

ANTARCTIC TREATY

Final Report of the Twenty-third Antarctic Treaty Consultative Meeting

Lima, Peru, 24 de May – 4 June 1999

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ACRONYMS AND ABBREVIATIONS

ASOC	Antarctic Southern Ocean Coalition
ASMA	Antarctic Specially Managed Areas
ASPA	Antarctic Specially Protected Areas
ATCM	Antarctic Treaty Consultative Meeting
CCAMLR	Commission for the Conservation Antarctic System
CCAS	Convention for the Conservation of Antarctic Marine Living
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 Antarctic Tour Operators
IEE	International Environmental Evaluation
IHO	International Hydrographic Organization
IMO	International Marine Organization
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IUCN	World Conservation Union
MARPOL	International Convention for the Prevention of Pollution from Ships
NSF	National Science Foundation
PATA	Pacific Asia Travel Association
SCALOP	Standing Committee on Antarctic Logistic 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 Organization
WTO	World Tourism Organization

PART I

Final Report of ATCM XXIII

**FINAL REPORT OF THE XXIII ANTARCTIC
TREATY CONSULTATIVE MEETING**

LIMA, PERU, 24 MAY - 4 JUNE 1999

- (1) Pursuant to Article IX of the Antarctic Treaty, Representatives of the Consultative Parties (Argentina, Australia, Belgium, Brazil, Bulgaria, 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 Lima from 24 May - 4 June 1999, for the purpose of exchanging information, holding consultations, and considering and recommending to their governments measures in furtherance of the principles and objectives of the Treaty.
- (2) The Meeting was also attended by delegations from the following Contracting Parties to the Antarctic Treaty which are not Consultative Parties (Austria, Canada, Colombia, the Czech Republic, Denmark, Greece, Guatemala, the Popular Democratic Republic of Korea, Romania, Slovakia, Switzerland and Venezuela).
- (3) The Meeting welcomed the recent accession of Venezuela to the Antarctic Treaty.
- (4) A Preparatory Meeting with Embassy representatives was held in Lima on 22 April 1999. The information requirements of the Host Country towards the Contracting Parties, Observers and Experts were fulfilled by Circular Notes (2 in 1998, 6 in 1999), letters and through an Internet web site with an open as well as a password-protected area and in which working and information papers were posted in the available languages.
- (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 M**.
- (6) 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**.
- (7) The Meeting was opened by HE Dr. Fernando de Trazegnies, Minister of Foreign Affairs of Peru. His address is reproduced at **Annex D**.

(8) Ambassador Carlos Alzamora of Peru was elected Chairman of the Meeting. Ambassador Luis Macchiavello was appointed Executive Secretary and Ambassador Fortunato Isasi Deputy Executive Secretary. Two working groups were established and, on the suggestion of Peru as Host, the Meeting elected Dr. François Hanekom of South Africa as Chairman of Working Group I, and Dr. Roberto Puceiro of Uruguay as Chairman of Working Group II.

(9) On the occasion of the fortieth anniversary of the signing of the Antarctic Treaty, a commemorative ceremony was held at the Palacio de Gobierno of Peru. The statements made by His Excellency Alberto Fujimori, President of the Republic of Peru, and Ambassador Carlos Alzamora, Chairman of the Meeting, are reproduced at **Annex E**. During a Special Session of the Meeting, the Contracting Parties adopted the Lima Declaration, which is also reproduced as **Appendix** to this Report. At that occasion, Ambassador Oscar Pinochet de la Barra, who attended the Washington Conference in 1959 as member of the Chilean delegation, was invited to address the Meeting.

(10) The following Agenda was adopted:

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 by Observers and Experts
 - a. Reports under Recommendation XIII-2
 - b. Reports in relation to Article III (2) of the Antarctic Treaty
 - 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. 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 Antarctic
13. Tourism and Non-Governmental Activities in the Antarctic Treaty Area
14. Inspections under the Antarctic Treaty

15. Science Issues
16. Operational Issues
17. Education Issues
18. Exchange of Information
19. Preparation of the XXIV Consultative Meeting
 - a. Date and Place of the Next Meeting
 - b. Invitation of International and Non-Governmental Organisations
 - c. Preparation of the Agenda at ATCM XXIV
20. Other Business
21. Adoption of the Report
22. Closing of the Meeting

(11) In accordance with previous practice, Peru as Host proposed a provisional allocation of agenda items to the Working Groups. Peru's proposal was adopted and the agenda items were discussed as follows:

Plenary: Items 1, 2, 3, 5 (a), 5 (b), 6, 12, 19, 20, 21 and 22

The Committee for Environmental Protection (CEP): Items 6 and 7 (b – f)

Working Group I (WGI): Items 4, 5 (c), 7 (a), 8, 9, 10 and 18

Working Group II (WG II): Items 11, 13, 14, 15, 16 and 17

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

Item 4: Operation of the Antarctic Treaty System

(12) New Zealand introduced Working Paper (XXIII ATCM/WP1) on the January 1999 "Ministerial Meeting on Ice" hosted by the Government of New Zealand, noting that the meeting held from 25-28 January at Ross Island, Antarctica, attended by Ministers and officials from 23 Parties to the Antarctic Treaty, was the first such occasion to be held in Antarctica.

(13) Many delegations welcomed New Zealand's initiative, which had been supported by the collaborative efforts of the national programmes of New Zealand, the United States of America, and Italy. The gathering was of an informal nature, and while not convened as a Meeting under the Antarctic Treaty System, its participants had a significant opportunity to discuss issues and challenges important for the Antarctic Treaty System. The communiqué of that meeting is reproduced at **Annex K**.

(14) Working Groups 1 and 2 (WG-1 & WG-2) reviewed their tasks and schedules in the interest of promoting the most efficient use of resources and in order to avoid duplication of effort. Account was taken of two tabled Working Papers. (XXIII ATCM/

WP9), (Norway) summarised the ideas presented by the Chairman of WG-2, which Norway was requested to forward for consideration at XXIII ATCM. (XXIII ATCM/WP12), (Germany) commented on the perceived consequences and implications of the CEP assuming its functions.

(15) It was agreed that the most appropriate mechanism for the allocation of tasks within the ATCM's agenda remains with the ATCM (meeting in plenary sessions) itself. Therefore the ATCM should decide at the beginning of each meeting on the schedule of topics to be addressed and the structures to achieve this.

(16) To facilitate this process, the Host Government may wish to co-ordinate views and provide a draft schedule of work in advance of the ATCM. The Host Government should also prepare an annotated agenda for the forthcoming ATCM in accordance with Rule 37 of the Rules of Procedure. The annotated agenda should be sufficiently detailed to outline the scope of the issues and tasks to be addressed.

(17) Timely identification of tasks and associated papers will serve to guide the Party hosting the ATCM to provide infra-structural support.

(18) This process would be consistent with the modified rules of procedure as set out in Decision 1 of ATCM XXI. There are a number of attached conditions/deadlines to be met in respect of timely information exchange and paper submission in this regard.

(19) It was agreed that the scheduling of the ATCM's work should be kept under review. It is anticipated that the work of the CEP may influence task allocation. The administrative support which a permanent Secretariat would be able to provide is also likely to affect the division of work prior to the ATCM.

(20) In the longer term, the interaction between the CEP, ATCM and Secretariat may affect the scheduling of ATCMs.

(21) Uruguay, on behalf of Latin American Consultative Parties, reiterated its support for the candidacy of Buenos Aires as seat for the Secretariat of the Antarctic Treaty. Since ATCM XVII these six Parties have indicated the need to achieve an appropriate geographical balance in the distribution of Antarctic institutions with the aim of preserving and strengthening the spirit of co-operation and harmony of the Treaty System.

(22) Argentina reiterated its offer of Buenos Aires and referred to paragraphs 26-33 of the XXII ATCM Final Report, as well as to Appendix 1 of the Report and Working Paper (XXII ATCM/WP28).

(23) Australia reiterated its offer of Hobart in the spirit of assisting the achievement of consensus.

(24) There was consensus amongst Parties as to the need for the establishment of a permanent Secretariat, which is cost-effective. The Meeting expressed the urgent need to reach consensus on the issue of the Secretariat's location as well as its modalities.

(25) A great majority of Consultative Parties reiterated their support for Buenos Aires.

(26) Numerous delegations expressed the view that given the degree of support it had received, the agreement on Buenos Aires as the site is the quickest way to reach a prompt solution.

(27) The Meeting was encouraged to hear that Argentina and the United Kingdom are engaged in a constructive dialogue on certain Antarctic issues, including the Secretariat and its siting.

(28) Norway as the host country of the previous ATCM (Tromsø 1998) drew attention to the problems related to the burden on the host country arranging Consultative Meetings without a permanent Secretariat, such as the absence of a collective memory in the form of archives and the financial burden. Several delegations expressed that they would prefer a small Secretariat.

(29) Several Parties stated that the establishment of a Secretariat is a highly important and urgent matter for the efficient functioning of the Antarctic Treaty co-operation. Efforts should be made to prepare ground for a discussion at the next ATCM of all issues involved, with the aim of finding a solution for the Secretariat in its entirety. Some delegations noted that the legal aspects of establishing a Secretariat, could not be dealt with in isolation from addressing other topics of paramount importance, such as those of political, administrative, and financial nature. They regretted that - despite the efforts in defining the legal issues - there was still no consensus on such basic issues as the Secretariat's legal status.

(30) The Meeting noted the suggestion that pending a decision on the site of the Secretariat, work needed to proceed on the following issues: (a) functions, (b) composition, (c) budget, (d) contributions, (e) legal instrument, (f) legal status, and (g) privileges and immunities. It was also noted that it would be useful to refer to the valuable background on this matter contained especially in the reports of the ATCM XVII (Venice) and ATCM XIX (Seoul), so as not to repeat work already done.

(31) Several delegations stated that it was necessary to identify points of consensus on

the topics related to this issue and, on that basis, Parties could present working papers to be discussed at ATCM XXIV.

(32) Information Paper (XXIII ATCM/IP40), introduced by Italy, summarised the work done thus far and identified issues for further consideration. The Meeting welcomed the offer of Latin American Consultative Parties to develop a joint Working Paper on the modalities of the Secretariat. It was noted that Norway and Peru would prepare papers outlining their experiences as host countries of ATCM XXII and XXIII on secretarial aspects of organising Consultative Meetings. The United Kingdom indicated that it would prepare an overview of the historical perspectives of work undertaken by the ATCM on the Secretariat issues since ATCM XVII. Italy was requested to review Information Paper (XXIII ATCM/IP40) and to resubmit it as appropriate to ATCM XXIV. The above distribution of work would not preclude other Parties from contributing papers on any aspect related to this issue.

(33) With regard to the ever-increasing cost that organising an ATCM represents for the host country, concern was expressed that a *de facto* division might develop in the Antarctic Treaty System between those countries that could assume the burden and others that could not. It was noted that the establishment of a Secretariat would be one way of diffusing that burden. It was however also noted that the question of burden sharing with respect to the Secretariat and the organisation of the ATCM must be examined in detail in a larger context of defining the Secretariat's functions and rationalisation of the ATS' operation.

(34) It was suggested that the Meeting examine a topic closely related to that of the Secretariat: the possibility of adopting a cost-sharing system that would rationalise the system's operation. The possibility was mentioned of having the Secretariat adopt an arrangement similar to the one used for CCAMLR, where the costs of meetings, documentation, and related activities are shared, and the location of the Secretariat is considered the default location for official meetings.

(35) Some delegations were prepared to consider the possibility of holding ATCMs every other year provided that there would be a guarantee for the continuity of the work of the CEP, on the issue of liability and on issues relating to the establishment of a permanent Secretariat. In this connection, it was expressed that meeting every other year would entail a practical problem in respect of the application of paragraphs 3 and 5 of Annex I to the Madrid Protocol, with regard to CEEs and other ATCMs responsibilities. Other delegations noted that there are solutions to address the issues with respect of paragraphs 3 and 5 of Annex I.

(36) The view was also expressed that ATCMs should be reduced to one week rather than following the current practice of two, since this would provide a better and more

efficient structure of work. The CEP could meet during the week preceding the ATCM.

(37) Some delegations stressed that holding meetings every other year would allow for a more structured preparation of the issues and more meaningful outcomes. The establishment of a Secretariat would reinforce these aspects, it would support the CEP and other intersessional meetings, and it would allow for cost sharing. In this connection, it would be important to reach a consensus on the structure of the Secretariat as a starting point for deliberations on this matter at the following ATCM.

(38) The Meeting noted Information Paper (XXIII ATCM/IP15), (Denmark).

Item 5: Operation of the Antarctic Treaty System: Reports by Observers and Experts

a. Reports under Recommendation XIII-2

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

- i) the Head of the delegation of the United States of America as the Representative of the Depositary 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 Depositary Government of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR),
- iv) the Head of the delegation of the United Kingdom as the Representative of the Depositary Government of the Convention for the Conservation of Antarctic Seals (CCAS),
- v) the President of the Scientific Committee on Antarctic Research (SCAR),
- vi) the Chairperson of the Council of Managers of National Antarctic Programmes (COMNAP).

These reports are all reproduced at **Annex H**.

(40) The report of the Executive Secretary of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) highlighted the challenge facing the

Commission as a result of illegal, unregulated and unreported fishing for *Dissostichus* species in the Convention Area. In this regard, there was particular concern over estimates that the level of such activities far exceeded the levels of legal fishing for *Dissostichus* spp. and that this threatens not only stocks of *Dissostichus* spp., but also dependent and related species, in particular globally important populations of seabirds which are killed incidentally in the fishery.

(41) The Meeting took particular interest in the Executive Secretary's description of ongoing CCAMLR intersessional work aimed at developing a catch documentation system for *Dissostichus* spp. In response to the report, the Meeting called for Antarctic Treaty Consultative Parties that are also Members of CCAMLR to take effective measures within their competence at the next annual meeting of CCAMLR to conserve *Dissostichus* spp., including the adoption of a catch documentation system.

(42) It was also noted that, given the important linkages within the wider Antarctic Treaty System, CCAMLR's successful ability to combat illegal, unregulated and unreported fishing would enhance the strength of the whole Antarctic Treaty System and the protection of the Antarctic ecosystem. The Meeting adopted **Resolution 3 (1999)**. (Annex C)

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

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

(44) The reports, most of which are reproduced at **Annex I**, 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

(45) The Meeting noted that the matters relevant to this agenda item had been adequately dealt with under Agenda Item 4 and in the work of the Committee for Environmental Protection.

Item 6: Report of the Committee for Environmental Protection

(46) The Chairman of the Committee for Environmental Protection presented the report of the Committee to the Meeting. The report is reproduced at **Annex G**.

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

- Draft Decision on CEP web site
- Draft Resolution on Guidelines for EIAs in Antarctica
- Draft Resolution on Annex II: List of Specially Protected Species
- Draft Measure on Antarctic Protected Areas System: Revised Management Plan for Site of Special Scientific Interest N° 23 Svarthamaren
- Draft Agenda for CEP III (ATCM XXIV)

(48) In presenting the report of the CEP, the Chairman noted that CEP II had been attended by 98 participants, and had considered 22 Working Papers and 33 Information Papers. This was a considerable increase in working documents from CEP I, which dealt with 12 Working Papers and 30 Information Papers. He then drew attention to a number of key issues addressed by CEP and where its advice might be reflected in the Final Report of XXIII ATCM.

(49) Referring to paragraph 24 of the CEP report he noted that the CEP had agreed on procedures for consideration of draft CEEs, and this could over time lead to a better joint understanding of critical elements of the EIA process and to a more uniform practice. This should both ensure that Antarctic activities are planned and conducted to minimize environmental impact, and have bearing on the liability discussion elsewhere within the ATCM. The Meeting believed that the issue of how the CEP should consider CEEs was an important matter and welcomed the guidelines for CEP consideration on draft CEEs.

(50) On a related issue he drew attention to paragraph 100 of the report where the CEP endorsed the recommendations on Emergency Response and Contingency Planning. One important aspect of this is that COMNAP will continue to obtain more complete data on all accidents in Antarctica, and was requested to present a report to CEP III which also will include data on tourist operations provided by IAATO. The Meeting noted the importance of this issue and the need for comprehensive information on risk analysis. The Meeting endorsed the advice of the CEP and reminded Parties of the need to provide information through COMNAP as required by paragraph 4 of Resolution 6 from XXII ATCM.

(51) The CEP's Chairman drew attention to the work of COMNAP and SCAR in ensuring comparability of monitoring data referred to in paragraph 89 of the report, and to SCAR's offer to prepare a scoping study on the state of the Antarctic environment with support from CCAMLR, COMNAP and WMO referred to in paragraph 94 of the CEP II report. He asked that the Meeting give support for this work. The Meeting endorsed this suggestion and recommended that members encourage National Committees of SCAR to assist in this work.

(52) Referring to paragraph 105 of the CEP report, the Chairman of CEP noted that the

Committee advised ATCM that the annual report required under Article 17 of the Protocol should be presented as part of the annual exchange of information under the Antarctic Treaty. He noted the requirement that environmental reports should be available for consideration at the ATCM and suggested that practical aspects of this needed further consideration. He also noted that the CEP would be happy to assist the ATCM in further consideration of the agenda item on Data Exchange and Information, which of course had several elements beyond those considered by the CEP. Several delegations commented that it would be desirable to rationalize the various reporting requirements within the Treaty System, SCAR and COMNAP.

(53) The Chairman of the CEP reported further that the Committee had discussed the frequency of CEP meetings, and how to consider draft CEEs, should the ATCM decide to meet every other year (paragraphs 27 and 28 of CEP report). The Committee had concluded that at least for the time being it should meet every year.

(54) The Protocol requires that consideration of draft CEEs not delay the decision to proceed with a proposed activity by more than 15 months. This implicitly requires annual ATCMs that provide the opportunity for consideration of draft CEEs. The Committee concluded that this requirement could be solved in a simple manner even under bi-annual ATCMs. In such a case, in the year without an ATCM, the Committee noted that a Special ATCM could be held immediately after the CEP Meeting with one agenda item only, namely ATCM consideration of draft CEEs. Similarly, a special CEP Meeting could be held during the early part of ATCMs, should the ATCM at some future point decide that the CEP should meet bi-annually.

(55) Other key issues discussed by the CEP included the establishment of intersessional contact groups to report to CEP III on a) diseases of Antarctic fauna, and b) aspects of the Antarctic Protected Areas System. The latter built on the outcomes of the successful Second Workshop on Antarctic Protected Areas held in Lima on the Saturday and Sunday preceding CEP II, and the First Workshop held in Tromsø last year.

(56) The Chairman of the CEP called to the attention of the Plenary that all four countries who had not yet ratified Annex V of the Protocol (Recommendation XVI-10) had individually informed the CEP II Meeting that they had in progress the necessary internal procedures for such ratification. It was therefore expected that Annex V would be ratified by all Parties by the next ATCM, which would have important bearings on CEP's work on protected areas.

(57) The CEP Chairman finally asked the Plenary to take note of paragraph 66 of the CEP II report which referred to the inventory of sites of past scientific activities in accordance with Article 8, paragraph 3 of Annex III of the Protocol. He noted that it would be a challenge for CEP to advise how this requirement can best be met, as

clearly there would be more value from information on geographic sites of previous activities where these are fixed in time, than in those cases where these were now in new, likely unknown positions, e.g. on moving glaciers. He also referred to a mechanism for automatic protection for undiscovered sites that had been discussed (paragraph 72) and which it was agreed to discuss further at CEP III.

(58) The Meeting expressed its warm appreciation and thanks to the CEP and its Chairman for the valuable broad scope of work performed. The Meeting adopted:

- Decision 1 on CEP web site. The text of this Decision is reproduced at **Annex B**.
- Resolution 1 on Guidelines for EIAs in Antarctica. The text of this Resolution is reproduced at **Annex C**.
- Resolution 2 on Annex II: List of Specially Protected Species. The text of this Resolution is reproduced at **Annex C**.
- Measure 1 on Antarctic Protected Areas System: Revised Management Plan for Site of Special Scientific Interest N° 23 Svarthamaren. The text of this Measure is reproduced at **Annex A**.

(59) The Preliminary Agenda for CEP III (XXIV ATCM) is reproduced at **Annex G**.

Item 7: Compliance with the Protocol on Environmental Protection

a. General matters and Implementation by the ATCPs

(60) The Russian Federation presented Information Paper (XXIII ATCM/IP74), which dealt with the creation of a glossary of terms and definitions used in reference to the Antarctic Treaty, the Environmental Protocol, and its annexes.

(61) The Russian Federation had encountered some terminological, linguistic, and translation problems that it considered might also affect other non-English-speaking countries. It was suggested, and the Russian Federation agreed, that discrepancies should be reported to the Depositary Government (United States of America) for correction, as a prior step to preparing the glossary. Reference to financial implications was made in the event that compilation of such glossary would be pursued further.

(62) The Meeting noted that attention needed to be given to devising of common format for the reporting requirements under Article 17 of the Protocol. Virtue was seen in the proposal that the information included in the Report submitted by Parties under Article 17, should be collated by the Host Government of the ATCM. This synthesised information should be submitted to the subsequent ATCM by the Secretariat of the Meeting as an Information Paper.

(63) The Meeting noted the following Information Papers: (XXIII ATCM/IP5), (ASOC); (XXIII ATCM/IP6), (Germany); (XXIII ATCM/IP7), (Norway); (XXIII ATCM/IP11), (Italy); (XXIII ATCM/IP17), (United Kingdom); (XXIII ATCM/IP18), (Uruguay); (XXIII ATCM/IP29), (Spain); (XXIII ATCM/IP70), (Chile); (XXIII ATCM/IP74 and XXIII ATCM/IP78), (Russia); (XXIII ATCM/IP120), (Bulgaria); and, (XXIII ATCM/IP127), (ASOC).

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

(64) 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
- Annex V: Area Protection and Management

were discussed by the Committee for Environmental Protection. The Report of the Committee on these matters (items 5a-5e) is reproduced at **Annex F**. The Meeting took note of this Report.

Item 8: Co-operation among Parties with Respect to Article 6 of the Protocol

(65) The discussion was based on two Working Papers (XXIII ATCM/WP11 from Germany and XXIII ATCM/WP27 from Peru). The Meeting noted the following Information Papers (XXIII ATCM/IP21 from Chile and XXIII ATCM/IP86 from Korea).

(66) Peru introduced Working Paper (XXIII ATCM/WP27) on the need to identify the potential for expansion and development of further co-operation under Article 6 of the Protocol on Environmental Protection to the Antarctic Treaty. In this context, Peru recalled that, at the XVI Antarctic Treaty Consultative Meeting, held in Bonn, Germany, on 7-28 October 1991, and the XVII Antarctic Treaty Consultative Meeting, held in Venice, Italy, on 11-20 November 1992, the Consultative Parties examined in detail international co-operation in scientific research and associated logistic activities.

(67) The Meeting agreed that the issue of co-operation in environmental protection be discussed at XXIV ATCM and adopted **Resolution 4 (1999)**. (**Annex C**)

(68) It is anticipated that the activities initiated under that Resolution will serve to facilitate inputs to as well as discussions at XXIV ATCM.

(69) It was also noted that CCAMLR may have information on and experiences of environmental protection in marine areas since that organisation already has in place a system of site protection in such areas.

Item 9: Emergency Response and Contingency Planning

(70) The Observer from COMNAP presented Working Paper (XXIII ATCM/WP3), that had been submitted previously to the CEP and received support for its recommendations from that body.

(71) The Observer recalled that the paper had been prepared in response to a request made at ATCM XXII that additional steps be formulated for contingencies other than oil spills, namely for: chemical spills, disaster response, and emergency response action. COMNAP felt that, given the nature of the operations involved, these plans should be prepared by the national operators.

(72) COMNAP referred to a previous ATCM request that it review guidelines on the storage and handling of oil, and on contingency planning. COMNAP advised that it plans to revise its guidelines during the next twelve months, though no major changes are anticipated.

(73) With regard to regional emergency plans, there are only three regions in Antarctica where co-ordinated responses by several operators could be feasible at this time: King George Island and adjacent islands in the Antarctic Peninsula area; Prydz Bay; and the Ross Sea area. The Meeting supported the recommendations in COMNAP's Working Paper (XXIII ATCM/WP3).

(74) The Meeting noted Information papers (XXIII ATCM/IP44 from Peru) and (XXIII ATCM/IP91 from ASOC and IUCN).

Item 10: The Question of Liability as Referred to in Article 16 of the Protocol

(75) Mr. Don MacKay chaired the discussions in Working Group I on item 10. Item 10 was introduced by reference to Decision 3 (1998) of XXII ATCM which provided

“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 XXIII ATCM, 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.”

(76) In light of paragraph 3 (c) of Decision 3 (1998), the Meeting invited COMNAP to introduce Working Paper (XXIII ATCM/WP16) on an assessment of environmental emergencies arising from activities in Antarctica. The Meeting invited COMNAP to complete and elaborate on its findings, and called on those States that had not yet responded to the COMNAP questionnaire on the subject to do so as soon as possible. In accordance with Decision 3 (1998), the Meeting maintained that work on, and discussion of, risk assessment (including a framework for assessing damage and questions of insurability and insurance rates) should be continued and indeed intensified.

(77) The Meeting recalled the importance of Consultative Parties implementing the 1992 COMNAP guidelines on fuel transfer, fuel spill prevention and containment, and emergency response action and contingency planning as provided for in ATCM XXII Resolution 6 (1998).

(78) Germany then introduced Working Paper (XXIII ATCM/WP13) on the question of liability as referred to in Article 16 of the Protocol.

(79) Germany also introduced Information Paper (XXIII ATCM/IP38) on facts influencing risk analysis in relation to human activities in Antarctica based on German experience with logistics during German Antarctic research.

(80) Australia introduced Working Paper (XXIII ATCM/WP15) on principles for an Antarctic liability regime.

(81) The Netherlands introduced Working Paper (XXIII ATCM/WP18) containing a draft annex on liability.

(82) The United Kingdom introduced Working Paper (XXIII ATCM/WP21) on liability.

(83) Chile introduced Working Paper (XXIII ATCM/WP34) on a draft annex on environmental liability to the Madrid Protocol.

(84) Uruguay on behalf of Argentina, Brazil, Chile, Ecuador, Peru and Uruguay introduced Working Paper (XXIII ATCM/WP35) on basic definitions and considerations for the annex on the liability regime.

(85) New Zealand introduced Working Paper (XXIII ATCM/WP10) on joint and several liability and international collaborative science.

(86) The Report of the Group of Legal Experts contained in Working Paper (XXII ATCM/WPI), and the proposal of the United States of America attached to it, were referred to. The Meeting also referred to the ASOC/IUCN Information Paper (XXIII ATCM/IP91) on environmental liability.

(87) In light of the numerous texts submitted by Consultative Parties a thematic approach was adopted for discussion, enabling each delegation to offer its views and texts on each theme.

(88) Thematic deliberations were based on a list of issues proposed by the Chairman, which largely reflected the items identified in Working Paper (XXIII ATCM/WP35) submitted by Argentina, Brazil, Chile, Ecuador, Peru and Uruguay. The following themes were discussed:

- Damage: what damage the annex or annexes should cover
- Operator: what operators should be covered
- Liability: whether it should be strict, and joint and several; and whether it should be limited to response action or cover broader situations; what obligations operators should have
- Whether a liability regime should include special consideration for scientific activities and their related logistics and, if so, the way in which this should be done
- Extenuating circumstances: exemptions from liability/defences
- Preventative measures, response action, remedial measures and restorative measures
- Third party intervention
- Responsibility to reimburse costs incurred; what the operator's liability should be if it did not take response action
- Residual State liability
- How liability is to be established
- How liability is to be measured

(89) Not discussed, but mentioned as topics of relevance, were:

- Time limits on liability

- Limits on liability
- Insurance/financial security
- Environmental Protection Fund
- Dispute resolution
- Other issues: relationship with other agreements; amendment or modification

(90) Under the thematic discussions of preventative measures, response action and remedial/restorative measures, the United States of America elaborated further on its proposal attached to the Report of the Group of Legal Experts (XXII ATCM/WPI).

(91) Several informal contact groups were established to be co-ordinated by individual delegations on important issues including: the definition of damage; the definition of operators; preventative measures, response action, remedial measures and restorative measures; instances where third party intervention was warranted; and on exemptions from liability.

(92) During the discussion of “operator”, the Chairman of the Committee for Environmental Protection (CEP), Prof. Olav Orheim, reported that the Committee had adopted guidelines for the appropriate consideration of CEEs by the CEP, which over time should lead to uniform practice in implementing Article 12(1)(d) of, and Article 3 of Annex I to, the Protocol.

(93) The Meeting reaffirmed its commitment to develop a liability regime.

(94) As a result of the thematic deliberations, the following areas of convergence on those themes were identified:

- The approach should involve consideration of preventative measures, response action and liability. The Meeting believed it important that COMNAP and SCAR, and other expert organisations as appropriate, should provide continuing input to Working Group I. The Meeting saw importance in each delegation containing their national operators.
- The definition of the term “operator” should include all States Parties and all public or private legal entities or individuals that are engaged in activities in the Antarctic Treaty area and are authorised by or under the jurisdiction and control of a State Party.
- The regime should be one of strict liability, i.e., there is no need to prove that the operator acted intentionally or negligently, except as may otherwise be deemed appropriate.

- Exemptions from liability will be understood to exist in cases of, *inter alia*, acts of God, force majeure, armed conflict, and acts of terrorism.
- Under the Protocol, activities shall be planned and conducted in the Antarctic Treaty area so as to accord priority to scientific research. Nevertheless, impacts by science activities would not be exempt from the liability regime.
- When the need arises to conduct response action in order to prevent environmental damage, the State Party may request the co-operation of third parties or give its consent for third parties to take such action. Consent for a third party to act may not be required in special circumstances.

(95) The Chairman of Working Group I on Item 10 circulated, on a personal basis, a Working Paper (XXIII ATCM/WP41) containing the Personal Report of the Chairman of the Liability Discussions in Working Group I, in an effort to identify a way forward. Although it endeavoured to take account of all views expressed in the past and at the Meeting, its purpose was to aid further discussion on this subject.

(96) The Meeting expressed its gratitude to the Chairman of Working Group I on Item 10 for his efforts, and emphasised the need to further advance its work on the item at the next ATCM.

(97) It would also be important for delegations to continue their review of liability issues and to seek ways forward, in preparing for the next meeting. The Meeting agreed that the debate on the liability regime should include input from organisations such as SCAR and COMNAP on practical aspects relating to liability and adopted **Resolution 5 (1999)**. (Annex C)

(98) The Meeting discussed whether a timeframe should be set for the completion of negotiations on liability. Many delegations, however, considered that it was premature or unnecessary to set a deadline at this stage, since there was widespread support for intensified work on this important issue.

Item 11: Safety of Operations in Antarctica

(99) The United Kingdom introduced Working Paper (XXIII ATCM/WP40) addressing the issue of the Polar Shipping Code, under development within the International Maritime Organisation (IMO). The United Kingdom brought the Meeting's attention to the recent decision taken by IMO's Maritime Safety Committee to exclude Antarctica from the application of the Code unless Antarctic Treaty Parties decided otherwise. It was therefore important for the Consultative Parties to address the matter during the XXIII ATCM and report the outcome of the discussions and any decisions taken to IMO.

(100) At the request of a delegation, the IMO representative presented Information Papers (XXIII ATCM/IP110) on the progress made by IMO in the development of the Code on Polar Navigation and (XXIII ATCM/IP111) on the outcome of the 71st Session of the Maritime Safety Committee MSC 71, on the same issue. The representative of IMO confirmed that MSC 71, had reaffirmed its intention to develop the Polar Shipping Code in the form of non-mandatory guidelines and that MSC had decided to exclude Antarctica from the Polar Guidelines, unless the Antarctic Treaty Parties decided otherwise.

(101) Working Paper (XXIII ATCM/WP40) therefore set out four possible options for Consultative Parties to consider. These were;

- i) to agree that IMO should continue to develop the existing bi-polar Code;
- ii) to encourage IMO to develop a Code, but with two sections dealing separately with the Arctic and the Antarctic;
- iii) to suggest that IMO develop two separate Codes, or;
- iv) to exclude Antarctica from IMO's further development of the Code.

(102) The Meeting thanked the United Kingdom for its Working Paper and agreed the importance of finding a mechanism of establishing appropriate standards for Antarctic shipping. A number of delegations shared the view that the existing version of the Code was inadequate with respect to Antarctica and there was a need to differentiate more clearly between the two polar regions.

(103) It was also recognised that a Code adopted within IMO would be applicable to a much larger number of States than any provisions adopted under the Antarctic Treaty.

(104) In conclusion, the Meeting agreed;

- i) To give priority to the development of guidelines for Antarctic shipping and related activities pursuant to Article 10 of Annex IV to the Protocol;
- ii) To seek subsequent adoption of these guidelines by the International Maritime Organisation (IMO) as a means of extending their applicability to members of the IMO that are not Antarctic Treaty Consultative Parties;
- iii) Peru, as host Government of XXIII ATCM, be requested to convey these decisions to IMO.

(105) The Meeting therefore adopted **Decision 2 (1999)(Annex B)**, convening a Meeting of Experts and setting out its programme of work. The Meeting accepted with thanks, the offer of the United Kingdom to host the Meeting of Experts in London and agreed that it should be held in conjunction with the relevant IMO meetings. It was

suggested that the most appropriate time might be before IMO's Design and Equipment Sub-Committee Meeting in early April 2000.

(106) The United Kingdom indicated that, nearer the time, it would circulate details on the timing and organisation of the Experts Meeting, through diplomatic channels.

(107) Taking into account the importance of the technical subject, some delegations requested that translation be provided in the official languages of the Treaty, during the Meeting of Experts. The United Kingdom expressed some concern over the provision of such facilities due to the costs involved, but indicated its willingness to look into the matter.

(108) COMNAP advised that it intended to use its electronic network during the next 12 months to facilitate communications between national operators and their technical experts on the development of Guidelines for Antarctic Shipping. This process should enable some matters to be examined prior to the Meeting of Experts.

(109) Following a request of the Meeting, COMNAP presented Information Paper (XXIII ATCM/IP26) on Antarctic Shipping and (XXIII ATCM/IP27) on the training requirements for Ship's Officers and on Navigation/Communication Equipment for Antarctic Vessels.

(110) Chile presented Information Paper (XXIII ATCM/IP23) on Safety of Aerial Operations on Antarctic Zones in the proximity of South America.

Item 12: Relevance of Developments in the Arctic and Antarctic

(111) The United States of America reported that it had assumed the Chair of the Arctic Council, which would hold its Second Ministerial Level Meeting in September 2000. It proposed that the report to the Plenary be submitted by the representative of the Council's previous Chair. It also undertook to report on the XXIII ATCM to the Arctic Council.

(112) Canada presented Information Paper (XXIII ATCM/IP55) and gave a brief summary of activities in the Arctic, which included an Arctic monitoring and evaluation programme, an Arctic wildlife conservation programme, an Arctic marine environment protection programme, an emergency prevention, preparedness, and response programme, and a number of scientific initiatives.

(113) Norway and Sweden shared the view that bipolar approaches could provide an understanding of common environmental aspects and that it was desirable to strengthen cooperation in scientific research between the two regions. Sweden reported on an upcoming scientific expedition to the Canadian Arctic and Alaska.

(114) The Meeting also noted Information Paper (XXIII ATCM/IP99), (Chile), on the institutional aspects, trends and developments in the Arctic-Antarctic relationship.

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

(115) Some delegations asked IAATO to present its report on “ Overview of Tourism” (XXIII ATCM/IP98). IAATO reported that during 1998-1999, 10,026 people travelled to Antarctica marking only a slight increase over the 1997-98 season. IAATO included in the report an overview of ship-borne tourism, yacht activities, land-based tourism, and tourism estimates and trends for the next 5 years. Overflights to Antarctica from Australia and Chile were reported. It was noted that there are an additional 3 large vessels planning to visit Antarctica during the 1999-2000 season. Some of the increase may reflect millennium activities, not an increasing trend in visits by large vessels. IAATO noted its continued efforts to liaise with all tourist companies whether or not they were IAATO members. IAATO membership is currently limited to ships carrying up to 400 passengers. IAATO will discuss the large cruise vessel issue at its upcoming meeting. It was also noted that all IAATO members had completed EIAs and that Holland America Line (operating the MS Rotterdam) had also filed an IEE. World Cruise Company is working on an IEE and should any delegation want a copy, they should contact Marine Expeditions Inc. directly.

(116) The United States of America noted that the United Kingdom, Germany, the United States of America and IAATO had provided support for the Antarctic Site Inventory described in (XXIII ATCM/IP32). The objectives of this project are to (1) determine whether opportunistic studies of sites being visited repeatedly by ship-borne tourists in the Peninsula region can be used to effectively detect visitor caused changes in the sites; and (2) develop the baseline information necessary to detect possible future changes in the variables being monitored. The United States of America also noted that two reports related to the project were published in 1997 and are available as described in the Information Paper. In addition, the United States of America noted that Germany had presented (XXIII ATCM/IP30), which described a project to develop methodology for assessing the cumulative impacts of tourism at frequently visited sites such as Hannah Point and Penguin Island on the Antarctic Peninsula.

(117) Several delegations expressed concern over the number of large passenger vessels and vessels of countries that are not Party to the Antarctic Treaty, or the Environmental Protocol, now entering Antarctic waters. Other delegations noted that the safety of operations and the risk of accidents are related more to the training of ship’s crews and the areas of operation than the size of ships. All delegations recognised the need for design, operation, and manning standards appropriate for Antarctica.

(118) COMNAP advised that its Working Paper on the Assessment of Environmental

Emergencies (XXIII ATCM/WP16) concluded that while fuel spills in the marine environment have a low probability of occurrence, they pose a far greater magnitude of risk to wildlife and the environment than terrestrial spills. Consequently the apparent trend to introduce large tourist vessels to Antarctic waters is of concern to COMNAP because of the large volume of fuel carried by such vessels and the likelihood that the fuel would be stored adjacent to the hull.

(119) COMNAP stressed the difficulty of responding to a major marine disaster involving a large tourist vessel in Antarctic waters with the potential for serious environmental damage and risk for life.

(120) After requests from several delegations, ASOC presented Information Paper (XXIII ATCM/IP121), which examined the situation of large-scale tourism activities, including those organised by operators from Non-Consultative Parties that had not adhered to the Protocol and which were not subject to mandatory application of Annex I to the Protocol. ASOC felt that large-scale tourism could have significant environmental impacts. It proposed that consideration be given to introducing strategic impact assessments as a means of assessing the possible environmental impact due to the growth in tourism and other activities in Antarctica.

(121) Some delegations proposed that ASOC elaborate the concept of strategic impact assessment in co-operation with interested organisations and Parties. ASOC and IAATO indicated that they are prepared to undertake this work and to report back to the next ATCM.

(122) Several delegations raised the problem that several Non-Consultative Parties from which tourist companies are organising activities in Antarctica have still to adhere to the Environmental Protocol. The United Kingdom tabled a draft Resolution which addressed this issue. After consideration, the Meeting adopted **Resolution 6 (1999)**. (Annex C)

(123) Argentina submitted Information Paper (XXIII ATCM/IP109) on “ Report on Antarctic Tourism numbers through the Port of Ushuaia 1998-1999”. WTO submitted Information Paper (XXIII ATCM/IP39) on “Report on Antarctic Tourism”.

Item 14: Inspections under the Antarctic Treaty

(124) The United Kingdom introduced Working Paper (XXIII ATCM/WP23) reporting on a joint inspection undertaken under Article VII of the Antarctic Treaty carried out by Germany and the United Kingdom, during January 1999. In addition to the Working Paper, Germany and the United Kingdom circulated a comprehensive report of the inspection programme. The designated Observers from both countries inspected 11 permanent stations, 6 summer only bases, 4

Historic Sites and Monuments and 2 tourist vessels in the Antarctic Peninsula region.

