains and the climatic history of the last 100 million years, was unfortunately curtailed shortly after the start of drilling due to the deterioration of the sea ice at the drill site. However, 148 m of core were recovered and analysis of the core is now in progress. A workshop will be held in London, United Kingdom, during June 1998 to review the results.

The Working Group on Solid-Earth Geophysics held a workshop to review progress and plan future work for the magnetic anomaly map of Antarctica. This project will have important implications for geological research, particularly in correlating areas of exposure separated by ice sheet cover.

The ANTOSTRAT project is currently providing advice on site selection to the Ocean Drilling Program (ODP). A successful drilling leg (No 178) was undertaken in the Antarctic Peninsula area during the 1997-98 season when nine sites were drilled. Plans are well-advanced for a second Antarctic season in the Prydz Bay region provided that a suitable ice-picket ship can be obtained. The ANTOSTRAT group is continuing to maintain the Seismic Data Library System (SDLS).

The Working Group on Geodesy and Geographic Information has completed the first draft of a comprehensive gazetteer of Antarctic Place-names. This will be presented at XXV SCAR and further revisions incorporated into a final version. The work on revising the Antarctic Digital Database, the first seamless digital

SCAR REPORT TO XXII ATCM

topographic map of the Antarctic, is continuing. It is anticipated that the new version will be available on the World Wide Web for general research and educational purposes but that there will be restrictions on commercial use.

SCAR continues to maintain its interest in the research developments at Vostok Lake. Drilling for the extraction of ice cores has ceased at 3,200 m which is estimated to be about 100 m above the ice-water interface. More data are needed to characterize exactly the extent and internal structure of the lake, estimated to be at least 400,000 years old. US scientists from NASA are planning a programme to probe the lake waters remotely without introducing contaminants to the lake. This programme will form a pilot scheme for the proposed investigation of the Europa moon of Jupiter where the ice surface of the moon may form a solid cover to a liquid ocean. SCAR will continue to urge caution and recommend that a full environmental impact assessment be undertaken. Nothing is known of any ecosystems that may be present and full precautions should be taken to guard against possible adverse effects.

8. LIFE SCIENCES

Three workshops in biological sciences were held:

- on marine biological research in the Magellan region: to analyse, summarize and compare results from three cruises in the region, and to identify and develop future research directions.
- on southern seabirds as marine predators: to undertake a statistical analysis of population data to determine the status and population trends of Antarctic and Subantarctic seabirds. SCAR is also continuing to support the Central Data Bank for Antarctic Bird Banding at the University of Cape Town in South Africa.
- on the evolutionary biology of Antarctic organisms: an inaugural workshop to determine the current status of research on evolutionary biology and biodiversity, to identify new trends and techniques, and to coordinate future research.

The Antarctic Pack Ice Seals (APIS) programme is planning a coordinated census of seals in all pack ice regions during the 1998-99 Antarctic field season. The census of seals will be performed from ships, with and without helicopter support, and by fixed-winged aircraft. In addition to the census, data on ice characteristics as well as the other biological components of the ecosystem will also be collected. Some of these data will be used in the SCAR global change programme.

The 7th SCAR Symposium on Antarctic Biology will be held at Canterbury University, Christchurch, New Zealand, 1-5 September 1998. The theme for the symposium is "Antarctic ecosystems: models for wider understanding".

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Appendix 1

MEMBERSHIP OF SCAR

(May 1998)

<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 (formerly Union of Soviet Socialist Republics)		3 February 1958
United Kingdom		3 February 1958
United States of America		3 February 1958
Germany (including former German Democratic Republic)		22 May 1978
Poland		22 May 1978
India		1 October 1984
Brazil		1 October 1984
China		23 June 1986
Sweden	(24 March 1987)	12 September 1988
Italy	(19 May 1987)	12 September 1988
Uruguay	(29 July 1987)	12 September 1988
Spain	(15 January 1987)	23 July 1990
Netherlands	(20 May 1987)	23 July 1990
Korea, Republic of	(18 December 1987)	23 July 1990
Finland	(1 July 1988)	23 July 1990
Ecuador	(12 September 1988)	15 June 1992

Associate Members:

Peru	14 April 1987
Switzerland	16 June 1987
Estonia	15 June 1992
Pakistan	15 June 1992
Canada	5 September 1994
Ukraine	5 September 1994
Bulgaria	5 March 1995

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

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Appendix 2

SCAR EXECUTIVE COMMITTEE

(May 1998)

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(May 1998)

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Biology

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PO Box 84, Lyneham, ACT 2602, Australia.

Professor S Chown (Secretary), Department of Zoology and Entomology,
Pretoria University, Pretoria 0002, South Africa.

Dr J Cooper, (Chairman of the Bird Biology Sub-Committee),
Percy FitzPatrick Institute of African Ornithology, University of Cape Town,
Rondebosch 7700, South Africa.

Professor B Battaglia (Chairman of the Subcommittee on Evolutionary Biology of
Antarctic Organisms), Dipartimento di Biologia, Universita degli Studi Padova,
Via Trieste 75, 35121 Padova, Italy.

Geodesy and Geographic Information

Mr A Clarke (Secretary), Australian Government Analytical Laboratories,
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Geology

Dr M R A Thomson (Acting Secretary), British Antarctic Survey, High Cross,
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Glaciology

Professor Dr H Miller (Chairman), Alfred-Wegener-Institut für Polar- und
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Physics and Chemistry of the Atmosphere

Dr D H Bromwich (Chairman), Byrd Polar Research Center, The Ohio State
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Solid-Earth Geophysics

Dr D Damaske (Secretary), Bundesanstalt für Geowissenschaften und Rohstoff
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SCAR REPORT TO XXII ATCM

Solar-Terrestrial and Astrophysical Research

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Joint Working Groups on Geology and Solid-Earth Geophysics

Dr A K Cooper (Chairman of the ANTOSTRAT Programme),
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GROUPS OF SPECIALISTS

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Dr J L Bengtson (Secretary), National Marine Mammal Laboratory,
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Antarctic Environmental Affairs and Conservation

Dr D W H Walton (Convenor), British Antarctic Survey, High Cross,
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Global Change and the Antarctic

Dr J H Priddle (Convenor), British Antarctic Survey, High Cross,
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Dr I D Goodwin (Programme Coordinator), SCAR Global Change Programme
Office, Antarctic CRC, GPO Box 252C, Hobart 7001, Tasmania, Australia.

SCAR-COMNAP Joint Committee on Antarctic Data Management

Mr A Clarke (SCAR Representative), Australian Government Analytical
Laboratories, PO Box 65, Belconnen, ACT 2616, Australia.

Appendix 4

PAPERS SCHEDULED TO BE TABLED AT XXI ATCM

<i>Paper Type</i>	<i>Subject</i>	<i>Submitted by</i>	<i>Agenda Item</i>
Info	SCAR Report to XXI ATCM	SCAR	5.a)v)
Info	Management of Antarctic Data	SCAR-COMNAP	15.
Info	SCAR Global Change Programme	SCAR	15.
Info	Scientific Research in the Antarctic	SCAR	15.

SCAR REPORT TO XXII ATCM

Appendix 5

RECENT SCAR PUBLICATIONS

The *SCAR Bulletin* continues to be published quarterly within *Polar Record* and No 125, April 1997, included the Report of the XXIV SCAR Delegates Meeting. *SCAR Reports* and various newsletters are published irregularly as required.

The following symposium proceedings volume was published in 1997:

BATTAGLIA, B, VALENCIA, J and WALTON, D W H. 1997. *Antarctic Communities: species, structure and survival*. Cambridge, Cambridge University Press.

Appendix 6

ACRONYMS AND ABBREVIATIONS

AGONET	Antarctic Geospace Observatory Network
AMD	Antarctic Master Directory
ANTOSTRAT	Antarctic Offshore Stratigraphy Programme
ANTIME	Antarctic Ice Margin Evolution
APIS	Antarctic Pack Ice Seals programme
ASPECT	Antarctic Sea-Ice Processes and Climate
ATCM	Antarctic Treaty Consultative Meeting
BIOTAS	Biological Investigations of Terrestrial Antarctic Systems
CEP	Committee for Environmental Protection
COMNAP	Council of Managers of National Antarctic Programmes
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
IASC	International Arctic Science Committee
ICAIR	International Centre for Antarctic Information and Research
IGBP	International Geosphere-Biosphere Programme
IOC	Intergovernmental Oceanographic Commission
ISMAS	Ice Sheet Mass Balance and Sea-level
ITASE	International Trans-Antarctic Scientific Expeditions
IUCN	World Conservation Union
JCADM	Joint Committee on Antarctic Data Management
NASA	National Aeronautical and Space Administration
ODP	Ocean Drilling Program
PICE	Palaeoenvironments from Ice Cores
SCAR	Scientific Committee on Antarctic Research
SCOR	Scientific Committee on Oceanic Research
SDLS	Seismic Data Library System

SCAR REPORT TO XXII ATCM

SPA	Specially Protected Area
START	System for Analysis, Research and Training
UV	Ultra-violet
VLF	Very Low Frequency
WCRP	World Climate Research Programme
WMO	World Meteorological Organization

COMNAP Report to the XXII ATCM

INTRODUCTION

1. This report provides an overview of the activities of the Council of Managers of National Antarctic Programs (COMNAP).
2. Government Antarctic operations, under the umbrella of the ATCM, are changing as global environmental issues increasingly drive science directions and technology developments offer new ways to do science and make the region more accessible. Antarctic science is increasingly focusing on global change issues. We are seeing more integrated research projects gathering specialist information from different areas and countries to address major scientific issues such as ozone depletion, ice sheet changes, studies of past glaciations, sea levels and atmosphere, sea ice dynamics and ocean and atmospheric circulation studies. There is more integration of Arctic and Antarctic science to enhance our understanding of the global ecosystem.
3. Southern Ocean research is a key component of the activities of most Antarctic agencies. Knowledge of southern ocean and atmospheric circulation makes a valuable contribution to global change models. Better knowledge of southern ocean ecosystems is also being demanded for management of southern ocean fisheries and the potential impacts of fishing on Antarctic and associated ecosystems. Much of this work contributes to the CEMP program of CCAMLR.
4. To address these issues effectively, international and multi-disciplinary science are essential, as are efficient and effective operational management. Whilst SCAR provides a forum for the development of scientific co-operation, COMNAP continues to provide opportunities for logistic co-operation and the exchange of ideas and information. A joint workshop is planned at the SCAR/COMNAP meetings in Concepcion, Chile in July to explore ways of enhancing scientific and logistics co-operation.

OPERATIONAL DEVELOPMENTS AND ISSUES

5. Antarctic operations are expensive. The search for improved effectiveness and efficiency, and technology development is resulting in changes to government activities in the region.
6. Inter-continental air access is improving. The 1997/98 season saw national program personnel being flown from South Africa to Dronning Maud Land by a commercial operator. Preliminary investigations have been conducted on the construction of a compacted snow airstrip in the Prydz Bay region of East Antarctica. These developments will significantly extend the ability to fly personnel to the Antarctic for short stay visits beyond the traditional air access points into McMurdo Sound and the Antarctic Peninsula, increasing scientific opportunity and productivity. There is an increase in contracting by national Antarctic agencies of logistics and infrastructure

support by the private sector. Also tour ships are being used to support scientific activities in some instances.

7. Remote sensing technology offers valuable opportunities for Antarctic science, particularly glaciology studies, despite limited satellite coverage of the Antarctic and Southern Ocean, and limited access to some satellite imagery. Automated observation and data recordings are also increasingly used to cost effectively extend the information range.

8. The ratification of the Protocol on Environmental Protection has been anticipated with an increase in the level of human impacts research over the last decade. Human impacts research now seems to be reaching a plateau, recognising a balance between research into global change and local human impacts. Environmental monitoring is receiving attention from operators. The Environmental Monitoring Handbook being developed by COMNAP in consultation with SCAR will provide useful standardisation of methodologies to allow complementary data to be collected around the Antarctic region.

9. These examples demonstrate an increased awareness of the value of the Antarctic region in contributing to our knowledge of the global environment. They also show the impacts of technology, particularly on the accessibility of the region, which can only be expected to speed up even more over the coming decade. This will provide opportunities for science, but also challenges for the future management of the region as it becomes more accessible to a wider range of interests.

KEY ACTIVITIES

SCIENTIFIC AND OPERATIONAL COOPERATION

10. An Information Paper has been submitted to the ATCM to illustrate the extent to which national Antarctic programs undertake cooperative scientific and logistic activities.