(125) The main conclusion of the inspection was that no infringements of the Antarctic Treaty were observed at any of the permanent stations, summer only bases, Historic Sites and Monuments or tourist vessels inspected. Strenuous efforts were being made at all stations and summer only bases to comply with the provisions of the Environmental Protocol, though operational practices were variable and gaps in implementation were evident, most notably with respect to Environmental Impact Assessments. The Observers were very impressed with the very high levels of awareness in the areas of waste management and conservation of flora and fauna.

(126) The inspection had used the inspection checklists adopted under Resolution 5 (1995) at XIX ATCM as an aide-memoire and had found them to be an extremely useful way of collecting relevant information in a consistent manner. The United Kingdom complemented those stations which had provided the Observers with comprehensive documentation corresponding to the format of Checklist A as this had greatly assisted the work of the inspection.

(127) In relation to the two tourist vessels, the United Kingdom noted that this was only the second time that such vessels had been inspected under the provisions of Article VII (3) of the Antarctic Treaty. The co-operation of the vessel Captains and IAATO in the inspection process was particularly welcomed.

(128) The United Kingdom outlined that in an annex to the inspection report, there was a list of some examples of best practice (e.g. waste management, fuel management, power generation, tourism policy, provision of documentation) that were observed at the stations, summer only bases, Historic Sites and Monuments and tourist vessels inspected.

(129) The report of the joint inspection by United Kingdom and Germany contained the following general recommendations:

- i) That those Parties, with stations and active programmes in the Antarctic, which have not already acceded to the Environmental Protocol should do so without delay, and if appropriate seek Consultative Status.
- ii) That Parties, in association with SCAR, review co-operatively their science programmes against scientific priorities, particularly for those stations in close proximity, to ensure optimum productivity and minimum duplication.
- iii) That further attention be given by operators to fuel transfer and storage with a view to reducing the potential for spillage. Critical issues include minimising

- the number of fuel transfers, and upgrading bulk storage (such as tank bunds, double-skinned walls, further phasing out of bladder-pillow tanks).
- iv) That increased consideration be given both to maximising energy efficiency, and to alternative energy production with further experimentation using wind and solar energy under Antarctic conditions.
 - v) That greater efforts be directed towards former work places (abandoned stations) with a view to their clean-up, removal, conversion to refuges or designation as Historic Sites and Monuments. Transfer of redundant stations to other Parties for continuing use should also receive greater consideration.
 - vi) That the ATCM should identify boundaries for Historic Sites and Monuments, as appropriate. This is particularly relevant for those sites which contain buildings and artefacts distributed over a wide but yet undetermined area.
 - vii) That greater consistency of waste management procedures for Annex III of the Protocol should be developed.
 - viii) That moderate or large scale stations lacking sewage treatment (other than maceration) should consider upgrading their facilities.

(130) The meeting welcomed these recommendations, as a useful outcome of the Inspection Programme.

(131) Many delegations thanked the United Kingdom and Germany for their Working Paper and made a number of observations and comments on the inspection. Several delegations commented on the issue of wildlife disturbance by aircraft, particularly in relation to the question whether recommended flying heights should be agreed. The Meeting agreed that these matters required further investigation and should be addressed by the CEP. Several delegations considered that it was useful for stations to have information readily available to assist Observers when they were carrying out inspections and that national operators should be encouraged to prepare such documentation.

(132) The United Kingdom and Germany offered to prepare a Working Paper for XXIV ATCM based on their experience from the January 1999 Inspection Programme. This paper would provide an evaluation of the Inspection Checklists and how these might be improved.

(133) Argentina commended Germany and the United Kingdom for the extensive and detailed joint Inspection Report and recognised the importance and value of the inspection mechanism established in article VII of the Antarctic Treaty.

(134) Argentina expressed that it was unfortunate that the group of inspectors was unable to visit Marambio Station due to re-supply operations being carried out at the station at the time. This was particularly regretful in light of the extensive

environmental supervision being undertaken at the station by the Argentinean Antarctic Programme. Argentina made it clear that all its stations in Antarctica are permanently open for inspection and visits by Consultative Parties and offered to provide transport to any Observers who wished to visit or inspect Marambio Station whenever deemed convenient or necessary. New Zealand welcomed this information, noting that freedom to inspect was a fundamental principle of the Antarctic Treaty System.

(135) Belgium and France presented Information Paper (XXIII ATCM/IP42) on Joint Inspection in Eastern Antarctica conducted in 1999 by both countries under Article VII of the Antarctic Treaty indicating that it constituted a preliminary report and that a final full report will be presented at XXIV ATCM.

Item 15: Science Issues

(136) Peru presented Working Paper (XXIII ATCM/WP28) “Contact Group on Renewable Energy”, which highlighted the importance of this matter and the need to intensify research in this area.

(137) Peru was invited by COMNAP to participate and chair COMNAP’s Working Group on Alternative Energy which has previously carried out extensive work regarding this matter.

(138) SCAR provided four Information Papers on science topics: (XXIII ATCM/IP115) “SCAR Composite Gazetteer of Antarctica”, (XXIII ATCM/IP123) “Scientific Research in the Antarctic”, (XXIII ATCM/IP124) “Inter-relationships of Global Change Programmes”, and (XXIII ATCM/IP125) “Antarctic Sea-ice Processes and Climate”, as well as a joint paper with COMNAP: (XXIII ATCM/IP8) “Antarctic Data Management”. In response to questions, SCAR indicated the availability of the composite gazetteer on the web site (http://www.pnra.it/scar_gaze) and described its future development. Noting how the major SCAR global change programmes had now been integrated with the world-wide programmes of the International Geosphere-Biosphere Programme and the World Climate Research Programme, SCAR emphasised the importance of Antarctic science in these fields. One delegation highlighted the importance of interaction between the Antarctic Treaty System (ATS) and other international agreements such as the Convention on Biological Diversity. SCAR noted the desirability to closely monitoring developments on this matter.

(139) Ecuador and Canada presented Working Paper (XXIII ATCM/WP39) concerning the World Conference on Science to be held in Budapest, Hungary, on 28 June – 2 July 1999.

(140) At the request of several delegations, the Russian Federation presented

Information Paper (XXIII ATCM/IP77) outlining activities of the Russian Antarctic Expedition in respect of studies of subglacial Lake Vostok. The Russian Federation noted that during 1998-1999 radar observations were carried out using modern digital equipment specifically designed for that purpose and that their measurements complemented earlier seismic studies. The measurements covered a large area around the Vostok Station and will allow the identification of spatial features of subglacial terrain structure, including, thickness of the ice sheet, water column and bottom sediments as well as the contour in the southern part and along the longitudinal axis of the lake.

(141) SCAR noted the importance of the continuing studies of subglacial Lake Vostok by the Russian Federation and announced that in September 1999, SCAR will sponsor an international workshop with the aim of assisting the development of a science plan for future studies of Lake Vostok.

(142) WMO was requested to present the Information Paper (XXIII ATCM/IP106) "Antarctic stratospheric ozone current report." The paper gave a concise account of the ozone hole variability and depletion, increasing UV radiation, and stratospheric chemistry. Peru commented on the topic saying that they had taken measurements of UV radiation on recent expeditions to their Antarctic Base Machu Picchu on King George Island and that the data are available to interested Parties.

(143) The following Information Papers were also submitted: (XXIII ATCM/IP13 Rev.1) "Chinese Scientific Antarctic Programme Near Zhongshan Station 98/99", submitted by China; (XXIII ATCM/IP45) "Información sobre fauna y flora antártica de las Expediciones ANTAR IX y X del Perú", submitted by Peru; (XXIII ATCM/IP46) "Informe Preliminar sobre los Aspectos de Meteorología – Verano Austral 1998/1999", submitted by Peru; (XXIII ATCM/IP47) "Radiactividad Ambiental en la Estación Científica Antártica Peruana `Machu Picchu'", submitted by Peru; (XXIII ATCM/IP48) "Información del Programa de Ciencias Marinas por el Perú durante el Verano Austral 1999", submitted by Peru; (XXIII ATCM/IP49) "Informe Preliminar de la Investigación sobre Oceanografía Física y Dinámica en el estrecho Bransfield. Verano Austral 1998-1999", submitted by Peru; (XXIII ATCM/IP50) "Informe preliminar del Programa de Biología Humana. Verano Austral 1998/1999", submitted by Peru; (XXIII ATCM/IP51) "Información del Programa desarrollado por el Perú sobre Protección Ambiental Antártico durante el Verano Austral 1999", submitted by Peru; (XXIII ATCM/IP75) "Russian activity in the field of renewable energy sources utilization in Antarctica", submitted by Russia; (XXIII ATCM/IP76) "Subprogram `Study and Research in the Antarctica' under the Federal Research Program `World Ocean' as a new long-term concept of Russian Activities in the Antarctic", submitted by Russia; (XXIII ATCM/IP87) "Environment related studies at the King Sejong Station, King George Island, during 1998/99," submitted by the Republic of Korea; (XXIII ATCM/IP100) "Indian Antarctic Programme/Research Report to SCAR No. 13. 1998," submitted by India;

(XXIII ATCM/IP102) “Exchange of Information under Antarctic Treaty Article VII (5). Indian Antarctic Activities 98-99,” submitted by India; (XXIII ATCM/IP103) “COMNAP Home Page”, submitted by COMNAP; and (XXIII ATCM/IP106) “Antarctic stratospheric ozone current status report,” submitted by WMO.

Item 16: Operational Issues

(144) Chile presented Information Paper (XXIII ATCM/IP21) “Patrulla Antártica Naval Conjunta de Chile y Argentina”, which reported on a joint Chilean/Argentinean Antarctic patrol that conducted maritime search, rescue, and salvage activities and exercises, as well as the control and combat of marine pollution, in the Antarctic Treaty area located between 10° West and 131° West longitude. It was expected that this work would continue in subsequent years.

(145) The International Hydrographic Organisation (IHO) presented Information Paper (XXIII ATCM/IP41), containing a report from that organisation.

(146) WMO was requested to present Information Paper “Operational Meteorology and sea ice information services “ (XXIII ATCM/ IP105). It is understood that, due to economic considerations the coverage of the Antarctic upper air network of stations that provide good vertical resolution profiles of pressure, temperature, moisture and wind velocity is gradually being reduced. The surface observing network is to some extent being expanded by the use of Automatic Weather Stations on the Antarctic continent and Drifting Meteorological Buoys in the seasonal sea ice zone. The West Antarctic sector and adjacent Southern Ocean and South Pacific Ocean up to subtropical latitudes is the largest area that is devoid of good quality surface or upper air observations from staffed stations.

(147) The Amundsen Scott Station at the South Pole is the only upper air sounding station over the high plateau of the continent. The Russian Federation intervened to say that staff at Vostok will continue the surface meteorological programme and in future it will be supported by the installation of a modern digital weather station.

(148) Belgium noted an apparent lack of meteorological data on Antarctic regions in contrast to the abundance of such data for the Antarctic Peninsular area. The World Meteorological Organisation (WMO) said that the upper air sounding network has some weak areas, for example West Antarctica, and the adjacent Southern Ocean as well as the high plateau of East Antarctica. Bellingshausen on the northern tip of the Antarctic Peninsula is to cease its long-term record of upper air soundings. Marambio Station will thus become the sole representative sounding of the upper atmosphere over the Antarctic Peninsula. Argentina responded that it was reliant on its surface and upper air meteorological monitoring and prediction program in the Antarctic Peninsular area to support a substantial and effective air transport operation.

(149) Several delegations congratulated Germany on its removal and clean-up of Filchner Summer Base from iceberg A-38B in the Southern Weddell Sea during January and February 1999, as detailed in Information Paper (XXIII ATCM/IP84). This work had to be planned exceptionally quickly at the start of the Austral Summer Season, and involved the Alfred Wegener Institute (AWI) having to cancel important scientific programmes. The Meeting agreed that the removal and clean up of Filchner Summer Base by Germany was a very clear demonstration of their commitment to meeting the provisions of the Environmental Protocol. The United Kingdom thanked Germany, particularly the AWI for their assistance in dealing with a British fuel depot on iceberg A-38B, which was also successfully removed.

(150) Sweden introduced Information Paper (XXIII ATCM/IP14) “Environmental Aspects of Energy Use in the Swedish Antarctic Programme” noting its intention to reassess the use of wind power systems.

(151) Japan made reference to its Information Paper (XXIII ATCM/IP62) “Alternative Energy at Syowa Station” on work with wind-driven power generators at the station.

(152) Uruguay praised the improvement in the quality of meteorological data provided by the bases of Chile and Argentina, which had been very useful.

(153) The following Information Papers were also submitted: (XXIII ATCM/IP22) “Capacidades Operacionales en la Antártica”, submitted by Chile; (XXIII ATCM/IP52) “X Expedición Científica Peruana a la Antártida – Perú ANTAR X. Verano Austral 1998-1999”, submitted by Peru; (XXIII ATCM/IP53) “XI Expedición Científica Peruana a la Antártica – Perú. ANTAR XI”, submitted by Peru; and (XXIII ATCM/IP57) “Clean-up of a small private field station”, submitted by Norway.

Item 17: Education Issues

(154) Australia presented Working Paper (XXIII ATCM/WP14) “Antarctic Treaty Introductory Booklet”, which contained a text that could be provided to people travelling to Antarctica. The delegation recommended that the booklet be adopted, on a voluntary basis, by the Parties, which were welcome to make any adaptations or additions that they deemed appropriate.

(155) IAATO thanked Australia for its excellent paper. IAATO members found the booklet to be very useful and that the paper provided clear and concise information that could be used in both tourist pre-departure materials and as information provided to expedition staff.

(156) The Meeting commended Australia on the valuable text it had prepared.

(157) Several delegations asked COMNAP to introduce Information Paper (XXIII ATCM/IP28) which reported on a forum on education and training held at its 1998 meeting in Concepcion, Chile.

(158) COMNAP noted that as a result of the forum it had established the Antarctic Information Officers Network (INFONET), and the Antarctic Training Information Network (TRAINET) to foster the exchange of ideas, knowledge and expertise in the fields of training and public education.

(159) The Meeting welcomed these initiatives and requested that COMNAP report to XXIV ATCM on the operations of these networks and any measures the ATCM might take to improve the effectiveness of these networks.

(160) The United Kingdom reported on Information Paper (XXIII ATCM/IP34) "Antarctic Education Resource Pack for Schools", noting that Antarctica was now part of the geography syllabus for United Kingdom schools. Many delegations commended the United Kingdom on its initiative.

(161) IAATO thanked the United Kingdom for the excellent school pack and found that the information it contained could be of use on board tour ships, as part of the IAATO mission to provide educational programmes for tourists in the form of lectures and briefings.

(162) The following Information Papers were also submitted: (XXIII ATCM/IP56) "La Antártida: Tema Educativo Permanente a partir de 1999", submitted by Peru; (XXIII ATCM/IP63) "A Travelling Exhibition of Antarctica", submitted by Japan; (XXIII ATCM/IP67) "Actividades para Conmemorar el 40° Aniversario del Tratado Antártico", submitted by Chile; (XXIII ATCM/IP68) "Latin American Workshop on National Antarctic Data Centres", submitted by Chile; and (XXIII ATCM/IP112) "Conference 'Bulgaria in Antarctica' and exhibition 'The wild beauty of Antarctica'", submitted by Bulgaria.

Item 18: Exchange of Information

(163) The Meeting addressed the question of the efficiency with which a range of information exchange obligations are discharged. It was noted that transparency of information exchange is a fundamental principle of the Antarctic Treaty System and that, in view of its relevance to the effective operation of the Treaty it is important that it operate efficiently. The Meeting noted that there are information exchange requirements contained in Articles III and VII(5) of the Antarctic Treaty, in several articles of the Protocol on Environment Protection to the Antarctic Treaty, and in a number of recommendations adopted by the Parties. In addition, it was noted that SCAR and

COMNAP have introduced procedures for the exchange of information within the fields of expertise of those organisations.

(164) The Meeting noted the potential for duplication of some of the information that is being exchanged, and that with the proliferation of information exchange requirements there is a risk that some important information is not being directed to where it is of most benefit, or at a time when it is most useful.

(165) The Meeting considered three Working Papers which presented ideas on how the information exchange obligations may be made more timely and efficient. These papers were (XXIII ATCM/WP17) submitted by COMNAP; (XXIII ATCM/WP22) submitted by the United States of America; and (XXIII ATCM/WP33) submitted by Australia. The Working Papers presented a number of common ideas, including suggestions that greater use be made of electronic exchange of information.

(166) It was noted that web sites operated on behalf of the ATCM, CCAMLR, CEP, COMNAP and SCAR provide information to their members. It was also pointed out that a number of Parties are also using web sites to present information about their activities, and that e-mail is becoming an effective way of transmitting information. On the other hand, it was noted that some Parties may not yet be in a position to apply this technology.

(167) The Meeting recognised the benefit of using new technologies to improve the process for exchanging information, but also noted that there are a number of policy, legal and technical issues that need to be addressed before a conclusion can be drawn as to the best way to improve the information exchange system so that it continues to meet the needs of the Parties. These issues include: the kind of information that should be exchanged; the best way to transmit and present it; the date by which information should be provided; who should receive the information that is made available; whether some kinds of information should be stored in a central location; and how consistency in the information exchanged can be achieved.

(168) The Meeting concluded that these and related issues need careful analysis and that it would not be possible to develop a new information exchange system at this Meeting. Accordingly, it was proposed that before XXIV ATCM, Parties give careful thought to the potential for improvements to be made to the information exchange procedures. In this regard, the Meeting welcomed the offer by Australia to co-ordinate an exchange of views between interested Parties and organisations connected with the Antarctic Treaty System so that, if there is sufficient interest, an analysis of the options might be presented to the next meeting. Australia suggested that those interested in such work make contact by e-mail with (*andrew.jackson@antdiv.gov.au*).

(169) New Zealand introduced Information Paper (XXIII ATCM/IP128) on the establishment of Gateway Antarctica: the Centre for Antarctic Studies, which now encompasses the International Centre for Antarctic Information and Research (ICAIR).

Item 19: Preparation of the XXIV Consultative Meeting

a. Date and Place of the Next Meeting

(170) The Meeting called upon the Government of the United States of America, as Depositary of the Antarctic Treaty, to undertake the necessary consultations in regard to the date and place of, and preparation for, the XXIV ATCM.

b. Invitation of International and Non-Governmental Organisations

(171) 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 XXIV ATCM: ASOC, IAATO, IHO, IMO, IOC, IUCN, PATA, UNEP, WMO and WTO.

c. Preparation of the Agenda at XXIV ATCM

(172) The Meeting approved a preliminary agenda for XXIV ATCM, which is attached at **Annex O**.

Item 20: Other Business

(173) The Meeting sent a message to the Stations in the Antarctic. The text of the message is reproduced at **Annex J**.

(174) The Meeting noted with appreciation the offer of the United Kingdom to convene informal co-ordination meetings of ATCPs during the forthcoming United Nations General Assembly.

Item 21: Adoption of the Report

(175) The draft Final Report was adopted by Parties on 4 June.

Item 22: Closing of the Meeting

XXIII ATCM closed at 11:45 on 4 June 1999.

APPENDIX

LIMA DECLARATION

Declaration by the Contracting Parties on the Occasion of the Fortieth Anniversary of the Signing of the Antarctic Treaty

The Representatives of the Contracting Parties, gathered in Lima at the XXIII Antarctic Treaty Consultative Meeting, from May 24 to June 4, 1999;

Recalling that, on December 1, 1959, the Antarctic Treaty was signed in Washington, inspired by the ideals of peace and cooperation, in order to ensure Antarctica is forever used exclusively for peaceful purposes and to guarantee the freedom to conduct scientific research;

Considering that the evolution of the Treaty has been a dynamic and creative process that inter alia has responded to increasing interest among the international community and has raised awareness of the importance of making a concerted effort to protect the environment of Antarctica;

Noting that the entry into force of the Protocol on Environmental Protection to the Antarctic Treaty on 14 January 1998 has enhanced the protection of the Antarctic environment and its dependent and associated ecosystems;

Expressing satisfaction that the number of Parties to the Antarctic Treaty continues to increase;

Noting also that implementation of the Treaty has fostered, over the last four decades, the formation, development, and consolidation of an Antarctic Treaty System that has made significant progress towards its core objectives and institutional development;

Reaffirming the commitments undertaken through various instruments in furtherance of the principles and objectives of the Antarctic Treaty and the Antarctic Treaty System, in particular the Convention for Conservation of Antarctic Seals, the Convention for the Conservation of Antarctic Marine Living Resources and the Protocol on Environmental Protection to the Antarctic Treaty, to safeguard the environment of, and protect the integrity of the ecosystem of the seas surrounding, Antarctica;

Declare, at the threshold of the new millennium, that Antarctica shall continue to be devoted forever to peace and science, and reaffirm their resolve to face together future challenges and to continue, in a spirit of cooperation and solidarity, to pursue the historic mission that was laid out forty years ago in the Antarctic Treaty.

PART II

**Measures, Decisions and Resolutions
adopted at XXIII ATCM**

ANNEX A

Measures

Management Plan
Site of Special Scientific Interest (SSSI) No. 23
SVARTHAMAREN

1. Description of values to be protected

The Area was originally designated in Recommendation XIV-5 (1987, SSSI No. 23) after a proposal by Norway based on the following factors, which still give relevant grounds for designation:

- the fact that the colony of Antarctic petrel (*Thalassoica antarctica*) is the largest known inland seabird colony on the Antarctic continent
- the fact that the colony constitutes a large proportion of the known world population of Antarctic petrel
- the fact that the colony is an exceptional “natural research laboratory” providing for research on the Antarctic petrel, snow petrel (*Pagodroma nivea*) and south polar skua (*Catharacta maccormicki*), and their adaptation to breeding in the inland/interior of Antarctica

2. Aim and objectives

The aim of managing Svarthamaren is to:

- avoid human induced changes to the population structure, composition and size of the seabird colonies present at the site
- prevent unnecessary disturbance to the seabird colonies, as well as to the surrounding environment
- allow for undisturbed research on the adaptations of the Antarctic petrel, snow petrel and south polar skua to the inland conditions in Antarctica (*Primary Research*)
- allow access for other scientific reasons where the investigations will not damage the objectives of the bird research

The focus of the *Primary Research* in Svarthamaren SSSI is as follows:

- Monitoring of the population size
- Monitoring of the annual variation in hatching success and adult survival rates in the petrel colonies in order to estimate changes in the size and structure of the colony.
- Experimental studies in order to increase the understanding of the mechanisms that regulate nesting success and survival rates, and the adaptation of the Antarctic petrel to the extreme environmental conditions in Antarctica.

3. Management activities

Management activities at Svarthamaren shall:

- ensure that the seabird colonies are adequately monitored, to the maximum extent possible by non-invasive methods.
- allow erection of signs/posters, border markers, etc. in connection to the site, and ensure that these are serviced and maintained in good condition
- include visits as necessary to assess whether the Area continues to serve the purposes for which it was designated and to ensure management and maintenance measures are adequate

Any direct intervention management activity in the area must 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 and Illustrations

Map A: Dronning Maud Land (showing location of Map B). Map specifications:

Projection: Lambert Conformal Conic;
Standard parallels: SP1 70° S, SP2 73°S
Central Meridian: 5°E
Latitude of origin: 71°30'S
Spheroid: WGS84

Map B: Svarthamaren and surroundings (showing location of Svarthamaren SSSI). Map specifications are the same as for Map A.

Map C: Site of Special Scientific Interest No. 23, protected area topographic map. Map specifications are the same as for Map A.

6. Description of Area

6 (i). Geographic co-ordinates, boundary markers and natural features

The Svarthamaren SSSI is situated in Mühlig-Hoffmannfjella, Dronning Maud Land, stretching from approx. 71° 33' 17" S, 5°09' 12" E the north-west to approx. 71°55' 58" S, 5°15' 12" E in the south-east. The distance from the ice front is about 200 km. The Area covers approximately 6.4 km², and consists of the ice-free areas of the Svarthamaren nunatak, including the areas in the immediate vicinity of the ice-free areas naturally belonging to the nunatak (i.e. rocks). The Area is shown in Map B and C.

The Norwegian field station Tor is located in the Svarthamaren nunatak at lat. 71°53'S, long. 5°10'E. The station, including a 10 metre buffer zone around the station buildings, is excluded from the Svarthamaren Site of Special Scientific Interest. Access to the station is by the shortest route from the ice.

The main rock types in the Area are coarse and medium grained charnockites with small amounts of xenoliths. Included in the charnockitoids are banded gneisses, amphibolites and granites of the amphibolite facies mineralogy. The slopes are covered by decomposed feldspathic sand. The north-eastern side of the Svart-hamaren nunatak is dominated by scree slopes (slope 31°-34°), extending 240 metres upwards from the base of the mountain at about 1600 metres above sea level. The major features of this area are two rock amphitheatres inhabited by breeding Antarctic petrels. It is this area which makes up the core of the protected site.

No continuous weather observations have been carried through in the Area, but prevalent air temperature has been observed to range between -5° and -15°C in January, with somewhat lower minimum temperatures in February.

The flora and vegetation at Svarthamaren are sparse compared with other areas in Mühlig-Hofmannfjella and Gjelsvikfjella to the west of the site. The only plant species occurring in abundance, but peripherally to the most manured areas, is the foliose green alga, *Prasiola crispa*. There are a few lichen species on glacier-borne erratics 1-2 km away from the bird colonies: *Candelariella hallettensis* (= *C. antarctica*), *Rhizoplaca* (= *Lecanora*) *melanophthalma*, *Umbilicaria* spp. and *Xanthoria* spp. Areas covered with *Prasiola* are inhabited by collembola (*Cryptopygus sverdrupi*) and a rich fauna of mites (*Eupodes anghardi*, *Tydeus erebus*) protozoan, nematodes and rotifers. A shallow pond measuring about 20 x 30 m, lying below the middle and largest bird sub-colony at Svarthamaren, is heavily polluted by petrel carcasses, and supports a strong growth of a yellowish-green unicellular algae, *Chlamydomonas*, sp. No aquatic invertebrates have yet been recorded.

The colonies of breeding seabirds are the most conspicuous biological element in

the Area. The north-eastern slopes of Svarthamaren are occupied by a densely populated colony of Antarctic petrels (*Thalassoica antarctica*) divided into three separate sub-colonies. The total number of breeding pairs is estimated to be approximately 250,000 pairs. In addition, 500-1000 pairs of snow petrels (*Pagodroma nivea*) and approximately 80 pairs of south polar skuas (*Catharacta maccormicki*) breed in the area. The two main colonies of Antarctic petrels are situated in the two rocky amphitheatres. The main colonies of snow petrels are located in separate parts of the scree-slope that are characterised by larger rocks. The south polar skuas nest on the narrow strip of flat, snow-free ground below the scree-slopes.

The main concentrations of seabirds are indicated on Map C. Readers should, however, be aware that birds are also found in other areas than these densely populated areas.

6 (ii). *Restricted zones within the Area*

None

6 (iii). *Location of structures within the Area*

There are no structures within the Area.

The Norwegian field station Tor is located on the Svarthamaren nunatak, at 71°53.4'S, 5°09.6'E. The station, including a 10 meter buffer zone around the station buildings, is excluded from the Area. Access to the station is by the shortest route from the ice.

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

None

7. Permit Conditions

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

- the actions permitted are in accordance with this Management Plan
- the permit, or a copy, shall be carried within the area
- any permit issued shall be valid for a stated period
- a visit report is supplied to the authority named in the permit

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

Access to the area is restricted by the following conditions:

- No pedestrian routes are designated, but persons on foot shall at all times

avoid disturbances to birds, and as far as possible also to the sparse vegetation cover in the Area.

- Vehicles should not enter the site.
- No flying of helicopters or other aircraft over the Area is allowed.
- Helicopter landings are not allowed within the boundaries of the SSSI. Landings associated with activities at the field station Tor should preferably take place at the north-eastern tip of the Svarthamaren nunatak (as marked on map C).

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

The following activities may be conducted within the Area in accordance with permit:

- Primary biological research programs for which the area was designated.
- Other research programs of a compelling scientific nature that will not interfere with the bird research in the Area.

7 (iii) Installation, modification or removal of structures

No structures are to be erected in the Area, or scientific equipment installed, except for equipment essential for scientific or management activities as specified in a permit, or for modification of the field station, also as specified in a permit.

7 (iv) Location of field camps

No field camps should be established in the Area. The field station Tor should only be used with permission from the Norwegian Polar Institute.

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 (including fuel), which may be introduced for a compelling scientific purpose specified in the permit, shall be removed from the Area before or at the conclusion of the activity for which the permit was granted.
- All materials introduced shall be for a stated period, shall be removed at or before the conclusion of that stated period, and shall be stored and handled so that risk of their introduction into the environment is minimised.

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

Taking or harmful interference with native flora and fauna is prohibited, except in accordance with a permit issued in accordance with Annex II to the Protocol of

Environmental Protection to the Antarctic Treaty. Where taking or harmful interference with animals is involved, *SCAR Code of Conduct for Use of Animals for Scientific Purposes in Antarctica* should be used as a minimum standard.

It is recommended that those responsible for the primary research in the Area should be consulted before a permit is granted for taking of birds for purposes not associated with the primary research. Studies requiring taking of birds for other purposes should be planned and carried through in such a manner that it will not interfere with the objectives of the bird research in the Area.

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 should be removed and that dead specimens of fauna may be removed for laboratory examination.

7 (viii) Disposal of waste

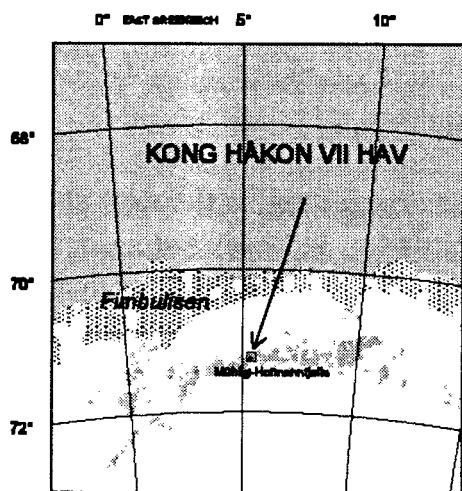
All wastes is to be removed from the area.

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, to maintain the field station, or to undertake protective measures.

7 (x) Requirements for reports

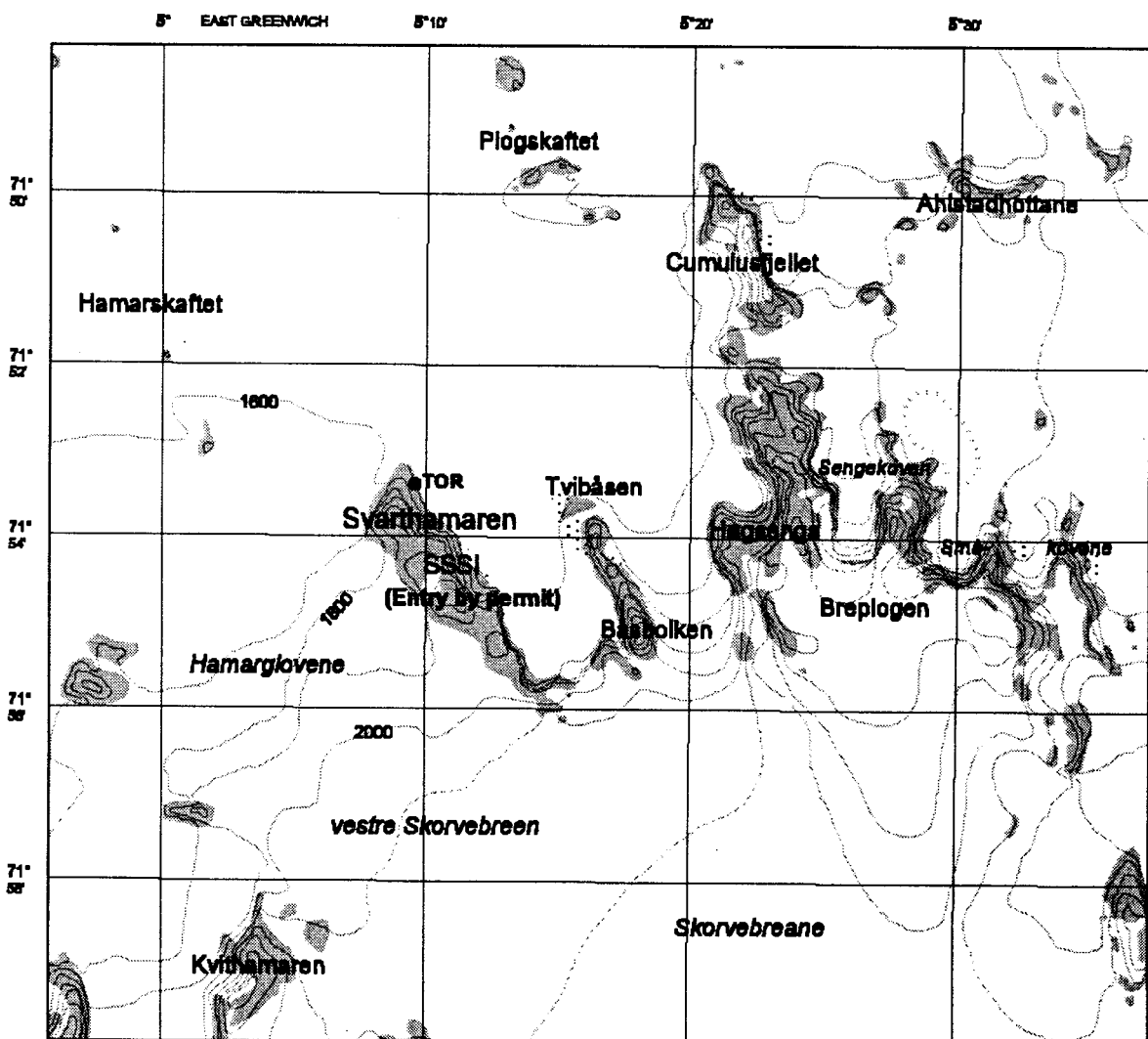
Parties should ensure that the principal holder of each permit issued submit to the appropriate authority a report describing the activities undertaken. Such reports should include, as appropriate, the information identified in the Visit Report form suggested by SCAR. Parties should maintain a record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



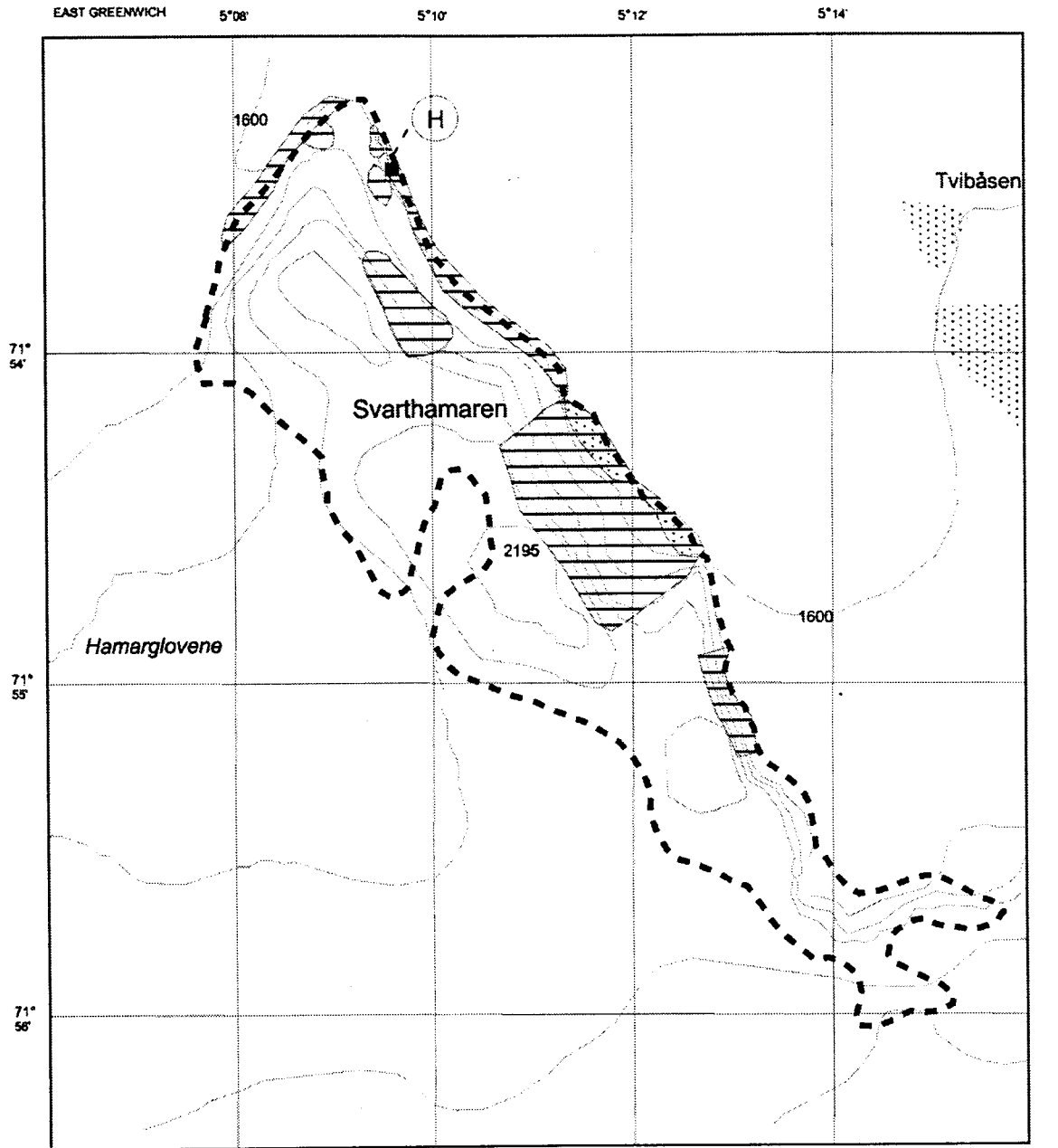
MAP A : Dronning Maud Land
Location of map B shown



MAP B : Svarthamaren and surroundings
Svarthamaren, SSSI No. 23 slightly left of centre



MAP C: Svarthamaren - Site of Special Scientific Interest No. 23



- Field station Tor 71° 53,4' S 5°09,6' E
- ⊙ H Helicopter landing
- - - Vehicle movement
- - - SSSI Boundary
- ▨ Main seabird concentrations
- Rock
- ▤ Moraine

500 0 500 meter
 Contour interval: 100 m

Projection: Lambert Conformal Conic
 Spheroid: WGS84
 Source: Norsk Polarinstitutt



ANNEX B

Decisions

ANNEX B

DECISION 1(1999)

CEP WEB SITE

The Representatives,

Recognising the usefulness of a World Wide Web site on the Internet in the operation of the CEP;

Noting that the operation of such a web site ideally would be the responsibility of a Secretariat established under the Antarctic Treaty;

Decide:

1. That the home country of the Chair of the Committee for Environmental Protection (CEP) shall, within the resources available to it, and only for as long as it provides the CEP Chair, operate a CEP web site on the World Wide Web on an interim basis.
2. The CEP web site will be operated in close co-operation with the Host Country of the ATCM operating the ATCM Home Page.
3. The CEP web site shall *inter alia* contain:
 - a) in an area freely accessible to the general public:
 - general information about the Committee on Environmental Protection and environmental issues in Antarctica;
 - an archive of official documentation from the previous meetings of the Committee, containing Working and Information Papers submitted to its meetings, as well as the final reports of its meetings;
 - links to related web sites (e.g. SCAR, COMNAP, CCAMLR)
 - b) in a password protected area accessible only to the Members of the CEP, Observers to the CEP, and other experts as appropriate that the Committee decides should have such access:

-
- official documents submitted electronically to the Host Country and the CEP Chair in advance of a CEP Meeting;
 - any other documents that have been provided to the CEP Chair for consideration at the Meeting
4. All official documents from each CEP meeting shall be made freely available on the CEP web site from the closure of that CEP Meeting if no member has indicated its intention to the contrary when submitting a document.
 5. Meeting documents of the CEP are to be posted in all available translations. Any other input from Members shall be posted in the official Treaty language or languages in which it is submitted.
 6. Documents for consideration by the CEP are to be submitted to the CEP web site only by identified CEP contact points. These contact points will be nominated by their respective Parties and Observers and will be listed on the CEP web site.
 7. Password and username information for the protected area of the web site shall be made available only to the CEP contact point, for distribution to relevant individuals within the Member country or Observer Organisation as appropriate.

ANNEX B**DECISION 2 (1999)****GUIDELINES FOR ANTARCTIC SHIPPING AND RELATED ACTIVITIES****The Representatives,**

Recalling Resolution 3(1998) on the draft Polar Shipping Code;

Noting the outcome of the 71st session of the International Maritime Organisation's Maritime Safety Committee regarding the development of a Polar Shipping Code in the form of non-mandatory guidelines, and the intention to exclude Antarctica from the application of these guidelines unless Antarctic Treaty Consultative Parties decide otherwise;

Recalling the provisions of Article 10 of Annex IV of the Protocol on Environmental Protection to the Antarctic Treaty;

Recognising the importance of maximising the safety of vessels operating in Antarctic waters;

Decide:

1. To give priority to the development of guidelines for Antarctic shipping and related activities pursuant to Article 10 of Annex IV to the Protocol;
2. To seek subsequent adoption of these guidelines by the International Maritime Organisation (IMO) as a means of extending their applicability to members of the IMO that are not Antarctic Treaty Consultative Parties;
3. To convene a Meeting of Experts under the provisions of Recommendation IV-24, with the aim of developing draft guidelines for Antarctic shipping and related activities;
4. To notify the IMO, through Peru as host Government of ATCM XXIII, of the provisions of paragraphs 1, 2 and 3 above;

5. Pursuant to paragraph 3 above, to request the Meeting of Experts :
 - i) to examine the most recent version of the draft Polar Shipping guidelines being developed for the Arctic by the IMO, and decide which elements of those draft Arctic guidelines should form the basis of the Antarctic guidelines;
 - ii) to consider other aspects of the design, construction, manning and equipment of vessels operating in Antarctic waters that might require elaboration in the Antarctic guidelines;
 - iii) to take into account existing international instruments regulating shipping activities in Antarctica, including for example MARPOL, SOLAS, UNCLOS and the Environmental Protocol to the Antarctic Treaty;
 - iv) to take into account existing guidelines adopted under the Antarctic Treaty, and in particular those adopted under Resolution 6 (1998);
 - v) to ensure the guidelines adequately take account of the nature of Antarctic shipping, the environmental conditions of Antarctica and the system of international governance applying to the Antarctic Treaty area;
 - vi) to report back to ATCM XXIV.
6. To encourage attendance at the Meeting by representatives from Consultative Parties, particularly their Antarctic and marine safety experts, and to invite experts from, Non-Consultative Parties, the Council of Managers of National Antarctic Programmes (COMNAP) and the Scientific Committee on Antarctic Research (SCAR).
7. To also invite experts from the following bodies: International Hydrographic Organisation (IHO), International Maritime Organisation (IMO), World Meteorological Organisation (WMO), International Association of Classification Societies (IACS), International Association of Protection and Indemnity Clubs (P&I Clubs), International Association of Antarctic Tour Operators (IAATO) and the Antarctic and Southern Ocean Coalition (ASOC).
8. To accept the offer of the United Kingdom Government to host the Meeting of Experts in London, which should, as far as possible, be held in conjunction with a meeting of the appropriate IMO expert body.
9. That in accordance with Recommendation IV-24, the United Kingdom should submit a report of the Meeting of Experts to ATCM XXIV for consideration.

ANNEX C

Resolutions

ANNEX C

RESOLUTION 1(1999)

GUIDELINES FOR EIA IN ANTARCTICA

The Representatives,

Noting the requirements under Article 8 and Annex I of the Environmental Protocol to prepare Environmental Impact Assessments (EIAs) for proposed activities in the Antarctic Treaty Area;

Recognising that all EIAs need to conform to the requirements of Annex I of the Protocol;

Recognising also that Parties should already have in place national legislation which includes procedures and guidelines for the preparation of EIAs in Antarctica;

Conscious of the need for general guidance for the preparation of EIAs to achieve effectiveness in fulfilling the obligations of the Protocol;

Recommend that:

The Guidelines for Environmental Impact Assessment in Antarctica appended to this Resolution be made available to be used by those engaged in the preparation of Environmental Impact Assessments for proposed activities in Antarctica, to the extent that such use does not conflict with the national legislative regime and other obligations of the Party or Parties concerned.

**GUIDELINES FOR
ENVIRONMENTAL
IMPACT ASSESSMENT
IN ANTARCTICA**

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1. INTRODUCTION

The Madrid Protocol, in Article 3, establishes a number of environmental principles which can be considered a guide to environmental protection in Antarctica and its dependent and associated ecosystems. Among such principles, those stated under paragraph C express the necessity of collecting sufficient information “to allow prior assessments of, and informed judgements about, their possible impacts on the Antarctic environment and dependent and associated ecosystems and on the value of Antarctica for the conduct of scientific research”. In addition, it states that “such judgements shall take account of:

- i) the scope of the activity, including its area, duration and intensity;
- ii) the cumulative impacts of the activity, both by itself and in combination with other activities in the Antarctic Treaty Area;
- iii) whether the activity will detrimentally affect any other activity in the Antarctic Treaty Area;
- iv) whether technology and procedures are available to provide for environmentally safe operations;
- v) whether there exists the capacity to monitor key environmental parameters and ecosystem components so as to identify and provide early warning of any adverse effects of the activity and to provide for such modification of operating procedures as may be necessary in the light of the results of monitoring or increased knowledge of the Antarctic environment and dependent and associated ecosystems; and
- vi) whether there exists the capacity to respond promptly and effectively to accidents, particularly those with potential environmental effects”

Article 8 of the Protocol introduces the term *Environmental Impact Assessment* and provides three categories of environmental impacts (*less than, equal to and more than minor or transitory*), according to their significance. The Article also requires that assessment of planned activities to be undertaken in Antarctica, subject to the procedures set out in Annex I.

Annex I of the Protocol provides a more comprehensive explanation of the different impact categories and establishes a set of basic principles to conduct an EIA for planned activities in Antarctica.

In addition, it sets up a preliminary stage for assessing the environmental impact of Antarctic activities, which is intended to determine if an impact produced by a

certain activity is less than minor or transitory or not. Such determination must be accomplished through the appropriate national procedures.

According to the results of the preliminary stage, the activity can either:

- proceed (if the predicted impacts of the activity are likely to be less than minor or transitory), or
- be preceded by a an Initial Environmental Evaluation (IEE), if predicted impacts are likely to be minor or transitory; or
- be preceded by a Comprehensive Environmental Evaluation (CEE), if the predicted impacts are to be more than minor or transitory.

Although the key to decide whether an activity shall be preceded by an IEE or a CEE is the concept of “*minor or transitory impact*”, no agreement on this term has so far been reached (contributions to this subject can be found in XX ATCM/IP 2, New Zealand; XXI ATCM/WP 35, New Zealand; XXI ATCM/IP 55, Argentina, XXII ATCM/IP 66 , Russia and XXII ATCM/WP 19, Australia, among others). The difficulty with defining “*minor and transitory impact*” thus far appear to be due to the dependence of a number of variables associated with each activity and each environmental context. Therefore the interpretation of this term will need to be made on a case by case site specific basis. As a consequence, this document does not focus on seeking a clear definition of “*minor or transitory impact*”, but rather is an attempt to provide basic elements for the development of the EIA *process*.

Article 8 and Annex I of the Protocol on Environmental Protection to the Antarctic Treaty set out the requirements for Environmental Impact Assessments (EIAs) for proposed activities in Antarctica. These Guidelines to EIA in Antarctica do not amend, modify or interpret the requirements set out in Article 8 and Annex I of the Environmental Protocol, or the requirements of national legislation which may include procedures and guidelines for the preparation of EIAs in Antarctica. These Guidelines have been produced to assist those preparing EIAs for proposed activities in Antarctica.

2. OBJECTIVES

The general objective of these guidelines is to achieve transparency and effectiveness in assessing environmental impacts during the planning stages of possible activities in Antarctica, as well as consistency of approach in fulfilling the obligations of the Protocol.

Specifically, the guidelines aim to

- assist proponents of activities who may have little experience of EIA in Antarctica;

- assist in determining the proper level of EIA document (according to the Protocol) to be prepared;
- facilitate co-operation and co-ordination in EIA for joint activities ;
- facilitate comparison of EIAs for similar activities and/or environmental conditions;
- provide advice to operators other than ATCPs;
- assist in the retrospective analysis of cumulative impacts for specific sites;
- initiate a process of continuous improvement of EIA.

3. THE EIA PROCESS

The EIA is a process having the ultimate objective of providing decision makers with an indication of the likely environmental consequences of a proposed activity (figure 1).

The *process* of predicting the environmental impacts of an activity and assessing their significance is the same regardless of the apparent magnitude of the activity. Some activities require no more than a cursory examination to determine impacts, although it must be remembered that the level of assessment is relative to the significance of the environmental impacts, not to the scale or complexity of the activity. Thus, the picture that emerges with respect to the impacts of the activity will determine how much further the EIA process needs to be taken, and how complex it should be.

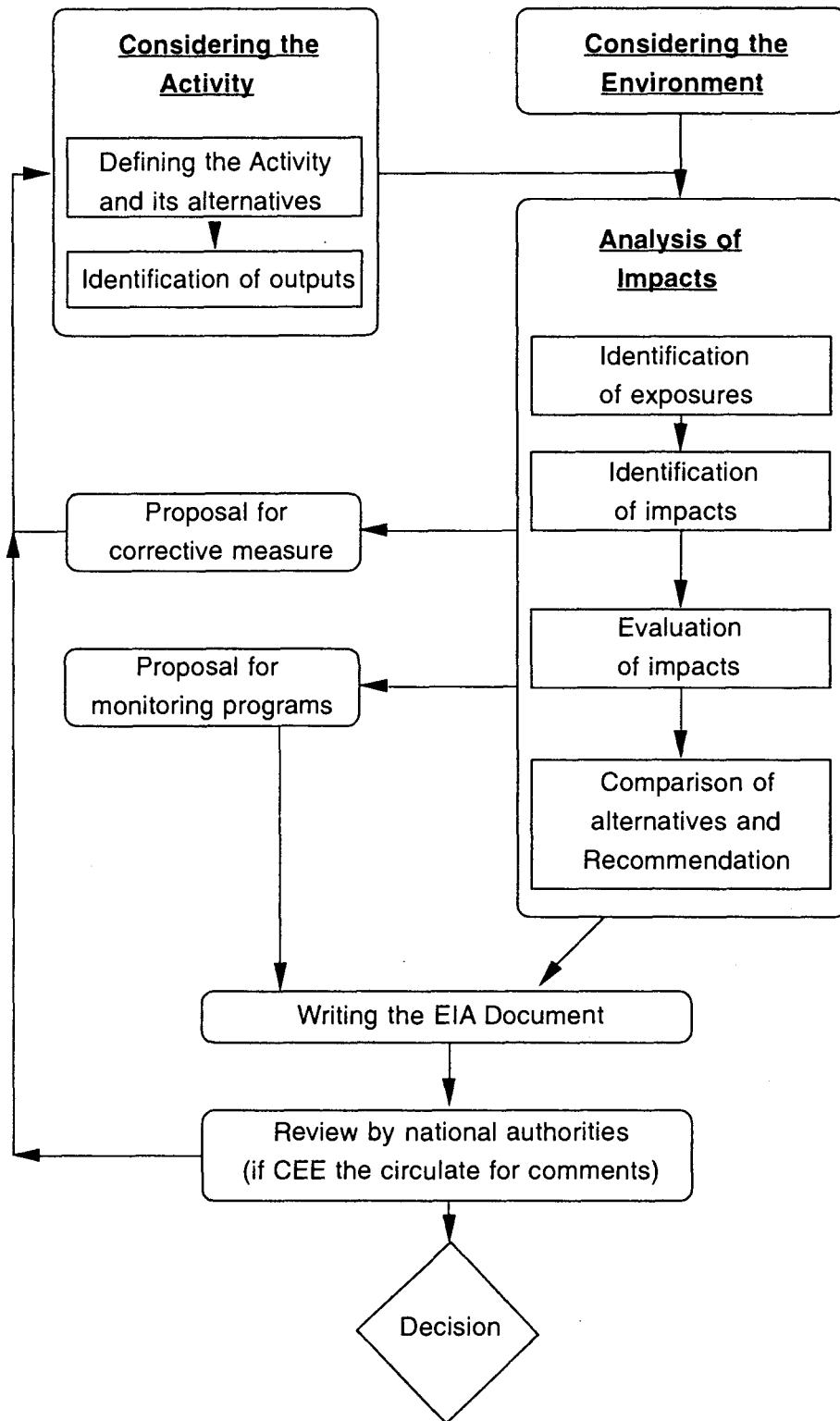


Figure 1: Steps of the EIA process for Antarctic activities

Those persons responsible for an Environmental Impact Assessment Process need to ensure that they consult as widely as is reasonably necessary and possible in order that the best available information and professional advice contribute to the outcome. A number of different participants may be involved throughout this process, ranging from those who are involved in the details of nearly all parts of the process (e.g. environmental officer, proponent of the activity) to those who are the technical experts who provide input in particular subjects of the process (e.g. researchers, logistic personnel, others with experience at the location or in a particular activity). In addition, EIAs undertaken in Antarctica for planned activities may represent a valuable source of information. At this respect, it should be pointed out that an updated list of EIAs is presented every ATCM, according to Resolution XIX-6. The Antarctic Data Directory System (ADDS) can also represent an helpful source of metadata.

3.1. Considering the activity

3.1.1. Defining the activity

An activity is an event or process resulting from (or associated with) the presence of humans in the Antarctic, and/or which may lead to the presence of humans in Antarctica. An activity may consist of several *actions*, e.g. an ice drilling *activity* may require *actions* such as the transport of equipment, establishment of a field camp, power generation for drilling, fuel management, drilling operation, waste management, etc. An activity should be analysed by considering all phases involved (e.g. construction, operation and potential dismantling or decommissioning phases).

The activity and the individual actions should be defined through a planning process which considers the physical, technical and economic aspects of the proposed project and its alternatives. Consultation with relevant experts to identify all these aspects is an important part of this initial scoping process. It is important to accurately define all aspects of the activity which could have environmental impacts. The rest of the EIA process relies on this initial description, which should occur during the planning process. The following aspects of the proposed activity and its alternatives should be clearly identified:

- the purpose of and the need for the activity;
- the principal characteristics of the activity that might cause impact on the environment; for instance: design characteristics; construction requirements (types of material, technologies, energy, size of any installation, personnel, temporary constructions, etc.); transportation requirements (e.g. types, numbers and frequency of use of vehicles, fuel types); type (according to Annex III of the Protocol) and volume of wastes generated through different phases of the activity and their final disposition; dismantling of temporary constructions;

decommissioning the activity if necessary; as well as those aspects that will result from the operational phase of the activity.

- the relationship of the proposed activity to relevant previous or current activities;
- a description of the activity's location and geographical area, indicating access roads, etc. Using maps will ease the evaluation process and, therefore, will be useful in the EIA documentation.
- timing of the activity (including range of calendar dates for construction time, as well as overall duration, periods of operation of the activity and decommissioning. This may be significant with respect to wildlife breeding cycles, for example.);
- location of the activity with regard to areas with special management requirements (SPA, SSSI, HSM, CCAMLR CEMP sites, already proposed ASPAs and/or ASMAs, etc.).
- precautionary measures that are integral to the project including during the construction, operational and decommissioning phases.

Careful consideration is required to determine the full scope of the activity so that the impacts can be properly assessed. This is necessary to avoid preparing a number of separate EIAs on actions which indicate an apparent low impact, when in fact, taken in its entirety, the activity actually has potential for impacts of much greater significance. This particularly common where a number of activities take place at the same site either spatially and/or temporally.

When defining an Antarctic activity, experience gained in similar projects undertaken within and outside the Antarctic Treaty System Area (e.g. the Arctic) may be an additional and valuable source of information.

Once the activity is defined, any subsequent changes to the activity must be clearly identified and addressed according to when they occur in the EIA process (e.g. if the change occurs once the EIA document is completed, then an amendment to the EIA or a rewrite of the document may be necessary depending on how significant the change is). In every case it is important that the change and its implications (in terms of impacts) is assessed in the same manner as other impacts previously identified in the EIA process.

3.1.2. Alternatives to the activity

Both the proposed activity and possible alternatives should be examined in concert so that a decision maker can more easily compare the potential impacts. Both the environmental and scientific consequences should be considered during the evaluation. Examples of alternatives for consideration include:

- use of different locations or sites for the activity,
- use of different technologies, in order to reduce the outputs (or the intensity of the outputs) of the activity.
- use of pre-existing facilities, and
- different timing for the activity.

The alternative of not proceeding with the proposed activity (i.e. the “no-action” alternative) should always be included in any analysis of environmental impacts of the proposed activity.

3.1.3. Identification of outputs of the activity

An *output* is a physical change (e.g. movement of sediments by vehicle passage, noise) or an entity (e.g. emissions, an introduced species) imposed on or released to the environment as the result of an *action* or an *activity*. Outputs can also be defined as by-products of the activity (or action) and can include emissions, dust, mechanical action on substrate, fuel spills, noise, light, electromagnetic radiation, wastes, heat, introductions of alien species, etc.

Note that a single action may generate several different outputs (for example the use of vehicles may cause soil compaction, emissions, noise, visual interference etc.) and that the same type of output may be generated by different actions of a single activity, (for example in an ice drilling activity emissions may come from the use of vehicles, drilling operations, power generation, etc.).

Output levels may play a relevant role especially if several activities take place at the same time. Therefore, potential for additive, synergistic or antagonistic interactions between outputs (thus resulting in possible significant environmental impacts) has to be considered.

Systematising outputs and actions in a matrix format may be helpful in this process. The example below, taken from “*Monitoring of Environmental Impacts from Science and Operations in Antarctica*”(SCAR/COMNAP, 1996), illustrates a potential situation (e.g. actions and outputs associated with a station complex).

ACTIONS	OUTPUTS					
	Air emissions (incl. Dust)	Wastes	Noise	Fuel spills	Mechanical action	Heat
Vehicles	X	-	X	X	X	X
Power generation	X	-	X	X	-	X
Building	X	X	X	X	X	-
Fuel storage	-	-	-	X	-	-

Outputs may vary across different alternatives. That is there may not be a single set of outputs, but rather multiple sets if the alternatives are significantly different from one another.

The geographical spread of an output has to be accurately estimated in order to determine to what extent the environment is exposed.

3.2. Considering the environment

Consideration of the environment requires the characterisation of all relevant physical, biological, chemical and anthropic elements or values in a given area, where and when an activity is proposed. Relevant means all those aspects of the environment that the proposed activity might influence or which might influence the activity.

Such information should be quantitative (e.g., heavy metal concentration on organisms or on river flows, a bird population size) where available and appropriate. In many cases qualitative descriptions (e.g., aesthetic value of a landscape) may have to be used. Maps, publications, research results and researchers are different sources of information to be identified and taken into account.

Consideration of the existing environment should include:

- recognition of the special status accorded to Antarctica by the ATS, including its status as a natural reserve devoted to peace and science
- the physical and biological features that could be affected directly or indirectly, including:
 - the physical characteristics (topography, bathymetry, geology, geomorphology, soils, hydrology, meteorology, glaciology etc.)
 - the biota (e.g. inventories of plant and animal species, populations and communities, and other important features such as the presence of breeding grounds.) and
 - any dependent and related populations (e.g. bird nesting areas related to feeding areas);
- natural variations in environmental conditions that could occur on a diurnal, seasonal, annual and/or interannual timescale;
- information about the spatial and temporal variability of the environmental sensitivity (e.g. differences in impacts when an area is snow covered compared to when it is not);
- current trends in natural processes such as population growth or spread of particular species, geological or hydrological phenomena;
- the reliability of the data (e.g. anecdotal, historical, scientific, etc.);

- aspects of the environment which have been changed, or may be changing as the result of other current or previous activities;
- special values of the area (if previously identified);
- the existence of areas potentially subject to indirect and cumulative impacts;
- the influence that the activity may exert on dependent and associated ecosystems;
- existing activities being carried out in the area or at the site, particularly scientific activities, given their intrinsic importance as a value to be protected in Antarctica
- specific parameters against which predicted changes are to be monitored, including:

A thorough consideration of the environment before starting the activity (baseline information) is essential to ensure a valid prediction of impacts and to define monitoring parameters, if required. If such a baseline information is not available, field research may be necessary to obtain reliable data about the state of the environment before beginning the activity.

It is also important to clearly identify gaps in knowledge and uncertainties encountered in compiling the information.

3.3. Analysis of Impacts

3.3.1. Identification of exposures

Exposure is the process of interaction between an identified potential output and an environmental element or value. Identifying exposure means determining which component of the environment is susceptible to be affected by the outputs of an activity or action. Overlaying spatial information (e.g. use of a GIS) is a valuable tool to assist in this determination

Determination of exposures may be summarised using a matrix of outputs and environmental elements or values, taking into account that matrices can only give information about the existence of exposures but not on their intensity .

The table below provides an example of the interaction of various outputs with environmental elements to identify relevant exposures resulting from the activity.

OUTPUTS	ENVIRONMENTAL ELEMENTS OR VALUES				
	Flora	Fauna	Freshwater / Seawater	Soil	Air
Emissions	X	X	X	X	X
Noise		X			
Fuel spills	X	X	X	X	
Wastes	X	X	X	X	
Introduced species	X	X			

When the box is crossed (X) it means that the environmental element is exposed to the considered output. This is a random example for a given environment and may, therefore, vary in another context. For example, a noise may occur when a breeding site is unoccupied, or a breeding site may be protected from noise by a topographic feature. From the examples above it can be inferred that the occurrence of an output does not necessarily lead to exposure of environmental element or value and hence potential for environmental effects.

Correct identification of the intensity of exposure is a crucial step in making a reliable prediction of impacts. Some elements contributing to that identification are:

- Temporal variation. The exposure of an environmental element or value may change with the season in which the activity takes place, as climate cycles, breeding patterns, etc. may change over time.
- Cause-effect relationships between outputs and environmental elements or values must be determined, especially in cases where the relationships are indirect, or an element or value is exposed to outputs from numerous sources, or repeatedly from the same source.

3.3.2. Impact identification

An **impact** (synonym: **effect**) is a change in the values or resources attributable to a human activity. It is the consequence (e.g. reduced plant cover) of an agent of change, not the agent itself (e.g. increase of trampling). Impact may also be defined as the result of the interaction between an output and an environmental value or resource.

The identification of environmental impacts consists of the characterisation of all changes in environmental elements or values exposed to the outputs of a given set of activities. The identification task requires that evaluators are able to determine the important cause-effect relationships between the activities and the environmental elements or values. Only when the impact is identified can an evaluation be made of its **significance**.

An impact may be identified by its nature, spatial extent, intensity, duration, reversibility and lag time.

Nature: type of change imposed on the environment due to the activity (e.g. contamination, erosion, mortality).

Spatial extent: area or volume where changes are likely to be detectable.

Intensity: a measure of the amount of change imposed on the environment due to the activity. (it can be measured, or estimated, through, e.g. number of species or individuals effected, concentration of a given pollutant in a waterbody, rates of erosion, rates of mortality, etc.)

Duration: period of time during which changes in the environment are likely to occur.

Reversibility: possibility of the system to return to its initial environmental conditions once an impact is produced.

Lag time: time span between the moment outputs are released to or imposed on the environment and the moment impacts occur.

In addition, a proper impact identification should also enable a distinction between direct, indirect and cumulative impacts.

A **direct impact** is a change in environmental components that results from direct cause-effect consequences of interaction between the exposed environment and outputs (e.g. decrease of a limpet population due to an oil spill). An **indirect impact** is a change in environmental components that results from interactions between the environment and other impacts -direct or indirect- (e.g. alteration in seagull population due to a decrease in limpet population which, in turn, was caused by an oil spill).

A **cumulative impact** is the combined impact of past, present, and reasonably foreseeable activities. These activities may occur over time and space and can be additive or interactive/synergistic (e.g. decrease of limpet population due to the combined effect of oil discharges by base and ship operations). Cumulative impacts can often be one of the hardest impact categories to adequately identify in the EIA process. When attempting to identify cumulative impacts it is important to consider both spatial and temporal aspects and to identify other activities which have and could occur at the same site or within the same area.

Several methods exist to identify impacts such as: overlay maps, checklists,

matrices, etc. The choice of the methodology will depend on the character of the activity and the environment that is likely to be affected.

3.3.3. Impact Evaluation

The purpose of impact evaluation is to assign relative significance to predicted impacts associated with an activity (and the various identified alternatives).

Significance: It is a value judgement about the severity and importance of a change in a given environment or environmental value.

According to the Madrid Protocol, impacts shall be evaluated by taking into account three levels of significance:

- less than minor or transitory impact;
- minor or transitory impact; or
- more than minor or transitory impact.

The interpretation of these terms should be made on a case by case site specific basis. However it may be useful to consider how similar impacts have been judged in earlier EIAs at similar sites and/or for similar types of activities.

An inherent consideration to judging significance is that it may have a rather subjective component and this fact should be acknowledged. Where an impact has the possibility of being significant, several experts should be consulted to achieve a view as objective as possible.. This is particularly important either if there is a reliance on incomplete data or if there are gaps in the knowledge.

Judging significance should not be based solely on direct impacts, but must also take account of possible indirect and cumulative impacts.

The significance of the unavoidable impacts (those impacts for which no further mitigation is possible) represents an important consideration for the decision maker in deciding whether, on balance, an activity is justified.

Some problems can arise when evaluating impacts, due to misunderstanding or overlooking some aspects of the process of evaluating impacts. These can include for example:

- confusing duration of the impact with duration of the activity;
- confusing outputs of activities with impacts;
- limiting the analysis to direct impacts, without consideration of indirect and cumulative impacts.

3.4. Comparison of impacts

When the project has been assessed with respect to environmental impacts it is necessary to summarise and aggregate the significant impacts for the various alternatives in a form suitable for communication to the decision makers. From such an aggregation of information a comparison among alternatives can be easily made.

3.5. Proposal for corrective measures

Corrective measures are composed of all steps conducted to decrease, avoid, or eliminate any of the components of an impact. It can be considered a process of feedback, and should occur throughout the EIA process, not simply as a final step. Corrective measures include mitigation and remediation actions.

Mitigation is the use of practice, procedure or technology to minimise or to prevent impacts associated with proposed activities. The modification of any aspect of the activity (and hence the consideration of outputs and the environmental exposure) as well as the establishment of supervision procedures represent effective ways of mitigation.

Mitigation measures will vary according to the activity and the characteristics of the environment , and may include:

- developing on site control procedures (e.g. recommended methods for waste disposal)
- establishing the best time for the activity (e.g. to avoid the breeding season of penguins)
- providing environmental education and training to personnel, or contractors, involved in the activity.
- ensuring adequate on site supervision of the activity by senior project staff or environmental specialists.

Remediation consists of the steps taken after impacts have occurred to promote, as much as possible, the return of the environment to its original condition.

The final version of the activity to be assessed must incorporate all corrective measures, including those associated with mitigation and remediation actions. Impact avoidance, as a form of mitigation, may contribute to minimising monitoring, reducing remediation costs and generally contribute also to maintaining the existing state of the environment.

When considering mitigation and remediation measures, the following issues should be addressed:

- making a clear distinction between mitigation and remediation measures;
- clearly defining the state of the environment that is being aimed for through such measures;
- considering that new, unforeseen impacts may appear as a result of inadequate implementation of proposed mitigation measures;
- noting that the environment may not always be capable of returning to its original condition, even when remediation actions are implemented;
- considering that a given corrective measure may interact antagonistically or synergically with other corrective measures.

3.6. Proposal for Monitoring Programs

Monitoring consists of standardised measurements or observations of key parameters (outputs and environmental variables) over time, their statistical evaluation and reporting on the state of the environment in order to define quality and trends. For the EIA process, monitoring should be oriented towards confirming the accuracy of predictions about environmental impacts of the activity, and to detect unforeseen impacts or impacts more significant than expected. Given this, it may be useful to set environmental thresholds or standards for an activity that monitoring results are assessed against. If these thresholds are exceeded, then a review or re-analysis would be required of assumptions made regarding the environmental impacts or of management systems related to the activity.

Monitoring may also include any other procedures that can be used to assess and verify the predicted impacts of the activity. Where measurement of specific parameters is not necessary or appropriate, assessment and verification procedures could include maintaining a log of the activity that actually occurred, and of changes in the nature of the activity where they were significantly different from those described in the EIA. This information can be useful for further minimising or mitigating impacts, and, where appropriate, for modifying, suspending or even cancelling all or part of the activity.

Monitoring is not about the measurement of everything in a haphazard approach to detect change but about precise measurement of a few target species, processes, or other indicators, carefully selected on the basis of scientifically sound predetermined criteria.

The process of selecting key indicators should be accomplished during the activity's planning stage, once outputs have been identified, the environment has been considered and associated impacts have been assessed, while monitoring environmental parameters generally should start before the commencement of the activity if adequate baseline information is not available.

Planning or undertaking monitoring activities may be hindered by a number of situations:

- leaving the planning of monitoring programs until the activity is in progress;
- monitoring activities can be costly, especially for multi-year projects and activities;
- some assumptions about the environmental impacts of an activity cannot be tested;
- failure to follow through with monitoring;
- failure to distinguish between natural and human-induced variability in environmental parameters;

4. WRITING THE EIA DOCUMENT

The outcome of an EIA is a formal document, which presents all the relevant information about the EIA process. The EIA document represents a fundamental link between the EIA process and decision makers seeing that conclusions stemming from the EIA process will assist decision makers to consider the environmental aspects of the proposed activity.

Four bodies of information arise from an EIA process: *methodology*, *data*, *results* and *conclusions* derived from them. Since *results* and *conclusions* are of particular interest for decision makers, these chapters should be written in an accessible language, avoiding very technical terms. The use of graphical information, such as maps, tables and graphs, is an effective way of improving communication.

The size and level of detail in the document will depend on the significance of the environmental impacts that have been identified throughout the EIA process. Thus, Annex I to the Protocol establishes two formats to document it: Initial Environmental Evaluation (IEE) and Comprehensive Environmental Evaluation (CEE), for which the Protocol requires the presentation of different volumes of information (Annex I, Articles 2 and 3).

Unless it has been determined that an activity will have less than a minor or transitory impact or it has already been determined that a Comprehensive Environmental Evaluation is needed, an Initial Environmental Evaluation (IEE) shall be prepared. If the EIA process indicates that a proposed activity is likely to have more than a minor or transitory impact a Comprehensive Environmental Evaluation must be prepared.

According to Annex I requirements a draft CEE shall be prepared first, which shall be circulated to all Parties as well as to CEP for comments. Once comments and suggestions have been incorporated, a final CEE is circulated to all Parties.

The following table summarises the steps to be considered throughout the EIA process (which are explained in Section 3 of the present guidelines). It also lists the requirements stemming from Annex I that should be included in an EIA document. In the case of IEE, some of the marked items are not specifically mentioned in Annex I, Article 2. However, their inclusion in the IEE document is often useful to communicate the results of the process in a transparent manner. These items were distinguished in the table with an X.

EIA Contents and Annex I Requirements	IEE	CEE
Description of the purpose and need of the activity	√	√
Description of the proposed activity and possible alternatives and the consequences of those alternatives	√	√
Alternative of not proceeding with the activity	X	√
Description of the initial environmental reference state and prediction of the environmental state in absence of the activity	√	√
Description of methods and data used to forecast the impacts	X	√
Estimation of nature, extent, duration and intensity of direct impacts	√	√
Consideration of cumulative impacts	√	√
Consideration of possible indirect impacts	X	√
Monitoring programs	X	√
Mitigation and remediation measures	X	√
Identification of unavoidable impacts	X	√
Effects of the activity on scientific research and other uses or values	X	√
Identification of gaps in the knowledge	X	√
Preparers and advisors	X	√
References	X	X
Non-technical summary	X	√
Index	X	X
Glossary		X
Cover sheet		X

√ required by Annex I

X often useful

The following text focuses briefly on how the items listed above should be referred to in the text of any EIA. Further technical information is already described in previous chapters.

Description of the Purpose and Need for the Proposed Activity

This section should include a brief description of the proposed activity and an explanation of the intent of the activity. It should include sufficient detail to make it clear why the activity is being proposed including the need for the activity to proceed. It should also provide details on the process by which the scope of the activity was defined. This will help ensure that the full scope of the activity has been included so

that impacts can be properly assessed. If a formal process was used to accomplish this (a formal meeting or solicitation of input from the public or other groups), that process and its results should be discussed here.

Description of the proposed activity and possible alternatives and the consequences of those alternatives

This section should include a detailed description of the proposed activity as well as reasonable alternatives. The first alternative to be described would be the proposed activity. The description should be as comprehensive and detailed as possible (see section 3.1).

It may be useful to provide a comparison of alternatives in this section. For instance, for a new research station, alternatives might include differences in the size of the station and the number of persons that could be accommodated. These differences would mean different quantities of materials required, fuels consumed and emissions or wastes generated. Tables showing appropriate comparisons can be very helpful to the reader of the document.

Alternative of not proceeding with the activity

The alternative of not proceeding with the proposed activity (i.e. the “no-action” alternative) should be described to highlight the pros and cons of not conducting the activity. Although the Protocol only requires its inclusion in CEEs, it is useful to also include the “no-action” alternative in the text of IEEs in order to better justify the need for proceeding with the activity.

Description of the initial environmental reference state and prediction of the environmental state in absence of the activity

Such a description should not be limited to a characterisation of the relevant physical, biological, chemical and anthropic elements of the environment, but should also take into account the existence and behaviour of dynamic trends and processes in order to predict the state of the environment in absence of the activity. A proper description of the initial environmental reference state provides elements against which changes are to be compared.

Description of methods and data used to forecast the impacts

The purpose of this section is to explain and, if necessary, defend the design of the assessment and then provide enough detail that a further evaluator can understand and

reproduce the procedure. Careful writing of the methodology is critically important because it determines that results can be reproducible and/or comparable.

Estimation of nature, extent, duration and intensity of impacts (including consideration of possible indirect and cumulative impacts).

This section contains the results of analyses of impacts, which includes a clear description of identified exposures as well as the identification of impact aspects, in terms of their nature, spatial extent, intensity, duration, reversibility and lag time. It must clearly establish the significance assigned to each impact and the justification for such assignment. In addition, and to summarise this section, the inclusion of a table showing the environmental impacts on each environmental component can be very helpful.

Special attention must be paid to the consideration of possible indirect and cumulative impacts, since cause-effect relationship determining the existence of such impacts usually exhibit a higher degree of complexity.

Monitoring programs

When necessary, this section should clearly define monitoring objectives, set testable hypotheses, choose key parameters to be monitored, assess data collection methods, design statistical sampling program, and decide on frequency and timing of data collection/recording. Implementation of such monitoring programs is a further step that may begin after the planning of the activity has been completed, even though the activity has not actually been initiated.

Mitigation and remediation measures

Since mitigation and remediation measures usually aim to correct some aspects of the activity, communication of these measures must be concrete, pointing out the proposed actions and their timing, as well as the benefits associated to each individual measure. It is often useful to include this section in the text of IEEs.

Identification of unavoidable impacts

Recognition of the existence of unavoidable impacts should be included within any impact analysis. Consideration of such impacts is of great importance given that the occurrence of unavoidable impacts may affect the decision on whether to proceed with the proposed activity.

Effects of the activity on scientific research and other uses or values

Taking into account that the Protocol designates Antarctica as an area devoted to peace and science, the effects of the proposed activity on ongoing scientific research, or on the potential of a site to future scientific research, must be a fundamental consideration when the impact analysis is carried out.

Identification of gaps in the knowledge

Existing bodies of knowledge (i.e., empirical, theoretical, or anecdotal data and information) are used to support the assessment process. Nonetheless, these bodies of knowledge may be incomplete or may be surrounded by varying degrees of uncertainty. It is critical to identify explicitly in the assessment where such incompleteness or uncertainty exists; and how this has been factored into the assessment process. This disclosure can be useful in assessment by clearly identifying where more knowledge is needed.

Preparers and Advisors

This section provides a list of those experts who were consulted in preparing the assessment, their areas of expertise, and appropriate contact information. It should also list the persons who were responsible for the actual preparation of the document. This information is useful to reviewers and decision makers to ensure that the appropriate expertise was brought to bear on the analyses needed to assess the type and degree of impact from the proposed activity. It is also useful information for future assessments on similar activities or issues.

References

This section should list any references used in preparing the evaluation. They may include research or other scientific papers used in the analysis of impacts or monitoring data used to establish baseline conditions in the area where the activity is proposed. They may also include other environmental assessments of similar activities at other or similar locations.

Index

As an EIA document may be fairly large, an index is a very helpful aid to the reader.

Glossary

This section provides a list of terms and definitions as well as abbreviations that are helpful to the reader, especially if the terms are not commonly understood .

Cover Sheet

The CEE should contain a title page or cover sheet that lists the name and address of the person or organization who prepared the CEE and the address to which comments should be sent (for the draft document only).

Non-Technical Summary

The CEE must contain a non-technical summary of the contents of the document. This summary should be written in an accessible language and include pertinent information on the purpose and need for the proposed activity, the issues and alternatives considered, the existing environment, and the impacts associated with each alternative. A non-technical summary might also be useful for an IEE.

Finally, in either case (IEE or CEE) a number of considerations about writing the EIA document should be taken into account, such as:

- avoidance of including irrelevant descriptive information;
- documenting all relevant steps of the process;
- clearly describing the impact identification methodology;
- clearly distinguishing between results (identification of impacts, mitigation measures, etc.) and final value judgement of significance;
- properly connecting results and conclusions.

5. ANNEX I REQUIREMENTS FOR CIRCULATION

5.1. Public circulation of an EIA

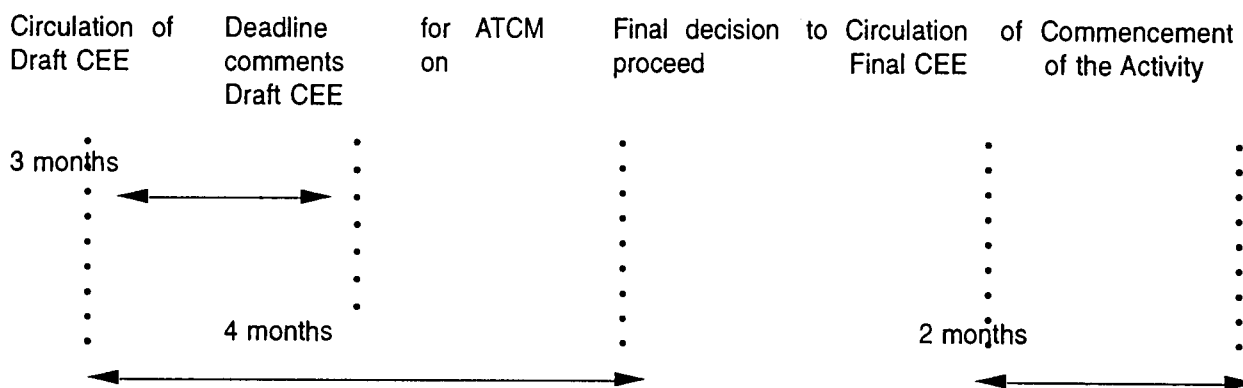
Under Annex I, public circulation is only required for CEEs. The draft CEE shall be made publicly available and shall be circulated to all Parties, which shall also make it publicly available, for comment. A period of 90 days shall be allowed for the receipt of comments. It shall be forwarded to the CEP at the same time as it is circulated to the Parties, and at least 120 days before the next ATCM, for consideration as appropriate.