COMNAP 1998 Meeting in Cape Town

11. The ninth annual meeting of COMNAP and SCALOP took place in Cape Town during 25-29 August 1997. Some 57 representatives from 23 national programs attended the meeting. In addition to progressing and reviewing the tasks of the various working groups, including requests for COMNAP action from ATCM XXI, the COMNAP meetings continue to provide a valuable opportunity for planning cooperative scientific and logistics activities.

12. Professor Anders Karlqvist (Sweden) completed his term as COMNAP Chairman and Ms Gillian Wratt (New Zealand) was confirmed as Chairperson for the next three years. Following the retirement of Executive Secretary, Mr Al Fowler, the COMNAP Secretariat has been transferred from Washington DC to Hobart, Australia. Mr Jack Sayers, formerly SCALOP representative of the Australian Antarctic Division, has been appointed Executive Secretary for a six-year term.

Antarctic Air Networks

13. In 1995 a SCALOP Workshop on Antarctic Air Transport Networks was held in Washington DC. As a result of the workshop a SCALOP sub-group was formed to pursue the development of an inter-continental East

Antarctic Air Network (EAAN) that could potentially serve those stations located in Antarctica between 10° West and 140° East.

14. In March 1998, the National Institute of Polar Research (NIPR) of Japan hosted a special meeting of the EAAN sub-group to review progress to date and plan cooperative work on establishing an ice/compacted snow runway in the Prydz Bay region, subject to an Environmental Impact Assessment. The meeting was attended by COMNAP/SCALOP representatives from Australia, China, Japan and Russia as well as a number of technical experts and commercial aircraft operators.

Emergency Contingency Planning

15. ATCM XXI (Resolution 1, para 4) requested COMNAP and IAATO to submit Information Papers to the ATCM XXII on the extent to which contingency plans have been put in place. A COMNAP Information Paper has been submitted to the meeting although the response rate was disappointing. Twenty national programs responded to the questionnaire. Nine programs declined to respond consequently it is not possible to fully assess the extent to which contingency plans have been implemented in accordance with the requirements of the Protocol on Environmental Protection. The results from those that responded indicate that contingency plans have been developed for most year-round stations and ships, and that the COMNAP Guidelines have generally been followed in developing these plans.

16. While COMNAP has promulgated guidelines to assist national operators to develop and implement contingency plans, COMNAP has no authority to require individual agencies to produce plans in accordance with the guidelines. Such responsibility rests with the individual agencies and their national administrations. It is suggested, however, that the ATCM consider how the development and implementation of contingency plans by all nations operating in the Antarctic can be encouraged.

17. At its 1997 meeting in Cape Town, COMNAP established an Emergency Response and Contingency Planning Working Group that has been tasked to:

- review the 1992 COMNAP Guidelines for Oil Spill Contingency Planning and the status of the plans developed by national operators;
- review the Guidelines with a view to including plans to deal with other incidents which may have potential adverse impacts; and
- establish sub-groups to develop multi-operator oils spill contingency plans for King George Island, Ross Sea and Prydz Bay.

Polar Shipping Code

18. Noting the discussion on the development of the draft Polar Code by the International Maritime Organisation (IMO) at ATCM XXI (Final Report of ATCM XXI, paras 19 & 98), COMNAP has considered the technical aspects of the Code and issues of relevance to national Antarctic operators. This work is submitted as a Working Paper to the ATCM summarising matters that COMNAP considers need to be taken into account in relation to Antarctic shipping in the further development of the Code.

Education and Training

19. ATCM XXI proposed that a survey be conducted to determine the range of educational and training programs undertaken by national Antarctic programs and tour operators for people visiting or working in the Antarctic (Final Report of ATCM XXI, para 133). An Information Paper has been submitted to the ATCM summarising the results of the survey of national Antarctic operators. A comprehensive range of training is provided including Antarctic legislation, environmental requirements and safety.

Environmental Management

20. The ratification of the Environmental Protocol this year places increased responsibilities on Antarctic operators to factor environmental considerations into the planning and conduct of all activities. Within COMNAP, an Environmental Coordinating Group provides a link to the Antarctic Environmental Officers Network (AEON). The network's primary function is to encourage the sharing of environmental management information between environmental officers of national Antarctic programs. In this role AEON can provide valuable expert input to environmental issues from a practical perspective, including guidance on aspects of the Protocol's implementation.

21. AEON's work over the past year has concentrated on improving information links between members through AEON and the AEON web site, providing input to the IUCN document on cumulative impacts and coordinating the publication of the COMNAP Monitoring Summary and the development of a monitoring handbook. The monitoring handbook will provide detailed methodologies for specific parameters used to monitor the environmental impact of human activities in Antarctica. The monitoring summary provides a country by country outline of recent and ongoing Antarctic monitoring activity and associated references. The document will also be available on the COMNAP web site.

Electronic Information Exchange

22. COMNAP has requested its Electronic Information Working Group (ELINF) review and initiate improvements to its WWW Home Page especially with regard to the advance exchange of operational information. The COMNAP Executive Committee has provided ELINF with the following guidelines to consider when undertaking the review, namely:

- The COMNAP Home Page should not duplicate information that is more effectively updated on the national Home Pages. Links should be provided on the COMNAP Home Page that would facilitate the user accessing the data.
- The advance exchange information should be on the respective national Home Pages with a link to that information from the COMNAP Home Page. ELINF should develop the recommended format for the advance information to ensure common presentation.
- ELINF should define what information could usefully be contained on the COMNAP Home Page. The Home Page should provide information to the general public on the role of COMNAP and also basic information on each national program including stations, etc.
- It is probably unnecessary for national programs to be able to directly update information on the COMNAP Home Page.

- The Russian proposal for detailed information on individual Antarctic stations should be considered by ELINF however it is believed that the best approach would be for a model to be developed for presenting this information on national Home Pages where it can be more easily updated.
- In effect the COMNAP Home Page would be the "meta data" reference for information available on national Home Pages.

SCAR/COMNAP 1999 Meetings

23. The meetings of COMNAP X and XXV SCAR will be held in Concepcion, Chile from 20-31 July 1998. The COMNAP meetings will take place during the first week.

SCAR/COMNAP Workshop on Facilitating International Science Projects

24. A joint SCAR/COMNAP Workshop on Facilitating International Science Projects will be held during the Concepcion meetings, on Saturday 25 July 1998. The objectives of the workshop are to:

- gain a mutual understanding of the expectations and capabilities of COMNAP and SCAR;
- identify ways of enhancing scientific/logistics cooperation; and
- seek a way forward on specific projects.

Education and Training Forum

25. It is planned to conduct a Forum on Education and Training during the COMNAP meeting in Concepcion. The aim of the forum will be to review the results of the COMNAP survey on education and training and decide what further action, if any, is necessary.

Annex G
Reports of ATS (5b)

REPORT OF THE ANTARCTIC AND SOUTHERN OCEAN COALITION (ASOC)

Under Article III (2) of the Antarctic Treaty

XXII Antarctic Treaty Consultative Meeting

Agenda Item 5 (b)

May 1998

Since the XXI ATCM in Christchurch, ASOC and its member groups have participated in and monitored 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.

PROTOCOL RATIFICATION

Our primary focus during the past year has been working with individual Parties to achieve ratification of the Protocol. With the ratifications of the remaining two Parties, happily the Protocol is now fully in force as a legally binding instrument. ASOC extends its congratulations to all Parties. We are ready to work with Parties to ensure faithful implementation of the Protocol and the proper functioning of the new entities to be created as a result of its being in force. In this context, ASOC notes the large number of tourist expeditions that are using Canada as a base.

ASOC calls upon those Non-Consultative Parties which are active in Antarctica, or from which activities in Antarctica are organized, to ratify and implement the Protocol as soon as possible. In particular we recommend that Canada and Ukraine take the necessary legal steps to bring the Protocol into force for their countries. Until this occurs, organizers of Antarctic activities are provided with a legal loophole for avoiding compliance with the Protocol.

PROTOCOL IMPLEMENTATION

We urge all Parties to take the necessary steps at this ATCM to ensure actual implementation of the Protocol in preparation for the 1998/99 Antarctic summer season. This includes establishment of the Committee on Environmental Protection (CEP), ensuring that domestic regulations are fully operative, putting into place the process for reviewing environmental impact assessments, and implementing the Annex V provisions for establishing and managing protected areas.

Although the Protocol has now entered into force, only eleven Parties have passed implementing legislation. ASOC hopes that, consistent with each state's legal processes, all Parties will work quickly to achieve an effective domestic legal basis for their commitments under the Protocol. In many cases this will require Parties to enact enabling legislation to codify these commitments. Effective implementation is the litmus test for this Protocol.

We encourage all Parties to offer whatever assistance they can to facilitate the practical implementation of the Protocol. In this context, it would be useful for every Party to table as an information document the provisions of its new legislation or revised regulations that are designed to implement the Protocol. This would help achieve greater consistency in implementation.

We suggest that Parties facilitate practical implementation by increased sharing of expertise and technology, through multilateral and bilateral initiatives. In this respect, we support in principle the proposals outlined in the papers tabled at this ATCM on "Emergency Response Action and Contingency Planning" as a good way to achieve rapid response to environmental threats and impacts.

We also urge those Parties which have not yet done so, to ratify Annex V, the Protocol Annex on Protected Areas. ASOC understands that only six nations have not ratified Annex V: Argentina, Brazil, Ecuador, India, Poland, Russia. Until this Annex is ratified, the mechanism to protect large areas of Antarctica will not be in force. The designation of Antarctic Specially Managed Areas (ASMAs) will be a valuable tool in managing tourism. However, ASMAs cannot be established until Annex V enters into force. As tourism escalates, management is needed to ensure that potential impacts to the Antarctic environment, including cumulative impacts are mitigated. But the Annex has many other uses as well.

LIABILITY ANNEX

ASOC continues to direct substantial attention and resources to the question of a liability annex to the Protocol. An effective liability regime is an essential component of the comprehensive commitment to environmental protection called for in the Protocol. Existence of that annex will help to ensure compliance with the provisions of the Protocol. Without it, the mandate of Article 16 is being ignored.

ASOC congratulates Professor Rudiger Wolfrum for his work in developing the elements of a liability annex, and putting forward successive "Offerings." ASOC has been pleased to have contributed to this process even though the Parties have not seen fit to formally allow our representatives to be present. ASOC is ready to participate fully in these liability discussions, and requests all Parties to agree to the inclusion of observers.

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 concern efforts by several Parties to negotiate additional annexes which would tend to undercut progress toward completion and entry into force of a comprehensive annex on liability.

ASOC disagrees with the view, as stated in two papers tabled at last year's ATCM, that elaboration of a liability annex will interfere with the conduct of science. A response to the concerns articulated in these papers is provided as a special issue of ECO. If there is the possibility of liability, all operators, whether government or private, will use better equipment, will provide better training for their crews, and will take more urgent steps to deal with problems that arise.

SECRETARIAT

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.

COMMITTEE ON ENVIRONMENTAL PROTECTION

ASOC looks forward to the first meeting of the CEP. We hope that Parties will give the CEP sufficient mandate and latitude to allow it to operate effectively. Among other matters, ASOC submits that the CEP should be able to provide advice on:

- the adequacy of environmental impact assessments;
- the need to strengthen and improve the Protocol's measures;
- the state of the Antarctic environment;
- the need for scientific research related to the implementation of the Protocol, including environmental monitoring; and
- the elaboration and operation of the Antarctic Protected Area system.

ASOC submits that a test of Parties' commitment to faithfully implement the Protocol will be in their willingness to allow the Committee on Environmental Protection to function as a true advisory body.

TOURISM

Given the rapid increase in Antarctic tourism, ASOC reiterates the urgent need for adequate prior EIAs by operators and Parties and their review by the CEP. One particular concern is the possible cumulative impacts of such activities. Since the country with the largest tour operator has not yet ratified or implemented the Protocol, a large proportion of tourist expeditions still proceed to Antarctica without any EIA.

We are especially concerned since we understand that the number of tourists which will visit the Antarctic in the 1998/99 season is expected to remain at the high level of this past season, and that several large boats carrying in excess of 400 passengers will again be traveling to the Antarctic. We do welcome the fact that many tourist operators produced EIAs for the first time this past season to fulfill their obligations under U.S. law. ASOC reviewed and commented on several of these EIAs, and were encouraged by the willingness of most operators to evaluate alternative ways of conducting their activities in order to minimize their impact.