5.2. Receipt and incorporation of comments

No final decision shall be taken to proceed with the proposed activity in the

Antarctic Treaty area unless there has been an opportunity for consideration of the draft CEE by the ATCM on the advice of the CEP, provided that no decision to proceed with a proposed activity shall be delayed for longer than fifteen months from the day of circulation of the draft CEE. A final CEE shall address and shall include or summarise comments received on the draft CEE. The final CEE, notice of any decision relating thereto, and any evaluation of the significance of the predicted impacts in relation to the advantages of the proposed activity, shall be circulated to all Parties, which shall also make them publicly available, at least sixty days before the commencement of the proposed activity in the Antarctic Treaty area.

The following diagram illustrates this schedule for CEEs, as defined in Annex I:



6. DEFINITION OF TERMS IN THE EIA PROCESS

Action: any step taken as a part of an activity.

Activity: an event or process resulting from (or associated with) the presence of humans in the Antarctic, and/or which may lead to the presence of humans in Antarctica. (adapted from *SCAR/COMNAP Monitoring Workshop*)

Comprehensive Environmental Evaluation (CEE): an environmental impact document required for proposed activities that may have more than a minor or transitory impact on the Antarctic environment (from *Madrid Protocol, Annex I, Article 3*).

Cumulative Impact: the combined impact of past, present, and reasonably foreseeable activities. These activities may occur over time and space and can be additive or interactive/synergistic (adapted from *IUCN Cumulative Impacts Workshop*).

Direct Impact: a change in environmental components that results from direct cause-effect consequences of interaction between the exposed environment and outputs. (from *Guidelines for EIA in the Arctic*)

Environmental Impact Assessment (EIA): a process for identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of proposed projects and physical activities prior to major decisions and commitments being made (from *Guidelines EIA in the Arctic*)

Exposure: the process of interaction between an identified potential output and an environmental element or value. (adapted from *SCAR/COMNAP Monitoring Workshop*)

Impact: a change in the values or resources attributable to a human activity. It is the consequence (e.g. reduced plant cover) of an agent of change, not the agent itself (e.g. increase of trampling). Synonym: effect. (from *SCAR/COMNAP Monitoring Workshop*).

Indirect Impact: a change in environmental components that results from interactions between the environment and other impacts (direct or indirect). (from *Guidelines for EIA in the Arctic*)

Initial Environmental Evaluation (IEE): an environmental impact document required for proposed activities that may have a minor or transitory impact on the Antarctic environment (from *Madrid Protocol, Annex I, Article 2*).

Mitigation: the use of practice, procedure or technology to minimise or to prevent impacts associated with proposed activities. (*COMNAP Practical Guidelines*)

Monitoring: consists of standardised measurements or observations of key parameters (outputs and environmental variables) over time, their statistical evaluation and reporting on the state of the environment in order to define quality and trends. (adapted from *SCAR/COMNAP Monitoring Workshop*)

Output: a physical change (e.g. movement of sediments by vehicle passage, noise) or an entity (e.g. emissions, an introduced species) imposed on or released to the environment as the result of an *action* or an *activity*. (*SCAR/COMNAP Monitoring Workshop*)

Preliminary Stage (PS): a process that considers the level of environmental impacts of proposed activities -before their commencement- referred to in Article 8 of the Protocol, in accordance with appropriate national procedures. (from *Madrid Protocol, Annex I, Article 1*)

Remediation: consists of the steps taken after impacts have occurred to promote, as much as possible, the return of the environment to its original condition

Unavoidable Impact: an impact for which no further mitigation is possible.

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8. ACRONYMS

ASMA: Antarctic Specially Managed Area

ASPA: Antarctic Specially Protected Area

ASOC: Antarctic and Southern Ocean Coalition

ATCM: Antarctic Treaty Consultative Meeting

ATCP: Antarctic Treaty Consultative Party

ATS: Antarctic Treaty System

CCAMLR: Commission for the Conservation of Antarctic Marine Living Resources

CEE: Comprehensive Environmental Evaluation

CEMP: CCAMLR Ecosystem Monitoring Program

CEP: Committee of Environmental Protection

COMNAP: Council of Managers of National Antarctic Programmes

EIA: Environmental Impact Assessment

GIS: Geographical Information System

GOSEAC: SCAR Group of Specialists on Environmental Affairs and Conservation

HSM: Historic Sites and Monuments

IEE: Initial Environmental Evaluation

IUCN: International Union for the Conservation of Nature (World Conservation Union)

SCAR: Scientific Committee of Antarctic Research

SPA: Specially Protected Area

SSSI: Site of Special Scientific Interest

ANNEX C

RESOLUTION 2(1999)

LIST OF SPECIALLY PROTECTED SPECIES: ANNEX II TO THE ENVIRONMENTAL PROTOCOL

The Representatives,

Noting that the provisions of Article 8 of the Annex II to the Environmental Protocol require that the Consultative Parties keep under continuing review measures for the conservation of Antarctic fauna and flora, taking into account any recommendations from the Committee for Environmental Protection;

Aware that there has been no review of the list of Specially Protected Species in Appendix A to Annex II since the list was originally adopted by the consultative Parties in the 1964 Agreed Measures (Recommendation III-8);

Aware also that consideration needs to be given to including other species of fauna and flora on the list of Specially Protected Species as appropriate;

Recommend that:

1. SCAR be requested, in consultation with Consultative Parties, CCAMLR and other expert bodies as appropriate, to review the list of Specially Protected Species referred to in Article 3(4) of Annex II and listed in Appendix A to the Environmental Protocol.
2. The following Terms of Reference should be used by SCAR:
 - i) Examine the status of those species which:
 - are native to the Antarctic Treaty Area or occur there seasonally through natural migration; and
 - whose status might be of concern.
 - ii) With the assistance of IUCN, use the information contained in the IUCN Red Lists to help determine the conservation status of native Antarctic fauna and flora;
 - iii) Provide expert scientific advice to the Committee on Environmental Protection as to which species should remain, or be designated as Specially Protected Species.

The review should be completed by 2001, and submitted to the Committee for Environmental Protection for discussion at its next meeting thereafter

ANNEX C

RESOLUTION 3 (1999)

SUPPORT FOR CCAMLR

The Representatives,

Recommend that Consultative Parties which are Members of CCAMLR take action within their competence to support strongly the CCAMLR Commission in its efforts to deal with the problem of illegal, unreported and unregulated fishing in the Convention Area, including adoption of a catch documentation scheme at the Commission's XVIII meeting in Hobart, 1999, and to consider further measures consistent with the obligations each Contracting Party has under CCAMLR.

ANNEX C**RESOLUTION 4 (1999)****COOPERATION AMONG PARTIES IN ACCORDANCE WITH
ARTICLE 6 OF THE PROTOCOL ON ENVIRONMENTAL
PROTECTION TO THE ANTARCTIC TREATY****The Representatives,**

Recalling that, at the XVI Antarctic Treaty Consultative Meeting, held in Bonn, Germany, on 7-28 October 1991, and the XVII Antarctic Treaty Consultative Meeting, held in Venice, Italy, on 11-20 November 1992, the Consultative Parties examined in detail international cooperation in scientific research and associated logistic activities;

Noting that Article 6 of the Protocol on Environmental Protection to the Antarctic Treaty calls on the Parties to cooperate in the planning and conduct of activities in the Antarctic Treaty area;

Noting further that Article 6 (a-d) highlights the need to cooperate to ensure environmental protection in Antarctica;

Aware of the usefulness of examining past experiences of cooperation on environmental matters in Antarctica so as to identify the potential for expansion and development of further cooperation;

Recommend that:

1. ATCM XXIV discuss the potential for enhanced cooperation on environmental protection in Antarctica in light of past experience and particularly since the XVI Antarctic Treaty Consultative Meeting.
2. Peru coordinate preparation for discussion of this issue prior to ATCM XXIV.

Peru should seek relevant information from SCAR and COMNAP, including their environmental subgroups, and invited experts as appropriate, as well as directly from other Antarctic Treaty Parties and share such information through electronic means.

ANNEX C

RESOLUTION 5 (1999)

ADVICE FROM COMNAP AND SCAR

The Representatives,

Recalling Resolution 6 (1998) regarding Emergency Response Action and Contingency Planning;

Considering that further work on preventative measures and on response action would promote progress on the issue of addressing liability for damage to the Antarctic environment;

Recording the appreciation of the Meeting for the valuable information regarding Antarctic environmental risks contained in XXIII ATCM / WP 16 presented by COMNAP, and for the participation of COMNAP and SCAR at the present Meeting during discussion of the question of liability for environmental harm;

Request that COMNAP and SCAR:

1. Continue to provide representatives throughout all meetings of the Consultative Parties at which the question of liability is discussed.
2. Drawing on their respective areas of expertise, and in consultation with other appropriate bodies, provide advice in a joint Working Paper to the XXIV ATCM. The Working Paper should discuss the operational and scientific aspects of preventative measures and response action, with a view to aiding the ATCM in its understanding of these practical aspects in order to facilitate work on liability issues. In addition to possible examples of preventative measures and response actions, the Working Paper could address, *inter alia*:
 - a) What criteria could be used to determine whether an impact causes harm to the environment;
 - b) What is the scientific meaning of “dependent and associated ecosystems”;
 - c) What, in the circumstances of Antarctica, are incidents that could cause

- environmental harm, distinguishing immediate harm from gradual or cumulative harm;
- d) Whether, and under what circumstances, would it be possible and/or practicable to take containment, mitigation or clean-up action, and whether, and under what circumstances, would it be possible to restore the environment; and
 - e) Is there an operational or scientific definition of the term “irreparable” and, if so, what criteria could be used to determine if harm is “irreparable”.

Note the desirability of receiving comments from the CEP on the joint COMNAP/SCAR Working Paper.

Further request that the advice, referred to in paragraph 2, as well as reports of COMNAP on emergency risk assessment, be conveyed by the chairman of the Meeting to representatives of the insurance industry, including the International Association of P&I Clubs, in order to seek their views regarding the insurability of operators and vessels for harm to the Antarctic environment, and what further scientific or practical information would be necessary for assessing the risks associated with operations in the Antarctic.

ANNEX C**RESOLUTION 6 (1999)****ADHERENCE TO THE ENVIRONMENTAL PROTOCOL BY
NON-CONSULTATIVE PARTIES****The Representatives,**

Considering the entry into force of the Protocol on Environmental Protection to the Antarctic Treaty;

Noting that certain non-Consultative Parties are not yet Parties to the Protocol and are therefore not bound by its provisions;

Aware that vessels carrying significant numbers of tourists are operating, or planning to operate, in Antarctic waters, and that some of these vessels are chartered by tourist companies organizing their expeditions in the territory of non-Consultative Parties;

Conscious of the potential for cumulative environmental impacts as a result of large numbers of tourists visiting sites in Antarctica;

Concerned that the presence of such vessels in Antarctic waters may result, in the event of a major maritime accident, in a serious risk to the safety of the crew and passengers involved, and significant adverse impact on the Antarctic environment and dependent and associated ecosystems, as well as major implications for search and rescue resources in Antarctica;

Urge:

Those non-Consultative Parties which have not yet become Parties to the Protocol on Environmental Protection to the Antarctic Treaty, particularly those with Antarctic tourist activities organised in their territory, to adhere to the Protocol as soon as possible.

PART III

**Opening Addresses and Reports
from ATCM XXIII**

ANNEX D

Opening Addresses

ANNEX D

**ADDRESS BY THE MINISTER OF FOREIGN AFFAIRS OF PERU,
FERNANDO DE TRAZEGNIES,
AT THE XXIII ANTARCTIC TREATY CONSULTATIVE MEETING
31 MAY 1999
LIMA, PERU**

*Mr. Chairman,
Heads of Delegation,
Heads of Diplomatic and Consular Missions,
Distinguished Authorities,
Distinguished Delegates,
Ladies and Gentlemen:*

It is a great privilege for the people and Government of Peru to host this Twenty-third Antarctic Treaty Consultative Meeting in Lima, our capital. Peruvians enjoy receiving friends, both those from close by and those from far away. We hope your stay in Peru will be an enjoyable one, marked not only by a fruitful exchange of ideas – which is a certain outcome, given the high level of expertise of the participants – but also by the warmth and friendliness of our people.

I would also like to take this occasion to wish you much success at this important gathering, which is being attended for the first time by the Republic of Venezuela to which we extend a very cordial welcome.

The present meeting marks the fortieth anniversary of the signing of the Antarctic Treaty. As we stand at the threshold of the new millennium, it is fitting that we reaffirm the principles and objectives embodied in the Treaty, while we consolidate and give new impetus to our work in Antarctica for the benefit of mankind, peace, and international cooperation.

This meeting also marks the tenth anniversary of Peru's admission to membership as a Consultative Party and coincides with the country's tenth Antarctic expedition. These milestones underscore the country's commitment to honoring its Antarctic responsibilities and obligations, as witnessed by the work of Peruvian technical and scientific teams at the Machu Picchu Scientific Station and on board the Humboldt research vessel. Peru is keenly aware of the importance – not just for the region but

for the whole world – of maintaining equilibrium in the Antarctic ecosystem and it intends to continue its work in this area as part of a coherent and priority policy.

The Meeting of Ministers that was held in Antarctica earlier this year at the kind invitation of the Government of New Zealand and with support from the United States and Italian Antarctic programs provided an opportunity for the Ministers to reaffirm their commitment and demonstrate the usefulness of bringing high-level political leaders into direct contact with the nature and reality of Antarctica. This “Ministerial on Ice”, as it has been referred to and which I had the honor and pleasure of attending, was very important for me – and, I dare say, for many of the officials responsible for the Antarctic Treaty – to gain a true understanding of the scope of a treaty that is unique in so many ways.

And I do not exaggerate when I use the term “unique”. Very few international instruments have their foundations in the fields of science and ecology. In most cases, treaties and agreements focus on questions of power and, as such, they deal with borders, rights of use, and trade issues. The Antarctic Treaty, however, is a kind of “non-treaty”, at least in terms of its content, since it is devoted to the *absence* of power; it is a treaty that eliminates borders, protects *against* use, and prohibits the possibility of trade. Its underlying principle is that Antarctica should be devoted solely to environmental preservation and scientific research.

One of the things that struck me most in Antarctica, perhaps more so even than the magnificent white landscape, were the scientific communities of individuals who are devoted so entirely to science, and it is to them that I should like to pay special tribute today. They are nothing less than science’s version of monastical living, since they voluntarily accept the solitude, sacrifice, isolation, cold, and physical inconveniences that are part of the asceticism which characterizes their dedication and commitment to research.

I ask for your indulgence if I repeat what I said at our meeting in Antarctica, but the truth is that it bears repeating. Peru feels that the world should not be viewed as a collection of independent, isolated elements but rather as an integrated system, a system which, it should be recalled, includes mankind. This means that a change in any of the elements of what we refer to as “the world” sets off a series of other changes throughout the system, including for humans.

Such a situation creates a very weighty responsibility since humans are the only component of the system that can effect change consciously; they are the only agent that can decide to produce a change or not. As a result, humans play a leading, and decisive, role in the course of history. Clearly, there is a moral consideration at the heart of every decision: is it a good thing to make such a change or not? The need to

provide an ethical answer as well to such a serious question leads to yet another question, which is at least as hard to answer as the first: what is good and what is bad?

The twentieth century has attempted to answer this question from a very different standpoint. In earlier times, the question was answered from a divine perspective: what is good and what is bad in God's eyes? How does God judge what we do? With the sixteenth century, however, there came a revolution of sweeping proportions that laid the foundations of modern thought: the focus was shifted from a viewpoint based on God to one based on man. This is what Nietzsche referred to, perhaps somewhat hyperbolically, as the death of God.

Since that time, the question has not been one of what God commands or forbids but what is suitable or not to mankind and, more specifically, to individuals. The concept of good is interpreted to mean the fulfillment of an individual desire, so much so that what is good for a person is defined as what that person envisages as good for himself, i.e., the individual's desires and interests determine what is good. Good is no longer a universal concept, but rather something specific to the person asking the question; it has ceased to be an objective concept to become a subjective construct. Consequently, since then it has only been possible to determine the good of the group on the basis of a vote. The view of the majority has been the sole criterion for deciding among individual "goods", which – in keeping with modern philosophy – all have the same weight and value.

In recent decades, however, modern individualism has been giving way to an environmentalistic view that questions the purely democratic approach and proposes instead a systemic concept of good. What is good for an individual – or even for a majority of individuals – is not necessarily "good". Indeed, it is impossible to define the concept of good at the level of the individual or even collectively at the level of the majority. Failure to meet the needs of the system, even when the individual or majority good is cited as the justification, could lead to catastrophe and, accordingly, would be something bad. In other words, the democratic principle of majority rule no longer applies, having given way to a rational criterion that could conceivably diverge from the majority view. Put differently, good is defined by a scientific-aristocratic criterion: it is scientific in that only those who possess specialized knowledge can understand the rationality of the system, and it is aristocratic to the extent that this specialized knowledge is possessed by very few since it is the domain of a small group of scientists rather than the majority of the population.

The environmental approach is, in a manner of speaking, not a very uncomfortable one: what one person considers to be good might actually be an illusion, a misconception, since the person who thinks he is doing something good even though his action will have a negative impact on the environment ultimately does something

bad to himself by doing something bad to the system. Accordingly, the definition of “good” needs to focus on the intimate relationship between culture and nature.

The environmental approach is based, then, on the tenet that sustainable development is the way for mankind to move forward in harmony with nature, it is progress without destruction, it is growth without resource depletion. Development projects that do not take a systemic approach to science and the environment are doomed from the beginning: they can only lead to development that is unsustainable since it carries the seeds of its own destruction.

Since this is an issue of great concern to Peru, we would like to be part of the theoretical debate on these topics that are so complex, so polemic (in the positive sense), and so relevant to our future.

That is why we wanted Lima to host the Second Workshop on Antarctic Protected Areas, which represented yet another manifestation of the international scientific community’s interest in preserving the Antarctic environment as a natural reserve for all mankind. Peru considers it a privilege to cooperate – to the extent possible – in this valuable experience, which we hope will continue along a forward path.

In his opening address at the Twenty-second Consultative Meeting in Tromsø last year, my colleague from Norway, Mr. Knut Vollebaek, used the word “cooperation” twenty-six times. This was not mere coincidence. Cooperation is a crucial element of the undertaking that we have embarked upon. As the ATCM meeting begins its deliberations here in Lima, I would like to echo Mr. Vollebaek’s thoughts since I share his view that cooperation, in the broadest sense of the word (e.g., political, scientific, technical, and operational), will be the key to rising successfully to the challenges of the present and those that await us in the coming century.

We have every reason to be proud as we commemorate the first forty years of the Antarctic Treaty and its accomplishments. This would be a good time to recall the success of the International Geophysical Year in 1958: aside from constituting a large-scale experiment in international scientific cooperation, it was also a political event of global proportions, since it came at a time when confrontation cast a dark shadow over international relations. The intellectual and scientific climate developed quickly, however, and it was not long until official initiatives were launched to foster cooperation in Antarctica, culminating in the signing of the Antarctic Treaty in 1959.

The System that has grown up around the Treaty has made an unflagging effort to preserve the basic equilibrium and ensure flexibility in the face of ever-changing circumstances.

This constant state of flux has led to a qualitative change in the perception of Antarctic cooperation. The conflictive relationships that existed before the Treaty (characterized by rivalry and confrontation) have matured into a cooperative system that seeks to ensure harmony on the basis of mutual interests. That, I feel, has been the greatest achievement of the System that brings us together here today, in addition to the fact that the Treaty is geared not towards administering power within a defined space but rather towards ensuring the absence of power in such a space.

The effectiveness of the Antarctic Treaty lies in its adaptability and capacity for change, acknowledged as one of its most important features and the one that has allowed it to evolve and seek out solutions to challenges as they arise.

We now need to build on these successes and chart a clear and firm course to address the three main challenges facing the Antarctic Treaty System: establishment of a permanent secretariat, which is necessary if the Antarctic System is to operate effectively; establishment of a liability regime that reflects the unique characteristics of Antarctica; and effective preservation and protection of living resources in the Treaty area and its associated areas.

The practical experience accumulated during this first year since the ratification of the Madrid Protocol and establishment of the Committee for Environmental Protection should provide the blueprint for future action, which should be based on reality but also on historical commitments. We need to move forward with a bold vision of the future, bearing in mind the growing needs of the present. We need to be aware of the world's expectations in light of the responsibility that we have assumed on behalf of all mankind. And we should be ever more supportive and cooperative among ourselves and with all the peoples of the world to make sure that everyone shares in the fruits of this experience.

We need also to tap the full potential of the mechanisms of the System and of non-governmental organizations that share the aim of a common good. We should identify clear priorities and focus on our core objectives. Furthermore, our action should be backstopped with the necessary political support at all levels so as to ensure that the needs of this new chapter in the world's history are met.

Today more than ever, cooperation should be the link that binds us as well as a guarantee of our effectiveness, as we assume the responsibilities we have imposed on ourselves under the Madrid Protocol. Although the ability to carry through with these responsibilities may show variations, we should not forget that the obligations are the same for all. Nor should we forget that in the delicate environmental balance that is Antarctica, the shortcomings of one could create a problem for all, given the consequences for the prestige and authority of the Antarctic Treaty System.

In a world that is so beset by conflict and tension, let us strive to preserve Antarctica as an area of peace, understanding, harmony, and mutual assistance, devoted to the purposes of science and research, which are enshrined as a solemn commitment in the Peruvian Constitution. Let us also be mindful that cooperation has always been and will continue to be the key to the success of the Treaty that we are commemorating and to which the Government of Peru wishes to render special homage at the very highest level.

Mr. Chairman, I wish you and all the delegates much success in the tasks that lie before the Twenty-third Consultative Meeting, and I wish all our guests a pleasant stay in Peru, which extends its warm hospitality to you. I hereby declare the Consultative Meeting officially open.

Thank you.

**OPENING SPEECH BY DR. HORACIO E. SOLARI
HEAD OF THE ARGENTINEAN DELEGATION**

Mr. President:

On behalf of the Argentinean delegation, I would like to heartily congratulate you for your election as President of the XXIII Antarctic Treaty Consultative Meeting, as well as also congratulate our sister Republic of Peru for the excellent organization of the Meeting and the affectionate warmth and sympathy displayed by the Peruvian people. We feel fully certain of the success of this meeting under your capable guidance, here in San Isidro and in this historic and magnificent city of Lima.

The 40th Anniversary of the signing of the Antarctic Treaty, an instrument that managed to establish a juridical framework that has permitted the proper management and protection of the vast Antarctic continent and its dedication to peace and science is also being commemorated during this Meeting.

During these 40 years, Argentina has firmly maintained the spirit that inspired the forging of this valuable instrument and which is today, more than ever, committed to the protection of the principles that inspired both the Antarctic Treaty as well as the other instruments that form part of the System.

The firm commitment of Argentina to the preservation of this Continent and of its dependant and associated ecosystems is clearly reflected in the measures that have been adopted within the national sphere to advance in the proper implementation of the Madrid Protocol as well as of the Convention on the Conservation of Antarctic Living Marine Resources (CCALMR).

As has been the practice in recent years, Argentina has intensified the development of its scientific research and international cooperation programs, placing special emphasis in matters which refer to the protection of the Antarctic environment. We believe that this constitutes a new contribution to the operation and the permanent consolidation of the Antarctic Treaty and to the achievement of its goals and purposes.

Argentina has also made specific progress with regard to the control of illegal fishing within the CCALMR area through the drafting of a Law that strictly and carefully regulates the activities of Argentinean flag fishing boats within the

Convention area. Illegal, unregulated and unreported fishing is undoubtedly one of the most serious problems faced by the Antarctic community and it requires the joint action of the Member States of the Convention to firmly control it. We believe that a suitable internal regulatory framework, such as the one that is about to be approved, will permit an effective implementation of the principles and measures that are being promoted through the CCALMR and will facilitate the achievement of specific progress towards the control of this type of activities.

With regard to the problem of liability for damages to the Antarctic environment, I believe that it is important to record progress starting from general points of consensus between the Consultative Parties. In this highly delicate matter, to attempt to achieve goals that are too ambitious may lead to the absence of actual progress. It is timely to emphasize that in this matter, what is perfect is an enemy of what is good. Therefore firm progress should be made on those aspects in which a consensus has been achieved.

I would like to repeat my firm conviction that on the basis of a genuine effort of shared negotiations, the establishment of the Secretariat of the Antarctic Treaty will successfully conclude within the near future and will include the designation of Buenos Aires as its headquarters.

I understand that the System needs today more than ever a Permanent Secretariat that will permit the facilitation of the coordination of the different components of the System, particularly with the Environmental Protection Committee. We trust that a solution may be achieved by means of a true spirit of cooperation.

I would also like to express Argentina's special gratitude for the renewed and solid support by the Consultative Parties to Buenos Aires's offer that, over a period of time, has shown itself firmer than ever.

I would like to repeat that this support that has been maintained over a period of time even while consensus has not yet been achieved, is not beneficial for the consolidation of the spirit of cooperation and harmony with which the Antarctic Treaty System should enter into the next century. This spirit would undoubtedly be strengthened by attaining a weighted geographical balance between the headquarters of the different components of the Antarctic Treaty System, a criteria that has been acknowledged by all the Consultative Parties. In this sense I would like to repeat the Buenos Aires candidacy appears highly reasonable and suitable to achieve this goal.

We hope that this Consultative Meeting will constitute the proper framework for firm progress in those subjects of concern to the Antarctic Community and regarding

which there is a consensus or an ample majority, so that we can be able to count on elements that will allow us to face the challenges that will appear for the Antarctic in the new millenium that is beginning.

Thank you, Mr. President.

**OPENING ADDRESS BY MS. GILLIAN BIRD
HEAD OF THE DELEGATION OF AUSTRALIA**

Mr Chairman,

The Australian delegation is delighted to come to Peru for the 23rd Antarctic Treaty Consultative Meeting. We look forward to our two weeks in this historic city of Lima where we will celebrate the 40th anniversary of the Treaty. As one of the original signatories to the Treaty, Australia looks back with great pride over 40 years of cooperation in Antarctica.

This anniversary year is an opportunity to reflect on the achievements of the last 40 years, and to look forward to the future. The Treaty was a turning point in the way the world considers a whole continent. We set it aside for peaceful co-existence and scientific cooperation. Despite turbulent times in other parts of the world, and growing pressures on the world's environment, we have, as we intended, kept Antarctica essentially undisturbed by events elsewhere.

When the Treaty Parties celebrated the 30th anniversary of the entry into force of the Treaty, we declared 1991 to 2000 to be a decade of scientific cooperation. Australia is pleased to note that over that period we have succeeded in meeting our objective of forging stronger links between Treaty partners to undertake research that is answering critical questions about not just the Antarctic but also the global environment.

Mr. Chairman,

The Madrid Protocol is, without doubt, one of the greatest achievements of the Treaty Parties. It is ten years since we embarked on the mission to put in place a comprehensive environmental protection regime for the Antarctic. It was a great challenge for the Treaty Parties to respond to the demands being placed on us for greater environmental protection of the Antarctic. The shift in attitude to Antarctica that was marked by the subsequent adoption of the Protocol was a landmark in the history of the frozen continent and a landmark in global environmental protection. It is now over a year since it entered into force, and we can all be proud of the fact that the Protocol has made a positive difference to the environment and how we conduct ourselves in Antarctica. My delegation is, however, concerned that we have outstanding business.

Firstly, we are concerned that the Parties are no closer to meeting the obligation contained in Article 16 to elaborate rules and procedures relating to liability for

environmental damage. My delegation recognises the complexity of the issues before us and we do not underestimate the difficulties of finding common ground on a problem that we have been grappling with for many years. Nevertheless, we have shown before that it is possible to compromise in the interests of achieving agreement on an issue that is important for the environment. We believe that such a time has come again.

With that in mind, my delegation is proposing that we focus our debate on the core issues that must be addressed in a liability regime. In addition, we believe that it is important to set ourselves a target date for completing the negotiations and we would propose the year 2001- the 10th anniversary of the adoption of the Madrid Protocol -as the target date for adopting the liability regime. Meeting this deadline will require commitment and compromise by all Parties.

Secondly, Annex V, which provides for an improved protected area system, is not yet in force. We strongly 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,

We are all aware of the continuing problem of illegal, unregulated and unreported fishing in the Southern ocean. While we recognise that this is primarily a matter for the Commission on the Conservation of Antarctic Marine Living Resources, 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.

The immediate challenge before us is to ensure that the next meeting of the Commission adopts strong measures to ensure that trade in toothfish deals only with fish caught in accordance with CCAMLR requirements. Australia is keen to work with CCAMLR partners to finalise the hard work of the recent CCAMLR inter-sessional meeting in Brussels to develop a trade documentation regime for Patagonian toothfish.

Mr Chairman,

Australians have been active in scientific research in the 100 years since an Australian scientist first wintered in Antarctica in 1899. Since then we have come a long way in science and technology, but the isolation and physical challenges of Antarctica have not changed. This was felt acutely by Australian expeditions over the last few months. In the depths of the winter pack ice our research vessel caught fire. We were remote from help and our expedition staff and ship's crew were forced to rely on initiative and courage to bring the vessel safely home. The words of encouragement

from our colleagues in other countries provided a great sense of support in a time of crisis.

On a subsequent voyage the vessel became caught in thick pack ice with a damaged propeller. on that occasion our Japanese friends came to our rescue without hesitation and towed our ship into safer waters. While our research program was seriously disrupted for the season, the experience resoundingly reminded us of the genuine spirit of cooperation that is enjoyed under the Antarctic Treaty. My delegation would like to take this opportunity to again thank Japan, and other parties that offered assistance, for their generosity.

Mr. Chairman, my delegation looks forward to working with our colleagues in Lima in further developing the Treaty and ensuring continued cooperation in Antarctica.

OPENING STATEMENT BY THE REPRESENTATIVE OF BRAZIL

Mr. Chairman

On behalf the Brazilian Government, I wish to thank the Government of Peru for its hospitality in hosting this meeting and for the impeccable facilities put available for all participants. We welcome the initiative to make the meeting documents available on Internet, which has improved a lot, our prior preparation for this meeting.

We must be proud of all achievements reached in this 40 years of the Antarctic Treaty which culminates now with the recent entry into force of the Madrid Protocol. However, there are matters that need to be resolved. For instance, the Annex V is not yet in force. Our delegation hopes that this matter will be discussed in this meeting and that the Protocol can be given full effect. Brazil, in agreement with its neighbor operators, has step forward to exercise the Protocol by creating an Antarctic Special Managed Area in Admiralty Bay.

The programs of training and environmental education are been reviewed constantly, under the new rules set by the Protocol, to better prepare our expeditioners to performance their jobs in Antarctica.

A further priority for the meeting should be to reach an agreement on rules relating to the liability for environment damage. The Brazilian Government believes that the liability regime should express the reality of the Antarctic environment without compromising the logistic and scientific activity.

My delegation looks forward to working with our colleagues in Lima to ensure continued success of the Antarctic Treaty.

OPENING STATEMENT 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 Peru for its hospitality in hosting this meeting and for the excellent arrangements that have been made to facilitate our discussions. Last year we met north of the Arctic Circle to discuss the south polar regions; this year we are continuing these discussions not far from the Equator. Surely, there could be no better demonstration of the fact that Antarctica and the international co-operation that ensures its governance is important to the whole world!

Canada continues its modest, but we hope, constructive involvement in Antarctic affairs. This year is a special year for Canada in Antarctica, for it marks the one-hundredth anniversary of the first Canadian to spend a year on the Antarctic continent. Hugh Blackwall Evans, from the province of Saskatchewan in Canada, was zoologist and meteorologist on the Southern Cross expedition of 1899-1900, the first party to over-winter on the continent. It was already Evans' second expedition to the Antarctic area, and, not deterred by the over-wintering, in 1900 he led the first party to travel on skis inland from the Bay of Whales, where they reached farther south than any human had then attained. Thus, Canadian scientists have a long and proud tradition in Antarctica, and we hope that we can continue to justify that tradition.

In 1998 Canada established a formal Canadian Committee for Antarctic Research, supported by the Canadian Polar Commission, which has both Antarctic and Arctic responsibilities. The formation of the Committee has enabled us to become full members of the ICSU Scientific Committee for Antarctic Research, and to appoint Canadian representatives to most of the SCAR Working Groups and to COMNAP.

Canada is pleased to note that the agenda for this meeting again includes an item on "Relevance of Developments in the Arctic and the Antarctic". We look forward to these discussions and hope to participate constructively in them, for an increasing number of the issues and topics relevant to Antarctica have bi-polar significance, and we feel that Canada's north polar experience and its bi-polar scientific community can be helpful.

Canada has passed the Chair and the Secretariat of Arctic Council to the United States. We continue to participate actively in the work of the Council, and note that

both the principle of arriving at major decisions in the polar regions by international consensus, and an increasing number of scientific and environmental monitoring activities undertaken through the Council, have relevance to Antarctic decision-making and science.

In the past year, Canadians have taken part in a wide range of Antarctic-related activities. In addition to our involvement in many activities coordinated through SCAR, Canadians were pleased to be represented at the second "Poles Apart" Conference organized by Chile; at the IASC/SCAR Symposium on Global Change in Polar Regions; in southern hemisphere permafrost and periglacial programmes of the International Permafrost Association; in polar microbiology, polar psychology, in studies of adaptation of polar marine organisms, and in planning research programmes in polar regions in connection with the Kyoto agreement on activities related to climate change. Our Minister of Fisheries and Oceans participated in the "Ministerial on Ice" events organized by New Zealand:- the first Canadian Cabinet Minister to visit Antarctica.

The Canada/Antarctic reciprocal scientist exchange programme, through which scientists from non-Canadian Antarctic research institutions interested in research in the Arctic are provided with support for field work in Canada in exchange for support to Canadian scientists in Antarctica, continues to be successful.

Mr. Chairman, Canada particularly values the Antarctic Treaty System, not only because of its importance and success in managing and protecting a large part of our planet which has many issues and challenges similar to our own arctic lands and waters, but also as an example of international cooperation and the use and sharing of scientific knowledge as a basis for management and protection. We recognize the central importance of the Protocol for Environmental Protection. Although Canada has not yet been able to ratify the Protocol, for ratification on the topics included is a very complex matter in our national federal system, we wish to assure delegates that steps are being taken, and that Canada has every intention to act in accordance with the provisions of the Protocol.

Canada wishes you and all delegates every success in the forthcoming discussions and deliberations.

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

Mr Chairman, Distinguished Delegates:

The XXIII ATCM takes place after 40 years of the signature of the international instrument that gave birth to one of the most creative and boldest initiatives of international policy of the XX Century.

The Antarctic Treaty system has evolved since then and has grown including important new initiatives. The first I would like to underline is the Madrid Protocol for the protection of the Antarctic environment. All of these efforts were directed to achieve and maintain peace in that region of the world, something like a permanent International Geophysical Year. Today we have the difficult responsibility of keeping the Antarctic free of any kind of pollution. We now have a new organism to achieve that goal that is the Committee for the Protection of the Environment CEP.

The Chilean Delegation is very pleased that this ATCM venue is Peru, a brother country that has taken the Antarctic research with great interest, a country owner of remote seafarer traditions and is convinced that under the wise guidance of Chairman Ambassador Carlos Alzamora it will be an important step forward in our labours. I would also like to give relevance, in addition to the environmental issues, to the difficult question of Liability and that of the creation of the Secretariat.

The world focus its sight, more than ever on the South Polar Region at the end of the Century and close to the third millennium. It seems that from now on Antarctica will be one of the most visited tourist locations of the planet. This fact will increase our concerns and responsibilities on environmental protection matters and the application of the regulations of the Antarctic Specially Protected Areas and Antarctic Specially Managed Areas, giving special attention to the last to avoid distortions of the principles supporting them.

Mr Chairman

This may be the last opportunity that I will participate in an ATCM. Then, I would like to reiterate my deep faith in the Antarctic Treaty System, of whose birth I had the privilege to attend in 1959. I would also like to leave testimony of my wishes that these efforts are crowned by success in an enterprise that involves the management and protection of a whole continent, a feat without parallel in the history of mankind.

**OPENING ADDRESS BY AMBASSADOR XU GUANGJIAN, HEAD OF THE
CHINESE DELEGATION AT THE XXIII ANTARCTIC TREATY CONSULTATIVE MEETING**

Mr. Chairman,

On behalf of the Chinese delegation, I would like to extend to you my sincere congratulations on your election as Chairman of the Twenty-third Session of the Antarctic Treaty Consultative Meeting. I am confident that, under your wise leadership, this meeting will be constructive and fruitful. At the same time, I would also like to express my gratitude to the Government of Peru and the city of Lima for hosting the Meeting and for the warm hospitality which has been shown to us and for the excellent preparatory work.

It is pleased to note that this year, 1999, the 40th anniversary of the signing of the Antarctic Treaty, will be remembered and celebrated in history for the Antarctic Treaty system. Since its signing in Washington D. C. in 1959, the Antarctic Treaty has been the core of the Antarctic Treaty System. Over the past forty years, a series of treaties on Antarctica have been signed and the regime of management of the Antarctic affairs has been set up and operated successfully. Last year, the entry into force of the Protocol on Environmental Protection to the Antarctic Treaty and establishment of the Committee on Environmental Protection accordingly are welcome as the new inputs and development to the system. We hope that the Antarctic Treaty system will continue to work well and make progress so as to meet new challenges in the next century.

Elaboration of an annex or annexes relating to liability for environmental damage is an important task for the two-week meeting. This delegation attaches importance to the work for providing a mechanism that would help to ensure the protection of the unique fragile Antarctic environment. At the same time, we should also ensure that such a regime does not become an impediment to the conduct of scientific activities and international co-operation allowed and encouraged by the Antarctic Treaty and aimed at better understanding of the Antarctic environment and its dependent and associated ecosystems. We would like to work closely with other delegations to seek solutions on the issues remained before us as soon as possible.

As for the work of the Committee of Environmental Protection, we are of the view that effective operation of the CEP would make a greater contribution to the protection of the Antarctic environment. May I take this opportunity to wish the work of the CEP successful.

Mr. Chairman,

As a consultative party, China has been doing her best to fulfil her responsibility as enshrined in the Treaties. In 1999, a series of activities are conducted in China in commemoration of the 15th anniversary of Chinese Antarctic Expedition and for promoting the public appreciation of the Antarctic expedition and scientific activities and for enhancing the awareness of the importance of Antarctica as well.

Finally, Mr. Chairman, I will assure you of my delegation's commitment and cooperation to the work of the Meeting under your able guidance.

I thank you, Sir.

**OPENING SPEECH BY AMBASSADOR HORACIO SEVILLA BORJA,
HEAD OF THE ECUADORIAN DELEGATION
TO THE XXIII CONSULTATIVE MEETING OF THE ANTARCTIC TREATY**

*Mr. President,
Delegates:*

The fact that this XXIII Consultative Meeting coincides with the commemoration of the 40th Anniversary of the signing of the Antarctic Treaty, allows us to reflect more deeply on the creative vision, the imaginative audacity, the wisdom to the benefit of all humanity shown by the 12 States who negotiated and later signed it in 1959.

It is also relevant on this occasion to examine - with sufficient historical perspective - the path that has been traveled during these first four decades of the construction of the Antarctic Treaty System. There have been many achievements. The Member States are now 44. The main objectives have been consolidated: the Antarctic is a zone of peace, there is intensive and free scientific research, international cooperation within the zone is a reality, the dangerous litigation on sovereignty has been overcome, the expeditions have been coordinated and regulated. The progressive development of the Antarctic System has progressed during recent years in key subjects such as the protection of the Antarctic environment and of its dependant and associated ecosystems, the conservation of the fauna and flora, the preservation of historic sites, the designation and management of protected areas, the management of tourist activities, etc.

Nevertheless the tasks that remain for the immediate near future are arduous and important within this natural reservation of humanity that is devoted to peace and science. Illegal fishing must be ended and controlled. The vast natural resources must be properly protected and cared for, so that they will be a strategic reserve for all the peoples of the world, particularly for the neediest societies.

Ecuador also believes that the time has come for the Antarctic Treaty System to have a Permanent Secretariat that should be small and not demand high financing costs. This Permanent Secretariat should facilitate the operation of the different components of the system. This XXIII Antarctic Treaty Consultative Meeting - in which we commemorate the 40th Anniversary of the Signing of the Antarctic Treaty - offers an excellent opportunity to achieve progress in the solution of this problem. This would allow us to display an Antarctic Community that enters the new millenium united and with a better institutionalization.