ASOC submits that the following minimum steps are required in order to properly implement the Protocol and minimize impacts to the environment:

- (1) the completion of an environmental assessment, which includes evaluation of all possible alternatives, which predicts that the expedition will have no more than a minor or transitory impact on the environment;
- (2) the pre- and post-activity reports, which were tested this past season, should incorporate time and duration of site visits. This information is needed to allow the identification or detection of cumulative impacts as required by the Protocol. Otherwise, there is no way to determine if a site was

visited by more than one ship simultaneously, whether visits were spaced closely together or spread out over 24 hours. To ensure consistency, GMT should be used on the forms;

(3) tour operators should be required to carry liability insurance commensurate with the scale and riskiness of their Antarctic operations.

SCIENCE AND TECHNOLOGY

ASOC continues to focus significant attention and resources on Antarctic science. In 1997, ASOC scientists participated in the meeting of the SCAR Group of Specialists on the Environment and Antarctic Conservation. We note the need for adequate resources to be provided by the Treaty System and its Parties if SCAR is realistically to be able to provide the advice sought by the Treaty System.

The best available environmentally sound technologies should be introduced into Antarctic operations on a progressive and continuing basis as early as possible. These include greatly increased use of renewable energy, and minimum impact waste disposal systems. For technologies as yet untested in Antarctic conditions, Parties could undertake in-situ testing of pilot systems as part of their research programs.

CCAMLR

It is quite clear that CCAMLR is facing its biggest challenge to date. The rampant illegal and unregulated fishing for toothfish has preempted CCAMLR's progress towards precautionary management and conservation of Antarctica's marine living resources. Although CCAMLR issues are not formally on the agenda of the ATCM other than the report from the CCAMLR Secretariat, we encourage Parties to elevate consideration of these issues within the ATCM framework.

ASOC is very concerned that nations have attempted to gain consensus for catch levels which are economically beneficial to their fishing fleets, without regard to the actual state of the fishery. ASOC submits that advances in CCAMLR's approach to management in recent years is being threatened by unresolved bilateral issues between some Parties, and by the overwhelming commercial realities of the burgeoning Patagonian toothfish (black hake or Chilean sea bass) fishery. In this fishery, CCAMLR faces a challenge which is threatening to negate its reputation as a credible conservation regime. ASOC urges that actions to ensure sound management and enforcement of these fisheries should, wherever possible, be taken in a truly international manner.

ASOC is also extremely concerned over the continued reports of substantial illegal fishing, particularly in the Western Indian Ocean Sector of the Southern Ocean, whose totals are reported to have exceeded the legal catch. We welcome the efforts of several nations to address this problem, but believe that ultimately CCAMLR and the Antarctic Treaty System must take coordinated steps to address it. This must include the creation of an enforcement regime with measures sufficiently severe to curb these illegal activities, and the imposition of sanctions on those nations which permit their fishers to fish without regard for CCAMLR's measures. ASOC calls on those Parties whose vessels have taken part in illegal fishing to take all necessary steps to enforce the rules against their fishers. We encourage all members to take steps to encourage non-member nations with Southern Ocean fisheries (in particular, Mauritius, Namibia, Portugal, Panama, and Vanuatu) to join CCAMLR.

ASOC is disappointed that the problem of seabird mortality in the longline fishery has not yet been adequately resolved. Efforts to date to reduce seabird mortality by limiting the fishing season have met with limited success because of economic priorities. ASOC urges Parties to CCAMLR and the Antarctic Treaty to take steps to ensure that the incidental mortality of all seabirds is further reduced. ASOC notes that incidental seabird mortality is heightened by the illegal and unregulated longline fisheries, and cannot be adequately addressed until these fisheries are dealt with.

The credibility of CCAMLR is at stake. If CCAMLR is unable to bring the illegal and unregulated fisheries under control, it may be time to formally return management of fisheries to the Antarctic Treaty System. The political accommodation which led to the Protocol assumed effective operation of CCAMLR. To the extent that CCAMLR fails, it undermines the credibility of the Protocol and the Treaty System, for if CCAMLR had not existed, the Protocol would surely have been extended to cover fishing in the marine environment.

We look to Parties to both the Protocol and CCAMLR to integrate Protocol-type measures into CCAMLR. 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.

INTERNATIONAL WHALING COMMISSION

ASOC has continued its policy of sending an observer to the annual IWC meetings. ASOC is very concerned that despite the Resolutions passed at the 1997 meeting and previous meetings of the IWC, recommending that scientific whaling should not be permitted in Sanctuaries, large-scale "scientific" whaling is still being conducted by Japan in the Southern Ocean Whale Sanctuary. Since the 1995/96 season 440 Minke whales have been killed annually, up from 330 in previous years.

ASOC calls for steps to be taken to ensure compliance with the Southern Ocean Whale Sanctuary, and, within relevant fora, urges the implementation of a global whale sanctuary.

CLIMATE CHANGE

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. Over the past year there has been increasing evidence that climatic changes may be impacting on Antarctica's systems. The consequences of climate change may be most evident in the physical geography of the Antarctic where seemingly small changes in temperature have already contributed to, for example, the breaking up of various ice shelves. The imminent disintegration of Larsen B shelf was reported in last year's ASOC report, following an investigative trip by ASOC member Greenpeace.

We urge Parties to ratify those Treaties and Protocols, specifically the Montreal Protocol and the Climate Change Convention, directed to controlling or minimizing these problems, to use their particular knowledge of Antarctica to raise awareness of the issues in appropriate fora, and to promote further action to ensure the long term protection of the Antarctic environment.

CONCLUSION

ASOC looks forward to working with delegates at this XXII ATCM, and to the successful resolution of some of the more contentious issues addressed in this report.

REPORT OF THE INTERNATIONAL ASSOCIATION OF
ANTARCTICA TOUR OPERATORS (IAATO)

Under Article III (2) of the Antarctic Treaty

(Agenda item 5b)

(Submitted by IAATO)

THE INTERNATIONAL ASSOCIATION OF ANTARCTICA TOUR OPERATORS (IAATO) is pleased to present a report of its activities to the XXII ATCM, Tromsø, Norway, 25 May - 5 June 1998 in relation to Article III(2) of the Antarctic Treaty

IAATO is dedicated to appropriate, safe and environmentally sound private-sector travel to the Antarctic. Over the last year IAATO has focused its activities in several key areas, including membership, environmental assessment and improved exchange of information among its members. IAATO and its members join in celebrating the entry into force of the landmark Protocol on Environmental Protection to the Antarctic Treaty.

1. Introduction

- 1.1 Founded by seven private tour operators in 1991, the International Association of Antarctica Tour Operators (IAATO) now includes 28 member and associate member companies in Argentina, Australia, Canada, Chile, Germany, Japan, The Netherlands, New Zealand, the United Kingdom and the United States. A current Membership Directory is included with this report (ATTACHMENT A).
- 1.2 A total of 9,604 persons traveled to the Antarctic on privately-organized expeditions in the 1997-98 season including 9,378 passengers aboard commercially organized ships, 95 persons on chartered yachts and 131 land-based visitors. This continues a trend, representing a slight increase over the previous highest-ever record number of 9,200 ship-borne visitors and 155 land-based visitors in the 1995-96 season. A summary of tourism is presented as a separate information paper to the XXII ATCM, including an estimate of tourist numbers for the 1998-1999 season.
- 1.3 IAATO held its annual meeting 10-11 July 1997 in Arlington, Virginia, USA, which was attended by 23 representatives and 14 different tour operators.
- 1.4 The U.S. National Science Foundation will host the 10th annual meeting for Antarctic tour operators at its headquarters in Arlington, Virginia on July 16th, 1998, celebrating a 10-year tradition of constructive dialogue between the government and private industry. The public meeting draws U.S. government representatives, tour operators, conservation organizations, representatives from other national Antarctic programs and the media.
- 1.5 To further its educational mission, IAATO inaugurated a comprehensive web site in 1997 at www.iaato.org. The site includes the IAATO Membership Directory, IAATO Bylaws and Recommendation XVIII-1 as well as tourism statistics compiled by the U.S. National Science Foundation. The site also includes links to national programs and other sources of Antarctic information on the internet. IAATO expects to add to the kind and amount of information posted on the site, which will give researchers in particular easy access to tourism data. A plan is in development by IAATO.

- 1.6 IAATO members value the opportunity to participate at this Antarctic Treaty Consultative Meeting and other international venues. Liaison with national Antarctic programs as well as scientific and environmental organizations is an important objective of IAATO and its members. In addition to the ATCM, IAATO was represented at several workshops and conferences, including the recently concluded Antarctic Futures Workshop organized by Antarctica New Zealand in Christchurch.

2. Membership

- 2.1 At its annual meeting, IAATO elected five provisional (new) members: Adventure Associates (AUS), Clipper Cruise Line (USA), Plantour & Partner (Germany), Pelagic Expeditions (UK) and Special Expeditions (USA). Both Special Expeditions and Clipper Cruise Line, previously active in the region, return to the Antarctic in 1998-1999. Adventure Associates has sponsored voyages to the Antarctic since 1991, most recently in conjunction with Quark Expeditions.
- 2.2 Pelagic Expeditions, is the first yacht operator to join IAATO, a significant step in outreach to the charter yacht community. Purpose built for polar expeditions in 1987, *Pelagic* sailed to the Antarctic for its eight season in 1997-98. Sally Poncet (*Damien III*) and Eric Leyes (*Croisieres Australes*) have both attended the IAATO Meeting in past years and maintain regular contact with the Secretariat.
- 2.3 Members were also pleased at the participation at the meeting of Japan Euro-Asia Service. JES has indicated its interest in joining IAATO as a full member in 1998-99. With the addition of JES, the five countries with the largest number of its citizens traveling to the Antarctic (U.S., Germany, Australia, U.K., Japan) will all be represented as members of IAATO.

3. Field Coordination

- 3.1 As part of its annual exchange of operational information, IAATO compiles and distributes Vessel Call Data (ATTACHMENT B).
- 3.2 Expedition leaders and ship's officers circulate their itineraries and maintain regular contact throughout the season to coordinate visits to individual sites and exchange general information, a key factor in managing Antarctic tourism and mitigating any potential environmental impact.
- 3.3 This ongoing and routine contact between vessels and with the Adventure Network Emergency and Medical Evacuation Response office in Punta Arenas (EMER) is also a key component of effective emergency response.
- 3.3 Vessel Call Data is provided as part of the annual exchange of operational information. The information is posted by the COMNAP Secretariat on the COMNAP website for reference by national Antarctic programs.

4. Environmental Impact Assessment

- 4.1 IAATO members submitted various environmental impact assessments to appropriate national authorities for planned activities for the 1997-1998 season, including Initial Environmental Evaluations to Australia, New Zealand and the U.S.
- 4.2 IAATO notes that the U.S. Environmental Protection Agency will hold a public scoping meeting on experience with the Interim Final Rule, "Environmental Impact Assessment of Nongovernmental Activities in Antarctica," on July 15th. The time and venue will be published in the Federal Register.

5. Procedures to Prevent the Introduction of Alien Species

- 5.1 IAATO looks forward to participating in the workshop announced by Australia at the Antarctic Division headquarters in Hobart, 25 - 28 August, 1998 (XXII ATCM/IP4).
- 5.2 IAATO-members continue the practice of safeguarding against introduction of alien species to Antarctica. Visitors are required to clean their boots and check their clothing before and after each landing. Boot washing stations are standard on all tour vessels.
- 5.3 Recognizing that tourists are a highly mobile population in the Antarctic, visiting a number of sites within a short time, IAATO looks forward to advice from SCAR and researchers on the best practices to avoid transfer of exotic organisms to Antarctica and translocation of organisms between sites.

6. Reporting of Tourism and Non-Governmental Activities

- 6.1 Following Resolution 3 (1997) Antarctic tour operators made use of a standard reporting form as adopted by ATCM XXI. Again this season IAATO received a complete set of Post Visit Site Reports from Antarctic tour operators.
- 6.2 IAATO strongly supports the use of this single form, which reduces the burden of paperwork and facilitates studies of the scope, frequency and intensity of tourist activities. Following the recommendation of the Meeting (Final Report of XXI ATCM, Item 9, para. 90) and after consultation with the U.S. and New Zealand, IAATO is presenting a short paper on its experience with the form this season.
- 6.3 As part of its ongoing work, IAATO is investigating the development of a database version of the form that will facilitate compilation and analysis of tour data.
- 6.4 IAATO notes that detailed information on visits to specific Antarctic sites by shipborne tourism has been collected systematically by the U.S. National Science Foundation, tour operators and IAATO since 1987, a valuable data set in any analysis of potential cumulative impact.

7. Relevance of Developments in the Arctic and the Antarctic

- 7.1 Three IAATO members, including two members of the IAATO Executive, participated in a February 1998 WWF Arctic Tourism Project workshop in Reykjavik.
- 7.2 The Project has published "Ten Principles for Arctic Tourism" in addition to a "Code of Conduct for Tour Operators in the Arctic" and "Code of Conduct for Arctic Tourists." More information on Arctic tourism and the environment can be found online at www.ngo.grida.no/wwfap.
- 7.3 Many IAATO members operate programs in the Arctic as well as the Antarctic, including voyages to Baffin Island, Northwest Passage, Greenland, Iceland, Svalbard, Russia and Alaska. Similar measures to protect the environment and minimize potential impact are taken in the Arctic as in the Antarctic.
- 7.4 Apart from the relevance of the Arctic, a similar model of ship-based travel with a large and experienced staff is used in other environmentally sensitive destinations worldwide.

8. Site Assessment

IAATO members thank Oceanites and the Antarctic Site Inventory Project for publication of the *Oceanites Site Guide to the Antarctic Peninsula* and *Compendium of Antarctic Peninsula Visitor Sites* this season. These valuable publications give expedition leaders, IAATO environmental officers and passengers detailed information about individual site characteristics useful in managing site planning and visits. All IAATO vessels and home offices have copies of these reports.

9. Education and Training

- 9.1 Following the suggestion of the meeting (XXI ATCM Final Report, Item 13, para. 133), the IAATO Secretariat distributed a survey on Education and Training that was developed by COMNAP. The results are presented as an information paper to XXII ATCM. This paper also includes descriptive information on standard staff training programs by IAATO members.
- 9.2 IAATO notes that the experience of its members, vessels, officers, crew and staff that is of key importance to safe and responsible operations.

10. Implementation of Recommendation XVIII-1

- 10.1 In consultation with COMNAP, individual national Antarctic programs and consultants, IAATO continues to research, develop and use industry-wide programs and standards wherever necessary to ensure self-sufficiency and proper conduct in the Antarctic.

10.2 These initiatives include a medical evacuation contingency plan, standard medical information, slide presentation on "Guidance for Visitors to the Antarctic," and a standardized table of contents for training materials and handbooks. IAATO values its growing and constructive dialogue with COMNAP on these operational issues.

11. Emergency Response Action and Contingency Planning

11.1 All IAATO-member companies have Shipboard Oil Pollution Emergency Plans (SOPEP) in place that satisfy regulation 26 of Annex I of MARPOL. These plans are being tailored for Antarctic operations in light of operational considerations and requirements of the Environmental Protocol.

11.2 Following Resolution 1 (1997), IAATO is presenting a draft information paper on contingency planning to ATCM XXII for comments and discussion. This plan will be discussed in detail at the IAATO annual meeting, July 15 & 17, 1998.

11.3 Abandon ship, fire and other emergency drills are required aboard ship by international maritime law.

12. 1997-98 Scientific and Environmental Research Initiatives

12.1 IAATO member companies continued to provide logistic and scientific support to national Antarctic programs and Antarctic organizations in 1996-97. Members see themselves as a resource for science and welcome the opportunity to assist. Specific requests for logistic or other support should be made to individual members or the IAATO Secretariat. A current directory is attached to this report.

12.2 The primary support to science remains transport of researchers and station personnel, including a major transfer of personal this season in and out of the U.S. Palmer Station due to late delivery of a USAP vessel. Scientists from Russia and Argentina also traveled aboard member vessels.

12.3 In addition, members of the Antarctic Site Inventory Project were provided with accommodations, transport and access to visitor sites. A representative of In.Fue.Tur traveled as an observer on one voyage this season.

12.4 IAATO members also transported equipment and supplies, including materials for the ongoing refurbishment of Brown Station and the emergency transport of a refrigerated container at Arctowski Station to Ushuaia for repairs. Scientific equipment was also transported from Fremantle to Davis Station.

12.5 The Russian Antarctic Expedition chartered the *Multanovskiy* for work in the Antarctic.

- 12.6 In addition to support for science programs, tour operators and passengers continued their tradition of direct financial contributions to organizations active in Antarctica, including the Scott Polar Research Institute, UK Antarctic Heritage Trust, Antarctic Heritage Trust, South Georgia Whaling Museum and Humpback Whale Identification Project.

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LAATO ANTARCTIC VESSEL CALL DATA 1997/98

Vessel	Company	Call Sign	Telex	E-mail	Fax	Phone
Patriot Hills Base Camp	ANI			113251.2240@ compuserve.com	874 683141498	874 683141497
ANI Pta Arenas HQ	ANI			ani@chilesat.net	5661226167	56 61247735 Emergency: 5661220565
Bremen	Hapag-Lloyd Cruises	C6JC3	1103404 1103735	captain_bremen@ bremenms.ccmil. compuserve.com	1103405 1103736	1103404 1103735
Disko	Marine Expeditions	OVQW			321969321	321969320 321969310
Explorer	Explorer Shipping	ELJD8	1241223	explorer@vships.k vmarinet.co.uk	1241224	1241223
Hanseatic	Hapag-Lloyd Cruise	C6KA9	1103725 1103727	captain_hanseatic @hanseaticms.cc mail. compuserve.com	1103726 1103727	1103730 1103725
Ioffe	Marine Expeditions	UAUN			1400655 or 5415858003 via radio Argentina	1400655
Kapitan Khlebnikov	Quark Expeditions	UTSU	3273075144 27320014		327307513 1402733	327307513 1400676
Marco Polo	Orient Lines	C6J27	1306215		630869313 1306216	630869310 630869311 630869312
Molchanov	Quark Expeditions	UUQR	47300256		67315412	67315410 67315411
Multanovskiy	Quark Expeditions	UJFO			327374912	327314910
Shokalskiy	Heritage Expeditions	UUPB	492621363			
Shuleykin	Marine Expeditions	UBNZ		Ubnz@ globemail.com via globe wireless	5415858003 via radio Argentina	
Vista Mar	Plantours	3EKG7	1332275		1332275	1332275
World Discoverer	Society Expeditions	ELDU3	363650730		363650920	363650910
YACHTS						
Damien II	Jerome Poncet					
Kotik	Alain Caradec	FGYU				
Kekilistrion	Olivier Pauffin	FQ3946				
Fernande	Pascal Grinberg	VP8BXT				
Pelagic	Skip Novak	ZJL5390			via InmarsatC: 4378004345	
Valhalla	Pascal Boimard					
Le Boulard	Jean Monzo					

EL Radio Schedule

2400 UBT daily (1900 Chilean time)

Primary: 4146 kHz

Secondary: 6224 kHz

Tertiary: 8294 kHz

IAATO Membership Registration 1998-99

- A. Company name
- B. Contact information
- C. IAATO member since
- D. Number of years operating in the Antarctic
- E. Names of ships used in previous seasons
- F. Incidents in previous years that have resulted in damage to the vessel or environment
- G. To which national authority(ies) have you provided advance notice of planned expeditions?
- H. Name, registry and specifications of each vessel you plan to use, including the number of crew and carrying capacity of each ship/aircraft
- I. Contact information for each vessel
- J. Number of voyages planned for each vessel and planned itineraries. Please forward brochures
- K. Total number of passengers you expect to carry in 1997-98
- L. Do you plan any non ship-based tours or extended time off the vessel in the Antarctic Treaty area? If yes, please describe.
- M. Have you conducted an environmental assessment of your Antarctic operations? Please attach a statement of compliance and describe what environmental information you have supplied and to which national authority(ies).
- N. Have you established contingency plans? Please attach a statement of status of compliance with oil pollution contingency plans, SOPEPs, and waste management plans.
- O. What are your methods of educating passengers, staff and crew about Recommendation XVIII-I. Please describe any training programs you have instituted.
- P. What steps have you taken for medical self-sufficiency? How will you insure that all travelers complete and return the IAATO standard form on general medical information?
- Q. What are your staff positions and who is on your staff? Give names, specialties, and a summary of Antarctic and tour experience. According to IAATO standards, you should have a qualified staff member for every 15-20 passengers and ensure that 75% of your staff has previous Antarctic experience.
- R. Please attach a signed statement that you have read the IAATO Bylaws and Membership Criteria as well as Recommendation XVIII-I and agree to follow same.
- S. For this registration to be complete, you must pay annual dues and other fees.

Antarctic Treaty Consultative Meeting, Tromsø, May 1998

Report from the International Hydrographic Organisation

Presented by Norway, representing the IHO

Introduction.

At the ATCM in Seoul in 1995, the Treaty nations passed a resolution [1/1995] concerning the importance of improving the charting of Antarctic waters, in the interests of the safety of navigation, and to prevent the environmental pollution which might result from a shipwreck.

The International Hydrographic Organisation presents a short report on the progress of these endeavours since ATCM XXI in Christchurch in 1997.

Progress of Surveys and Charting.

The execution of Hydrographic Surveys in temperate climates is a very time consuming process, given the requirement to identify without fail all dangers to navigation. This is because the sonar based technology used for the task requires laborious work in obtaining closely spaced sounding profiles from a boat or ship. The technology of space based mapping techniques cannot, as yet, satisfy the requirements of safe marine navigation. The rate of progress of surveys in high latitudes is very slow indeed, given the technological constraints mentioned above, and the very limited seasonal opportunities to carry out the work.

Nevertheless steady progress has been reported in the season 1997/98, and five IHO member States mounted hydrographic surveying expeditions in that season. The five nations reporting activities were Argentina, Australia, Chile, France, and United Kingdom. New Zealand has undertaken some training as a preliminary to future campaigns.

Chart production based on these surveys is progressing, nine new charts being scheduled for publication in 1998, and a further 17 planned for publication by the end of the year 2000.

A new edition of the IHO publication S 59, Status of Hydrographic Surveying and Nautical Charting in Antarctica, has been published, and is available from national hydrographic offices on request. A copy will be tabled at ATCM XII.

In recognition of the importance of the Antarctic hydrographic programmes the International Hydrographic Organisation, at its XV Conference in 1997, established a permanent Regional Committee for Antarctica to replace the previous working group.

Issues of Interest.

Links with IAATO

In the period 1993 to 1997 the main concern of the IHO Permanent Working Group for Cooperation in Antarctica was the establishment of an internationally approved chart scheme for Antarctic waters, and the encouragement of a greater rate of effort in hydrographic surveying on the Antarctic Coast. By the end of 1996 much had been achieved, as reported by the IHO representative to the XXI ATCM.

During this period considerable effort was devoted to informing the operators of government vessels of the poor state of surveying and charting, and of consequent risks of navigational accidents. Statistics were obtained to establish vessel traffic patterns, in order to focus more effectively the efforts of national hydrographic offices.

In 1997 and 1998 some effort has been devoted to establishing contact with the operators of non-government vessels, especially tourist operators, through links with IAATO. These links have now been established, and need to be developed during the next few years for the benefit of the entire Antarctic community.

Links with COMNAP

It is also clear that closer links should be established between IHO and COMNAP. Both Organisations believe that this is necessary, and efforts will be made to ensure that that is achieved.

Reporting Form [Agenda Item 12]

IHO Member Hydrographic Offices are most supportive of the initiatives regarding a reporting form for activities within Antarctica. This will provide a valuable data base for prioritising the surveying and charting activities to meet the needs of users. It will also provide assistance to hydrographic offices wishing to identify ships of opportunity which might be used to progress surveys in locations which are not close to the main Antarctic bases.

Polar Navigation Code [Agenda Item 10]

The IHO and its Member States are most supportive of the new Polar Navigation Code. The draft code refers, in its second paragraph, to the 'relative lack of good charts'. IHO intends to ask IMO to give this problem greater emphasis, and to include it as a matter to be addressed in the detail of training and certification requirements for navigators. It appears that the problem is not sufficiently recognised by mariners at present, as evidenced by the significant number of groundings of supply and tourist vessels in high latitudes [both Antarctic and Arctic] in recent years.

Antarctic Spatial Data Infrastructure

The IHO is in contact with the Project Officer for the SCAR project for an Antarctic Spatial Data Infrastructure. The hydrographic offices of IHO Member States are committed to optimising the availability and use of the bathymetric data sets in their custody in the service of Antarctic science and operations, and are fully supportive of this project.

Conclusion

Continued Support for National Hydrographic Programmes in Antarctica

The IHO requests ATCM members to continue to express their support for the Antarctic programmes of national hydrographic offices.

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REPORT OF THE WORLD CONSERVATION UNION (IUCN)

Under Article III (2) of the Antarctic Treaty

XXII Antarctic Treaty Consultative Meeting

May 1998

IUCN extends congratulations to Parties on their ratification of the Antarctic Environmental Protocol. If properly implemented, the Protocol will ensure that Antarctica's wilderness and scientific values are preserved. IUCN offers its expertise in helping to implement the Protocol.