The Argentinean candidacy to be the headquarters of the Permanent Secretariat has an extensive majority support which can be called almost unanimous of the consultative parties, that has maintained and strengthened itself as the years have passed. We believe that all the elements exist to forge a consensus tending to the establishment of the Secretariat in Buenos Aires. We do not question the value nor diminish the convenient consensus principle by its improper use. Therefore, in line with what was stated in document XXI ATCM/IP 117 submitted in Christchurch, Ecuador wishes to reiterate its support for the Argentinean candidacy to be the Headquarters of the Secretariat of the Antarctic Treaty.

Since Ecuador adhered to the Treaty, my country has made all possible efforts to contribute and pursue scientific research. For this purpose it has made seven expeditions and built the Pedro Vicente Maldonado Research Station, which bears the name of one of our most important men of science.

The Ecuadorian Antarctic Program is taking the respective steps for the VIII Expedition to the "Pedro Vicente Maldonado" Research Station to take place during next January, which will consist in adapting Modules II and III, that is the installation of laboratories to perform research that corresponds to life sciences, earth sciences and sea sciences. We are planning to transport both scientific as well as maintenance personnel together with their respective material. A stay of 45 days has been estimated. Ecuador has opened conversations with several friendly Governments to secure technical cooperation that will allow it to better execute our future expeditions and reduce the high costs they involve.

I have the pleasure of announcing, aside from this, that Ecuador has already begun its internal proceedings to proceed to the prompt ratification of Annex V of the Madrid Protocol, a key instrument in the construction of the Antarctic System.

I congratulate you, Mr. President, for your worthy election. The presence of Ambassador Carlos Alzamora -a distinguished Latin American diplomat and citizen - in the management of our debates, is a guarantee of wisdom and impartiality. Our congratulations to Peru for the excellent organization of the meeting and for its warm hospitality. After the recently signed Peace Agreements between our countries, the relations of Ecuador and Peru are framed within a new path characterized by friendship, brotherhood and cooperation. The noble objectives of the Antarctic Treaty are a fertile field to apply its principles, that is to contribute to international peace and harmony, to actively participate in international cooperation.

**OPENING ADDRESS BY AMBASSADOR
HEIKKI PUURUNEN HEAD OF THE DELEGATION OF FINLAND**

Mr. Chairman,

On behalf of the Delegation of Finland I wish to congratulate you on your election to the chairman of this XXIII Consultative Meeting of the Antarctic Treaty. I am convinced that the meeting will be in able hands under your chairmanship. I would also like to express our gratitude to the Government of Peru and to the City of Lima for hosting this Meeting, for its excellent preparation as well as for warm and kind hospitality which we have already experienced here.

Mr. Chairman

We are celebrating this year the 40th anniversary of the signature of the Antarctic Treaty. The Government of New Zealand started the commemoration by organizing the historical first Ministerial Meeting of the Antarctic Treaty Parties in Antarctica from 25 to 28 January 1999. During the visit, which was meant to be an unofficial fact-finding mission to raise political awareness of Antarctic issues, there was a good opportunity for Ministers to discuss the problems and challenges facing the Antarctic Treaty System.

The Treaty has been successful in keeping the continent free from discord and dedicated to peace and science. The Parties have also until now staved off the external challenges for the Treaty System. There are, however, new challenges which the Antarctic Treaty System is facing. To meet them the Parties have to work together with the aim of improving the effectiveness and legitimacy of the System. The coordination within the ATS must be enhanced. One important element is the strengthening of the role of the ATCM in the system.

The recently established Committee for Environmental Protection has an important role in the implementation of the Environmental Protocol of the Treaty. The Environmental Impact Assessment, especially the Comprehensive Environmental Evaluations, are demanding tasks which need the valuable consideration and advice of the Committee. Other relevant issues to be handled in the Committee are the monitoring of the environment and the exchange of information and data. The report on the state of the Antarctic environment would serve basic information for the guidance of the environmental protection. It is important that the CEP will continue effectively its work within the ATCM.

We have some important policy matters to discuss at our meeting. one of them is the question of liability for environmental damage. The draft Annex on Environmental Liability to the Madrid Protocol has been discussed several years by the Legal Experts' Working Group. The legal key issues have been identified and presented in the report of the Group to the ATCM last year in Tromso. We have many valuable elements for the solution at our disposal. What we need now is the mutually agreed timetable and process as well as political will for tackling this issue.

The establishment of the permanent secretariat for the Antarctic Treaty has been a pending issue at our meetings for many years. It is well known that Finland supports the establishment of a small and cost effective secretariat. There is an urgent need for a consensus on the location of the secretariat. Hopefully this will be reached soon.

Mr.Chairman,

Next I would like to report briefly on the Antarctic research activities of Finland during the period of 1998-99.

Special emphasis has been put on the development of a joint Nordic Environmental Handbook for Antarctic operations. This work started in 1997 and will be ready before the end of this year. The handbook has been developed jointly by the Nordic Environmental officers Network and will be presented at the COMNAP meeting in Goa in September 1999.

Due to lack of financing, scientific field expeditions were not carried out during the summer season 1998-99. However, the preparations for the largest Finnish expedition ever in 1999-2000 to Dronning Maud Land are proceeding according to schedule. Altogether 20 technicians and scientists will participate in the expedition studying aerosols, paleoclimatology, mesozoic basalts, seasonal snow and ice conditions. The studies on the ozone depletion will continue in cooperation with the Argentine Meteorological Centre at the Marambio research station.

According to the Nordic agreement on joint transports, Finland has the logistic responsibility for the joint Nordic expedition in 1999-2000. This time a group of German geologists, a meteorological team from the Netherlands and a Russian Antarctic Expedition will be transported at the same time with the Nordic expeditions at the Russian r/v Akademik Fedorov.

Mr.Chairman

At the Ministerial meeting in Antarctica there were many excellent presentations, which pointed out the importance of scientific research cooperation and sharing of

information between the Arctic and the Antarctic. We have always been in favour for that development and noted with satisfaction that this issue has been quite recently included in the Agenda of the ATCM's. Finland as an Arctic country has emphasised the importance of Arctic research in the policy of the European Union concerning its Northern Dimension. The Antarctic research would have relevance also in that respect.

**OPENING ADDRESS BY AMBASSADOR DR. JOCHEN TREBESCH,
HEAD OF THE DELEGATION OF THE FEDERAL REPUBLIC OF GERMANY**

Mr. Chairman, on behalf of the German delegation let me first of all congratulate you on your election to the chair of the XXIIIrd. Consultative Meeting of the Antarctic Treaty Parties. We are confident that our meeting will be in able hands under your chairmanship and are looking forward to working together with you. On behalf of my Delegation I would also like to express our deep appreciation to the Government of Peru as well as to the city of Lima for hosting this Consultative Meeting, for the hospitality already shown to us and for the excellent preparation of this conference.

During this year – on December 1st – we will commemorate the 40th anniversary of the signature of the Antarctic Treaty. The provision of its Article 1, that Antarctica shall be used for peaceful purposes only, as well as the principles of the freedom of scientific activities and the promotion of international cooperation continue to be of greatest relevance and are pointing the way ahead. On the occasion of the Informal Ministerial Meeting which took place in Antarctica from 24 to 28 January 1999 on the initiative and invitation of New Zealand the aforementioned principles as well as the aim of protecting the Antarctic environment were again confirmed and underlined.

This XXIIIrd. Consultative Meeting will be the last during this decade and indeed during this millennium. This again gives cause for a stock taking and – where necessary – for reorientation of our efforts to intensify our cooperation in Antarctica in the interest of all nations.

During the last decade we may not have reached all the objectives of our yearly consultations which we at hoped for. Nonetheless the balance-sheet of the results of this decade is impressive. First of all in this context one has to mention the entering into force of the Protocol of Environmental Protection by which the basis of our cooperation has been completed and reinforced by a second pillar. Thus our cooperation because of a growing intensity of consultations and by means of measures, resolutions and decisions has not only made great quantitative but also substantial and important qualitative progress.

One of the important tasks lying ahead of us will be to fill out the frame of the Protocol of Environmental Protection and to take the first practical experiences with the Protocol into consideration e.g. in the context of embedding the Committee for Environmental Protection into the institutional framework of the Antarctic Treaty System.

During the Antarctic summer 1998/99 Germany was confronted with an emergency situation which was remedied in accordance with the provisions of the Protocol: The "Filchner" summer station floating on an ice-island since October 1998 has been dismantled. All wastes, fuel drums and other potentially harmful materials have been removed from the Treaty area.

Furthermore I would like to mention that Germany this year in accordance with Article VII of the Antarctic Treaty designated an observer who participated in a Joint Inspection with the United Kingdom. Between the 12-27 January the Inspection Team carried out 21 Inspections. These consisted of Inspections of eleven permanent stations, four summer stations, two tourist vessels and two Historic Sites and Monuments.

During this XXIIIrd. Consultative Meeting we will have to deal with many important points of a comprehensive agenda. One of the points, where Germany is hoping for substantial progress, is a draft liability Annex. After the long preparatory work in the Group of Legal Experts chaired by Germany the legal key issues have been identified in the report of the group adopted in November 1997 in Cape Town and in the Final Report of the XXIIInd Consultative Meeting. In our view

Decision 3 adopted in Tromsø has a special importance insofar as it foresees an in depth discussion of risk assessment concentrating on facts, data and evaluation with regard to circumstances leading to and types of environmental damage, the financial magnitude of potential damages and the probable costs of response action in remedial measures under the circumstances of Antarctica.

A thorough analysis of pertinent facts, especially with regard to the question of insurance insurability, is not only of eminent importance but indispensable. The practical experiences and necessities in Antarctica must be the basis of our discussions on the Liability Annex. This aim should not be lost out of sight in Working Group 1. In his opening address for last years Consultative Meeting the Head of Delegation of Uruguay has moulded the remarkable principle, that "Antarctica is an area where reality takes precedence over theory". It is indeed essential to achieve consensus on a Liability Annex which will take such reality into consideration.

In addition to the liability issue due consideration should be given to the discussion 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.

Mr. Chairman,

The Agenda before us offers the opportunity to put a dynamic and future oriented Antarctic Treaty Consultative mechanism to work. We are convinced, that under your able chairmanship this XXIIIrd. Consultative Meeting will further advance our common efforts aimed at the improvement of the Antarctic Treaty System.

**OPENING ADDRESS BY MINISTER PLENIPOTENTIARY-EXPERT
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 XXIII Antarctic Treaty Consultative Meeting. May I also through you Mr. Chairman, express my gratitude to the Government of Peru for hosting this meeting in the historic and beautiful city of Lima 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, one of the most important questions of our Meetings is the establishment of a Secretariat to assist the work of the Antarctic Treaty System. All of us, need this Secretariat, especially the Non-Consultative Parties. We hope during this Meeting this matter will be solved in a satisfactory manner.

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.

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.

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 established the National Program for Antarctica.

Thank you Mr. Chairman

**OPENING ADDRESS OF DR. A.E MUTHUNAYAGAM, SECRETARY,
DEPARTMENT OF OCEAN DEVELOPMENT, GOVERNMENT OF
INDIA AND HEAD OF THE DELEGATION**

Mr. Chairman, ladies & Gentlemen,

I deem it a great pleasure and privilege to take part in the 23rd ATCM, at Lima, Peru, the country, which is famous for its archeological wealth, particularly INCA civilisation.

1998 was a memorable year for India as far as Antarctic Research is concerned. For the first time after she became a member of the Antarctic Treaty System, India successfully hosted the Working Group on Ecosystem Monitoring and Management [WG-EMM -1998] of the Commission on Conservation of Antarctic Marine Living Resources [CCAMLR] at Kochi during 10-21 August 1998. The Working Group meeting was attended by the CCAMLR Member countries including India. The first Joint Technical Meeting on cooperation between India and Peru in Antarctic Research was held at Lima, Peru during 3rd-4th August 1998. The two sides have identified Joint Antarctic Research on geology, krill biology, upper atmospheric science, etc. India launched the 18th Indian Expedition to Antarctica with 40 scientists and 20 logistic personnel for pursuing research in Polar Science in December 1998. It had on board an Iranian scientist under a bilateral cooperation within the InterGovernmental Oceanographic Commission Regional Committee for the Central Indian Ocean (IOCINDIO) framework. This expedition has undertaken several new experiments on biodiversity of anaerobes, eutrophication analysis of lakes, ambient sea noise processes and its effects on Antarctic mammals and utilisation of fuel cells as a source of clean energy. In view of the importance of Antarctic in controlling global weather phenomenon, ozone and trace gas contents are also being measured at the Indian permanent station, by installing Brewer's Spectrophotometer.

India has established a National Antarctic Data Centre at the National Centre for Antarctic and Ocean Research (NCAOR) at Goa, which will soon be linked with Antarctic Master Directory. The NCAOR which has been established in 1998 as a national endeavor to develop expertise and excellence in polar sciences and logistic activities, will plan, co-ordinate and execute the entire scientific and logistic activities of Indian Antarctic programme besides encouraging cooperative/joint research projects both on national and international level particularly in the field of global change.

I would like to place on records our gratitude and thanks to the Antarctic

programmes of USA, South Africa, Germany and New Zealand in extending all support for evacuating an ailing member of the Indian Expedition for medical attention, which is in true spirits of the Antarctic Treaty System.

I am glad to inform the ATCM members that India would be hosting the next COMNAP/SCALOP meetings in Goa during September 1999. A Workshop on EIA will also be convened by AEON then. I extend a warm welcome to all the members of COMNAP/SCALOP and the Executive Committee of SCAR to take part in the deliberations of these meetings besides enjoying the scenic beauty of the serene Goa.

During the current session of the ATCM various issues including issues relating to environmental protection and liability regime are proposed to be discussed further. I am hopeful that these deliberations would be fruitful for evolving the strategy and programmes for conservation and preservation of Antarctica and upholding the spirit of the Antarctic Treaty System.

I take this opportunity to reiterate our commitments to Antarctic Treaty System and its other conventions/protocol and assure that India would play a constructive role in preserving the pristine nature of this continent which controls intricate global processes of the earth.

Thank you.

OPENING ADDRESS OF 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 XXIII meeting of the Antarctic Treaty Parties.

Our delegation also expresses its gratitude to the Peruvian Government for hosting this meeting in the historical city of Lima, one of the oldest in the American continent, and for the excellent facilities, which have been prepared for our meeting.

Italy gives great importance to the research activities in progress in Antarctica and the Italian Antarctic Programme is now in its 15th year. At the same time we give great attention to the fact that Antarctica is the only continent where a great experiment in international and peaceful administration is in progress. Last year the entry into force of the Madrid Protocol has been a new important step in this experiment. Given the great importance of Antarctica as a huge laboratory where the answers to many global phenomena can be found, it is fundamental that this "experiment" may continue in the future.

Many important issues will be discussed in the meeting. Among them the Liability Annex, to be developed under Article 16 of the Protocol. Under the thoughtful leadership of Prof. Wolfrum much useful work has been done; we look forward now for further progress. As a matter of fact, the text of this Annex should be adopted as soon as possible, and hopefully enter into force so as to give timely compliance to art. 16, as an essential element for the proper implementation of the Protocol. We believe that it would be useful to establish a deadline for the final negotiation of the text.

Another important issue, which has been dragging on for almost a decade, is the institution of a permanent Secretariat.

The adoption in 1991 of the Protocol on Environmental Protection to the Antarctic Treaty and its entry into force in 1998 has brought new arguments in favour of the establishment of a centralised Secretariat: Indeed, the Protocol has increased the complexity and scope of Antarctic regulation and management. It has led to the establishment of a new permanent institution, the Committee on Environmental Protection. It has introduced new requirements of communication and circulation of documents, especially with regard to environmental impact assessment and, in the future, these requirements may be extended to liability for environmental harm. This

new situation requires continuity between ATCMs and timely circulation of documents, which a permanent Secretariat would be better suited to ensure than the present decentralised system.

The Italian delegation, for its part, is keen to do what it can to assist member countries to reach an agreement on this issue as soon as possible.

Another question that shall deserve special attention during this meeting is illegal fishing in the CCAMLR area. This question is being discussed at length in the CCAMLR meetings; however some discussion during the ATCM under agenda items 4 or 5 could be useful. A trade certification scheme for the toothfish has been proposed and such solutions might be discussed.

The operation of the CEP goes now in its second year. Much useful intersessional work has been performed by contact groups via e-mail. However the question of how the CEP should deal with draft CEE should be discussed at the meeting.

The start of CEP operations should bring about an analysis of the roles of the Working Groups, in particular of WG 2. This analysis could bring about a more rational organisation of the work of the ATCM.

Mr. Chairman,

Italy has been a member of the Antarctic Community for more than eighteen 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 THE REPRESENTATIVE OF JAPAN

Mr. Chairman.

On behalf of the Japanese delegation, I would like to congratulate you on your election to the chair of the XXIII Antarctic treaty Consultative Meeting. I also would like to express our heartfelt gratitude to the Government of Peru for organizing this meeting and to the warm hospitality of the people in Lima.

Japan continues its constructive involvement in Antarctic affairs. Japan 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 good example of international cooperation and the use and sharing of scientific knowledge as a basis for the management and protection of the Antarctic.

I would like to emphasize the importance to protect the environment of the Antarctic Treaty. This year we celebrate the 40th anniversary of the Antarctic Treaty.

We can be duly proud of our achievements made so far in the protection of the environment of the Antarctic through the Antarctic Treaty System and the Antarctic Treaty Consultative Meetings.

As we are all aware the environment of Antarctica could be easily affected by any intervention from outside. As a member state of the ATCM, Japan has been always mindful of how to raise the awareness or the importance of protecting the environment of Antarctica among the Japanese people.

One such example is the exhibition on Antarctica, which was held at the National Science Museum in Tokyo from July to November 1997. Approximately 290,000 people visited the exhibition, a great success for us.

On the basis of this excellent result, the Ministry of Education, Science, Sports and Culture, which supervises Antarctic research activities, planned additional travelling exhibitions around Japan and budgeted 200 million yen for these four-years (from 1998 to 2001). We believe that the concept of the Exhibition has thus been fully understood and also that additional travelling exhibitions will surely contribute not only to the promotion of the appreciation of the activities of Antarctic expeditions but also to the enhancement of the awareness of the importance of Antarctica itself.

JARE, Japanese Antarctic Research Expedition, has been sent since the foundation of Syowa Station in 1957 and the commemorative 40th expedition is now under way. The activities have had a brilliant achievement such as data collection of geophysics, geology, meteorology, marine science and ionosphere as well as a great contribution to an ozone layer finding. The recent big news was approximately 4000 meteorite collection by the 39th expedition, which is a significant result in science world. The collection has reached about 13,000 in total and the analysis is to be done. For this kind of scientific success, international cooperation is essential and we will internationally promote further contribution to science for the next century.

Article 16 of the Protocol on Environmental protection to the Antarctic Treaty is effective tool for the protection of environment of Antarctica. Through a series of legal expert meetings from 1993 to 1998, we have taken sound steps toward structuring a new scheme on liability. We are looking forward to making further progress toward frameworking an effective and workable liability instrument for the environmental protection of Antarctica at this XXIII Meeting.

Finally., The Japanese delegation is pleased to have the honour of working together with our colleagues to solve issues facing us, under your enlightened chairmanship, and we sincerely hope that there will be fruitful discussions.

OPENING ADDRESS BY THE HEAD OF THE DELEGATION OF THE REPUBLIC OF KOREA

Mr. Chairman,

On behalf of the Korean delegation, I would like to congratulate you on your election as Chairman of the XXIII Antarctic Treaty Consultative Meeting. My delegation is confident that under your able guidance, this meeting will succeed in making substantial progress in major tasks before us. May I also take this opportunity to express my sincere gratitude to the Government of Peru for its warm hospitality, as well as for its excellent preparation for this meeting. In particular, we welcome the establishment of XXIII ATCM Homepage as a virtual secretariat that electronically distributes documents and information.

Mr. Chairman,

We are at the threshold of a new millenium. In the last century, Antarctica was discovered and landed by humans. Putting the conflicting sovereignty claims behind, we cherish this pristine continent devoted to peace and scientific research as stipulated in the Antarctic Treaty. For the last four decades, international cooperation on Antarctica has met and survived many challenges. ATCM has successfully kept its role as the coordinator of a wide range of values and expectations in regard to Antarctica. The recent introduction of comprehensive environmental protection regime for Antarctica is its notable achievement. Thus, peace, science and environmental protection have been the three pillars of Antarctic governance. My delegation believes that this meeting in Lima is a golden opportunity for us to assess the past and present, and to chart the future of the Antarctic Treaty System that will be timely and appropriate to the new millenium. In this regard, my delegation should acknowledge the significance of the initiative of New Zealand for organizing the invaluable ministerial visit to Antarctica in January of this year.

Mr. Chairman,

At this critical juncture in the history of Antarctica, there are many unfinished tasks before us. The first priority for this meeting is to make tangible progress toward the establishment of a liability regime. The key policy issues identified in the final work of Legal Experts Group wait for new approaches and conceptions for early solution. My delegation fully supports the idea that practical understanding of risks in Antarctica should be the basis of our discussion, thus a liability annex should reflect the real necessity of liability regime in Antarctica. At this stage, my delegation

welcomes contributions made by a certain Parties to reorient liability discussion to sort out least common denominator by which we may move forward to consensus.

Another important task before us is to address the question of the permanent secretariat. My delegation urges the Parties not to let this issue continue to be a stumbling bloc to the efficient operation of Antarctic Treaty System. Given the urgency and significance of this question, my delegation sincerely hopes that substantial progress will be made during this meeting in a spirit of cooperation and compromise.

Another critical task on our agenda is to streamline the role and organizational aspects of the CEP and to help the CEP get started on its work at the earliest possible time. My delegation is of the opinion that this issue should be considered from the perspective of efficiency and future consideration. In light of the importance of priority works currently before the CEP such as the Environmental Impact Assessment, the State of Antarctic Environment Report and Protected Areas, this restructuring of ATCM needs to be finalized at this meeting.

Mr. Chairman,

Regarding Article 6 of the Protocol, the Republic of Korea has endeavored to promote collaboration with other Parties in scientific research and other related activities ever since it became a Consultative Party in 1989. During the 1998/99 season, Korea conducted a field survey jointly with Uruguay to monitor the ice-cliff retreat in the Marian Cove where the King Sejong station is located, and a geological survey jointly with Bulgaria on Livingston Island. On 18-19 May 1999, Korea hosted the sixth International Symposium on Antarctic Science in an effort to promote international cooperation and exchange of scientific information.

The Environmental impacts of human activities at Antarctic bases have been a growing concern. Mindful of this, an environmental monitoring program at the King Sejong station has been implemented.

Mr. Chairman,

The Republic of Korea will remain committed to making continuous efforts in cooperation with other Parties to keep Antarctica a continent devoted to peace and science. Let me in conclusion assure you of my delegation's full commitment to ensuring the success of this meeting under your chairmanship.

Thank you.

**OPENING STATEMENT BY AMBASSADOR DAGFINN STENSETH,
HEAD OF THE DELEGATION OF NORWAY, ATCM XXIII, LIMA**

Mr. Chairman,

I congratulate you on your election as Chairman of the XXIII Antarctic Treaty Consultative Meeting. I extend my delegation's sincere thanks to the Government of Peru and to the city of Lima for the warm welcome accorded us and for the excellent arrangement of this consultative meeting.

The XXIII ATCM takes on additional importance by the fact that it coincides with the 40th anniversary of the signing of the Antarctic Treaty.

It stands out as a historic, unique and enduring achievement that over these four decades it has been possible to safeguard Antarctica as a natural reserve securing its unique environment for future generations. Since its inception during the Cold War period the parties to the Treaty have managed to put aside conflicts over sovereignty issues. This achievement has been and remains at the very core of Antarctic diplomacy.

Today Antarctic cooperation is broadly based on three pillars - peace, science and environmental protection.

In spite of serious challenges Antarctic cooperation has continued to evolve. The coming into force of the Protocol on Environmental Protection to the Treaty last year marks a major development of the Antarctic Treaty System. With the establishment of the Committee on Environmental Protection at the XXII ATCM in Tromsø a new, significant and dynamic element has been added to Antarctic cooperation.

Norway, being among the twelve original Consultative Parties, is firmly committed to Antarctic cooperation and determined to be active and supportive of consensus solutions in questions of importance to the future of the Antarctic.

My delegation sees it as a priority task to ensure the full and efficient implementation of the Protocol. The Committee on Environmental Protection should be consolidated in its role as the expert body advising Antarctic Treaty Consultative Meetings on all questions of relevance for the implementation of the Protocol. There should be clarity of the role of the Committee both within the ATCM, and with regard to SCAR, COMNAP and CCAMLR.

We would like to see progress in important areas such as environmental monitoring, initial and comprehensive environmental evaluations, preventive and precautionary measures, and response action in the protection of the environment. My delegation will contribute to progress on the complex question of developing a liability regime for environmental damage, building on discussions and conclusions from the XXII ATCM in Tromsø. We should 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 cooperation. The entry into force of the Environmental Protocol and the establishment of the Committee on Environmental Protection only underline this need. We hope that time now is maturing for this step to be taken.

We would like to see a further streamlining of routines for reporting on activities in the Antarctic with a view to avoiding duplication of efforts and securing greater cost-effectiveness, using to the degree possible electronic means of communication.

In marking the 40th anniversary of the signing of the Antarctic Treaty we are conscious of the fact that we may look back on almost two hundred years of human endeavours in the Antarctic region which have left valuable historic remains. We should further consider how we even better might preserve this human Antarctic heritage for future generations.

Our agenda rightly includes an item dealing with the interrelationship of developments in the Arctic and the Antarctic. To Norway, the Arctic and the Antarctic are two sides of the same coin. The unique importance of both polar regions for life on Earth and for the understanding of our common physical environment underline the relevance of bipolar contacts and interchange.

Antarctica is of great importance to everyday life and to the future of mankind as a whole. It is enough to mention the ozone hole and sea level changes. This makes it essential that the general public should have an informed basis for making judgements about what is at stake in research and cooperation on the seventh continent. Openness and transparency in Antarctic affairs are important. Antarctic cooperation deserves greater attention from the media. We should look for ways and means to stimulate increased public interest in Antarctic affairs. The 40th anniversary of the Antarctic Treaty should be seen as an occasion to this end.

**OPENING SPEECH BY AMBASSADOR JOSE URRUTIA
HEAD OF THE PERUVIAN DELEGATION TO THE XXIII
ANTARCTIC TREATY CONSULTATIVE MEETING**

Mr. President of the XXIII Consultative Meeting,

Allow my first words to be to extend on my behalf and that of the Peruvian Delegation, my sincerest congratulations for your election as President of this important Meeting. We have come, called by this forum, convinced that the future of all humanity may be influenced by the decisions adopted during the next two weeks. The Peruvian Delegation has the firm intention of contributing towards the debates that will take place, hoping that the Antarctic Treaty System, developed in the spirit of international peace and cooperation, will be strengthened by this experience.

We are conscious of the enormous challenges that we are facing towards the end of this millenium to preserve the Antarctic as a zone of peace, excluded from all armed conflict and devoted to international cooperation and scientific research. Peru's desire is for this regime to be preserved so that the next generations will have the opportunity to develop science within this vast laboratory of the Antarctic.

We are observing with great interest the process of institutionalization of the Secretariat of the Antarctic Treaty that we believe to be essential for the future operation of the System. We hope that this process will satisfactorily conclude and that we can celebrate within the near future the establishment of a Permanent Secretariat.

We also wish not to forget to acknowledge the importance of the contributions submitted by the different Parties on the subject of Antarctic Liability in the spirit of contributing towards the better treatment of this problem. We are convinced that the constructive dialogue that will be generated as a result of these documents will allow us to reach a consensus that we believe to be necessary to achieve the goals of the Madrid Protocol.

As we celebrate 40 years from the signing of the Treaty that annually summons us to this forum, the Peruvian Delegation wishes to avail itself of this opportunity to hail this far reaching instrument as a model of peace and cooperation between nations. This notable quality has facilitated the gradual adherence of a growing number of countries to the System that originated it and has permitted its progressive development, by means of successive Consultative Meetings and special agreements in Antarctic matters. In that sense, Peru would like to reaffirm the commitment it has assumed in the

different instruments that supplement the Antarctic Treaty and that develop its principles and goals, amongst them the Antarctic Treaty Protocol on the Protection of the Environment.

Since it adhered to the Treaty in 1981 and was afterwards acknowledged as a Consultative Party in 1989, Peru has maintained a constant effort to contribute towards the high aims that inspired the Antarctic Treaty. It has therefore sent out ten Scientific Expeditions and has built in Admiralty Bay, located in King George's Island, the "Macchu Picchu" Research Station. The renovation and maintenance of this Station, by means of consecutive annual expeditions as well as the scientific research programs carried out by it and the "Humboldt" Research Vessel, are an example of the permanent interest given by my country to the development of Antarctic science.

Mr. President,

Peru has viewed with special interest the entry into force of the Antarctic Treaty Protocol on Environmental Protection and of the Environmental Protection Committee, which has met for the second time. We regard as a priority its goal to guarantee the preservation of the Antarctic ecosystem and we offer our best wishes for the success of its work.

My country is conscious of the difficulties that may arise in the pursuit of those high purposes, but we acknowledge that the best route to facilitate the satisfactory fulfillment of the commitments assumed by all the Contracting Parties is through international cooperation.

To conclude, I would like to reiterate on behalf of my Delegation, our congratulations for the Fortieth Anniversary of the Antarctic Treaty.

**OPENING SPEECH FROM AMBASSADOR WOJCIECH TOMASZEWSKI,
HEAD OF THE POLISH DELEGATION
TO THE XXIII ANTARCTIC TREATY CONSULTATIVE MEETING**

Mr. President,

On behalf of the Polish Delegation and myself, I would like to congratulate you for having been chosen President of the XXIII Antarctic Treaty Consultative Meeting which is taking place in Lima. We are convinced that under your guidance the Meeting will reach the objectives that have been established.

I also make use of this opportunity to express my gratitude to the Government of Peru for letting this Meeting take place in Lima, one of the most beautiful cities in Latin America that has great historical and cultural value.

Last year Polish science celebrated 100 years of the participation of two Polish scientists, Henryk Arctowski and Antoni B. Dobrowolski on the famous Belgian expedition on the ship named "Bélgica", under the command of A. De Gerlache, to the occidental Antarctica (1897-1899).

Poland initiated its scientific investigations on the Antarctic continent in 1959 when it opened its first scientific station A.B. Dobrowolski, on the Bunger oasis in oriental Antarctica.

The Polish scientific investigations on living resources from the Southern Ocean began in 1975. The second Polish scientific station, Henryk Arctowski, began its activities in 1977 on King George Island in occidental Antarctica which worked the annual cycle.

Since 1977, Poland has been a Consultative Party of the Antarctic Treaty. Furthermore it is a member of SCAR and COMNAP, as well as signatory of the Convention of CCAMLR and CCAS.

Poland has always given a great deal of importance to the development of scientific activities and investigations in Antarctica. Due to Polish initiative protected areas SSSI 8 and SSSI 34 were established on the King George Island, among others. In agreement with the guidelines established on the Protection of the Environment (Madrid 1991), Poland developed the "revised management plans", which were accepted by SCAR in 1998.

These plans will be presented by Poland as working papers during the XXIV Antarctic Treaty Consultative Meeting.

It is important to point out the collaboration of the Arctowski station with the Comandante Ferraz of Brazil, which has resulted in the elaboration of the "management plan" in the Almirantazgo Bay region, on King George Island, issued by the XX Antarctic Treaty Consultative Meeting.

It gives us great satisfaction to have such good collaboration between our station and the Peruvian station "Machu Picchu".

The adoption in 1991 and the entry into force in 1998 of the Protocol to the Antarctic Treaty on Protection of the Environment should guarantee the preservation of the Antarctic territory as well as keeping its environment intact. At the same time, the above mentioned brought along new tasks, obligations and, according to the opinion of the Polish Delegation, new arguments in favor of a Permanent Secretariat, which is of great importance to the future functioning of the Treaty System.

Mr. President,

The XXIII Meeting in Lima has a historical meaning, it is the last of this millenium, and its results will have a direct impact on the development of the Antarctic System in the XXI Century. We are sure that the Treaty in the new millenium will continue to play an important role as an instrument of international scientific collaboration and peaceful coexistence on a great surface, as is the Antarctic continent.

We hope that the new millenium will bring along new challenges for those who work in Antarctica as well as positive results for the wellbeing and development of humanity.

I would like to make use of this opportunity to greet you and the Consultative Parties on the occasion of the 40th Anniversary of the Antarctic Treaty.

I would also like to greet Peru and Ecuador, two Consultative Parties of the Treat for the signing of the Brasilia Act which gave a peaceful ending to frontier dispute that had lasted several decades.

Poland wishes you, Mr. President and all your coworkers, as well as all the delegates, the best success in the discussions and deliberations which will take place at the XXIII Antarctic Treaty Consultative Meeting. We hope this Meeting will bring new and positive results as well as new challenges and more developed forms of working

together according to the principles of international collaboration and peace, which belong to the Parties of the Antarctic Treaty.

**OPENING ADDRESS BY EXTRAORDINARY AND PLENIPOTENTIARY
AMBASSADOR V. BOGOMAZOV,
HEAD OF THE DELEGATION OF THE RUSSIAN FEDERATION**

Mr. Chairman,

On behalf of the delegation of the Russian Federation let me congratulate you on your election to the high post of Chairman of the XXIII Antarctic Treaty Consultative Meeting and through you express our gratitude to the Government of Peru for the opportunity given to all of us to meet in the beautiful city of Lima and discuss the issues of operations and cooperation in the Antarctic.

Entering the coming 21st century mankind does not only have to review some current fundamental principles of the international community, but also make efforts to preserve the existing traditions, standards and rules which, for many years, have guaranteed peaceful coexistence, effective cooperation and fruitful mutual understanding. One of the fundamental features of such international cooperation, which is entering a new millennium with dignity, is the Antarctic Treaty, whose 40th anniversary we are celebrating at the XXIII Antarctic Treaty Consultative Meeting held in the hospitable country of Peru. The Antarctic Treaty is not only a symbol of unity of scientists and logistic personnel of the states representing all the nations of the planet. Dynamic development of the Antarctic Treaty System enabled it to quickly adapt to global processes involving the interests of the whole of mankind, and still preserve its major principles: priority of research, peace and cooperation, demilitarized and nuclear-free zone, free exchange of information, regulation and management of operations and environmental protection.

The Russian Federation consistently complies with the basic principles of the Antarctic Treaty. In spite of certain economic difficulties, Russia continues its operations in the Antarctic and performs them in accordance with the current requirements. Russian specialists continue to maintain high professional standards. The results of some Russian scientific projects are duly appreciated by the international community. It refers, in the first place, to the deep ice drilling project at the "Vostok" station and studies of subglacial lake Vostok. The latter project is of a particular interest as it allows to combine the traditional interests of Earth sciences and outer space studies.

The last years of the current century have been characterized for the Antarctic Treaty System by the growing significance of environmental issues; the Protocol on the

Environmental Protection to the Antarctic Treaty which came into force in 1998 provided the main guidelines and principles for those operations. In compliance with the Protocol, environmental assessment of the proposed operations is made in accordance with the appropriate national procedures. On December 11, 1998 the Government of the Russian Federation approved a decision providing for the Procedures for Consideration and Issue of Permits to Legal Entities and Individuals to Conduct Activity in the Antarctic Treaty Area. Thus our country has legally adopted the rules of procedure relating to the operations of its nationals in the Antarctic and consequently supported its commitment to strict compliance with the rules and principles of the Antarctic Treaty and the Madrid Protocol. On the eve of the new millennium the Russian Federation expresses its deep conviction of the invariability of the fundamental principles of the Antarctic Treaty which ensure the stability of operations of its system, maintenance of peace and mutual understanding among nations and solution of global scientific problems in the interests of mankind; we are sure that these principles will make the basis for the discussion of the problems we are faced with.

Russia continually stands in favour of the establishment of the Antarctic Treaty Secretariat which will undoubtedly provide more coordinated actions of the Antarctic 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 for the conservation of the unique Antarctic ecosystem, and facilitate the exchange of information between the Parties.

The delegation of Russia realizes the importance of developing a document on liability for the violation of the Madrid Protocol, but nevertheless believes that the document under consideration should have a balanced character and should not contain provisions unnecessarily limiting the operations of major international programs.

We are pleased to say that the consensus principle in taking decisions on all the issues debated within the Antarctic Treaty System continues to play an active and constructive role in the activities of the international Antarctic Community. The Delegation of Russia is sure that in its decisions the Consultative Meeting will formulate the joint will of the Consultative Parties on the future of the Antarctic Treaty System and, if necessary, the Parties will be ready to demonstrate good will in reaching a compromise.

The Russian Federation as the successor to the USSR - one of the 12 founding states of the Antarctic Treaty - remains deeply committed to its principles and is sure that under your leadership this Consultative Meeting will take steps in further developing the Antarctic Treaty System and achieving progress in the relations among the Parties.

Thank you, Mr. Chairman.

**OPENING STATEMENT BY
THE HEAD OF THE SOUTH AFRICAN DELEGATION**

Mr. Chairman:

On behalf of the South African delegation, I would like to congratulate you on your election as the Chairman of this, the Twenty Third Antarctic Treaty Consultative Meeting. Through you sir, I wish also to thank the Government of Peru for hosting this Meeting in the fortieth anniversary year of the Treaty, The hospitality and kindness of the people of Peru and Lima are deeply appreciated.

Mr. Chairman

My delegation is heartened by the progress being made by the Committee for Environmental Protection (CEP). We are gratified to see that the Committee is now well established and making good progress in the important task of ensuring that the obligations of the Madrid Protocol are effectively met. We believe that the steps taken by the CEP to develop a process to handle comprehensive environmental assessments (CEEs) in a consistent and objective manner represents a major step forward.

We are also encouraged by the progress being made on the question of liability. However, we remain concerned that efforts to deal with this complex issue continue to be painfully slow and appear hampered by the approach that only an elaborate and all-embracing system of liability for environmental damage under the Protocol is acceptable. While the reasons for such an approach are appreciated, South Africa is ready to join with other Parties seeking to develop a system to deal with liability which is both practically and realistically based. We sincerely believe that, with the goodwill which has been a key feature of the negotiations to date, a framework agreement on liability is achievable within the next year or so. Such an agreement could then serve as a basis for further development and expansion taking into account practical experiences gained by the agreement s application in the field.

South Africa (along with many other Treaty Parties) views the illegal, unregulated and unreported fishing in both the Treaty Area and in that for which CCAMLR is responsible as a challenge to the integrity of the Antarctic Treaty System as a whole. As a party to both the Treaty and CCAMLR, South Africa calls on all nations in a similar position to do all in their power to meet their obligations under the latter instrument, thereby ensuring that illegal, unregulated and unreported fishing do not compromise the future sustainability of the fragile ecosystems which are a feature of the Antarctic.

Finally, Mr. Chairman

We are somewhat discouraged by the continued lack of agreement on the seat of a Treaty Secretariat, despite the obvious technical and administrative advantage such an institution can offer. South Africa remains committed to seeking a solution to this potentially divisive issue and urges all Parties to apply themselves to this end. Furthermore, given the urgency of the matter, South Africa intends to exploit every opportunity to expedite the Secretariat becoming a reality. We sincerely believe that this will be in the interests of the Treaty as we enter a new millenium.

Thank you Mr. Chairman

OPENING SPEECH BY THE HEAD OF THE SPANISH DELEGATION

Mr. President:

First of all, I would like to congratulate you for your election to direct XXIII Antarctic Treaty Consultative Meeting, which coincides with the celebration of its 40th anniversary.

I would also like to thank the Government of Peru for its hospitality and the excellent organization of the meeting in this historic and affectionate city of Lima.