IUCN, The World Conservation Union, is a unique partnership of States, government agencies and non-governmental organisations. Founded in 1948, it now has 880 members, including 173 state and government agency members, from 133 countries¹. In addition, over 8000 volunteer scientists and practitioners contribute to fulfilling IUCN's mission through six global Commissions.

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 consider problems and devise strategies to facilitate conservation of nature throughout the world. The elements of IUCN's policy and programme are agreed by the triennial World Conservation Congress² 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 designation and management, environmental monitoring, environmental legislation, and liability for environmental damage. Two of the IUCN Commissions, those on Protected Areas and on Environmental Law, are currently making significant contributions to IUCN's Antarctic programme.

IUCN has been concerned with Antarctic conservation issues for over 36 years. In 1991, six months before the Protocol to the Antarctic Treaty on Environmental Protection was signed in Madrid, it published the Strategy for 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 and management issues relevant for Antarctica.

In 1993 a workshop on Antarctic environmental education and training was held, again in partnership with GOSEAC. The Proceedings of all these workshops have now been published and are available, and the recommendations from these workshops have been presented at Antarctic Treaty Consultative Meetings.

A fourth technical workshop was held in Washington DC in September 1996, entitled "Cumulative Environmental Impact in Antarctica: Minimisation and Management." The workshop built on the results from the SCAR/COMNAP workshops on environmental monitoring, focusing on aspects relevant to cumulative impacts. The outcome should be useful in a practical way to the ATS in general, as Protocol implementation will require a much better understanding of this concept, and specifically to national, nongovernmental and commercial operators and to the Antarctic scientific community. The report of this workshop was tabled at ATCM XXI. A follow up paper detailing ways of implementing the recommendations contained in that report has been tabled at this ATCM. This paper builds on comments received by IUCN from Parties and interested observers and experts.

IUCN participated in the planning of, and subsequently convened one of the Discussion Groups at, the Protected Areas Workshop, which was held immediately prior to this ATCM. This workshop built on many of the recommendations of the SCAR/IUCN workshop on Protected Areas held in 1992.

Following the adoption of a new Resolution on Antarctica and the Southern Ocean, and the endorsement of IUCN's Antarctic programme for 1997-1999 by the World Conservation Congress (IUCN's General Assembly), held at Montreal in October 1996, IUCN's Antarctic Advisory Committee (AAC) was reconstituted, with the mandate to provide guidance on the programme and to contribute to its implementation. The AAC was first established in 1994 as a means of focussing IUCN's involvement with Antarctic conservation issues and harvesting inputs from various parts of the Union, in relation to Antarctic conservation.

The AAC is made up of 12 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 professional background: academia, governmental conservation agencies, non-governmental organisations and private consultancies. The AAC is chaired by Ms. Beth Clark, based in the United States, with the support of vice-chair Mr. John Cooper (South Africa).

Over the past two years, the AAC has expanded its networking to make formal contacts with other IUCN structures (e.g. commissions) and with Arctic experts to exchange information on for example, marine, tourism and global warming issues. The AAC can

thus draw on support and advice within IUCN on legal issues, protected areas issues, etc.

The AAC's primary objectives are:

- * to develop and promulgate policy advice on Antarctic conservation, with particular emphasis on the implementation of the Protocol, including contributing to the development of a liability annex to the Protocol, and to the development of an effective environmental impact assessment process; and input to CCAMLR, especially its work on ecosystem management
- * to strengthen the system for establishing and managing protected areas in the Antarctic and Subantarctic, and the development of an integrated strategy for conservation in the Subantarctic and cool temperate islands and their associated waters;
- * to follow through on the recommendations from the SCAR/IUCN workshops, and the IUCN Workshop on Cumulative Impacts
- * to represent IUCN at relevant Antarctic and Subantarctic fora, including ATCM, CCAMLR, and SCAR;
- * depending on available resources, to organise seminars, technical sessions or workshops relevant to Antarctic and Subantarctic conservation.

The AAC would like to raise the following specific issues:

Alien species and diseases

IUCN notes with concern reports of introduced alien species and diseases. Recent work on antibodies in Antarctic penguins and on effects of macroinvertebrates on ecosystem functioning at sub-Antarctic islands has shown clearly that it is not just the effect of introduced vertebrates (cats and rats, etc.) that we must worry about introducing: it is also the invertebrates down to the level of viruses. This means that, for example, wood, food, footwear, clothing and field gear and equipment may need to be subject to additional treatment or cleaning procedures, or if treatment is not possible, importation might need to be avoided. Increased efforts to avoid introducing diseases and "microlife" need to be linked to management of tourism, as well as government programmes. Warmer climatic conditions may also allow the establishment of alien species. IUCN draws delegates' attention to the Information Paper, "Introduction of Non-native Species" which IUCN has tabled at this ATCM.

Climate change

With respect to climate change, IUCN is alarmed by the recent reports of ice shelf losses, and submits that research needs to address what this means to the ecosystems of the Antarctic continent in general, and specifically of the Antarctic Peninsula area. IUCN is also concerned, that as a consequence of melting, hitherto inaccessible areas will become accessible both to scientist and tourists. IUCN wishes to recommend that the ATCM refer this matter to the Committee on Environmental Protection and to SCAR for a consideration and identification of what international measures may be needed to protect such areas.

Tourism

With respect to tourism, IUCN notes the rapid increase in Antarctic tourism, and submits that absence of proper overall management is a problem which must be addressed. ASMAs may be one way to manage tourism as there would be the ability to control numbers and access. In this respect, IUCN encourages Parties to ratify Annex V as a matter of urgency.

IUCN's concern is also based in large part on the lack of understanding if repetitive visits of large groups of people can negatively impact Antarctica's flora and fauna. In particular, the cumulative number of tourists landing at sites--at one time, and over time--is more of a concern as regards environmental impact, especially with regards to cumulative impact.

IUCN suggests that there may be utility in agreeing to a cap on the number of tourists that can visit Antarctica until we have a better understanding of the contribution to cumulative impact. Expansion into new "pristine" areas is also a concern, and suggests that a moratorium or other limit on visits to new areas be agreed.

IUCN also suggests that a list of sensitive sites be drawn up. This list should include the sites that tourists generally visit, and could be used as a basis for new ASMAs to be designated by the appropriate entity.

Unregulated fishing

IUCN notes with alarm the reports of unregulated fishing on the Patagonian toothfish, and the consequent incidental seabird mortality. The seabirds which are caught in the longline gear include several IUCN-listed threatened species of albatross and petrels, and this mortality (estimates of which go as high as 145,000 birds last season) is unsustainable for the species involved. IUCN submits that Parties take all steps necessary both through the Antarctic Treaty System and through CCAMLR, to bring these fisheries under control.

IUCN submits that marine protected areas can play a critical role in protecting biodiversity, and have been used in other areas of the world to prevent over harvesting. IUCN has tabled a paper on Marine Protection in the Southern Ocean which discusses how these areas can be used as to help meet the objectives of both CCAMLR and Protocol Annex V on Protected Areas.

Annex on liability for environmental damage

IUCN is dismayed at the slow pace of negotiations of an Annex on Liability for environmental damage, and urges Parties to make greater efforts towards the prompt completion, adoption and implementation of this Annex pursuant to Article 16 of the Protocol, and applying to all activities in Antarctica in the area covered by the Protocol which might result in damage to the Antarctic environment.

IUCN calls on Parties to rescind the decision that experts cannot be invited and to invite IUCN to provide expert advice and participate in the meetings of the group of legal experts which is negotiating the Liability Annex to the Protocol.

Secretariat

IUCN also calls on Parties to redouble their efforts to resolve urgently the remaining disagreements over the location of the Antarctic Treaty Secretariat since the current impasse is detrimental to the implementation of the Antarctic Treaty, the Environmental Protocol and the effective protection of the Antarctic environment.

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 end.

In closing, IUCN wishes to pay tribute to Mike Prebble of New Zealand who died very suddenly on 19 April. Mike had been a member of the AAC from 1995 to 1997 and one of its vice chairs. His heart and mind were dedicated to Antarctic conservation and environmental protection in general. His contributions, common sense and motivation will be missed by the Antarctic community at large.

ANNEX

1. Antarctic resolution

ENDNOTES:

1. **The following ATCPs are state members of IUCN:**
Argentina, Australia, Belgium, Brazil, Ecuador, Finland, France, Germany, India, Italy, Netherlands, New Zealand, Norway, Russia, South Africa, Spain, Sweden, United Kingdom, USA

The following ATCPs have government agencies which are members of IUCN:
Chile, Japan, Korea, Rep. of, Uruguay

The following NCPs are state members of IUCN:
Canada, Denmark, Greece, Guatemala Switzerland, Turkey

The following NCPs have government agencies which are members of IUCN:
Austria, Bulgaria, Colombia, Hungary, Papua New Guinea, Romania

2. Prior to 1996, the IUCN World Conservation Congress was called the IUCN General Assembly.

19.96 Antarctica and the Southern Ocean

RECALLING Recommendations 18.75, 17.52 and 17.53 and Resolutions 15.20, 16.3, 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 island 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 wastes 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 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;



United Nations Environment Programme

The XXIIInd Antarctic Treaty Consultative Meeting, Tromsø, 25 May – 5 June 1998

STATEMENT BY THE UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP)

UNEP congratulates the parties to the Antarctic Treaty for their commitment to the protection of the Antarctic environment and for the entry into force of the Madrid Protocol on Environmental Protection on 14 January 1998.

It is with great sadness that we have to inform the meeting that Mr. K. Anthony Edwards, Senior Adviser to the Executive Director of UNEP, who has been involved in Antarctic matters for many years and led the UNEP delegation to the last two Antarctic Treaty Consultative Meetings, passed away on 23 April 1998, while on mission in Geneva.

UNEP was established in 1972 to serve as a focal point for environmental action and coordination within the United Nations system. In the last years, its role as a leading global environment agency has been reaffirmed. Through its various programmes, UNEP addresses assessment, management and policy aspects of global and regional environmental issues, to many of which Antarctica and the Southern Ocean are of relevance.

The Water Branch of UNEP comprises closely-linked global programmes on the conservation, management and monitoring of the marine environment and its living resources, including the Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, and the Regional Seas Programme. UNEP also supports the work of the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP).

UNEP and the Food and Agriculture Organization of the United Nations (FAO) developed the Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals (MMAP) together with the International Whaling Commission and The World Conservation Union (IUCN). UNEP serves as the secretariat for MMAP and continues to support activities which promote and assist countries to achieve sound conservation and management of marine mammals.

The Regional Seas Programme is a global programme for the integrated management of marine and coastal resources and for the control of marine pollution. The programme comprises 13 regions and over 140 countries in a system of legally binding conventions and protocols implemented through action plans. These are formulated according to the needs of the region by the governments concerned and also serve to further the parallel and iterative development and improvement of supporting legal instruments and environmental management mechanisms.

The Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, which advises the United Nations system and its Member States, has published, with the support of UNEP, a large number of reports on a variety of topics concerning the marine environment, including the State of the Marine Environment in Antarctica in 1990. UNEP is, furthermore, the leading agency of the GESAMP Working Group on Marine Environmental Assessment established in 1996 to review the State of the Marine Environment, and to prepare a global report on the impact of land-based activities on the marine environment.

The Assessment Programme of UNEP has particular responsibility for carrying out UNEP state of the environment (SOE) functions. UNEP has produced a number of global state of the environment reports and assisted with a number of regional and national reports. UNEP's latest global SOE report (GEO-1), published in January 1997, is the first volume in the new Global Environment Outlook series. GEO-2 is currently under preparation and will be released in May 1999. UNEP's assessment responsibility was reinforced by the last session of its Governing Council in February 1997 which identified, as one of the core elements of UNEP, the analysis of the state of the environment and assessment of global and regional environmental trends.

UNEP also administers the secretariats of various global conventions which deal with subjects relevant to Antarctica and the Southern Ocean. They include the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol on Substances that Deplete the Ozone Layer, the Convention on Biological Diversity, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, and the Convention on the Conservation of Migratory Species of Wild Animals.

UNEP is pleased to be able to be represented at this meeting to offer its cooperation, experience and assistance to the parties of the various treaties pertaining to Antarctica and the Southern Ocean, as well as to the observer organizations in any manner that those parties and organizations deem appropriate.

UNEP welcomes the initiative by Norway to establish an Internet web site on the Antarctic Treaty Consultative Meeting (ATCM) and the announcement made by Peru that a web site on the next ATCM is under preparation. The successful cooperation in Antarctica, as evidence by the entry into force of the Madrid Protocol, deserves a greater attention from the media and interest from the public.

UNEP notes with appreciation that the newly established Committee for Environmental Protection included in its priorities the State of the Antarctic Environment Report. We believe that the importance of Antarctica should be highlighted both in terms of its unique biodiversity and its key role as an indicator of global environmental change. Coordinated input from the secretariats of the various conventions noted above may be of assistance in the preparation of such a report.

REPORT TO A PLENARY SESSION

**BY THE WORLD METEORIOLOGICAL ORGANISATION (WMO)
IN RELATION TO ARTICLE III (2) OF THE ANTARCTIC TREATY**

ATCM-XXII, TROMSO, NORWAY, 25 MAY – 5 JUNE 1998

Agenda item 5b

Submitted by WMO

HISTORICAL BACKGROUND OF WMO

The United Nations was established in the aftermath of a devastating war to help stabilise international relations and give peace a more secure foundation. The United Nations, however, became much more than peace-keeper. Often without attracting attention, the United Nations and its agencies are engaged in a vast array of work that touches every aspect of people's lives around the world. The Convention of the World Meteorological Organization came into force in March 1950, transforming the previous non-governmental International Meteorological Organisation, which had existed since 1873, into the intergovernmental WMO which now serves as a Specialised Agency of the United Nations.

WMO's major activity, that of providing the international framework for meteorological observations and data exchange, has contributed decisively to the remarkable success story of weather forecasting. By providing the international framework for meteorological observations and data exchange, WMO has contributed to the remarkable improvement in weather forecasting. Weather forecasting has been able to evolve from a state in the early 1950's, of being mostly art strengthened by science to its current status of being predominantly science, reliant on the steadily improving global numerical weather analysis and prediction models.

In the last 45 years, much has been accomplished by WMO and its Members. For example, the beginnings of the Global Ozone Observing System date back to 1957. The measurements so painstakingly coordinated and standardised under the auspices of WMO were, just 30 years later, of utmost relevance to countries that, in 1987, signed the Montreal Protocol on Substances that Deplete the Ozone Layer.

Through World Weather Watch (WWW) - a global system for the collection, analysis of weather and other environmental information - WMO has made a unique contribution to international cooperation. There has never been a better world-wide operational system similar to the WWW to which every country in the world contributes, every day of the year for the common good.

In collaboration with the International Council of Scientific Unions (ICSU), WMO has played a pioneering role in the global coordination of geophysical and meteorological experiments. Thus it may claim credit for laying down the operational foundations for the world-wide monitoring of the chemical composition of the atmosphere and of climatic change. These matters are assuming an even greater priority.

The present world-wide concern about climate change has its roots in the changing chemical composition of the atmosphere. Measurements of the changes taking place are essential to diagnose these trends and their likely impacts and the sources of the polluting substances. The basic world-wide network for these observations is the Global Atmosphere Watch of WMO, initiated in 1989 to coordinate two long-standing measurement programmes: the Global Ozone Observing System and the Background Air Pollution Monitoring Network (BAPMON). These activities are providing vital information on the chemical and physical constituents and properties of the global atmosphere including the dispersion, transport, chemical transformation and deposition of atmospheric pollutants over land and sea, among other things.

The World Meteorological Organization spearheaded the campaign on the potential effects of climate change such as global warming and sea level rise. The WMO was instrumental in the negotiations for a UN Convention on Climate Change, which was signed during the Rio de Janeiro Earth Summit in 1992 and became international law in 1994. WMO and three other international organizations established the Global Climate Observing System (GCOS) which is in its planning stage. GCOS was formed to meet long-term meteorological observational requirements for a more enhanced description of the earth's climate system, as envisaged by the United Nations Conference on Environment and Development (UNCED), and its Agenda 21. GCOS is taking a comprehensive view towards these requirements, and will of necessity include observations from the ocean, in concert with the Global Ocean Observing System (GOOS), in addition to the current operational meteorological observational programme of WMO.

ORGANIZATIONAL STRUCTURE

The World Meteorological Organization is a specialised agency of the United Nations, consisting of some 160 Member States and Territories. It was created :

- To facilitate world-wide cooperation in the establishment of networks of stations for the making of meteorological observations as well as hydrological and other geophysical observations related to meteorology, and to promote the establishment and maintenance of systems for the rapid exchange of meteorological and related services;
- To promote the establishment and maintenance of systems for the rapid exchange of meteorological and related information;
- To promote standardisation of meteorological and related observations and to ensure the uniform publication of observations and statistics;
- To further the application of meteorology to aviation, shipping, water problems, agriculture and other human activities;
- To promote activities in operational hydrology and to further close cooperation between Meteorological and Hydrological Services; and
- To encourage research and training in meteorology and, as appropriate, in related fields and to assist in coordinating the international aspects of such research and training.

World Meteorological Congress

The World Meteorological Congress is the supreme body of WMO. It brings together the delegates of all Members once every four years to determine general policies for the fulfilment of the purposes of the Organization. It approves the Long-term Plan, authorises maximum expenditures for the following four-year financial period, and adopts Technical Regulations relating to international meteorological and hydrological practice. Congress elects the President and Vice-Presidents of the Organization and members of the Executive Council (other than the presidents of the regional associations) and appoints the Secretary-General. The 12th WMO Congress was held in Geneva in 1995 when Dr. John W. Zillman, Permanent Representative of Australia, was elected President of WM.

WMO Executive Council

WMO EC is composed of 36 directors of national Meteorological or Hydrological Services. It meets at least once a year to conduct the activities of the Organization, to implement the decisions taken by its Members in Congress and to study and make recommendations on any matter affecting international meteorology and related activities of the Organization. The 50th session of WMO EC will be held in Geneva from 16 to 26 June 1998.

WMO Executive Council Working Group on Antarctic Meteorology (WMO EC-WGAM)

Research into many aspects of Antarctic climatology has been initiated by a number of international bodies. WMO and ICSU jointly initiated the World Climate Research Programme which has a significant Antarctic component, particularly with respect to sea ice as a climate "memory" and feedback system. The Intergovernmental Oceanographic Commission (IOC) extended the World Ocean Circulation Experiment (WOCE) in recent years to include atmosphere-ice-ocean interactions in high southern latitudes. WMO EC welcomed the invitation of IOC to establish closer links between WMO and IOC in the development of the coordinated plans for research and monitoring in the Southern Ocean.

In carrying out its Antarctic activities, WMO collaborates with other international organizations, in particular with the Antarctic Treaty Consultative Meeting (ATCM), Scientific Committee for Antarctic Research (SCAR), Council of Managers of National Antarctic Programs (COMNAP). This cooperation will be continued to ensure a coordinated and cost effective implementation of the scientific and technical programs in Antarctica.

The EC-WGAM operates under clear terms of reference from the Executive Council of the World Meteorological Organization. The WGAM is composed of members nominated by the permanent representatives of countries that are a party to the Antarctic Treaty, and experts designated by permanent representatives of Members that have not yet acceded to the Antarctic Treaty but have active meteorological programmes in Antarctica. The WGAM has a role to provide suitable information on meteorological activities in Antarctica to the WMO Executive Council.

Considering that there is a need for meteorological and other environmental data from Antarctica for the full implementation of the World Weather Watch and monitoring of climate change and depletion of the ozone layer over the Antarctic. The WMO Executive Council Working Group on Antarctic Meteorology (WMO EC-WGAM) is maintained with the following terms of reference:

- To promote the execution of the resolutions of Congress and the Executive Council in the area from 60oS to 90oS;
- To provide guidance in the development of the relevant parts of the WMO Long-term Plan;
- To coordinate programs of surface and upper-air meteorological observations in the Antarctic;
- To develop the most appropriate schemes for collection and dissemination of meteorological data for operational purposes;
- To develop and recommend regional coding practices which are to be applied in the Antarctic;
- To study problems relating to instruments and methods of observation peculiar to the Antarctic;

To discuss questions and make recommendations on meteorological research and operations related to the Antarctic;

To maintain active contacts with other groups or bodies such as SCAR, JSC, COMNAP, IOC, WMO's technical commissions, etc., with regard to aspects of Antarctic meteorology of particular relevance to their functions;

To provide, as necessary, to the Antarctic Treaty Consultative Meetings, through its Chairman or other representative, information on meteorological activities in Antarctica.

The WMO Executive Council requires its Working Group on Antarctic Meteorology to be able to provide suitable advice on future policy with respect to research, aircraft and shipping operations in Antarctica and the Southern Ocean.

The 6th session of the WMO EC-WGAM was held 1-5 November 1993 in Geneva. During the inter-sessional period, activities of the WMO EC Working Group on Antarctic Meteorology are mainly carried out by correspondence and Email. The chairman of the WMO EC-WGAM has maintained close cooperation with other international organizations, and bodies related to the Antarctic, through active participation in the meetings of SCAR, COMNAP and ATCM, and the presentation of the main aspects of the WMO Antarctic activities to those meetings.

WMO, SCAR, the Australian Bureau of Meteorology, BAS, AMS and AMOS are to sponsor of an International Symposium on Operational Weather Forecasting in Antarctica to be held in Hobart 31 August – 3 September 1998. This will be followed by the 7th session of WMO EC-WGAM to be held in Hobart 7 – 11 September 1998.

Resolution 40 of the 12th WMO Congress in 1995

A hallmark of the WMO activities is the free and unrestricted exchange of meteorological data and information products. Such free exchange of meteorological data and products is essential to the effective and efficient provision of meteorological services to protect life and property. The availability of weather forecasts and climate prediction is made possible by National Meteorological and Hydrological Services through this international free exchange of data and information, coordinated by WMO.

It is appropriate to say that Resolution 40 at the 12th WMO Congress in 1995 - "WMO Policy and Practice for the Exchange of Meteorological and Related Data and Products, including Guidelines and Relationships in Commercial Meteorological Activities" reasserted the traditional position of WMO on this matter.

XXV Meeting of the Scientific Committee on Antarctic Research (SCAR)

WMO is to send a representative to participate in the XXV session of SCAR, in Concepcion, Chile, 20-31 July 1998. Of interest to ATCM are the five recommendations drafted by the Physics and Chemistry of the Atmosphere (PACA) Working Group at XXIV SCAR, with assistance from WMO, namely.....

Ship-borne meteorological observations.

Noting the value of observations from all Antarctic shipping for Antarctic and global operational meteorological analyses; WMO urges National Operators to ensure that basic meteorological observations from research vessels are inserted at least six-hourly into the WMO Global Telecommunications System.

Automatic weather stations.

Noting that regular real-time data from the interior of Antarctica are essential for Antarctic and global analyses and research; WMO requests that national operators of Automated Geophysical Observatories (AGOs) and Automatic Weather Stations ensure that basic and regular meteorological observations are inserted at least three-hourly into the Global Telecommunications System via over-passing polar orbiting satellites.

Upper air soundings.

Noting the supreme importance of upper air observations from Antarctic in general, and the interior of the continent in particular now that only the Station at South Pole remains in operation; WMO requests National Operators to consider establishing a radiosonde program when any new station is built more than 250 km from an existing station with an upper atmosphere sounding routine.

Southern Oscillation and El Nino.

Noting the substantial impact of the Southern Oscillation and El Nino phenomena on the climate of West Antarctica; WMO recommends that National Operators consider deploying Automatic Weather Stations on West Antarctica and drifting buoys in the Pacific Sector of the Southern Oceans where there is a huge data void.

WMO Global Telecommunications System.

Noting the progress being made by the WMO Working Group on Antarctic Meteorology in conjunction with the WMO Working Group on Antarctic Telecommunications; WMO recommends that National Operators collaborate to rectify the problems with the Global Telecommunications System identified by the SCAR FROST project.

PART FOUR

Additional Documents from ATCM XXII

Annex H
Message from ATCM XXII
to Stations in the Antarctic

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ANNEX H: MESSAGE FROM THE XXII CONSULTATIVE MEETING TO STATIONS IN THE ANTARCTIC.

The XXII ATCM was hosted by the Norwegian government in the beautiful Arctic city of Tromsø, between 25 May and 5 June.

The Treaty Meeting has been notable for a variety of reasons. That Bulgaria gained consultative status after demonstrating an active Antarctic programme and having ratified the Environmental Protocol, is worthy of particular mention. This brings the number of Consultative Parties to 27.

This Consultative Meeting has also been the first since the entry into force of the Environmental Protocol to the Antarctic Treaty in January 1998. ATCM XXII saw the successful inaugural meeting of the Committee for Environmental Protection (CEP) established under the Protocol.