Spain is honored to participate in the Antarctic Treaty forum and reiterates its commitment towards the aims of the Treaty. The fulfillment of the Madrid Protocol, the operation of the Environmental Protection Committee, is for us a priority and we wish to contribute together with the other countries towards the achievement of an effective protection of the Antarctic environment and the dependant and associated ecosystems. Our country is therefore determined to fulfill its responsibilities with regard to the entire Antarctic Treaty System as well as the other international juridical instruments in which Spain participates within this sphere.

Since the previous meeting of the Treaty, held in Tromsø, Spain has made significant progress in the domestic processing of the Recommendations of the Consultative Meeting that remained pending. Measures have also been taken to achieve a better adaptation of the administrative structure and the domestic regulations to comply with the requirements of the Madrid Protocol. In this sense, the procedures for the evaluations of environmental impact, the issuing of permits to accede and perform activities within the Specially Protected Antarctic Areas have been updated and a National Center of Antarctic Data has been set up which will contribute towards the exchange of information.

Spain will continue to offer its support towards scientific research in the Antarctic, which is included within its National Research and Development Program.

The international integration of the Spanish scientific projects has grown as well as their connection to the programs developed by the SCAR.

Our country continues to maintain its willingness to promote initiatives that presume an exchange with the other Parties, both in the development of scientific cooperation as well as in logistic and operational activities.

We trust that in the XXIII Consultative Meeting, which we are holding under your presidency, progress will be achieved in the essential matters that the Antarctic Treaty System has posed. Amongst them, its the drafting of rules and procedures related to the liability arising from damage caused by activities developed within the Antarctic Treaty area and covered by the Madrid Protocol.

We also hope that the necessary consensus will be finally achieved in the XXIII Consultative Meeting for the establishment of the Permanent Secretariat of the Treaty. Its existence would notably contribute towards a more effective operation of the Antarctic Treaty System. In this sense, it would be highly desirable to be able to complete the consensus so that Buenos Aires could be the headquarters of that Secretariat.

Mr. President,

I would like to convey my desire that, on the basis of the good organization provided by Peru, the XXIII Antarctic Treaty Consultative Meeting be a success. It can count on a constructive participation of the Spanish Delegation so as to achieve substantial progress in the subjects posed within this Meeting.

DELEGATION OF SWEDEN
INTRODUCTORY STATEMENT BY AMBASSADOR EVA KETTIS

Mr. Chairman,

First, let me express the gratefulness of the Delegation of Sweden to the Government of Peru for inviting the ATCM XXIII to your beautiful country. We look forward to your chairing this Meeting which takes place at an important time for the Antarctic Treaty System with many new challenges and which will be the last Meeting of this millenium.

It is important because it is a manifestation of the 40th Anniversary of the signature of the Antarctic Treaty, which has so far served us well in keeping that continent free from discord and dedicated to peace, cooperation and science. It now lies upon us that the Treaty also in the coming century will continue to be a tool for a peaceful development. This was recognized by the Ministerial-on-Ice gathered at the invitation of New Zealand in January 1999.

One issue that is pertinent to the good functioning of the Treaty is to provide it with adequate assistance from a secretariat. Sweden is of the view that this is now one of the most urgent tasks in the preparations for the next century. Sweden will support a consensus view of the location of the secretariat. Aware of the fact that there are different offers we suggest that - in the true spirit of the Treaty itself - we make an effort to carry this issue forward at this meeting.

To protect and preserve the environment is one of the important goals of the ATS. We welcome the increased transparency of the ATS, the openness to the general public and the better availability of information on Antarctica and the activities there, that is a result of the entry into force last year of the Madrid Protocol on Environmental Protection to the Antarctic Treaty.

We welcome the development of a comprehensive State of the Antarctic Environment Report as an important tool to increase the knowledge on Antarctica and on the impact on the environment of this pristine continent. The report will be of benefit to governments and to the scientific community as well as to the general public. In addition, a State of the Antarctic Environment Report will constitute a useful baseline of global relevance for further studies on the effects on Antarctica, in particular by anthropogenic activities as well as providing a basis for policy decisions and trend analysis in environmental monitoring.

Sweden welcomes the fact that the ATCM now enters into negotiations on a liability annex to the Protocol on Environmental Protection. Even more important is that delegations show a willingness to engage in the search for constructive solutions to many difficult problems. Sweden is anxious to see that these negotiations result in a comprehensive liability regime, hopefully in time for the year 2001.

One of the most imminent problems that need a speedy and solid solution is the illegal, unreported or unregulated fishing of Patagonian toothfish in the CCAMLR area. CCAMLR is a convention on its own ground, and at the same time an important element of the ATS and of the overall management regime of the Antarctic ecosystem. We therefore support the idea that ATCM XXIII urges CCAMLR to take action as soon as possible.

There is a strong link between investigations for scientific and environmental purposes in the Arctic and the Antarctic. The importance of a scientific bipolar approach played a role when Sweden decided to adhere to the ATS. And it is why we now welcome the development of co-operation in the Arctic Council, where the Declaration of Ministers in Iqaluit and the meeting recently of senior officials in Anchorage in Alaska signal new and strengthened efforts.

Finally, I would like to draw the attention to the positive effects that could be derived from international co-operation. As an example I would like to mention the successful logistic and environmental management co-operation between three of the Nordic countries, Finland, Norway and Sweden, active in both the Antarctic and Arctic regions.

**OPENING ADDRESS BY MR. R. TUCKER SCULLY
HEAD OF DELEGATION OF THE UNITED STATES OF AMERICA**

Mr. Chairman,

I would like to congratulate you on your election to the Chair of this meeting. It is a great pleasure to have an individual of your knowledge and experience to lead us through our work.

On behalf of my delegation, I want to thank the Government of Peru and the City of Lima for the warm hospitality which has been shown to us during this XXIIIrd Antarctic Treaty Consultative Meeting. We are delighted to be here in this capital of our Pan-American neighbor.

In this fortieth anniversary year of the signing of the Antarctic Treaty, it is appropriate to look back at the successes we have achieved together. Antarctica has remained a continent dedicated to peace and to the advancement of science. Its environment and dependent and associated ecosystems are protected to promote peace and scientific research. We look forward towards the continuation of this uniquely successful system of international cooperation in overseeing activities in Antarctica.

This fortieth anniversary meeting offers the opportunity to initiate an evaluation of how our consultative mechanism is operating. We continue to believe in the need for a modest, cost-effective Secretariat to assist the work of the Antarctic Treaty Consultative mechanism. We reiterate our support for its location in Buenos Aires, Mr. Chairman, while we await agreement on the modalities of the establishment of a Secretariat, we believe that we could usefully revisit the functions a Secretariat should perform. For example, the development of the Internet and other electronic means of information may result in the need for a different approach to information exchange. Further, we should examine the ways in which the Secretariat could provide a means for addressing the increasingly heavy burden of supporting meetings of the Treaty Parties.

In this regard, now that the Protocol on Environmental Protection is in force and the Committee for Environmental Protection (CEP) provided for in the Protocol is up and running, we believe that we should examine the timing, organization and frequency of Antarctic Treaty Consultative Meetings with a view to improving the methods and quality of our collaborative work.

Turning to other items, we look forward to progress on work with respect to

liability. At Tromso, the Meeting adopted Decision 3(1998), agreeing that work on liability should continue at ATCM XXIII based on the report of the Group of Legal Experts; the emergency response work undertaken based on the resolution agreed at ATCM XXII; advice from the Scientific Committee on Antarctic Research, the Council of Managers of National Antarctic Programs and others on risk assessments; and other pertinent advice. While our approach, put forward first in Utrecht, remains on the table, we look forward to working with other delegations to find a third way to bridge the differences that clearly have divided delegations.

We are confident that the Committee for Environmental Protection will continue its work to provide advice and formulate recommendations to the Parties at the Consultative Meeting. We welcome the work of the Committee, as the scientific advisory body of the Treaty, in furthering the objective of protecting Antarctica as a natural reserve dedicated to peace and science.

In conclusion, I want to thank again our gracious Peruvian hosts who have arranged for us to meet in this wonderful conference center here in San Isidro.

Thank you very much

**SPEECH BY THE PRESIDENT OF THE DELEGATION OF THE ORIENTAL REPUBLIC
OF URUGUAY TO THE XXIII ANTARCTIC TREATY CONSULTATIVE MEETING**

Mr. President:

The Delegation of the Oriental Republic of Uruguay wishes to thank the Government and people of the sister Republic of Peru, for its hospitality to the persons attending this Antarctic Treaty Consultative Meeting, as well as congratulate them for the excellent organization of what will undoubtedly be a successful event that has summoned all the States and Organizations linked to and involved with Antarctic matters.

This is a highly significant year for this Meeting and for its members since we have reached the fortieth year of the signing of the Antarctic Treaty, with all the relevance that this has and because it will inevitably lead us to offer balance sheets and evaluations of what has been achieved in our System and at the same time to draft new objectives and plans, that will carry out our hopes for the future.

A great deal has been done in these forty years, since the 1957-1958 International Geophysical Year and the 1959 Washington Conference until now, so that we can say without any hesitation at all that the Antarctic System has proven its effectiveness, development and flexibility with renewed capacity and skill to adapt itself to the new and ever changing national and international realities.

All the Member States of the Antarctic Treaty and the other components that it has created, have evidenced their interest and resolute will to maintain alive, renewed and feasibly extensive and complex juridical framework with very special characteristics, that has allowed the Antarctic to be preserved as a demilitarized, non-nuclear area free from the international conflicts that have been taking place in the rest of the world, with the different Governments always working and cooperating in a united manner within the region, even in the most critical moments, particularly after the Second World War.

The Member States of the Antarctic Treaty System have also accepted at all times the essential principle of freedom of scientific research, seeking to increase international cooperation, all of this fully in line with the firm purpose of devoting this area solely for peaceful purposes of common interest in the protection of the Antarctic environment and its dependant and associated ecosystems.

We are conscious of the path that Uruguay has pursued up until now as a Member Country of the Antarctic Treaty and of the other components of its System. This represents a great effort for our country, that has attempted to develop a realistic and coherent Antarctic program, within its possibilities, but with the consciousness that in doing so it is participating in the maintenance and conservation of an area of vital importance for the rest of the world and for all humanity.

Our country, since it was effectively linked to the Antarctic Treaty System has maintained a permanent presence in the area and now has two scientific bases in operation. It has also completed different scientific research and programs, some within the framework of permanent international cooperation, offering logistic support to the Antarctic programs of other countries, particularly by transporting scientists and materials and performing joint activities, in which we have also logically received the invaluable contribution and experiences of other States that are members of the System.

Uruguay has also repeated on several occasions the importance it has assigned to the principles of the Protocol to the Antarctic Treaty on Environmental Protection and its Annexes, making its best efforts to contribute towards its observance and applying its rules, even before they entered into force, conscious of the relationship that exists between the Antarctic ecosystem, its dependant and associated ecosystems and the environmental balance of the entire Planet. In that sense, it recently implemented the National Procedure for environmental evaluation and it has become a member of the Working Group for the drafting of Environmental Impact Evaluation Guides for the activities developed in the Antarctic Treaty area.

As the Antarctic Treaty established and as was repeated in the Madrid Protocol, the Antarctic constitutes a land of peace and science and the action of the States must be executed on those two pillars, taking into account that the development of other activities within the area, that are coherent with those two principles, should also be encouraged allowing the States and human beings to enjoy the beauty and benefits offered by the White Continent.,

Within this context, this Meeting in which we have gathered has in its Agenda a number of subjects supporting the principles of the System which reveal the desire to apply them within a climate of individual and collective harmony and effort.

We thus understand the work that is being performed to draw up an Annex or Annexes to the Madrid Protocol, regulating the subject of Liability as is provided in that instrument, to be of vital importance.

This specific subject, as in those already regulated in the other Annexes of the Madrid Protocol is of great importance and must be developed on sure and pragmatic

foundations, in a manner which is compatible with the other principles of the Antarctic Treaty and the Madrid Protocol and particularly in such a manner as to promote peace and scientific activities within the Antarctic area.. These principles have been the essence of our System and of the cooperation that it has made effective.

We are now in Lima to renew our commitment to the Antarctic cause, and within these surroundings, our Delegation will actively participate with the greatest interest in the sessions of this meeting, convinced that we are working responsibly in the present for future generations to be able to know and enjoy the Antarctic in all its beauty and potential as we have done.

This is the season in which we sow. Let us make an effort and get ready for the season in which we reap.

ANNEX E

Commemoration of the Fortieth Anniversary of the Signing of the Antarctic Treaty

ANNEX E

**ADDRESS BY THE PRESIDENT OF THE REPUBLIC OF PERU,
HIS EXCELLENCY ALBERTO FUJIMORI, AT THE COMMEMORATION OF
THE FORTIETH ANNIVERSARY OF THE SIGNING OF THE ANTARCTIC TREATY
31 MAY 1999**

*Mr. Chairman of the Twenty-third Consultative Meeting,
Representatives of the States Party to the Antarctic Treaty,
Ladies and Gentlemen:*

It is a great pleasure for Peru to welcome this Antarctic Treaty Consultative Meeting at the Palacio de Gobierno, and we share in paying tribute to the Treaty on the occasion of the solemn commemoration of its fortieth anniversary. Indeed, it was exactly forty years ago that a group of twelve nations acknowledged the need to keep the Antarctic Continent free of conflict and in its pristine state for the benefit of all humankind.

This is the first time that Peru has hosted this meeting. In doing so today, and despite the difficulties that it has had to overcome, Peru wishes to underscore its firm commitment to everything that this international instrument represents.

Since its adhesion to the Treaty nearly twenty years ago and most especially in the ten years since it became an actively participating Consultative Member, Peru has increased its Antarctic awareness by undertaking cooperative efforts with the other Member States and intensifying its own scientific research.

Proof of this commitment can be found in the ten expeditions that Peru has sent to Antarctica since its admission as a full member of the System, in the construction of the Machu Picchu Scientific Station, and in the launching of a second scientific research vessel.

The tenth Antarctic expedition included my young daughter, Keiko Sofía, who on her return enthusiastically recounted the positive impressions caused by her visit to a continent that was entirely free of pollution, the fascination of international scientific cooperation, and the depth and importance of the research that this makes possible. She convinced me that one day I, too, would travel to Antarctica.

Peru's interest in Antarctica stems from its concern with the environment and the various roles that are incumbent on it as a country located at the heart of South America, including its role in preserving and protecting the environment in our region and the impact at the global level.

Today, all nations, but especially the more developed and industrialized ones, have the obligation – *we* have the obligation – to work together to preserve our planet and ensure its inhabitability by all humankind and all forms of plant and animal life. In this connection, it is important to comply strictly with agreements such as the Kyoto Protocol, which calls on the industrialized countries to reduce their total greenhouse-gas emissions by at least 5% with respect to 1990 levels by the period 2008–2012.

If we are to prevent global warming, it is essential that this commitment be taken seriously. Unless this process is halted, we will be ever more exposed to serious natural disasters, such as the flooding that has occurred in various parts of the world, including here in Peru's highlands and, more recently, in the Peruvian Amazon.

As the century draws to a close and we look towards the new millennium, we must rise to challenges such as this one. Similarly, we need to safeguard our sources of oxygen and water. In this regard, realistic strategies need to be formulated that involve the developed as well as the developing countries.

The Declaration of the 1992 Earth Summit (held in Rio de Janeiro) noted, however, that the countries have shown different levels of engagement vis-à-vis these commitments, some of which fall short of the level necessary for preserving the environment; indeed, some have even contributed to environmental degradation. The States have a responsibility to enforce that Declaration on the basis of their shared – albeit differentiated – responsibilities.

One such strategy would be for industrialized countries to finance the preservation of the planet's most important forests, such as the Amazon here in South America, as a way of supporting their own industrial pollution-control policies. Peru, for instance, has 65 million hectares of Amazon forest.

Such a strategy would also be in keeping with the Rio Declaration, which calls for an open and propitious international economic order that allows for the economic growth and sustainable development of all countries, in such a way that environmental degradation can be managed and controlled.

In other words, we should go beyond the Kyoto Protocol and seek to reverse the trend that began with the Industrial Revolution some 150 years ago. We need to break

this vicious circle, since there is no doubt that deforestation – be it for agricultural or for industrial purposes – contributes to global warming as well.

A related issue is that of the supply of water, which is becoming an increasingly scarce resource. Here, it should be noted that Antarctica – which, like the Amazon, is threatened by global warming – possesses the largest reserve of fresh water in the world.

Peru is a member of the South Pacific Commission, with its ongoing efforts to safeguard the area's vast living resources; the Amazonian Cooperation Treaty, with its responsibility to preserve this important "lung" of the globe; and the Andean Community (for which it serves as the host country), with its environmental protection program. All these initiatives complement each other and underpin Peru's environmental responsibility as part of the Antarctic System.

Given Antarctica's location and unique features, everything that occurs there has direct repercussions for our region, for South America, and quite likely for other continents, their climates, their wildlife, their sources of revenue, and their survival ability. Antarctica also plays a determining role in the Humboldt current, which runs along South America's continental shelf; as it does so, it causes cold water to churn up from the ocean's depths and thus is one of the sources of the region's hydrobiological wealth.

In a world where the future is so uncertain and natural disasters are not unknown, every effort should be made to conserve and protect for the benefit of future generations the natural reserve that is Antarctica.

Forty-four nations have adhered to the Treaty; twenty-seven are Consultative Parties. These figures speak for themselves and bear witness to the fact that we have chosen the right path and that the world will benefit greatly – and as a whole – in the coming years.

Our accomplishments are proof of what can be done within the framework of international relations. The challenge has now been issued for future generations to carry through with these accomplishments.

The Antarctic Treaty that we commemorate today marked the beginning of a new era and opened the way to understanding. It also taught us how to cooperate in a harmonious atmosphere for the benefit and protection of the future. We should keep that example clearly in mind as the Consultative Meeting begins its work here today; I wish you every success in your endeavors.

Thank you.

**ADDRESS BY THE CHAIRMAN OF THE XXIII ANTARCTIC TREATY
CONSULTATIVE MEETING, AMBASSADOR CARLOS ALZAMORA, ON THE OCCASION
OF THE FORTIETH ANNIVERSARY OF THE SIGNING OF THE ANTARCTIC TREATY
31 MAY 1999**

Forty years ago, the world had one of its rare moments of good sense.

The tensions and confrontations of the time had moved to Antarctica and threatened to turn into a conflict. But 1958 was International Geophysical Year, attended by the world's most prominent scientists.

And then the unexpected happened: the scientists agreed that Antarctica had to be saved and turned into a reserve for mankind, devoted exclusively to scientific research in peace and cooperation. They convinced the political leaders who, in turn, gave diplomats the power to negotiate the Treaty that we commemorate today.

For the first time in history, a Treaty signed in Washington a year later, turned Antarctica into a neutral, demilitarized and nuclear-free continent. It froze the process of territorial claims that had engendered discord. It opened Antarctica to science, with freedom of research and freedom of movement, without customs, passports or police. It took upon itself to protect the environment of the only unpolluted continent in the world. And based on the golden rule of consensus, it established in Antarctica an exemplary system of joint management of which the Consultative Meeting held in Lima is the highest authority.

But such an extraordinary outcome in a conflict-ridden world created a new type of international community, one that called upon the Treaty to play a pioneering role in the environmental protection of the world. At the same time, it drew upon the tradition of coexistence and solidarity that had marked the incipient human presence in Antarctica.

The history of Antarctica's discoverers and explorers is replete with examples of heroism and selflessness, also involving the people of this nation. As when in 1903 the Argentine corvette *Uruguay* rescued from certain death the crew of the Swedish vessel *Antarctic* stranded in an ice field. Or when in 1916, the Chilean vessel *Yelcho*, with the legendary British explorer Shackleton on board, managed to miraculously rescue Shackleton's crew, all of whom believed they were doomed.

The telluric links of this nation with Antarctica have their roots in an even more remote past. As an anecdotal aside, the Inca Garcilaso de la Vega, the first Peruvian

historian, born in the 16th Century, referred to himself in his writings as an Antarctic Indian in defining his status as a man from the South of America, a South American.

This tradition of communal action inspires the operation of this vast multinational laboratory for scientific research that Antarctica has become today. From the conflict-ridden continents it inhabits, mankind envisions that in Antarctica's frozen and silent immensity lie the answers to its most puzzling questions. At a time when the growing shortage of safe water is becoming one of the world's most pressing problems, we already know that Antarctica holds 70 percent of the planet's stock of fresh water, and that there would be enough water in a single one of its gigantic icebergs to supply a city the size of Lima for many years.

During these forty years, the Antarctic Treaty has fully achieved its objectives and lived up to its guiding principles. When the possibility arose, ten years ago, that the Treaty might be revised at the request of a single one of the Parties, none came forward, and the 44 State Parties of today represent three quarters of the world's population.

It has proven to be a living instrument that has been able to adapt to a changing world and overcome all of its challenges. When criticized as being a private club, the Treaty opened its membership to all nations of the world. When suspected of intending to divide Antarctica among its Parties, the Treaty system froze the process of territorial claims. When accused of promoting the takeover of mineral and oil resources, even their exploration was banned. When the effectiveness of its environmental activities was questioned, the Treaty produced the strictest and most demanding of codes, the Madrid Protocol.

Today, we can with good reason proudly celebrate the Treaty's fortieth anniversary.

Mr. President, the Consultative Meeting wishes to express its appreciation for your attendance and participation in this ceremony, proof of the high regard in which Peru holds this historic celebration. The Consultative Meeting hopes that the Antarctic Treaty will encourage the international community to follow the same principles of peace and cooperation that led to its signing forty years ago.

Thank you.

ANNEX F

Report of the Committee for Environmental Protection

ANNEX F

REPORT OF THE SECOND MEETING OF THE COMMITTEE FOR ENVIRONMENTAL PROTECTION LIMA, 24 - 28 MAY 1999

Item 1: Opening of the Meeting

(1) The Chairman, Dr. Olav Orheim (Norway), opened the second meeting of the Committee for Environmental Protection (CEP II).

Item 2: Election of Officers

(2) In accordance with Rule 16 of the Rules of Procedure of the CEP, Dr. Jorge Berguño (Chile) was elected as First Vice-Chair and Ms. Gillian Wratt (New Zealand) was elected as Second Vice-Chair by acclamation. Both Vice-Chairs were elected for a two-year period.

Item 3: Adoption of Agenda

(3) The draft Agenda, previously circulated by Peru, was adopted by the Meeting. The list of documents for each Agenda Item was agreed with the provision that changes could be made during the Meeting.

(4) The Agenda and the final list of documents considered are attached in Annex 1.

Item 4: Operation of the Committee for Environmental Protection

a) The CEP's web site.

(5) Norway presented Working Paper (XXIII ATCM/WP26), which discussed operational aspects of the CEP web site, established on a provisional basis by Norway as the country of the current Chair of the CEP. In this regard it was noted that ideally the web site should be operated by the Antarctic Treaty Secretariat, should it be established. Many Members commended Norway and the Norwegian Polar Institute on their efforts in initiating and running the CEP web site.

(6) Members noted the need for a close link between the ATCM web site and the CEP

web site, and that there should be no inconsistencies between the two. The present situation of the CEP web site not carrying its material in all four official languages of the Antarctic Treaty System should be considered an interim arrangement.

(7) Delegations supported the need for an official contact point to be appointed in each country to regulate access, and the submission of information and documents, to the CEP web site. A list of official CEP contacts is attached as Annex 2 to the CEP report.

(8) The CEP agreed on the need for some sections of the CEP web site to be password protected including, for example, those sections containing documents not yet considered by the CEP. It was also noted that confidential information should not be put on the web site.

(9) Members emphasised the need to include links between the CEP web site and web sites of other components of the Antarctic Treaty System.

(10) With regard to the costs associated with managing the web site, Norway indicated that these should in the future be relatively low, bearing in mind that the structure of the web site was already in place and the only requirement was periodic updating.

(11) The Chairman of the Scientific Committee of CCAMLR suggested that there may be a need to include a disclaimer clause on CEP documents made available to the public via the web site.

(12) The Committee established an open-ended contact group chaired by Norway to develop the draft decision contained in XXIII ATCM/WP26. Following consideration of this, the Committee recommended that Decision 1(1999) be approved by XXIII ATCM. (Appendix 1¹)

b) The operation of the CEP and its relationship with the other components of the Antarctic Treaty System.

(13) The Chairman of the Scientific Committee of CCAMLR expressed his gratitude for the invitation to attend the present meeting of the CEP as an Observer, and offered the Scientific Committee's support to the work of the CEP. He proposed a reciprocal arrangement whereby a representative of the CEP would attend meetings of the Scientific Committee of CCAMLR as an observer. It was acknowledged that this could be done through an expert who participated in both the CEP and the Scientific Committee, thus fostering good interaction without entailing any additional cost.

¹ Appendix 1 is reproduced as Decision 1 (1999), at Annex B to the Final Report.

(14) The Committee asked Dr. Tony Press (Australia) (tony.press@antdiv.gov.au) to be the representative of the CEP at the next meeting of the Scientific Committee of CCAMLR if such an invitation should be extended to CEP. Dr. Press kindly agreed.

(15) SCAR and COMNAP offered to continue lending advisory and other support to the CEP, as they had been doing in the past.

(16) The Committee emphasized the importance of receiving advice and support from the various components of the Antarctic Treaty System as appropriate whilst the CEP continues to develop and evolve its own mechanisms of working.

(17) In this regard, the Committee also recognized the importance of maintaining competency and continuity amongst the membership of the CEP.

(18) To assist communication amongst members, the Committee agreed to produce a list of CEP II participants including addresses (Annex 3), in addition to the national contact points designated for the web site and other Committee matters.

c) CEP Consideration of Draft CEEs.

(19) New Zealand and the United Kingdom proposed guidelines to assist the CEP in handling draft CEEs and in developing its advice to the ATCM on draft CEEs in accordance with paragraphs 3 and 4 of Article 3 of Annex I to the Protocol (XXIII ATCM/WP2 and XXIII ATCM/WP38). Both papers proposed procedures for establishing open-ended contact groups to facilitate development of advice on issues possibly meriting the CEP's consideration.

(20) It was noted that, while Annex I of the Protocol requires that draft CEEs be provided to both the Parties and the CEP at least 120 days before the ATCM at which they may be considered, there are differing interpretations as to whether the CEP is required to consider and provide advice on all draft CEEs. To overcome this problem, it was agreed that the agenda of each meeting of the CEP should include an item entitled "Consideration of Draft CEEs Forwarded to the CEP in accordance with Paragraph 4 of Article 3 of Annex I to the Protocol." It was also agreed that what constitutes appropriate consideration of draft CEEs shall be determined by the CEP through practice and on a case by case basis.

(21) It was also noted that the provisions for establishing intersessional contact groups set forth in paragraph 9 of the report of the first CEP meeting specify that the coordinators of intersessional contact groups are to be agreed by the CEP during a meeting and that the terms of reference of such groups are to be agreed by the CEP and included in the meeting report.

(22) It was agreed, however, that it would be desirable for the CEP to be able to agree on the terms of reference and coordinators for intersessional contact groups during intersessional periods.

(23) The Committee set up an open-ended contact group chaired by the United States to prepare a draft procedure for the consideration of CEEs by the Committee.

(24) The attached Guidelines for CEP Consideration of Draft CEEs (Annex 4) were agreed to provide a practical basis for assisting the CEP in developing its advice to the ATCM on any scientific, technical or related matters identified by Parties during consideration of draft CEEs.

d) Operations of the CEP should the ATCM move to meetings every other year

(25) The CEP considered how it might carry out its responsibilities should the ATCM decide to meet every other year, and if it then would be necessary for the CEP to meet every year.

(26) It was noted that draft CEEs, circulated in accordance with Article 3 of Annex I of the Protocol, may require consideration in the year between such biennial ATCMs. It was noted that this could be overcome by holding Special Consultative Meetings in conjunction with a scheduled CEP meeting.

(27) Several members thought that the CEP should continue to meet annually at least until its working procedures had been well established. Others thought that there would be advantage in the CEP meeting in the year between ATCMs so that its advice could be provided well in advance. In this instance a special meeting of the CEP could be held in conjunction with the ATCM to provide the opportunity for draft CEEs to be considered.

(28) Several Delegations noted that, if the CEP were to meet in alternate years, subsidiary bodies might be usefully established and meet in intervening years to assist the CEP in addressing key issues. It was emphasised that the CEP in carrying out its responsibilities must continue to concentrate on scientific, technical and environmental issues.

Item 5: Compliance with the Protocol on Environmental Protection

(29) Information papers giving the following annual reports were submitted to the Committee, in accordance with Article 17 of the Protocol: (XXIII ATCM/IP6), (Germany); (XXIII ATCM/IP7), (Norway); (XXIII ATCM/IP11), (Italy); (XXIII ATCM/

IP17), (United Kingdom); (XXIII ATCM/IP18), (Uruguay); (XXIII ATCM/IP29), (Spain); (XXIII ATCM/IP71), (South Africa); and (XXIII ATCM/IP93), (Brasil). The reports were not introduced, but members were given the opportunity to raise questions on technical aspects.

(30) This was the first time that the Committee had received reports of this nature, and Members acknowledged the value of the reports.

(31) France suggested that a model be prepared to standardize the format of the information to be provided under Article 17 of the Protocol.

(32) The Committee also recognized the obligations for information exchange within other elements of the Antarctic Treaty System and the need to avoid duplication of information and proliferation of reports. The Committee agreed it would be advisable to examine this matter further under Agenda Item 9, Data and Exchange of Information.

5a) Matters covered by Annex I (Environment Impact Assessment)

i) Guidelines for Environmental Impact Assessments (EIAs)

(33) Argentina introduced Working Paper (XXIII ATCM/WP7), which included the report of an open-ended intersessional contact group established by the CEP at its meeting in Tromsø in 1998 to draft guidelines on the preparation of EIAs for proposed activities in Antarctica.

(34) Many members commended Argentina, the convenor and the participants in the contact group for their very valuable work.

(35) The Committee acknowledged that these guidelines are not mandatory in nature, but that they are extremely useful and important as a guide for Parties and operators in the preparation of EIAs. Some members suggested changes to the text which were incorporated into a revised version of the Guidelines (XXIII ATCM/WP7 Rev.2).

(36) The Committee recommended that Resolution 1(1999), to which the Guidelines are appended, be approved by the ATCM. (Appendix 2²)

(37) COMNAP offered to post the Guidelines on its web site to allow wider access to the document by Parties and national operators, and to print the Guidelines in the form of a practical guide.

² Appendix 2 is reproduced as Resolution 1 (1999), at Annex C to the Final Report.

ii) Individual Environmental Impact Assessments (EIAs)

(38) New Zealand presented Information Paper (XXIII ATCM/IP2) on stratigraphic drilling east of Cape Roberts in Antarctica. Italy presented Information Paper (XXIII ATCM/IP16) containing a preliminary environmental evaluation for the APE-GAIA Campaign. ASOC presented Information Paper (XXIII ATCM/IP33) containing an Initial Environmental Evaluation of a planned Greenpeace expedition to the Southern Ocean. The IEE had been submitted to New Zealand which concluded that the planned activity was not likely to have more than a minor and transitory impact on the Antarctic environment. Uruguay presented Information Paper (XXIII ATCM/IP36) containing an Initial Environmental Evaluation of the rehabilitation of facilities at the Teniente de Navío Ruperto Elechiribehety Scientific Station (ECARE). The information in these papers was noted by the Committee.

(39) The Secretariat presented Information Paper (XXIII ATCM/IP9) on the circulation of information on EIAs in accordance with Resolution 6, 1995, and Information Paper (XXIII ATCM/IP10), which contained a table summarizing EIAs and environmental audits since 1987. Some members had additional information for inclusion in the aforementioned documents which were noted by the Secretariat and included in the revision of the papers (XXIII ATCM/IP9 Rev.1 and XXIII ATCM/IP10 Rev.1).

(40) Norway presented Information Paper (XXIII ATCM/IP58), which summarised an EIA of the Ny-Alesund International Research and Monitoring Station in the Arctic, which could serve as a model for multinational EIAs, and as a useful reference for Antarctic EIA processes.

(41) Russia asked to make a brief presentation on Information Paper (XXIII ATCM/IP78), in order to provide members with a better idea of the Russian legal framework for the granting of permits to authorize individuals and legal entities to engage in activities in Antarctica. The basic requirement of such permits is that those engaged in such activities observe the Protocol and the EIA for the activity that is to be conducted.

(42) Russia presented Information Paper (XXIII ATCM/IP73), on the current and projected environmental situation at deep borehole 5G1, at the Vostok Station. Russia is proceeding with great care and in full compliance with the Protocol, and there has been cooperation with SCAR to ensure such compliance. The paper noted that a CEE would be prepared before any penetration into Lake Vostok, but that at the moment adequate technology was not available and therefore the CEE could not be completed.

(43) The Committee took note of the report and commended Russia on the care with which it was protecting the environment of Lake Vostok. The Committee also acknowledged that this activity raised a series of environmental, scientific, and

technical concerns, and accordingly Russia should continue to proceed with great care. The Committee acknowledged the concern expressed that the testing of new technologies could affect the unique conditions at Lake Vostok and that such testing should preferably take place at less sensitive sites. SCAR informed the Meeting that it will hold the next workshop in a continuing series, to develop science and logistic plans for Lake Vostok, on 26 – 28 September 1999 in Cambridge, UK.

(44) Russia presented Information Paper (XXIII ATCM/IP79 Rev.2), containing an IEE for the project to build a compacted-snow runway in the Larsemann Hills. Russia explained that this IEE was to be submitted for a decision by its national authorities and as yet no decision had been made as to whether this project should go ahead.

(45) Several members thanked Russia for its presentation. It was noted that this was a proposed activity, the potential impacts of which could be considered to be on the borderline between an IEE and a CEE. The Committee recognised that developing practice should provide a better understanding of this distinction.

(46) Several members indicated that further evaluation addressing the long-term effects as well as the indirect and cumulative impacts would be required if the level of activity increased beyond that assessed in the IEE (e.g. more activity at the runway by Russia or by other Parties).

(47) Germany presented Information Paper (XXIII ATCM/IP95), which contained information on the European Project for Ice Coring in Antarctica (EPICA) and announced that a draft CEE will be prepared by Germany on behalf of the countries which are members of EPICA. This draft CEE will be presented to the next meeting of the Committee.

iii) Reports on ongoing activities in accordance with Resolution 2 (1997)

(48) Argentina presented Information Paper (XXIII ATCM/IP90), containing an update of environmental management at Marambio Station and the surrounding area, underscoring the usefulness of environmental reviews as dynamic tools in environmental management in Antarctica. New Zealand presented Information Paper (XXIII ATCM/IP94), on stratigraphic scientific drilling east of Cape Roberts in the southwestern Ross Sea. The Committee welcomed these reports.

5b) Matters covered by Annex II (Conservation of Antarctic Flora and Fauna)

(49) The United Kingdom presented Working Paper (XXIII ATCM/WP24), which dealt with Specially Protected Species in Antarctica and contained a Draft Resolution on the

list of these species. The draft resolution called upon SCAR to undertake a review of the list of Specially Protected Species attached at Appendix A to Annex II of the Protocol on Environmental Protection to the Antarctic Treaty.

(50) Several members expressed general support for the United Kingdom proposal and suggested changes to the draft Resolution. The Committee agreed that a review would be valuable and should be initiated.

(51) CCAMLR, SCAR, and IUCN indicated their availability and willingness to help in the review of the list and to provide scientific advice, which the CEP could use in formulating recommendations to the ATCM on updating the list.

(52) The ensuing discussions clarified that there should be no presumption in suggesting which species should be included in, or removed from, the list.

(53) An open-ended contact group chaired by the United Kingdom examined the draft Resolution contained in document XXIII ATCM/WP24, and the Committee thereafter agreed to recommend that XXIII ATCM approve Resolution 2(1999). (Appendix 3³)

(54) Australia presented Working Paper XXIII ATCM/WP32 containing a report on the outcomes of the Workshop on Diseases of Antarctic Wildlife, which had been held in Hobart, Australia, on 25-28 August 1998.

(55) The Committee thanked Australia for its presentation and acknowledged the importance of the document, noting that it included several items on which little was known but which could be particularly relevant for the CEP. At the same time there was uncertainty in how far the CEP should proceed with the proposals made by the Workshop.

(56) Some Delegations suggested establishing an intersessional contact group to address this issue, using document XXIII ATCM/WP32 as a guide.

(57) It was also suggested that SCAR and COMNAP be asked to consider the full report of the Workshop, once available, and report back to the next CEP meeting.

(58) The United Kingdom considered that the CEP needed to examine the full report of the Workshop, taking into account the outcome of SCAR's and COMNAP's considerations, before making any decision about the formation of an intersessional contact group.

³ Appendix 3 is reproduced as Resolution 2 (1999), at Annex C to the final Report.

(59) The Committee agreed that an open-ended contact group be formed to present to CEP III an initial report on matters arising from the Workshop on Diseases on Antarctic Wildlife.

(60) The group will be formed when all Parties, SCAR and COMNAP have had the opportunity to consider the full report of the Workshop, and will operate under the following Terms of Reference:

Prepare an initial report for presentation to CEP III outlining practical measures that might be implemented to:

- a) diminish the risk of the introduction and spread of diseases to Antarctic wildlife; and
- b) detect, determine the cause, and minimise the adverse effects of unusual wildlife mortality and morbidity events in Antarctica.

(61) The Committee accepted Australia's offer to convene the group under the leadership of Dr. Martin Riddle (Australia) (martin.riddle@antdiv.gov.au)

(62) IUCN noted that worldwide it is considered that introduced organisms, including those causing disease, account for more loss of species than does loss of habitat. It suggested that the Global Invasive Species Programme (GISP) coordinated by the Scientific Committee on Problems in the Environment (SCOPE), and IUCN could provide valuable input.

5c) Matters covered by Annex III (Waste Disposal and Waste Management)

(63) Germany presented Information Paper (XXIII ATCM/IP31) containing an inventory of locations of its past scientific activities in Antarctica.

(64) Sweden suggested this paper could have been a Working Paper, since it contained much important information and suggestions for further progress.

(65) Several members thanked Germany for its valuable work on identifying common practices and criteria that may make it possible to set up a database and foster exchange of information.

(66) SCAR recalled that the Joint Committee on Antarctic Data Management might be an appropriate body for providing advice on database management. SCAR's Geodesy and Geographical Information Working Group could also assist in adding geographical material to the Antarctic Data Directory (ADD). The Committee agreed that this was a good way forward.

(67) Japan presented Information Paper (XXIII ATCM/IP60), which dealt with waste management at the Syowa Station.

5d) Matters covered by Annex IV (Prevention of Marine Pollution)

(68) The Chairman of the CCAMLR Scientific Committee reported that CCAMLR undertakes an annual review of the impact of marine debris on marine life in Antarctic waters. Information for this review is collected from a number of sources. CCAMLR has recently published two information pamphlets on minimizing marine debris from fishing vessels. Copies of the pamphlets in all four Treaty languages were made available to the CEP.

5e) Matters covered by Annex V (Area Protection and Management)

(69) Norway presented Working Paper (XXIII ATCM/WP8/Rev.1) containing a revised management plan for Site of Special Scientific Interest No. 23, Svarthamaren. Delegations had various drafting comments, which were incorporated by Norway. The Committee recommended that Measure 1(1999) be approved by XXIII ATCM to adopt the revised plan. (Appendix 4⁴)

(70) Australia presented Working Paper (XXIII ATCM/WP19) containing a revised management plan for Site of Special Scientific Interest No. 17, Clark Peninsula.

(71) The Committee noted that this management plan had not been considered by SCAR, and requested that Australia pass the revised management plan with maps to SCAR for examination. Following SCAR's consideration, the CEP will consider the revised plan at its next meeting. Australia agreed with this procedure. SCAR noted that it will need any plans by the end of June 1999 if they are to be considered during 1999 by SCAR.

(72) Norway introduced Working Paper (XXIII ATCM/WP20) proposing a mechanism for the automatic protection of undiscovered and unrecorded historic remains in Antarctica. The Working Paper contained a draft Measure.