The CEP is tasked with providing the ATCM with the "best available advice" on environmental issues and during its first meeting it addressed a variety of issues including environmental impact assessment and the State of the Antarctic Environment Report. The Committee also considered the outcome of a Workshop on the Antarctic protected areas system, held in advance of the ATCM, and endorsed several of the Workshop recommendations to improve the existing system. The importance of Antarctic protected areas was recognised as the Meeting also urged all Parties who have yet to do so, to ratify the fifth Annex to the Protocol which deals with protected areas.

Recognising the steady increase in activity in Antarctica and the need to ensure safety of all operations, the ATCM made significant progress on the issue of emergency response action in Antarctica. Parties formally recognised the COMNAP guidelines on oil spill contingency planning and response action and urged Parties to develop such response strategies for all stations and vessels.

The continuing increase in Antarctic tourism was noted and co-operation with IAATO over the management of tourism was further developed. There were also valuable exchanges on education and training and on science issues, including the existing ice core drilling project above Lake Vostok. The Meeting also discussed at length the draft Code on Polar Shipping being developed by the International Maritime Organisation. This seeks to improve the design, construction and operating standards for polar vessels. Recognising the need to improve the safety of operations in Antarctica the Meeting welcomed the opportunity to co-operate with IMO in the development of the Code.

On a sad note the Meeting was informed of the loss, in a boating accident, of three Argentine staff from Orcadas Station during the 1997/98 season as well as the deaths of five Russian expedition members in a helicopter accident in June. The Meeting expressed its heartfelt condolences to the bereaved families and to the Antarctic programmes that have suffered these sad losses.

To all those in Antarctica for the 1998 winter, the delegations participating in the XXII Consultative Meeting, send their warmest greetings and wish you every success in your important scientific endeavours during the coming months.

Annex I
List of Documents
for ATCM XXII

XXII Antarctic Treaty Consultative Meeting

Tromsø - 25 May - 5 June 1998

List of Working papers

Doc.no.	Sub. by	Title	Item. no.	Org. lang.	Transl.	Distr.
1	LEGAL EXPERTS	Liability - Report of the Group of Legal Experts	09	English	SRF	14.04.1998
2	UNITED KINGDOM	Emergency Response Action and Contingency Planning	08	English	SRF	29.04.1998
3	UNITED KINGDOM	Antarctic Protected Area System - Annex V	07f	English	SRF	29.04.1998
4	UNITED KINGDOM	Report - Convention on the Conservation of Antarctic Seals	05a	English	SRF	29.04.1998
5	SECRETARIAT	Guide Management Plans Antarctic Specially Protected Areas	07f	English	SRF	29.04.1998
5 / 1	SECRETARIAT	Guide Management Plans Antarctic Specially Protected Areas	07f	English	SRF	28.05.1998
6	AUSTRALIA	Antarctic Treaty Introductory Booklet	16	English	SRF	29.04.1998
7	AUSTRALIA	Antarctic Environmental Day	7a	English	SRF	29.04.1998
8	AUSTRALIA	Antarctic Treaty Secretariat	05c	English	SRF	29.04.1998
9	FRANCE	Document de Travail sur une Proposition de Décision	18	French	ESR	29.04.1998
10	NEW ZEALAND	Historic Site Management Plans (Sites No. 15, 18, 22)	07f	English	SRF	29.04.1998
10 / 1	NEW ZEALAND	Historic Sites Management Plans (Sites No. 15, 18, 22)	07f	English	SRF	29.05.1998
11	NEW ZEALAND	Report on the Work of the Intersessional Contact Group on a State of the Antarctic Environment Report (SAER)	06	English	SRF	29.04.1998
12	NORWAY	Emergency Response Action	08	English	SRF	29.04.1998
13	COMNAP	The Polar Code for Shipping	10	English	SRF	29.04.1998
14	ARGENTINA	Los Procedimientos de Evaluación de Impacto Ambiental del Anexo I del Protocolo de Madrid	07b	Spanish	ERF	29.04.1998
15	GERMANY	The Question of Liability as Referred to in Article 16 of the Protocol	09	English	SRF	29.04.1998
16	GERMANY	Emergency Response Action and Contingency Planning	08	English	SRF	29.04.1998
17	NORWAY	The International Code of Safety for Ships in Polar Water (Polar Code)	10	English	SRF	24.05.1998
18	NORWAY	The International Code of Safety for Ships in Polar Water - The Antarctic Issues	10	English	SRF	24.05.1998
19	AUSTRALIA	Environmental Impact Assessment - The Role of EIA Guidelines in Understanding "Minor" and "Transitory"	07b	English	SRF	24.05.1998

Doc.no.	Sub. by	Title	Item. no.	Org. lang.	Transl.	Date
20	NORWAY	Committee for Environmental Protection (CEP) : Consequences of Establishment	07a	English	SRF	24.05. 1998
20	NORWAY	Comité para la protección del medio ambiente: Consecuencias de su establecimiento	07a	English	S	
21	UNITED KINGDOM	Antarctic Protected Area System. Historic Sites and Monuments. South-West Coast of Elephant Island, South Shetland Islands, Antarctica	07f	English	SRF	24.05. 1998
22	CHILE	Protección del Medio Antártico: Declaración de la XXII RCT	07a	Spanish	ERF	24.05. 1998
22 *	CHILE	On the Protection of the Antarctic Environment: Declaration of the XXII ATCM	07a	Spanish	E	04.06. 1998
23	NEW ZEALAND/ NETHERLANDS	Committee for Environmental Protection (CEP): Establishment Issues	07a	English	SRF	24.05. 1998
23 *	NEW ZEALAND/ NETHERLANDS	Comité para la protección del medio ambiente: Asuntos atinentes a su instalación	07a	English	S	03.06. 1998
24	UNITED KINGDOM	Committee for Environmental Protection (CEP) : A Discussion Paper	07a	English	SRF	24.05. 1998
24 *	UNITED KINGDOM	Comité para la protección del medio ambiente: Documento de discusión	07a	English	S	03.06. 1998
25	NORWAY	ATCM Homepage	05c	English	SRF	24.05. 1998
26	NORWAY/UK	Report of the Antarctic Protected Areas Workshop	07f	English	SRF	25.05. 1998
27	SCAR	Developing The Protected Areas System in Antarctica	07f	English	SRF	26.05. 1998
28	ARGENTINA	Secretaría del Tratado Antártico	05c	Spanish	ERF	29.05. 1998

* No revision of document, but correction of one of the language versions.

XXII Antarctic Treaty Consultative Meeting

Tromsø - 25 May - 5 June 1998

List of Information papers

Doc.no.	Sub. by	Title	Item no.	Org. lang.	Transl.	Distr.
1	UNITED KINGDOM	Yacht Visits to Antarctica, 1970-98	12	English		14.04.1998
2	UNITED KINGDOM	Wilderness and Aesthetic Values in Antarctica	07f	English		29.04.1998
3	UNITED KINGDOM	Implementation of the Protocol on Environmental Protection to the Antarctic Treaty	07a	English		29.04.1998
4	AUSTRALIA	Introduction of Diseases to Antarctic Wildlife - Proposed Workshop	07c	English		29.04.1998
5	COMNAP	Education and Training	16	English		29.04.1998
6	COMNAP	Emergency Contingency Planning	08	English		29.04.1998
7	COMNAP	Scientific and Operational Cooperation	14	English		29.04.1998
8	COMNAP	COMNAP Report to the XXII ATCM	05a	English		29.04.1998
9	PERU	Actividades Peruanas Relacionadas al Cumplimiento del Protocolo al Tratado Antártico sobre Protección del Medio Ambiente	07f	Spanish	EF	29.04.1998
10	PERU	Recopilación de Información de Fauna y Fitoplancton Antártico de Expediciones Antar del Perú	07c	Spanish	EF	29.04.1998
11	PERU	Estudio Tecnológico para la Obtención de Harina de Krill - Euphasia Superba - Promoción en las Universidades Peruanas de la Investigación Científica y Tecnológica en la Antártica	15	Spanish	EF	29.04.1998
12	PERU	Estación Científica Antártica Peruana "Machu Picchu"	14	Spanish	EF	29.04.1998
13	PERU	Radiactividad Ambiental en la Estación Antártica "Machu Picchu"	15	Spanish	EF	24.05.1998
14	PERU	Manejo de Despedicios y Aguas Residuales a bordo del Buque de Investigación Científica "Humboldt"	07e	Spanish	EF	29.04.1998
15	PERU	Radiactividad Ambiental en la Estación Antártica "Machu Picchu"	15	Spanish	EF	24.05.1998
16	PERU	Programa Radar MST en Antártida - Resultados Preliminares del Perfilador VHF a bordo del B.I.C. Humboldt	15	Spanish		29.04.1998
17	PERU	Características Ingeniero Geológicas de los Suelos de Fundación de la Estación Machu Picchu y Abastecimiento de Agua a sus Instalaciones	14	Spanish	EF	29.04.1998
18	PERU	Primer Concurso Universitario sobre Confección de Maqueta del Continente Antártico	16	Spanish	EF	24.05.1998
19	PERU	Use of Alternative Energy in the Peruvian Scientific Station of Machu Picchu	14	English	SF	29.04.1998
20	PERU	Caracterización del Acuífero de la Estación Antártica Machu Picchu	14	Spanish	EF	24.05.1998

Doc.no.	Sub. by	Title	Item no.	Org. lang.	Transl.	Dis.
21	CCAMLR	Report of the CCAMLR Observer to ATCM XXII	05a	English		29.04.1998
22	FIN/NOR/SWE	Nordic Co-operation in Matters Pertaining to the Protection of the Antarctic Environment	07a	English		24.05.1998
23	NEW ZEALAND	Follow-up to Final Comprehensive Environmental Evaluation (CEE) - Antarctic Stratigraphic Drilling East of Cape Roberts in Southwest Ross Sea, Antarctica 1997/98 Activities	07b	English		24.05.1998
24	SECRETARIAT	A Summary of Environmental Impact Assessments (EIAs), Audits/Reviews and Related Documents Prepared for Activities in Antarctica	07b	English		29.04.1998
24 / 1	SECRETARIAT	A Summary of Environmental Impact Assessments (EIAs), Audits/Reviews and Related Documents Prepared for Activities in Antarctica	07b	English		24.05.1998
24 / 2	SECRETARIAT	A Summary of Environmental Impact Assessments (EIAs), Audits/Reviews and Related Documents Prepared for Activities in Antarctica	07b	English		27.05.1998
25	SECRETARIAT	Environmental Impact Assessments : Circulation of Information (Resolution 6, 1995)	07b	English		29.04.1998
25 / 1	SECRETARIAT	Environmental Impact Assessments : Circulation of Information (Resolution 6, 1995)	07b	English		24.05.1998
25 / 2	SECRETARIAT	Environmental Impact Assessments : Circulation of Information (Resolution 6, 1995)	07b	English		27.05.1998
26	GERMANY	Nomination of a German Arbitrator in Accordance with Art. 2 of the Schedule on Arbitration to the Protocol of Environmental Protection to the Antarctic Treaty	07a	English		24.05.1998
27	GERMANY/UK/USA	Antarctic Site Inventory: Update on Results through Completion of the 1997-1998 Field Season	12	English		24.05.1998
28	USA	Improving Annual Exchange of Antarctic Information - Facilitating Information Exchange	6/14	English	SRF	24.05.1998
29	USA	Pollution Abatement at McMurdo Station, Antarctica	07d	English		24.05.1998
30	IUCN	Cumulative Environmental Impacts in Antarctica : Minimisation and Management	07f	English	SRF	24.05.1998
31	NETHERLANDS	Information on Dutch Legislation Implementing the Protocol	07a	English		24.05.1998
32	NETHERLANDS	Protection of Antarctica Act	07a	English		24.05.1998
33	NETHERLANDS	Draft Decree on the Protection of Antarctica	07a	English		24.05.1998
34	USA	Developing an Environmental Monitoring Program - a Work in Progress	06	English		24.05.1998
35	ITALY	Waste Management at the Italian Terra Nova Bay Station	07d	English		24.05.1998
36	ITALY	International Co-operation in the Italian Antarctic Research Programme	15	English		24.05.1998
37	BRAZIL	Progress Report on Aspects of the Implementation of the Management Plan for the ASMA of Admiralty Bay	07f	English		24.05.1998
38	URUGUAY	Medidas Adoptas en Cumplimiento del Protocolo al Tratado Antártico sobre Protección del Medio Ambiente (Protocolo de Madrid)	07a	Spanish	ERF	24.05.1998
39	URUGUAY	Instalación por el Uruguay de la Estación Científica Antártica T/N Ruperto Elichiribehety (ECARE)	14	Spanish	ERF	24.05.1998
40	NORWAY	Development of "State of the Environment" Reports in the North - Experiences with the EEA and AMAP Processes	06	English		24.05.1998