(73) Several members noted the importance of finding mechanisms for the protection of undiscovered and unrecorded historic remains, and endorsed the proposal in principle. However, several members also noted concerns regarding the legal aspects of implementing such a mechanism, and saw the need to consider further the proposal. It

⁴ Appendix 4 is reproduced as Measure 1 (1999), at Annex C to the Final Report.

was suggested that protection could be provided in a non-mandatory manner (e.g. through a Resolution or through a Code of Conduct).

(74) IAATO noted that Recommendation XVIII-1 had, at least in part, already elaborated guidelines for visitors to Antarctica with respect to protecting historic remains, and preventing the collection and taking away of man-made artefacts and parts or contents of buildings as souvenirs.

(75) It was suggested that further work is needed to define the term 'historic objects' in the Norwegian paper to ensure clarity over what is being considered. It was also suggested that the cut-off date for automatic protection should be 1958 so as to include historic remains from the International Geophysical Year in such a protection regime.

(76) The Meeting agreed that the issue would be placed on the Agenda of the next meeting of the Committee (CEP III) to consider further the matter.

(77) New Zealand introduced Working Paper (XXIII ATCM/WP31) outlining a proposal for the expansion of SPA No. 4, Sabrina Island, to include all of the Balleny Islands and a surrounding marine area. A conceptual summary of the management plan for this area was provided. New Zealand noted its intention further to develop the proposal and sought comments from members. New Zealand announced that it intends to put forward a management plan to SCAR, CCAMLR, and the Parties in due course. Several members offered to provide further feedback to New Zealand.

(78) Peru presented Working Paper (XXIII ATCM/WP37), containing the report of the Second Workshop on Antarctic Protected Areas. New Zealand presented Working Paper (XXIII ATCM/WP36) which contained suggestions that built on the Workshop Report.

(79) The Committee thanked Peru and New Zealand and commended Peru for having hosted the workshop and for all the support provided. The Committee also extended its thanks to Dr. Ronald Woodman, who chaired the workshop, to Dr José Valencia, Chair of the Steering Committee, and to the rest of the Steering Committee, the Heads of the working groups and all participants. The Committee agreed that information on the results of the workshop should be included in the CEP's report to XXIII ATCM.

(80) The Committee agreed that the Workshop had provided much valuable information, but at the same time it represented the views of the individuals present and not necessarily the CEP or Parties. It was agreed to establish an open-ended intersessional contact group to report back to CEP III on how to use and build on the outcomes and recommendations of the second Protected Areas Workshop in the implementation of Annex V of the Protocol. The Report and recommendations from the first Protected Areas Workshop in Tromsø should also be taken into account. The contact group will be led by

Emma Waterhouse (New Zealand) (e.waterhouse@antarcticanz.govt.nz) working under the following Terms of Reference:

- a) To develop guidelines for:
 - implementation of the framework for protected areas set forth in Article 3 of Annex V of the Protocol, drawing on the conceptual scheme in Recommendation 1 of Working Paper 37; and
 - ways to apply the concepts of environmental risk, quality and feasibility for identifying, selecting and proposing protected areas.
- b) To consider further ways that the CEP might most effectively develop advice on proposed and revised management plans for specially protected areas and the means by which they could be monitored.
- c) To consider the need for further elaboration of an Antarctic conservation strategy.

(81) New Zealand presented Information Paper (XXIII ATCM/IP12) on historic resources in Antarctica.

(82) According to Resolution 1 (1998), the Committee took note of the following information papers giving timetables for revision of Management Plans for Protected Areas: (XXIII ATCM/IP25), (Australia); (XXIII ATCM/IP61), (Japan); (XXIII ATCM/IP96), (United States); and (XXIII ATCM/IP117), (United Kingdom).

(83) Germany presented Information Paper (XXIII ATCM/IP30), concerning basic environmental data and indicators for the development of management plans for frequently visited landing sites in Antarctica.

(84) The United Kingdom presented Information Paper (XXIII ATCM/IP35), which supplemented Working Paper (XXII ATCM/WP21). This Working Paper had been presented at the first meeting of the CEP and concerned the wreckage of a wooden sailing vessel located on the south-western coast of Elephant Island. Since it had not yet been possible for the United Kingdom to determine the exact identity of the vessel, the Committee looked forward to receiving further information from the United Kingdom on this subject.

(85) New Zealand presented Information Paper (XXIII ATCM/IP80) on additional protection for Antarctic wilderness areas.

(86) Chile presented Information Paper (XXIII ATCM/IP107) which provided information on historic sites and monuments at Deception Island.

(87) The Committee took note of the positive statements made by the four Parties that had not yet ratified Annex V to the Protocol (Recommendation XVI-10), namely that

all four had launched internal processes that were expected to lead to ratification of Annex V before the next ATCM.

Item 6: Environmental Monitoring

(88) COMNAP presented Working Paper (XXIII ATCM/WP4), which had been prepared jointly by COMNAP and SCAR, on the monitoring of environmental impacts of scientific activities and operations in Antarctica.

(89) The Committee endorsed the work of COMNAP and SCAR on the comparability of environmental monitoring data. The Committee asked COMNAP and SCAR to submit a document to CEP III on the status of this work, including the outcome of the Antarctic Environment Officers Network (AEON) workshop to be held in September 1999.

(90) The Committee welcomed the announcement by COMNAP that a technical manual on environmental monitoring would be ready by March 2000.

(91) Peru presented Working Paper (XXIII ATCM/WP29), on the establishment of a working group on radiological monitoring in Antarctica, and Working Paper (XXIII ATCM/WP30), on the establishment of a working group on environmental biomonitoring in Antarctica. Taking note of the presentations made by Peru, the Committee asked SCAR to examine these matters in the context of its present work on environmental monitoring, and report to the next meeting of the Committee.

Item 7: State of the Antarctic Environment Report

(92) Sweden presented Working Paper (XXIII ATCM/WP5), containing the report of the State of the Antarctic Environment Report (SAER) intersessional contact group. A number of Delegations thanked Sweden and the convenor and the members for the very valuable work of the contact group, which had clarified some questions related to the SAER and indicated where progress could be made.

(93) SCAR presented Working Paper (XXIII ATCM/WP6), which indicated SCAR's willingness to assist in assessing the availability of data which might be required if the CEP were to proceed with the production of a SAER.

(94) The Committee noted the progress that had been made on this matter and indicated that work should continue, building on the efforts of the intersessional group. The Committee gratefully accepted SCAR's offer to prepare a scoping study for presentation at CEP III that would include: describing the key environmental variables that should be considered in assessing the status of the Antarctic environment;

identifying present and future threats to that environment; and indicating how these link with state of the environment reports for other parts of the world.

(95) CCAMLR, COMNAP and WMO offered to lend support for the work that SCAR was to carry out, and this was acknowledged with appreciation.

(96) New Zealand presented Information Paper (XXIII ATCM/IP1), containing an update to the Ross Sea Region State of the Environment Report. The Committee thanked New Zealand for its presentation.

Item 8: Emergency Response and Contingency Planning

(97) COMNAP presented Working Paper (XXIII ATCM/WP16), containing an assessment of environmental emergencies arising from scientific and logistical support activities in Antarctica. The document indicated that fuel spills (diesel fuel and other petroleum products) accounted for most of the emergencies and that the majority of spills occurred on land.

(98) COMNAP further presented Working Paper (XXIII ATCM/WP3), on contingency planning and emergency response. The paper recommended that, in addition to contingency planning for oil spills, plans also be developed for other incidents or disasters.

(99) Noting ATCM Resolution 6 (1998) paragraph 3 and ATCM Resolution 1 (1997) paragraph 1 which urged Parties to prepare contingency plans, the Committee emphasised the responsibility of Parties to undertake such work.

(100) The Committee supported COMNAP's work and the recommendations contained in XXIII ATCM/WP3 and XXIII ATCM/WP16. The Committee requested COMNAP to provide it with complete information on environmental emergencies from national operators, and IAATO, and urged Parties to support this. COMNAP confirmed that they would provide this for CEP III, and IAATO also confirmed that they would provide requested information to COMNAP. The Committee noted that there were other types of emergencies (e.g. introduction of diseases and pests) that were not addressed by COMNAP but might merit further consideration by the CEP.

Item 9: Data and Exchange of Information

(101) Three working papers on the annual exchange of information were submitted.

(102) (XXIII ATCM/WP17), submitted by COMNAP, noted that COMNAP has begun using electronic mail for its advanced operational information and is

currently centralizing some operational information on its redeveloped web site (www.comnap.aq).

(103) (XXIII ATCM/WP22), submitted by the United States, noted that in 1998 at least three Parties had posted their annual information exchange reports under the Antarctic Treaty on the world wide web. The United States noted that it had begun the process of establishing links between the various web sites on which their various information exchange reports were posted. The end result is e.g. to see a SCAR report format even though the information is on a different web site and was originally posted as a Treaty report. The U.S. further proposed that information that must be exchanged under the Protocol be included in the annual exchange of information under the Treaty.

(104) (XXIII ATCM/WP33), submitted by Australia, discussed its web site which Australia used to post its exchange of information. Australia encouraged all Parties to establish information exchange web sites.

(105) The Committee agreed with the conclusions in these three papers. It was agreed that reporting requirements under Article 17 of the Protocol could be included in the annual Antarctic Treaty reporting.

(106) There was agreement that Parties could use modern technology to simplify the exchange of information. There was also agreement that links from the ATCM web site to other web sites containing exchange of information could be useful. There was concern, however, that information to be exchanged in this way under Article 17 of the Protocol would not be readily available to the CEP during its annual meetings. It was also noted that any Working Papers to be discussed at the CEP meeting would need to be made available in all the official Treaty languages.

(107) It was agreed that there would be value in the formation of a contact group to further consider the issue of information exchange. The contact group could provide advice on matters such as the development of a model or framework for integrating the various information exchange requirements under the Treaty and the Protocol as well as the information exchanged within SCAR and COMNAP. It was also agreed that such a contact group was a matter more appropriately taken up by Working Group II as information exchange requirements go beyond those considered by the CEP. The Committee agreed that CEP representation on such a contact group, if it were to be formed, could be appropriate.

Item 10: Preparation for CEP III

(108) The Draft Agenda for CEP III was approved. (Appendix 5⁵)

Item 11: Adoption of the Report

(109) The Draft Report was adopted by the members.

Item 12: Closing of the Meeting

(110) The Chairperson Dr. Olav Orheim closed the meeting, at the same time expressing the Committee's great gratitude to the work of the Rapporteurs, the Secretariat, and the interpreters. He further thanked the Peruvian Government for the excellent facilities and support that had been provided.

⁵ Appendix 5 is reproduced as Annex C to the Final Report.

CEP II - ANNEX 1

**Committee for Environmental Protection
Agenda and Documents**

*Item 1: Opening of the Meeting**Item 2: Election of Officers**Item 3: Adoption of Agenda**Item 4: Operation of the CEP*

Paper No.	Title	Submitted by
WP 2	Consideration of the Comprehensive Environmental Evaluations by the Committee for Environmental Protection.	New Zealand
WP 26	CEP Home Page	Norway
WP 38	CEEs and the CEP	United Kingdom

Item 5: Compliance with the Protocol on Environmental Protection

Paper No.	Title	Submitted by
IP 5	Protocol Implementation Checklist	ASOC
IP 6	Annual Report of the Federal Republic of Germany Pursuant to Article 17 of the Protocol on Environmental Protection to the Antarctic Treaty (1998)	Germany
IP 7	Annual Report Pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	Norway
IP 11	Annual Report Pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	Italy
IP 17	Implementation of the Protocol on Environmental Protection to the Antarctic Treaty	United Kingdom
IP 18	Measures adopted in compliance with the Protocol on Environmental Protection to the Antarctic Treaty	Uruguay
IP 29	Actuaciones españolas relacionadas con el cumplimiento del Protocolo al Tratado sobre Protección del Medio Ambiente y de las Resoluciones del Tratado Antártico	España
IP 71	Annual Report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	South Africa
IP 93	Annual Report on the Implementation of the Protocol on Environmental Protection to the Antarctic Treaty	Brasil

5a) Matters covered by Annex I (Environmental Impact Assessments)

Paper No.	Title	Submitted by
WP 7	Guideline on Environmental Impact Assessment Procedures in Antarctica Lineamientos para los Procedimientos de evaluación de impacto ambiental en la Antártida	Argentina
IP 2	Antarctic Stratigraphic Drilling East of Cape Roberts in Southwest Ross Sea, Antarctica 1998/99 Activities	New Zealand
IP 9	Environmental Impact Assessment Circulation of Information (Res.6, 1995)	Secretariat
IP 10	A Summary of Environmental Impact Assessments (EIAs)	Secretariat
IP 16	Preliminary Environmental Evaluation of the AP-GAIA Campaign	Italy
IP 33	Greenpeace 1998/99 Southern Ocean Expedition Initial Environmental Evaluation	ASOC
IP 36	Evaluación Medioambiental Inicial (EMI) Rehabilitación de las instalaciones de la Estación Científica Antártica Teniente de Navío Ruperto Elechiribehety (ECARE)	Uruguay
IP 58	Environmental Impact Assessment of Ny – Alesund International Research and Monitoring Station Svalbard	Norway
IP 73	Deep Borehole 5G1 Current Environmental State and Perspectives (Vostok Station, East Antarctica)	Russia
IP 79	Initial Environmental Evaluation Compacted Show Runway at the Lassermann Hills	Russia
IP 90	Environmental Review of the Argentine Activities at Marambio Station Update 1999	Argentina
IP 94	Antarctic Stratigraphic Drilling East of Cape Roberts in Southwest Ross Sea A review of the Project against its CEE	New Zealand
IP 95	European Project for ice coring in Dronning Maud Land – Information on forthcoming CEE	Germany

5b) Matters covered by Annex II (Conservation of Antarctic Flora and Fauna)

Paper No.	Title	Submitted by
WP 24	Specially Protected Species in Antarctica	United Kingdom
WP 32	Report to ATCM XXIII on outcomes from the Workshop on Diseases of Antarctic Wildlife	Australia

5c) Matters covered by Annex III (Waste Disposal and Waste Management)

Paper No.	Title	Submitted by
IP 31	Inventory of Locations of Past Scientific Activities of Germany in Antarctica	Germany
IP 60	Waste Management of Syowa Station	Japan

5d) Matters covered by Annex IV (Prevention of Marine Pollution)**5e) Matters covered by Annex V (Area Protection and Management)**

Paper No.	Title	Submitted by
WP 8	Management Plan Site of Special Scientific Interest (SSSI) N° 23, SVARTHAMAREN	Norway
WP 19	Protected Areas: Revision of Management Plan for Clark Peninsula, Site of Special Scientific Interest 17	Australia
WP 20	Proposal for a System of Automatic Protection of Undiscovered and Unrecorded Historical Remains in Antarctica	Norway
WP 31	Proposed Balleny Island Specially Protected Area	New Zealand
WP 36	Development of Guidelines for the Protected Area Designation Process	New Zealand
WP 37	Report of the Second Workshop of Antarctic Protected Areas	Peru
IP 12	Antarctic Historic Resources	New Zealand
IP 25	Protected Areas: Timetable for the Preparation or Revision of Management Plans	Australia
IP 30	Basic data and environmental indicators for the development of management plans for landing sites in Antarctica that are particularly heavily frequented by visitors	Germany
IP 35	Historic Sites and Monuments	United Kingdom
IP 61	Protected Areas: Timetable for the Preparation or Revision of Management Plans	Japan
IP 80	Towards additional protection for Antarctic Wilderness Areas.	New Zealand
IP 96	Schedule for Revised Management Plans of Antarctic Protected Areas in accordance with Resolution 1 (1998)	United States
IP 107	Progress Report on the Development of HSM No. 71	Chile
IP 117	Revision of Management Plans for Antarctic Protected Areas originally proposed by the United Kingdom	United Kingdom

Item 6: Environmental Monitoring

Paper No.	Title	Submitted by
WP 4	The Monitoring of Environmental Impacts of Scientific Activities and Operation in Antarctica	COMNAP/SCAR
WP 29	Working Group on Radiological Monitoring in Antarctica	Perú
WP 30	Working Group on Environmental Monitoring in Antarctica	Perú

Item 7: State of the Environmental Report

Paper No.	Title	Submitted by
WP 5	Report on the Work of the Intersessional Contact Group on SAER	Sweden
WP 6	Reporting on the State of the Antarctic Environment: The SCAR view	SCAR
IP 1	Ross Sea Region State of the Environment Report- An Update on progress	New Zealand

Item 8: Emergency Response and Contingency Planning

Paper No.	Title	Submitted by
WP 3	Contingency Planning and Emergency Response	COMNAP
WP 16	An Assessment of Environmental Emergencies Arising from Activities in Antarctica	COMNAP

Item 9: Data and Exchange of Information

Paper No.	Title	Submitted by
WP 17	The Rationalisation of Information Exchanged through the Antarctic Treaty System	COMNAP
WP 22	Annual Exchange of Information	United States
WP 33	Annual Exchange of Information	Australia

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CEP II – ANNEX 3

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CEP II - ANNEX 4**Guidelines for CEP Consideration of Draft CEEs**

1. The agenda of each meeting of the CEP shall include an item entitled "Consideration of Draft CEEs Forwarded to the CEP in Accordance with Paragraph 4 of Article 3 of Annex I to the Protocol."
2. If any Party so requests, the CEP shall, under this agenda item, consider any draft CEE and provide advice to the ATCM on such drafts in accordance with Article 12 and Annex I of the Protocol.
3. If, during a Party's examination of a draft CEE, it identifies a matter or matters it believes merits consideration by the CEP and that could be facilitated by an open-ended intersessional contact group, it shall so advise the Chair of the CEP and propose terms of reference for the group.
4. The Chair of the CEP shall immediately convey the proposed terms of reference and the name of a proposed coordinator for the contact group to the designated CEP contact points for consideration.
5. If Members agree to the proposed terms of reference and coordinator for the contact group, the Chair of the CEP shall advise the CEP contact points, SCAR, COMNAP, CCAMLR, and other observers, of the terms of reference, coordinator, and e-mail address of the coordinator of the group.
6. Representatives who wish to participate in any such group shall register their interest with the coordinator of the group by e-mail.
7. A list of the representatives indicating interest in participating in the group, including their e-mail addresses, shall be prepared and circulated by the coordinator to all representatives indicating interest in participating in the group. Representatives shall be advised immediately of any subsequent additions to the list.
8. All correspondence shall be circulated to all representatives.
9. When providing comments to the coordinator, representatives shall indicate for whom they are speaking.

10. The outcome of the contact group's deliberations shall be reported to the next CEP meeting by the coordinator.

ANNEX G

Preliminary Agenda for CEP III

ANNEX G**PRELIMINARY AGENDA FOR CEP III (ATCM XXIV)**

Item 1: Opening of the Meeting

Item 2: Adoption of Agenda

Item 3: Operation of the CEP

Item 4: Compliance with the Protocol on Environmental Protection

4a) General Matters

4b) Consideration of Draft CEEs forwarded to the CEP in accordance with paragraph 4 of Article 3 of Annex I of the Protocol.

4c) Others Matters covered by Annex I (Environmental Impact Assessments)

4d) Matters covered by Annex II (Conservation of Antarctic Flora and Fauna)

4e) Matters covered by Annex III (Waste Disposal and waste management)

4f) Matters covered by Annex IV (Prevention of Marine Pollution)

4g) Matters covered by Annex V (Area protection and management)

Item 5: Environmental Monitoring

Item 6: State of the Antarctic Environment Report

Item 7: Emergency Response and Contingency Planning

Item 8: Data and Exchange of Information

Item 9: Election of Officers

Item 10: Preparation for CEP IV

Item 11: Adoption of the Report

Item 12: Closing of the Meeting

ANNEX H

Reports of ATS (5a)

ANNEX H

**REPORT OF THE DEPOSITARY GOVERNMENT OF THE
ANTARCTIC TREATY AND ITS PROTOCOL (USA)
IN ACCORDANCE WITH RECOMMENDATION XIII-2**

This report covers events with respect to the Antarctic Treaty and to the Protocol on Environmental Protection.

Venezuela acceded to the Antarctic Treaty on March 24, 1999. Parties were informed of this accession by note of March 25, 1999, circulated in Washington. There are now forty-four Parties to the Treaty.

During the past year, there were no new accessions to the Protocol on Environmental Protection. There are now twenty-eight Parties to the Protocol.

Since the last report, Bulgaria, Germany and Peru provided notification of Recommendation XVI-10, containing the text of Annex V to the Protocol. Five Consultative Parties have taken no action with respect to Annex V; thus, it has not as yet entered into force.

The following countries have notified the Depositary that they had designated the persons so noted as Arbitrators in accordance with Article 2(1) of the Schedule to the Protocol on Environmental Protection:

Bulgaria	Dr. Aliosha Nedelchev	as of 21 Aug 1998
India	Mr. H. P. Rajan	as of 21 April 1998
Japan	Professor Soji Yamamoto	as of April 1998
Korea, Rep of	Professor Park Ki-Gab	as of 8 December 1998
United States	Professor Daniel Bodansky	as of 21 April 1998
	Mr. David Colson	as of 21 April 1998

The following country provided notification that it had designated the person so noted as Arbitrator in accordance with Article 2(1) of the Schedule to the Protocol on Environmental Protection to the Antarctic Treaty:

Germany	Prof.Dr. Wolfgang Graf Vitzthum	as of April 1998
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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	Aug. 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
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

State	Date of deposit of instrument of ratification	Date of deposit of instrument of accession	Date of entry into force
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
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
Venezuela		Mar. 24, 1999	Mar. 24, 1999

- 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.
- 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, 21 May 1999

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.

PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY

Signed at Madrid on October 4, 1991*

State	Date of Signature	Date deposit of 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
CONSULTATIVE PARTIES						
Argentina	Oct. 4, 1991	Oct. 28, 1993 ¹		Jan. 14, 1998		
Australia	Oct. 4, 1991	Apr. 6, 1994		Jan. 14, 1998	Apr. 6, 1994 (A) June 7, 1995 (B)	
Belgium	Oct. 4, 1991	Apr. 26, 1996		Jan. 14, 1998	Apr. 26, 1996 (A)	
Brazil	Oct. 4, 1991	Aug. 15, 1995		Jan. 14, 1998	May 20, 1998 (B)	
Bulgaria		April 21, 1998		May 21, 1998	May 5, 1999 (AB)	
Chile	Oct. 4, 1991	Jan. 11, 1995		Jan. 14, 1998	Mar. 25, 1998 (B)	
China	Oct. 4, 1991	Aug. 2, 1994		Jan. 14, 1998	Jan. 26, 1995 (AB)	
Ecuador	Oct. 4, 1991	Jan. 4, 1993		Jan. 14, 1998		
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) Nov. 18, 1998 (A)	
Germany	Oct. 4, 1991	Nov. 25, 1994		Jan. 14, 1998	Nov. 25, 1994 (A) Sept. 1, 1998 (B)	
India	July 2, 1992	Apr. 26, 1996		Jan. 14, 1998		
Italy	Oct. 4, 1991	Mar. 31, 1995		Jan. 14, 1998	May 31, 1995 (A) Feb. 11, 1998 (B)	
Japan	Sept. 29, 1992	Dec. 15, 1997	Jan. 14, 1998	Dec. 15, 1997 (AB)		
Korea, Rep. of	July 2, 1992	Jan. 2, 1996	Jan. 14, 1998	June 5, 1996 (B)		
Netherlands	Oct. 4, 1991	Apr. 14, 1994	Jan. 14, 1998	Mar. 18, 1998 (B)		
New Zealand	Oct. 4, 1991	Dec. 22, 1994		Jan. 14, 1998	Oct. 21, 1992 (B)	
Norway	Oct. 4, 1991	June 16, 1993		Jan. 14, 1998	Oct. 13, 1993 (B)	
Peru	Oct. 4, 1991	Mar. 8, 1993		Jan. 14, 1998	Mar. 8, 1993 (A) Mar. 17, 1999 (B)	
Poland	Oct. 4, 1991	Nov. 1, 1995		Jan. 14, 1998		
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) Apr. 17, 1997 (A)	
Uruguay	Oct. 4, 1991	Jan. 11, 1995		Jan. 14, 1998	May 6, 1998 (B) May 15, 1995 (B)	

** The following denotes date relating either to Annex V or Rec.XVI-10

A Acceptance Annex V;

B Approval of XVI-10

State	Date of Signature	Date deposit of 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
NON-CONSULTATIVE PARTIES						
Austria	Oct. 4, 1991					
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						
Venezuela						

• Signed at Madrid on October 4, 1991; thereafter at Washington until October 3, 1992. The Protocol entered into force 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.

Department of State,
Washington, 21 May 1999

Embassy of the Argentine Republic

D.E. (718)

The Embassy of the Argentine Republic presents its compliments to the Department of State and has the honor 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.

**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 (Cambera 1961)	10 Recommendations adopted at Second Meeting (Buenos Aires 1962)	11 Recommendations adopted at Third Meeting (Brussels 1964)	28 Recommendations adopted at Fourth Meeting (Santiago 1966)	9 Recommendations adopted at Fifth Meeting (Paris 1968)	15 Recommendations adopted at Sixth Meeting (Tokyo 1970)
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina	ALL	ALL	ALL	ALL	ALL	ALL
Australia	ALL	ALL	ALL	ALL	ALL	ALL
Belgium	ALL	ALL	ALL	ALL	ALL	ALL
Brazil (1983)+	ALL	ALL	ALL	ALL	ALL	ALL (except 10)
Bulgaria (1998)+						
Chile	ALL	ALL	ALL	ALL	ALL	ALL
China (1985)+	ALL	ALL	ALL	ALL	ALL	ALL (except 10)
Ecuador (1990)+						
Finland (1989)+						
France	ALL	ALL	ALL	ALL	ALL	ALL
Germany (1981)+	ALL	ALL	ALL (except 8)	ALL (except 1-11 & 13-19)	ALL (except 5* & 6)	ALL (except 9 & 10)
India (1983)+	ALL	ALL	ALL (except 8***)	ALL (except 18)	ALL	ALL (except 9 & 10)
Italy (1987)+	ALL	ALL	ALL	ALL	ALL	ALL
Japan	ALL	ALL	ALL	ALL	ALL	ALL
Korea, Rep. (1989)+	ALL	ALL	ALL	ALL	ALL	ALL
Netherlands (1990)+						
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
Russian Federation	ALL	ALL	ALL	ALL	ALL	ALL
South Africa	ALL	ALL	ALL	ALL	ALL	ALL
Spain (1988)+	ALL	ALL	ALL	ALL	ALL	ALL
Sweden (1988)+						
U.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.

	9 Recommendations adopted at Seventh Meeting (Wellington 1972)	14 Recommendations adopted at Eighth Meeting (Oslo 1975)	6 Recommendations adopted at Ninth Meeting (London 1977)	9 Recommendations adopted at Tenth Meeting (Washington 1979)	3 Recommendations adopted at Eleventh Meeting (Buenos Aires 1981)	8 Recommendations adopted at Twelfth Meeting (Canberra 1983)
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina	ALL	ALL	ALL	ALL	ALL	ALL
Australia	ALL	ALL	ALL	ALL	ALL	ALL
Belgium	ALL	ALL	ALL	ALL	ALL	ALL
Brazil (1983)+	ALL (except 5)	ALL	ALL	ALL	ALL	ALL
Bulgaria (1998)+						
Chile	ALL	ALL	ALL	ALL	ALL	ALL
China (1985)+	ALL (except 5)	ALL	ALL	ALL	ALL	ALL
Ecuador (1990)+						
Finland (1989)+						
France	ALL	ALL	ALL	ALL	ALL	ALL
Germany (1981)+	ALL (except 5)	ALL (except 1, 2, & 5)	ALL	ALL	ALL	ALL
India (1983)+	ALL	ALL	ALL	ALL (except 1 & 9)		
Italy (1987)+	ALL (except 5)	ALL	ALL	ALL (except 1 & 9)		
Japan	ALL	ALL	ALL	ALL	ALL	ALL
Korea, Rep. (1989)+	ALL	ALL	ALL	ALL	ALL	ALL
Netherlands (1990)+						
New Zealand	ALL	ALL	ALL	ALL	ALL	ALL
Norway	ALL	ALL	ALL	ALL	ALL	ALL
Peru (1989)+	ALL	ALL	ALL	ALL	ALL	ALL
Poland (1977)+	ALL	ALL	ALL	ALL	ALL	ALL
Russian Federation	ALL	ALL	ALL	ALL	ALL	ALL
South Africa	ALL	ALL	ALL	ALL	ALL	ALL
Spain (1988)+	ALL	ALL	ALL	ALL (except 1 & 9)	ALL (except 1)	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

	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	ALL	ALL	ALL	ALL
Bulgaria (1998)+				XVI-10		
Chile	ALL	ALL	ALL	ALL	ALL	ALL
China (1985)+	ALL	ALL	ALL	ALL		
Ecuador (1990)+						
Finland (1989)+						
France	ALL	ALL	ALL	ALL	ALL	ALL
Germany (1981)+	ALL (except 10-13)	ALL	ALL (except 3,4,8,10,11,22)	ALL (except 4,6,7,8 & 9)	ALL (except 2 & 3)	ALL
India (1983)+						
Italy (1987)+		ALL	ALL	ALL	ALL	ALL
Japan	ALL	ALL		XVI-10		ALL
Korea, Rep. (1989)+	ALL	ALL	ALL (except 1-11, 16, 18, 19)	ALL (except 12)	ALL (except 1)	
Netherlands (1990)+				XVI-10		
New Zealand	ALL	ALL	ALL	ALL	ALL	
Norway	ALL	ALL	ALL	ALL	ALL	ALL
Peru (1989)+				XVI-10		
Poland (1977)+	ALL	ALL	ALL			
Russian Federation	ALL	ALL				
South Africa	ALL	ALL	ALL	ALL	ALL	ALL
Spain (1988)+						
Sweden (1988)+			ALL	ALL	ALL	ALL
U.K.	ALL	ALL (except 2)	ALL (except 3, 4, 8, 10, 11)	ALL (except 4, 6, 8, & 9)	ALL	ALL
Uruguay (1985)+	ALL	ALL	ALL	ALL	ALL	
U.S.A.	ALL	ALL	All (except 1-4, 10, 11)	ALL	ALL	ALL

	5 Measures adopted at Nineteenth Meeting (Seoul 1995)	2 Measures adopted at Twentieth Meeting (Utrecht 1996)	5 Measures adopted at Twenty-first Meeting (Christchurch 1997)	2 Measures adopted at Twenty-second Meeting (Tromsø 1998)	Measures adopted at Twenty-third Meeting (Lima 1999)
Argentina	Approved	Approved	Approved	Approved	
Australia					
Belgium					
Brazil (1983)+	ALL				
Bulgaria (1998)+					
Chile	ALL	ALL			
China (1985)+					
Ecuador (1990)+					
Finland (1989)+	ALL				
France					
Germany (1981)+					
India (1983)+					
Italy (1987)+	ALL	ALL			
Japan					
Korea, Rep. (1989)+	ALL				
Netherlands (1990)+					
New Zealand					
Norway	ALL	ALL	ALL		
Peru (1989)+					
Poland (1977)+					
Russian Federation					
South Africa					
Spain (1988)+					
Sweden (1988)+					
U.K.					
Uruguay (1985)+					
U.S.A.	ALL	ALL	ALL	ALL	

REPORT OF THE CCAMLR OBSERVER TO ATCM XXIII

1. As part of a regular overview of the Antarctic Treaty System conducted in accordance with Recommendation XIII-2 of ATCM, CCAMLR is pleased to report on various developments in areas of its competence which have taken place since ATCM-XXII.

MEMBERSHIP

2. Since ATCM-XXII there have been no changes in CCAMLR Membership.

FISHERIES IN 1997/98 AND 1998/99

3. Fisheries in the CCAMLR Convention Area during 1997/98 (1 July 1997 to 30 June 1998) targeted Patagonian and Antarctic toothfish (*Dissostichus eleginoides* and *D. mawsoni*), mackerel icefish (*Champsocephalus gunnari*), krill (*Euphausia superba*) and squid (*Martialia hyadesi*). There was no fishing for crabs in the Convention Area during 1997/98.

4. The reported catch of finfish was 11 419 tonnes. Patagonian toothfish accounted for 11 168 tonnes, and was taken by Chile, South Africa and the UK in the Southwest Atlantic (Subarea 48.3), and in the Western Indian Ocean by France and Ukraine (Division 58.5.1), Australia (Division 58.5.2), and France and South Africa (Subareas 58.6 and 58.7). Antarctic toothfish was taken by New Zealand in the Southwest Pacific (Subarea 88.1), and mackerel icefish by Chile and Australia in the Southwest Atlantic (Subarea 48.3) and Western Indian Ocean (Division 58.5.2) respectively.

5. The reported catch of krill was 80 802 tonnes, similar to the catch of 82 508 tonnes taken in the previous year. All fisheries for krill took place in the South Atlantic (Area 48) and were conducted by Japan, Poland, the Republic of Korea and UK.

6. CCAMLR-XVII endorsed new and exploratory fisheries by Australia, France, New Zealand, South Africa, Spain and Uruguay in 1998/99. New and exploratory fisheries for toothfish will be undertaken in Subareas 48.6, 58.6 and 88.1 and in Divisions 58.4.1, 58.4.3 and 58.4.4.

7. The Commission adopted conservation measures for each of the fisheries 1998/99, 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 1998/99*.

ILLEGAL, UNREPORTED AND UNREGULATED FISHING IN THE CONVENTION AREA

8. Once again, one of the major issues discussed at the CCAMLR meetings in 1998 was the illegal, unregulated and unreported fishing for Patagonian toothfish (*Dissostichus eleginoides*) in the CCAMLR Convention Area.

9. Illegal, unregulated and unreported fishing continued in the Convention Area during 1997/98. Forty-five sightings of fishing vessels were reported by Members. Flags of only four vessels were identified. These were from the following non-Contracting Parties: Belize, Faroe Islands, Seychelles and Vanuatu. The total unreported catch of toothfish in 1997/98 was estimated at 22 415 tonnes.

10. These activities continue to threaten stocks of toothfish and populations of seabirds. CCAMLR reacted strongly to these threats by strengthening measures introduced in 1997 to combat poachers, and introducing a number of new measures. Members have further extended their collaborative surveillance and enforcement programs.

11. CCAMLR-XVII adopted the following new and amended measures:

- Scheme to Promote Compliance by Non-Contracting Party Vessels with CCAMLR Conservation Measures (Conservation Measure 118/XVII);
- Licensing and Inspection Obligations of Contracting Parties with regard to their Flag Vessels Operating in the Convention Area (Conservation Measure 119/XVII);
- Marking of Fishing Vessels and Fishing Gear (Conservation Measure 146/XVII);
- Cooperation between Contracting Parties to Ensure Compliance with CCAMLR Conservation Measures with regard to their Vessels (Conservation Measure 147/XVII); and
- Automated Satellite-Linked Vessel Monitoring Systems (VMS) (Conservation Measure 148/XVII).

12. Bearing in mind Articles 19 to 23 of the 1995 UN Straddling Stock Agreement (UNIA), the Commission had previously decided that a system should be established by Members to exchange information on all vessels known to have fished in contravention of conservation measures (CCAMLR-XVI, paragraph 8.12). The CCAMLR Vessel Register, work on which has already started, will enable the required exchange of information between Members.

13. In addition, CCAMLR-XVII encouraged Members to ratify and promote the entry into force of such international instruments as UNIA, FAO Compliance Agreement and the Code of Conduct for Responsible Fisheries, noting that this would contribute to the

reduction of illegal, unregulated and unreported fishing in the Convention Area (CCAMLR-XVII, paragraphs 6.32 and 12.9).

14. On invitation from CCAMLR, government representatives from Mauritius and Namibia participated as observers at the Seventeenth Meeting of the Commission. The Commission encouraged these States to accede to the Convention and also to cease providing port or landing facilities to vessels which carried out unregulated fishing in the Convention Area.

15. At its 1998 meeting, CCAMLR reiterated its request to all international and regional fisheries organisations, especially those organisations with jurisdiction over waters adjacent to the Convention Area, to join in the exchange of information on illegal, unreported and unregulated fishing on the high seas and to cooperate in combating these activities. In particular, CCAMLR seeks cooperation towards the implementation of Conservation Measure 118/XVII relating to the refusal of landings and transshipment of fish caught in violation of CCAMLR conservation measures and other requirements under the Convention.

16. Further work is being undertaken during the 1999 intersessional period on developing a comprehensive action policy for the elimination of illegal, unregulated and unreported fishing for toothfish in the Convention Area; examining approaches that could be adopted, consistent with the objectives of the Convention and international law, for areas adjacent to the Convention Area; and developing cooperation with non-Contracting Parties.

17. Within a framework of a future comprehensive action policy, a catch documentation scheme for toothfish was drafted for discussion at CCAMLR-XVII. This is an important step in the development of regulatory and trade-based measures to monitor the origin of toothfish catches and trade.

18. Further development of this draft scheme was undertaken by CCAMLR Members during an ad hoc consultation in Brussels, Belgium, in April 1999. The original draft was revised taking into account new proposals received from Members. Work on some remaining aspects of the draft will continue intersessionally. The revised draft will be submitted to CCAMLR-XVIII for consideration.

SYSTEM OF INSPECTION

19. As in previous years, inspections of fishing vessels were carried out in 1997/98 in accordance with the System of Inspection. CCAMLR-designated inspectors reported overall compliance with fisheries regulations. However, certain provisions of Conservation Measures 63/XV (the use of plastic packaging bands) and 29/XVI (in

particular, line weighting and offal discharge requirements) had not been fully complied with by the vessels inspected. Appropriate actions have been taken by Flag States to improve this situation.

SCHEME OF INTERNATIONAL SCIENTIFIC OBSERVATION

20. As in the past several years, scientific observers provided 100% coverage of all longline fisheries undertaken in 1997/98, including the new fisheries. This level of coverage continues in 1998/99.

21. CCAMLR-XVII considered the feasibility of international scientific observers collecting information on vessels fishing illegally in the Convention Area. It was decided that scientific observers be requested to include in their reports factual data on sightings of fishing vessels in the Convention Area. The effectiveness of, and the need to continue, this activity will be reviewed after a two-year trial period (CCAMLR-XVII, paragraphs 8.16 and 8.17).

ECOSYSTEM MONITORING AND MANAGEMENT

22. In 1997/98, work continued under the CCAMLR Ecosystem Monitoring Program (CEMP) on a conceptual model of ecosystem monitoring and management. In particular, methods for combining environmental and biological indices collected under CEMP into composite standardised indices have been further developed. Composite indices offer a new approach to analysing the Antarctic marine ecosystem. Other work included the development of new standard methods for calculating the extent of sea-ice and sea-surface temperatures in the Convention Area, revision of krill–fishery–predator interactions, and further development of the methods used to assess the status of the ecosystem.

23. Last year, CCAMLR reported to the ATCM that it planned to undertake a synoptic survey of krill in the South Atlantic sector of the Convention Area (Area 48). The survey's primary objective is to improve estimates of the pre-exploitation biomass of krill which is used in models to estimate sustainable yield in that area. A planning meeting for the survey took place in Cambridge, UK in March 1999. Plans have been developed for this survey and it will be conducted in January 2000. Japan, UK and USA have each committed a vessel to the survey. Brazil, Republic of Korea, Russia and Ukraine have also expressed interest in participating in the survey.

PREVENTION OF INCIDENTAL MORTALITY OF SEABIRDS DURING FISHING OPERATIONS

24. Analysis of 1998 data on seabird by-catch in CCAMLR longline fisheries in the

Southwest Atlantic (Subarea 48.3) and in the Western Indian Ocean in Subarea 58.6 (outside France's EEZ) showed that, overall, there was a substantial reduction in seabird by-catch in the regulated fisheries in the Convention Area in 1997/98 (CCAMLR-XVII, paragraph 6.19). This was attributable partly to a greater compliance with CCAMLR's mitigation measures and partly to the fact that in most areas in 1997/98 the fishing season opened later than in the preceding year (1 April instead of 1 March).