Doc.no.	Sub. by	Title	Item no.	Org. lang.	Transl.	Distr.
41	NORWAY	Status of Historic Site No. 25 : Framnesodden, Peter I Øy	07f	English		24.05. 1998
42	CHILE	Progress Report to ATCM on Marine Debris Pollution : A Matter of Present Concern and Suggestions for Future Actions to Attempt to Minimize the Problem	07e	English		24.05. 1998
43	CHILE	Cumplimiento del Protocolo al Tratado sobre Protección del Medio Ambiente (Protocolo de Madrid)	07a	Spanish	E	24.05. 1998
44	CHILE	Vigilancia y Control de la Contaminación del Ecosistema Marino en el Area de Bahía Fildes y Zona Adyacente	07e	Spanish	E	24.05. 1998
45	JAPAN	Report on the Measures taken for the Implementation of the Protocol on Environmental Protection to the Antarctic Treaty	07a	English		24.05. 1998
46	NEW ZEALAND	Ross Sea Region of the Environment Report	06	English	SRF	24.05. 1998
47	WMO	Weather, Oceans and Human Activity. Opening Address.	05b	English		24.05. 1998
48	CANADA	Opening Address by The Representative of Canada	01	English		25.05. 1998
49	ARGENTINA	Environmental Review of the Argentine Activities of Marambio Station	07b	Spanish	E	25.05. 1998
50	JAPAN	Opening Address by the Representative of Japan	01	English		25.05. 1998
51	IUCN	Marine Protection in the Southern Ocean	07f	English		26.05. 1998
52	IUCN	Report of the World Conservation Union (IUCN)	05b	English		26.05. 1998
53	IUCN	Introduction of Non-native Species in The Antarctic Area: An Increasing Problem	07c	English		26.05. 1998
54	COMNAP	Summary of Environmental Monitoring Activities in Antarctica COMNAP Information Paper	06	English		26.05. 1998
55	SOUTH AFRICA	Environmental, Health and Safety Management System (EHSMS)	07b	English		26.05. 1998
56	UKRAINE	Opening Address by the Representative of Ukraine	01	English		26.05. 1998
57	UKRAINE	Scientific Priorities of the Antarctic Programme of Ukraine	15	English		26.05. 1998
58	REP. OF KOREA	International Collaborations on Scientific and Related Activities in the Antarctic	15	English		26.05. 1998
59	AUSTRALIA	Report Submitted by the Depositary Government of the Convention on the Conservation of Antarctic Marine Living Resources	05a	English		26.05. 1998
60	AUSTRALIA	Opening Address by the Representative of Australia	01	English		26.05. 1998
61	CHINA	Statement by Ambassador XU Guangjian Head of the Chinese Delegation at the XXII Antarctic Treaty Consultative Meeting	01	English		26.05. 1998
62	COMNAP	Guidelines for Reporting Oil Spill Incidents which Occur in Antarctica	07e/08	English		26.05. 1998
63	RUSSIA	Measures to ensure the implementation of the Protocol on Environmental Protection to the Antarctic Treaty upon its ratification by Russian Federation	07a	English		26.05. 1998
64	RUSSIA	Russian studies of the subglacial Lake Vostok	15	English		26.05. 1998
65	RUSSIA	Perspective Plans for the Development and Changes of Infrastructure of the Russian Antarctic Expedition in 1998-2001	14	English		26.05. 1998

Doc.no.	Sub. by	Title	Item. no.	Org. lang.	Transl.	Date
66	RUSSIA	Application of the "minor or transitory impact" criterion for EIA in different regions of Antarctica	07b	English		26.05.1998
67	RUSSIA	Environmental Monitoring Works at the Bellingshausen Station (King George Island)	15	English		26.05.1998
68	RUSSIA	Project of Deep Drilling at Vostok Station and its Environmental Impact	15	English		26.05.1998
69	CHINA	Chinese Antarctic Environmental Report 1997/1998 Season	07d	English		26.05.1998
70	CHINA	Oil Spill Contingency Plan for Chinese Xuelong Vessel in Antarctica	14	English		26.05.1998
71	NETHERLANDS	Opening Address by the Representative of the Netherlands	01	English		26.05.1998
72	ITALY	Opening Address by the Representative of Italy	01	English		26.05.1998
73	USA	Report of the United States of America with Respect to Article 13 (1) of the Protocol on Environmental Protection to The Antarctic Treaty	07a	English		27.05.1998
74	USA	Report of The Depository Government of The Antarctic Treaty and its Protocol	05a	English		27.05.1998
75	WMO	Report to Plenary Session by the World Meteorological Organisation (WMO) in Relation to Article III (2) of the Antarctic Treaty	05b	English		27.05.1998
75 / 1	WMO	Report to Plenary Session by the World Meteorological Organisation (WMO) in Relation to Article III (2) of the Antarctic Treaty	05b	English		02.06.1998
76	WMO	Operational Issues: Improved Meteorological Networks in Antarctica through International Cooperation	14	English		27.05.1998
77	WMO	Science Issues: Antarctic Stratospheric Ozone Current Status Report	15	English		27.05.1998
78	KOREA	Opening Address by The Head of The Delegation of The Republic of Korea	01	English		27.05.1998
79	CANADA	Relevance of Developments in The Arctic and The Antarctic	11	English		27.05.1998
80	INDIA	Opening Address by the Representative of India	01	English		27.05.1998
81	ECUADOR	Discurso de Apertura del Delegado de Ecuador	01	Spanish		27.05.1998
82	BRAZIL	Opening Address by the Representative of Brazil	01	English		27.05.1998
83	INDIA	Nomination of Indian Arbitrator in Accordance with Art. 2	07a	English		28.05.1998
84	ASOC	Report of the Antarctic and Southern Ocean Coalition (ASOC)	05b	English	S	28.05.1998
85	SCAR/COMNAP	Antarctic Data Management	15	English		28.05.1998
86	IAATO	Overview of Antarctic Tourism Activities	12	English		28.05.1998
87	IAATO	Education and Training. A Survey of IAATO Member Companies	16	English		28.05.1998
88	IAATO	Report of the International Association of Antarctica Tour Operators	05b	English		28.05.1998
89	NEW ZEALAND	Opening Address by the Representative of New Zealand	01	English		28.05.1998

Doc. no.	Sub. by	Title	Item. no.	Org. lang.	Transl.	Distr.
90	SCAR	SCAR Report to XXII ATCM	05a	English		28.05.1998
91	SCAR	Scientific Research in the Antarctic	15	English		28.05.1998
92	SCAR	SCAR Global Change Research Programme	15	English		29.05.1998
93	IMO	Report of the Marine Environment Protection Committee on its Forty-First Session	05b	English		29.05.1998
94	ASOC	Proposal for a Sub-Agenda Item on Energy Management in the Antarctic	07a	English		28.05.1998
95	GERMANY	Opening Address by the Representative of Germany	01	English		29.05.1998
96	IMO	Text of the International Convention on Oil Pollution Preparedness, Response and Co-Operation, 1990	08	English		29.05.1998
97	NORWAY	Opening Address by the Representative of Norway	01	English		29.05.1998
98	BULGARIA	Planned Bulgarian Antarctic Activities and Scientific Co-operation (1998-2003)	15/16	English		29.05.1998
99	USA	Opening Address by the Representative of the United States of America	01	English		29.05.1998
100	GREECE	Opening Address by the Representative of Greece	01	English		29.05.1998
101	POLAND	Opening Address by the Representative of Poland	01	English		01.06.1998
102	SOUTH AFRICA	Opening Address by the Representative of South Africa	01	English		01.06.1998
103	SWEDEN	Opening Statement by the Representative of Sweden	01	English		01.06.1998
104	IAATO	IAATO Oil Spill Contingency Planning	08	English		01.06.1998
105	IAATO	Post-Visit Reporting	12	English		01.06.1998
106	FINLAND	Opening Address by the Representative of Finland	01	English		01.06.1998
107	NORWAY	Speech by the Norwegian Minister of Foreign Affairs, Mr. Knut Vollebæk, at the Opening of the XXII Antarctic Treaty Consultative Meeting Tromsø, 30 May 1998	01	English	SF	01.06.1998
108	SPAIN	Discurso de Apertura del Jefe de la Delegación de España	01	Spanish	E	01.06.1998
109	ASOC	Climate Changes and Antarctica	15	English		01.06.1998
110	FINLAND	Implementation of the Madrid Protocol to the Antarctic Treaty in Finland	07a	English		02.06.1998
111	UNEP	Statement by UNEP	05b	English		02.06.1998
112	IHO	Report from The International Hydrographic Organisation	05b	English		02.06.1998
113	SWITZERLAND	Discours d'ouverture de chef de la délégation suisse	01	Fench		02.06.1998
114	FINLAND	Information on Finnish Legislation Implementing The Protocol	07a	English		02.06.1998
115	BULGARIA	Acceptance of Annex V to the Madrid Protocol and Approval of Recommendation XVI-10	07a	English		02.06.1998

Doc.no.	Sub. by	Title	Item no.	Org. lang.	Transl.	Disc.
116	ARGENTINA	Report on Antarctic Tourism Through Ushuaia	12	Spanish	E	02.06.1998
117	JAPAN	Exhibition of Antarctica	16	English		02.06.1998
118	PERU	Opening Address by The Head of The Delegation of Peru	01	English		03.06.1998
119	GREECE	Nomination of Greek Arbitrators in Accordance with Art. 2 of the Schedule on Arbitration to the Protocol of Environmental Protection to the Antarctic Treaty	07a	English		03.06.1998
120	URUGUAY	Discurso de apertura del presidente de la delegación de Uruguay	01	Spanish	E	03.06.1998
121	BELGIUM	Opening Address by The Representative of Belgium	01	English		03.06.1998
122	CHILE	Opening Address by The Representative of Chile	01	English		03.06.1998
123	INDIA	Indian Antarctic Programme	15	English		04.06.1998
124	ARGENTINA	Opening Address by Dr. Horacio E. Solari, Head of the Argentine Delegation	01	Spanish	E	04.06.1998
125	BULGARIA	Consideration of Bulgaria's Notification for Consultative Status	19	English		04.06.1998
126	USA	Negotiation of an Annex or Annexes on Liability	09	English		04.06.1998
127	SWEDEN	Notes on the Involvement of Artists in the Swedish Polar Programme	16	English		04.06.1998
128	SWEDEN	The Swedish Expedition SWEDARP 97/98 to the Antarctica Logistic Co-operation with Finland, Norway and South Africa	15	English		04.06.1998
129	RUSSIA	Opening Address by the Delegation of the Russian Federation	01	Russian	E	04.06.1998
130	RUSSIA	Geographic Names in Antarctica	14	English		04.06.1998
131	BULGARIA	Opening Address by the Representative of Bulgaria	01	English		04.06.1998

Annex J
Standard Report Form
for
Tourism and Other Activities

Annex K
List of
Participants

XXII Antarctic Treaty Consultative Meeting

Tromsø - 25 May - 5 June 1998

LIST OF PARTICIPANTS

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Environmental NGO Representative

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Adviser
General Directorate for the Maritime Territory

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China

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Ambassador Guangjian Xu
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Annex M
Preliminary Agenda
for ATCM XXIII

ANNEX M: PRELIMINARY AGENDA FOR ATCM XXIII

1. Opening of the Meeting
2. Election of Officers
3. Adoption of the Agenda
4. Operation of the Antarctic Treaty System
5. Operation of the Antarctic Treaty System: Reports
6. Report of the Committee for Environmental Protection
7. Compliance with the Protocol on Environmental Protection
8. Co-operation among Parties with respect to Article 6 of the Protocol
9. Emergency Response and Contingency Planning
10. The Question of Liability as Referred to in Article 16 of the Protocol
11. Safety of Operations in Antarctica
12. Relevance of Developments in the Arctic and the Antarctic
13. Tourism and Non-Governmental Activities in the Antarctic Treaty Area
14. Inspections under the Antarctic Treaty
15. Science Issues, Particularly Scientific Co-operation and Facilitation
16. Operational Issues
17. Education Issues
18. Exchange of Information
19. Preparation of the XXIV Meeting
20. Other Business
21. Adoption of the Report
22. Closing of the Meeting