25. Incidental mortality of seabirds during illegal, unregulated and unreported fishing in the Convention Area in 1997/98 was, however, estimated to be between 50 000 and 89 000 seabirds. This estimate was similar to the estimate for 1996/97. Current levels of by-catch in unregulated fisheries are about two orders of magnitude greater than those in regulated fisheries. These are unsustainable for albatross, giant petrel and white-chinned petrel populations concerned.

26. Methods for mitigating seabird by-catch in longline fisheries were reviewed. CCAMLR-XVII agreed that vessels discharging offal during the haul on the same side as the line-hauling site should not be allowed to fish in the Convention Area. Members were requested to develop more efficient methods of weighting lines and to conduct research into the effects of line sink rates. Research on line-setting devices and artificial bait, gear colour and bait-taking behaviour of seabirds was also encouraged (CCAMLR-XVII, paragraph 6.24).

27. CCAMLR has continued the exchange of information on incidental mortality with a number of international fisheries and conservation organisations.

28. As in previous years, work on the reduction of incidental mortality proceeds intersessionally, steered by the ad hoc Working Group on Incidental Mortality of Seabirds Arising from Longline Fisheries (WG-IMALF).

MONITORING OF MARINE DEBRIS AND ITS IMPACT ON MARINE ANIMALS

29. A detailed description of CCAMLR initiatives aimed at preventing and assessing the level of marine debris in Antarctic waters and its impact on marine biota was presented at ATCM-XXII.

30. This important work continues. CCAMLR reviews the topic of marine debris pollution annually.

31. In 1998, an educational poster 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 by Members to fishing, research, re-supply and tourist vessels working in the Antarctic.

32. Noting the considerable progress made in the collection and evaluation of scientific data on marine debris, the Commission has requested the Scientific Committee to include annual reviews of this topic on its agenda for future meetings.

33. In particular, the Commission has expressed concern at the evidence of continued accumulation of plastic packaging bands in marine debris in the Convention Area in 1998. A significant number of such bands are believed to be discarded by vessels engaged in unregulated fishing. There is also growing concern over the potential impact of fishing gear lost from vessels. This lost gear may have an impact both on fish stocks (ghost fishing) and on seabird and marine mammal populations (entanglement, ingestion). This problem is likely to be more acute in unregulated fisheries where whole longlines are known to be abandoned by vessels taking evasive action. CCAMLR will keep these aspects under review.

ISSUES OF COOPERATION WITH ELEMENTS OF THE ANTARCTIC TREATY SYSTEM

34. At its 1998 meeting, CCAMLR welcomed the Republic of Bulgaria becoming a Consultative Party to the Antarctic Treaty and, in particular, Bulgaria's notification to ATCM-XXII that it intends to accept the conservation measures in force under CCAMLR and to apply for membership of CCAMLR, should it resume harvesting activity in the Convention Area. The Commission recalled that CCAMLR is not only an international fisheries organisation, but is part of the Antarctic Treaty System, and suggested that Bulgaria should be invited to become a Member of the Commission. The CCAMLR Chairman extended such an invitation to Bulgaria in December 1998.

35. The complementary nature of the objectives of the Antarctic Treaty Consultative Parties and those of CCAMLR in protecting the marine environment was enhanced by the coming into force of the Protocol on Environmental Protection to the Antarctic Treaty and the establishment of the Committee for Environmental Protection (CEP). CCAMLR agreed that the link between CCAMLR and the ATCM, particularly in terms of the Protocol for Environmental Protection, has established a unique environment protection system for Antarctica.

36. CCAMLR has taken note of the list of nine Sites of Special Scientific Interest (SSSIs) with marine areas, which was prepared at ATCM-XXII. 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 in due course.

37. Following the establishment of CEP, CCAMLR has agreed that the Chairman of its Scientific Committee will participate as an observer in the work of CEP, including its meeting this year. Also this year, CCAMLR was represented at the second ATCM Antarctic Protected Area Workshop which was held immediately preceding ATCM-XXIII.

38. Following the established cooperation with SCAR, observers from CCAMLR continue to participate at meetings of its various bodies and CCAMLR receives information of SCAR programs of relevance to CCAMLR's objectives. As in the past, SCAR will continue to be invited to send its observers to annual meetings of CCAMLR. This year, in particular, the SCAR Subcommittee on Bird Biology and the Group of Specialists on Seals are preparing reports to CCAMLR on the status and trends in populations of Antarctic marine birds and seals which will be considered at CCAMLR-XVIII.

39. With regard to operational issues discussed at ATCM-XXII, particularly in respect of improving the system of annual exchange of information, CCAMLR is also continually looking to improve its system. One result is the CCAMLR website which was created in 1998, and is now substantially updated. The CCAMLR website address is www.ccamlr.org. It is intended that, in addition to providing information to the general public, it will also provide CCAMLR Members with a tool for exchanging information. The website is still under development. Other means of improving the exchange of information are also under consideration and will be discussed at CCAMLR-XVIII.

**REPORT BY THE HEAD OF THE DELEGATION OF AUSTRALIA AS THE REPRESENTATIVE
OF THE DEPOSITARY GOVERNMENT FOR THE
CONVENTION FOR 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 o	11 Sep 1980	28 May 1982	27 Jun 1982
Australia o	11 Sep 1980	6 May 1981	7 Apr 1982
Belgium o	11 Sep 1980	22 Feb 1984	23 Mar 1984
Brazil o		28 Jan 1986	27 Feb 1986
Bulgaria		1 Sep 1992	30 Sep 1992
Canada		1 Jul 1988	31 Jul 1988
Chile o	11 Sep 1980	22 Jul 1981	7 Apr 1982
European Community o		21 Apr 1982	21 May 1982
Finland		6 Sep 1989	6 Oct 1989
France o	16 Sep 1980	16 Sep 1982	16 Oct 1982
Germany o	11 Sep 1980	23 Apr 1982	23 May 1982
Greece		12 Feb 1987	14 Mar 1987
India o		17 Jun 1985	17 Jul 1985
Italy o		29 Mar 1989	28 Apr 1989
Japan o	12 Sep 1980	26 May 1981	7 Apr 1982
Korea, Republic of o		29 Mar 1985	28 Apr 1985
Netherlands		23 Feb 1990	25 Mar 1990
New Zealand o	11 Sep 1980	8 Mar 1982	7 Apr 1982
Norway o	11 Sep 1980	6 Dec 1983	5 Jan 1984
Peru		23 Jun 1989	23 Jul 1989
Poland o	11 Sep 1980	28 Mar 1984	27 Apr 1984
Russian Federation o	11 Sep 1980	26 May 1981	7 Apr 1982
South Africa o	11 Sep 1980	23 Jul 1981	7 Apr 1982
Spain o		9 Apr 1984	9 May 1984
Sweden o		6 Jun 1984	6 Jul 1984
Ukraine o		22 Apr 1994	22 May 1994
United Kingdom o	11 Sep 1980	31 Aug 1981	7 Apr 1982
United States of America o	11 Sep 1980	18 Feb 1982	7 Apr 1982
Uruguay o		22 Mar 1985	21 Apr 1985

o Members of the CCAMLR Commission

**REPORT SUBMITTED TO THE XXIIIRD ANTARCTIC TREATY CONSULTATIVE MEETING
BY THE DEPOSITARY GOVERNMENT OF THE CONVENTION FOR THE CONSERVATION
OF ANTARCTIC SEALS (UNITED KINGDOM) IN ACCORDANCE WITH
RECOMMENDATIONS XII 2, PARAGRAPH 2(D)**

1. This report covers events regarding the Convention for the Conservation of Antarctic Seals (CCAS) from May 1998 to the present. Events prior to May 1998 were reported to the XVIIIth, XIXth, XXth, XXIst and XXIInd Antarctic Treaty Consultative meetings (see Annex B, Annex F, Annex F, Annex E and Annex F of the respective Final Reports).
2. The annual report required by Article 5 (Capture and Killing of Seals) of the Convention is reproduced as Annex A to this report.
3. The United Kingdom would like to remind Contracting Parties that the reporting period for the Exchange of Information referred to in paragraph 6(a) on the Convention is now from 1 March to the end of February each year, and that this information should be submitted to other Contracting Parties and to SCAR by 30 June each year.
4. Since the XXIInd Antarctic Treaty Consultative Meeting there have been no accessions to the Convention for the Conservation of Antarctic Seals. A list of countries which were original signatories of the Convention, and of countries which have subsequently acceded, is attached (Annex B to this report).

Annex A

CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS (CCAS)

Synopsis of reporting in accordance with Article 5 and the Annex: Capture and killing of seals during the period 1 March 1997 to 28 February 1998.

Contracting Party	Captured	Killed
Argentina	0	0
Australia	0	0
Belgium	0	0
Brazil	0	0
Canada	0	0
Chile	520*	0
France	0	0
Germany	0	0
Italy	0	0
Japan	0	0
Norway	0	0
Poland	(nil return)	(nil return)
Russia	0	0
South Africa	0	0
UK	0	0
USA	0	0

* 520 Antarctic Fur Seals (*Arctocephalus gaz ella*) captured and released (259 female pups and 260 male pups captured to monitor weight gains using CCAMLR Standard Method C2B. 1 adult male was captured and released with a plastic collar).

Polar Regions Section
 overseas Territories Department
 Foreign and Commonwealth office
 London
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Annex B

CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS (CCAS)

London, 1 June - 31 December 1972

(The Convention entered into force on 11 March 1978)

State	Date of Signature	Date of deposit Ratification or Acceptance (A)
Argentina 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
Chile ¹	28 December 1972	7 February 1980
Japan	28 December 1972	28 August 1980

ACCESSIONS

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

1 Declaration or Reservation

2. Objection

3. The instrument of ratification included the Channel Islands and the Isle of Man

4. Former USSR

**SCAR REPORT TO XXIII ATCM
REPORT UNDER RECOMMENDATION XIII-2**

EXECUTIVE SUMMARY

SCAR is pleased to participate in this meeting and looks forward to contributing towards its success.

Since XXII ATCM, the SCAR has held its 40th anniversary meeting, XXV SCAR, in Concepción, Chile, 27-31 July 1998. The Full Membership of SCAR increased at this meeting with the election of Canada from Associate Member to Full Member. At the same meeting Professor A C Rocha-Campos stepped down as President of SCAR. All those who worked with him owe a debt of gratitude for his contributions, not only to SCAR, but to the ATCM as well.

The Council of Managers of National Antarctic Programmes (COMNAP) held its 10th anniversary meeting (COMNAP X) in Concepcion during the previous week and this provided an opportunity for the two Executive Committees to hold a joint meeting, leading to more effective execution of scientific research in the Antarctic.

SCAR continues to be active in initiating, promoting and coordinating a diversity of scientific activities, but only a few can be briefly noted here.

The SCAR Global Change Programme has reduced the number of constituent programmes to four. The other programmes are now more appropriately located with the relevant Working Groups of SCAR but they will continue to provide data on global change as appropriate. The SCAR Global Change Programme office is hosted by the Cooperative Research Centre for the Antarctic and Southern ocean Studies, University of Tasmania, Hobart, with a full-time Programme Coordinator. The Group of Specialists continues to serve as the System for Analysis, Research and Training (START) of the International Geosphere-Biosphere Programme (IGBP) Regional Committee for the Antarctic.

The Group of Specialists on Environmental Affairs and Conservation (GOSEAC) met in Basel, Switzerland, during September 1998. GOSEAC continues to provide advice to SCAR that is increasingly relevant to the Protocol on Environmental Protection to the Antarctic Treaty. A revised management plan for Svarthamaren (SSSI no 23) has been approved by GOSEAC and will be tabled at the meeting of the Committee on Environmental Protection this week.

A new Group of Specialists on Antarctic Neotectonics (ANTEC) has been

established to coordinate investigations of the unique geological and geophysical aspects of the Antarctic continent, using particularly the new seismic and geodetic techniques that are now available. It held its first informal meeting in conjunction with a meeting of the European Union for Geology.

A SCAR-sponsored workshop will be held in September 1999 to continue the effort to develop plans for scientific investigations of Antarctic subglacial lakes in general but with special attention being paid to Vostok Lake. Interest in Vostok Lake extends beyond the Antarctic community with scientists from the US National Aeronautical and Space Administration (NASA) proposing to use the opportunity of Vostok Lake as a fore-runner to the planned mission to Europa, the frozen moon of Jupiter. This is a unique opportunity for the SCAR and NASA communities to share and develop their relevant expertise for the benefit of two widely separated projects.

The Antarctic Master Directory (AMD), hosted by the International Centre for Antarctic Information and Research (ICAIR) in Christchurch, New Zealand, is about to undergo major changes to improve its operation and accessibility. The SCAR-COMNAP Joint Committee on Antarctic Data Management (UCADM) will continue to oversee these developments. However, JCADM has noted that several Antarctic countries have yet to designate their National Antarctic Data Centres.

During the past year, cooperative efforts with the Scientific Committee on Oceanic Research (SCOR) and its programme on Joint Global ocean Flux Study in the Southern ocean (SO-JCOFS) have been established and joint programme and symposium sponsorship are in progress. SCAR looks forward to renewed cooperation and scientific effort in the Southern Ocean.

SCAR has established a new site on the World Wide Web and we would encourage everyone interested in Antarctic science to visit the site at the following address: [http:// www.scar.org](http://www.scar.org)

Finally I would note that SCAR has initiated a self-study as a result of discussions held at XXV SCAR. The study group will be chaired by Mr. Phil Smith, formerly Chief Executive officer of the United States National Academy of Sciences. This group will meet in mid-August 1999 to continue the begun by e-mail. At least three members of the nine-member group are at this meeting and we would welcome comments from all of those interested in making contributions to this study.

These are some of the highlights of SCAR's diverse activities. In these and other ways SCAR wishes to continue to provide scientific advice to the Antarctic Treaty System.

1. INTRODUCTION

Since XXII ATCM in Tromso, Norway, May-June 1998, the XXV SCAR Meeting was held in Concepcion, Chile, during July 1998 in parallel with the tenth 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, XXVI SCAR, will be held in Tokyo, Japan, 20-31 July 2000. The SCAR Executive will also meet in Goa, India, during September 1999 in conjunction with the COMNAP XI meeting.

At XXV SCAR the application of Canada to transfer from Associate to Full Membership of SCAR was discussed and the delegates agreed to admit Canada as a Full Member of SCAR. Membership of SCAR now stands at 26 Full Members and 6 Associate Members (see Appendix 1). Elections were held for the offices of President and two Vice-Presidents as Professor A C Rocha-Campos completed his 4-year term of office as President and Professors O Orheim and P C Quilty completed their 4-year terms of office as Vice-President. Dr. R H Rutherford was elected President, and Dr. J Valencia and Professor A D M Walker were elected Vice-Presidents. Dr. Rutherford was already a Vice-President and Dr. R Schlich was elected as a Vice-President for 2 years to complete Dr. Rutherford's unexpired term. The membership of the Executive Committee is given at Appendix 2. New Chief officers of the Working Groups on Biology, Geology, and Physics and Chemistry of the Atmosphere were elected during XXV SCAR and a new Chief officer of the Working Group on Glaciology was elected at a later meeting of the group. SCAR Delegates approved a proposal to establish a new Group of Specialists on Antarctic Neotectonics (ANTEC) and a new Chief officer of the Group of Specialists on Seals was appointed. The Subcommittee on Evolutionary Biology of Antarctic organisms elected a new Chairman at its meeting during May 1999. The list of Chief officers is given in Appendix 3.

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 during the XXV SCAR meeting. 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. This will enable those national programmes taking part in SCAR programmes to structure their logistic facilities to provide more effective support for scientific research activities in the Antarctic. The first morning of the SCAR Delegates meeting was devoted to a discussion on this topic.

3. ENVIRONMENTAL AFFAIRS AND CONSERVATION

The Group of Specialists on Environmental Affairs and Conservation held its tenth meeting (GOSEAC X) in Basel, Switzerland, during September 1998, and will hold its eleventh meeting (GOSEAC XI) in Montevideo, Uruguay, during July 1999. Many topics were discussed, including a new management plan for the Svarthamaren, SSSI 23, in Dronning Maud Land. This plan has been approved by GOSEAC and is due to be tabled at the CEP II meeting.

Other topics included: commercial exploitation of biological resources; environmental monitoring; environmental impact of visitors; the state of the Antarctic environment; and the introduction of diseases to Antarctic wildlife. A paper entitled "The Monitoring of Environmental Impacts of Scientific Activities and operations in Antarctica" will be submitted jointly to the CEP II meeting by COMNAP and SCAR (XXIII ATCM WP 4). A paper entitled "Reporting on the State of the Antarctic Environment: The SCAR View" will be submitted to the CEP II meeting by SCAR (XXIII ATCM WP 6).

4. ANTARCTIC DATA

The International Centre for Antarctic Information and Research (ICAIR) in Christchurch, New Zealand that hosts the Antarctic Master Directory (AMD) has recently relocated its premises to the University of Canterbury. There have been several staff changes and the operation of the AMD is being reviewed to improve and facilitate user access. The SCAR-COMNAP Joint Committee on Antarctic Data Management (JCADM) is supporting Antarctic data management and the development of the AMD. A separate report on "Antarctic Data Management" has been prepared by JCADM and has been submitted to this meeting jointly by SCAR and COMNAP (XXIII ATCM IP 8).

5. THE ANTARCTIC AND GLOBAL CHANGE

The Group of Specialists on Global Change and the Antarctic (GLOCHANT) held its seventh annual meeting (GLOCHANT VII) in Durham New Hampshire, United States, during April 1999. 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. There are now four individual programmes forming the core of the SCAR Global Change Programme:

- Antarctic Ice Margin Evolution (ANTIME)
- Antarctic Sea-Ice Processes and Climate (ASPECT)

- International Trans-Antarctic Scientific Expeditions (ITASE)
- Palaeoenvironments from Ice Cores (PICE)

Other programmes have been transferred to their parent Working Groups but they will continue to contribute data to the Global Change Programme as appropriate. The Biological Investigations of Terrestrial Antarctic Systems (BIOTAS) programme has been terminated and a new programme is being developed.

A separate Information Paper on Global Change Research in the Antarctic will be submitted by SCAR to this meeting.

These changes may involve some changes to the membership of the Group of Specialists but the Group of Specialists will continue to form the START Regional Committee for the Antarctic.

The symposium on “Polar Aspects of Global Change”, held in Tromsø, Norway, 24-28 August 1998, was jointly sponsored by SCAR and the International Arctic Science Committee (IASC), together with other co-sponsors. This was the first formal international collaboration between SCAR and IASC. The symposium was successful in presenting the latest research findings on the role of the high latitudes in climate change, and allowed researchers from SCAR and IASC to exchange information from both Polar Regions. It provided a current assessment of the role of the Polar Regions in global change and brought together researchers engaged in all aspects of the physical biological and social sciences. Papers discussing field measurements, remote sensing, numerical modeling and data and information processing and analysis in both Polar Regions were presented in nine major subject areas. There were 240 participants, including a few dozen attending the many fringe meetings attached to the symposium, such as the Arctic Monitoring and Assessment Programme (AMAP). Of about 50 oral and 67 poster presentations, approximately 40 papers to date have been submitted to *Polar Research*, the house journal of the Norwegian Polar Institute for publication during 1999.

6. ATMOSPHERIC AND SOLAR-TERRESTRIAL SCIENCES

The First Regional observing Study of the Troposphere (FROST) project has been completed. The analysis of Antarctic weather forecasts and monitoring of the Global Telecommunications System of the World Meteorological Organization (WMO) have allowed improvements to be made to weather forecasting and data communications.

A new development in the measurement of ozone concentrations above Antarctica has been to show a winter maximum by using a visible spectrometer to observe sunlight scattered from the overhead sky at twilight. This new observation is consistent

with the well-known descent of the Antarctic ozone layer in winter, causing an increase in total ozone. Ozone depletion near the edge of Antarctica may well increase in the next century, because increased greenhouse gases act to cool the ozone layer, thereby increasing the cloudiness, which causes the activation of chlorine from CFCs. This ozone-poor air around the edge of Antarctica frequently passes over populated areas of southern South America later in the spring, when the mid-day sun is high enough to cause UV damage.

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. The Working Group is now planning a distributed system for the database on the World Wide Web as accessibility of data via the Web increases.

7. EARTH SCIENCES AND GLACIOLOGY

The Antarctic Digital Magnetic Anomaly Map (ADMMap) is a joint SCAR and IACA initiative to compile and integrate into a digital database all existing near-surface and satellite magnetic anomaly data collected in Antarctica and surrounding oceans south of 60°S. The ADMMap group is currently working on the integration of all available survey data into regional compilations for the Weddell Sea, the East Antarctic, and the Ross Sea sectors. The production and analysis of these regional compilations will be subject of the third ADMMap workshop scheduled for May 1999.

The new Group of Specialists on Antarctic Neotectonics (ANTEC) was proposed jointly by the three Working Groups on Solid-Earth Geophysics, Geology, and Geodesy and Geographic Information. The Group of Specialists will provide international coordination of the new research opportunities arising from recent advances in geodetic and seismic instrumentation, such as CPS and broad-band seismometers to investigate the intra-plate rifting and aseismicity that are unique aspects of the Antarctic continent.

The Steering Committee for the Antarctic off-shore Stratigraphy (ANTOSTRAT) project is continuing to provide advice on site selection to the Ocean Drilling Program (ODP) for a future drilling leg in the Prydz Bay region during January 2000 and subsequent legs proposed for the offshore Wilkes Land and Ross Sea areas. The Steering Committee is also continuing to maintain the Seismic Data Library System (SDLS).

The Working Group on Geodesy and Geographic Information has now published the Composite Gazetteer of Antarctica (CCA). It has taken six years to produce, and contains 21,552 names representing 16,563 geographic features, sourced from 20

national Antarctic gazetteers and one international agency. The gazetteer will be updated and further developed by SCAR, with the addition of new names and sources, and descriptions for each name. SCAR gratefully acknowledges the major contribution of Italy's Programma Nazionale di Ricerche in Antartide in the production of the first edition of the Gazetteer. An Information Paper with an attached flyer will be tabled at this meeting. The CGA is also available electronically on the Internet at:

http://www.pnra.it/SCAR_CAZE

SCAR continues to maintain its interest in the research developments at Vostok Lake. A SCAR representative attended the National Science Foundation sponsored workshop in Washington DC during November 1998. The workshop was far more focused on establishing if there were any important scientific questions to pose rather than simply assuming its scientific value and considering how to enter and sample the lake. It was agreed that if possible research should not be limited to Vostok Lake but should also include at least one other lake, using the same high level of environmental contamination precautions for both systems. The possibility of a rift valley setting with associated ancient rift sediments and possible hydrothermal activity with its potential for supporting life make for very exciting research opportunities. However, these possibilities are still very far from proven.

SCAR, with other co-sponsors, will sponsor a workshop to begin developing plans for the scientific investigation of subglacial lakes beneath the Antarctic ice sheet. The workshop will be held in Cambridge, United Kingdom, 2-26 September 1999.

8. LIFE SCIENCES

The Bird Biology Subcommittee continues to compile data on the breeding distributions and abundances of Antarctic and subantarctic seabird populations. In response to a request from CCAMLR, the Subcommittee is convening a workshop in Montana, United States, during May 1999 to assess critically the available population data of Southern Ocean seabirds. It has also commenced a joint study with Bird Life International to determine and describe Important Bird Areas (IBAs) of the Antarctic continent.

The Subcommittee on Evolutionary Biology of Antarctic organisms held a workshop during May 1999 to develop a science plan for investigating aspects of evolution in various Antarctic animal and plant groups.

The Antarctic Pack Ice Seals (APIS) programme has undertaken field seasons in 1997-98, 1998-99 and is planning a third season in 1999-2000. In addition to coordinating the census of pack ice seals, data on ice characteristics and other

biological components of the ecosystem are being collected. A workshop on data management for the programme is planned for 1999.

The Working Group on Human Biology and Medicine has dual roles of research and medical practice. Although there are no specific Antarctic health disorders, the Working Group has an operational role in liaising with polar medical groups to improve Antarctic health care services. These includes Arctic medical practitioners, the International Union for Circumpolar Health (IUCH), and the International Arctic Science Committee (IASC). Current research includes investigating hormonal adaptation to the cold and light, psychology and behavioural adaptation, microbiology, changes in the immune response, nutrition, telemedicine, epidemiology and photobiology (effects of UV radiation on humans in Antarctica).

Appendix 1

MEMBERSHIP OF SCAR

<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
Canada	(5 September 1994)	27 July 1999
<i>Associate Members</i>		
Peru	14 April 1987	
Switzerland	16 June 1987	
Estonia	15 June 1992	
Pakistan	15 June 1992	
Ukraine	5 September 1994	
Bulgaria	5 March 1995	

ICSU Union Members

ICU	International Geographical Union
IUBS	International Union of Biological Sciences
IUCC	International Union of Geodesy and Geophysics
IUCS	International Union of Geological Sciences
IUPAC	International Union of Pure and Applied Chemistry
IUPS	International Union of Physiological Sciences
URSI	Union Radio Scientifique Internationale

Appendix 2

SCAR EXECUTIVE COMMITTEE

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Appendix 3**SCAR CHIEF OFFICERS****WORKING GROUPS****Biology**

Dr. Y Le Maho (Chairman), Centre d'Ecologie et Physiologie Energetiques, Centre National de la Recherche Scientifique, 23 rue Becquerel, 67087 Strasbourg Cedex, France.

Mr. J Cooper, (Chairman of the Bird Biology Sub-Committee), Percy FitzPatrick Institute of African ornithology, University of Cape Town, Rondebosch 7700, South Africa.

Dr. P C Rodhouse (Chairman of the Subcommittee on Evolutionary Biology of Antarctic organisms), British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET, United Kingdom.

Geodesy and Geographic Information

Mr. A L Clarke (Secretary), Department of Industry, Science and Tourism, Analytical and Mapping Division, GPO Box 9839, Canberra, ACT 2601, Australia.

Geology

Dr. R A J Trouw (Secretary), Universidade Federal do Rio de Janeiro, Dept. de Geologie I.GEO, Ilha do Fundao, CEP 21910-900, Rio de Janeiro, Brazil.

Glaciology

Professor Qin Dahe (Chairman), Chinese Academy of Sciences, Bureau for the Harmonious Development of Nature and Society, Beijing 100864, China.

Human Biology and Medicine

Dr. D J Lugg (Chairman), Antarctic Division, Channel Highway, Kingston, Tasmania 7050, Australia.

Physics and Chemistry of the Atmosphere

Dr. J Turner (Chairman), British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET, United Kingdom.

Solid-Earth Geophysics

Dr. D Damaske (Secretary), Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), Stilleweg 2, D-3000 Hannover 51, Germany.

Solar-Terrestrial and Astrophysical Research

Professor A D M Walker (Chairman), Space Physics Research Institute, Department of Physics, University of Natal, Durban, 4041 South Africa.

Joint Working Groups on Geology and Solid-Earth Geophysics

Dr. A K Cooper (Chairman of the ANTOSTRAT Programme), Pacific Branch of Marine Geology, US Geological Survey, MS 99, 345 Middlefield Road, Menlo Park, CA 94025, USA.

GROUPS OF SPECIALISTS**Seals**

Dr. J L Bengtson (Convenor), National Marine Mammal Laboratory, NOAA/NMFS, 7600 Sand Point Way NE, Seattle, WA 98115, USA.

Dr. I L Boyd (Secretary), British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET, United Kingdom.

Antarctic Environmental Affairs and Conservation

Dr. D W H Walton (Convenor), British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET, United Kingdom.

Global Change and the Antarctic

Dr. J H Priddle (Convenor), British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET, United Kingdom.

Dr. I D Goodwin (Programme Coordinator), SCAR Global Change Programme office, Antarctic CRC, CPO Box 252C, Hobart 7001, Tasmania, Australia.

Antarctic Neotectonics

Dr. T J Wilson (Convenor), Department of Geological Sciences, Ohio State University, 275 Mendenhall, 125 South Oval Mall, Columbus OH 43210, United States.

OTHER GROUPS**SCAR-COMNAP Joint Committee on Antarctic Data Management**

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Mr. A L Clarke (SCAR Representative), Department of Industry, Science and Tourism, Analytical and Mapping Division, CPO Box 9839, Canberra, ACT 2601, Australia.

Standing Finance Committee

Dr. R Schlich, Ecole et observatoire des Sciences de la Terre, 5 Rue Rene Descartes, 67084 Strasbourg, France.

Appendix 4

LIST OF ACRONYMS

ADMAP	Antarctic Digital Magnetic Anomaly Map
AGONET	Antarctic Geospace observatory Network
AMAP	Arctic Monitoring and Assessment Programme
AMD	Antarctic Master Directory
ANTEC	Group of Specialists on Antarctic Neotectonics
ANTIME	Antarctic Ice Margin Evolution
ANTOSTRAT	Antarctic off-shore Stratigraphy
APIS	Antarctic Pack Ice Seals
ASPECT	Antarctic Sea-Ice Processes and Climate
ATCM	Antarctic Treaty Consultative Meeting
BIOTAS	Biological Investigations of Terrestrial Antarctic Systems
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CEP	Committee for Environmental Protection
CFC	Chloro-fluoro-carbon
CGA	Composite Gazetteer of Antarctica
COMNAP	Council of Managers of National Antarctic Programmes
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
GPS	Global Positioning System
IAGA	International Association of Geomagnetism and Aeronomy
IASC	International Arctic Science Committee
IBA	Important Bird Area
ICAIR	International Centre for Antarctic Information and Research
ITASE	International Trans-Antarctic Scientific Expeditions
IUCH	International Union for Circumpolar Health
JCADM	Joint Committee on Antarctic Data Management
JGOFS	Joint Global ocean Flux Study
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
SO-JGOFS	Southern ocean - JGOFS
START	System for Analysis, Research and Training
UV	ultra-violet radiation
VLF	Very Low Frequency
WMO	World Meteorological organization

Appendix 5

PAPERS SCHEDULED TO BE PRESENTED TO XXIII ATCM

Working Papers

The Monitoring of Environmental Impacts of
Scientific Activities and operations in Antarctica with COMNAP
Reporting on the State of the Antarctic Environment:
The SCAR View

Information Papers

SCAR Report to XXIII ATCM
Antarctic Data Management with COMNAP
SCAR Global Change Programme
Scientific Research in the Antarctic
SCAR Composite Gazetteer of Antarctica

COMNAP REPORT TO ATCM XXIII

INTRODUCTION

1. This report provides an overview of the activities of the Council of Managers of National Antarctic Programs (COMNAP) during the 12 months ending April 1999.
2. COMNAP was established in 1988 to provide a forum to facilitate the exchange of views and experience between directors and logistics managers of national Antarctic agencies and to improve the effectiveness of our operations in Antarctica. COMNAP has a permanent Standing Committee on Antarctic Logistics and Operations (SCALOP) and various task-oriented working groups.
3. The work of COMNAP is undertaken through:
 - annual meetings of national representatives;
 - biennial symposia on Antarctic logistics and operations;
 - technical workshops on topics of interest to member agencies (e.g. Antarctic Environmental Impact Assessment – Bologna 1991, Over-snow Traverse Technology – Washington DC 1994, Antarctic Air Transport Networks – Washington DC 1995)
 - working groups assigned to particular issues such as contingency planning, Antarctic tourism, environmental monitoring, air operations, etc;
 - close cooperation and joint activities with SCAR.
4. Over the past 12 months the secretariat and working groups of COMNAP have worked on a number of issues where ATCM XXII asked for COMNAP input. Papers have been provided to ATCM XXIII on Assessment of Environmental Emergencies, Environmental Monitoring, Emergency Contingency Planning, Training Requirements and Navigation/Communications Requirements for Antarctic Ships, Characteristics of Antarctic Vessels Used by National Operators, Education and Training, Information Exchange. This has stretched the resources of COMNAP and drawn attention to the need to seek appropriate timeframes and use, where necessary, external resources in developing responses to ATCM requests
5. Besides Antarctica operations, the national Antarctica agencies represented in COMNAP are also variously involved in developing science strategies and conducting research, public awareness and education activities, and interacting with Antarctic tourist interests. The use of networks established by COMNAP has greatly enhanced the exchange of information. An attachment to this paper provides the current

membership of the COMNAP Executive and the committee and working group structure.

CURRENT OPERATIONAL ISSUES/MANAGEMENT CHALLENGES

6. The COMNAP report to the ATCM XXII noted that COMNAP members are increasingly supporting integrated research projects focussed on global issues, and looking to technology developments to increase the efficiency and effectiveness of Antarctic science. These continue to be key issues.

7. Involvement in global research such as ozone depletion, ice sheet changes, paleoenvironmental records, sea level and climate change, sea ice zone dynamics and ecology, ocean circulation and biodiversity. The COMNAP forum continues to facilitate international co-operation in the provision of logistics support for interdisciplinary and international research, consideration of opportunities to improve and collaborate on air access to the Antarctic, and exchange of information on new technology for science and operational support.

8. International programs supported by logistics co-operation include EPICA (European Program for Ice Coring in Antarctica), Vostok ice coring, the Cape Roberts Project, Concordia Project and International Trans-Antarctic Scientific Expedition (ITASE). Establishing logistics support for international projects is a complex process requiring integration of science and logistics approval and planning processes of different countries. A joint SCAR/COMNAP forum during the SCAR and COMNAP meetings in Concepcion in 1998 considered these issues, and further consideration is needed of mechanisms to improve linkages between international science planning and logistics support requirements.

9. Consideration of air linkages into East Antarctica and increased use of air access between South Africa and the Antarctic continent is continuing.

10. The ratification of the Antarctic Environmental Protocol in January 1998 has shifted environmental compliance from responsible management to legal imperative. The Antarctic Environmental Officer's Network (AEON) under the umbrella of COMNAP is addressing environmental monitoring and environmental impact assessment to provide support for individual members activities in these areas. The potential impact of a liability annex to the Environmental Protocol on international co-operation is another area of concern in the environmental area.

11. The Antarctic environment continues to provide operational challenges and risks despite modern technological developments. It is sad to record that a number of

expeditioners died as result of accidents or medical conditions while on service in Antarctica. Three French personnel lost their lives when a helicopter crashed during resupply operations at Dumont d'Urville. One Chilean scientist died and another was injured as a result of a crevasse accident when conducting research in the Peninsula region. A Chilean member of the 1999 wintering party recently died in a vehicle accident. An Indian expeditioner was evacuated with the assistance of several national programs when he had suffered an illness while on a resupply vessel but later died. A German expeditioner at Nuemayer Station and a Russian expeditioner at Progress died as a result of illnesses. Members of the international Antarctic community would undoubtedly wish to extend their sympathy to the family and friends of the deceased.

KEY ACTIVITIES IN 1998/99

COMNAP 1998 Meeting in Concepcion

12. The tenth annual meeting of COMNAP and SCALOP was held in Concepcion, Chile from 20-26 July 1998 in conjunction with the SCAR XXV. Fifty-nine representatives from the Antarctic operating agencies of twenty-five countries attended the meeting. A representative from IAATO and the International Hydrographic Organisation participate in as invited observers during relevant agenda items and working group discussions.

13. The Seventh SCALOP Symposium on Antarctic Logistics and Operations was conducted over a period of one and a half days, however, the number of papers submitted for presentation was significantly lower than in previous years. The relatively poor response was discussed by COMNAP members and the Symposium Working Group was asked to consider the following suggestions:

- opening up the presentations to outside expertise;
- perhaps holding the symposia less frequently, for example, every four years;
- interfacing with other organisations, for example SCAR;
- inviting presentations on collaborative projects;
- combining the symposium with workshops;
- including by-polar topics; and
- asking a few SCAR Chief Officers to present the highlights of their work.

COMNAP affirmed its support for continuation of the symposium series, which provide a valuable means of exchanging information on developments in polar technology and logistics.

14. Two days of the meeting were devoted to working group discussions that included consideration of ATCM XXII requests to COMNAP for information on a range of

topics. A joint SCAR/COMNAP Workshop on Facilitating International Science Projects was held to discuss:

- COMNAP's role in facilitating international science projects;
- procedures used by different national programs to assess and approve proposals;
- future inter-actions between SCAR and COMNAP and procedures for facilitating international science projects.

15. A workshop was held at Concepcion on "The Conceptual Structure of Associated and Dependent Ecosystems". The objective of this workshop was to promote the analysis of and discussion on the juridical and implications of the application of this concept within the Antarctic Treaty System. Members of COMNAP and SCAR presented different points of view during the workshop and a full report, including the texts of oral presentations, will be published by Chile.

Assessment of Environmental Emergencies

16. Following discussions ATCM XXII on the Liability Annex to the Madrid Protocol, the meeting requested COMNAP to undertake an assessment of risks of environmental emergencies arising from operational activities in the Antarctic. Seventeen of COMNAP's twenty-nine member countries responded to survey questionnaire and reported a total of 117 incidents over the last ten years. Six countries reported no incidents whatsoever. A comprehensive paper analysing the results of the survey has been presented as a Working Paper to ATCM XXIII (WP16). Based on the results of the survey it is concluded that:

- there are minimal environmental impacts resulting from ground or air transport incidents;
- the most common incidents with the potential to cause the greatest environmental impacts are fuel spills;
- most fuel spills in Antarctica are likely to be small and confined to a station or base or the adjoining waters and are unlikely to threaten wildlife;
- fuel spills in the marine environment have a low probability of occurrence but pose a greater magnitude of risk to wildlife than terrestrial or ice sheet spills; and
- because fuel spills have greatest potential to cause environmental impacts; spill prevention strategies are the most effective tool to minimise potential environmental impacts, followed by emergency preparedness and response.

Environmental Monitoring

17. At the first meeting of the Committee for Environmental Protection (CEP) held in Tromso during ATCM XXII, the meeting requested COMNAP and SCAR to present a

report to CEP2 on the current status of work on environmental monitoring. COMNAP/SCAR have submitted a joint working paper to CEP II (WP4) which reviews progress on implementing the four recommendations that were contained in WP20 to ATCM XXI dealing with:

- the preparation of a technical handbook of standardised monitoring techniques;
- a review of existing data and key research issues;
- the processing of data for comparative purposes; and
- the coordination of environmental monitoring activities.

18. COMNAP and SCAR recommend that the ATCM (through the CEP):

- endorse the work being carried out by COMNAP and SCAR following the workshops and previous recommendations reported to the ATCM;
- encourage COMNAP and SCAR to focus on ensuring comparability of environmental monitoring data so that evaluation of the data for management purposes may be simplified and thus useful for management decision making; and
- request COMNAP and SCAR provide CEP3/ATCM XXIV with an information paper on then status of their work on environmental monitoring.

Emergency Contingency Planning

19. Resolution 6 (1998) of ATCM XXII requested COMNAP to formulate additional steps in relation to emergency response action and contingency planning for incidents other than oil spills and to review and revise, if necessary, the COMNAP/SCALOP guidelines on oil spill handling and contingency planning. In addition, COMNAP had previously been asked by the ATCM to review the consistency of existing oil spill contingency plans and develop, where feasible, regional contingency plans.

20. COMNAP has submitted a Working Paper on Emergency Contingency Planning to ATCM XXIII (WP3), which recommends that:

- contingency plans be developed by national programs to take into account general incidents and disasters, oil spills, chemical spills, and response to international incidents and disasters;
- the COMNAP guidelines relating to oil spill handling, storage and contingency planning be reviewed during the next 12 months;
- in the light of Resolution 6 (1998), COMNAP need no longer undertake a review of the consistency of existing contingency plans with the 1992 COMNAP Guidelines; and
- the sub-groups established by COMNAP to develop and implement Regional Oil Spill Response Contingency Plans for the north-west Antarctic Peninsula, Prydz Bay and Ross Sea areas, progress this work in accordance with a framework developed by COMNAP.

Training Requirements and Navigation/Communications Requirements for Antarctic Ships

21. Following discussions at ATCM XXII on the development of the Polar Code Shipping, the meeting proposed that COMNAP members should brief their national IMO representatives on the desired requirements for the training of ships' officers and navigation/communication requirements for Antarctic vessels. The meeting requested COMNAP to circulate draft proposals on these topics to members prior to the next meeting of the IMO Sub-committee on Ship Design and Equipment. A copy of the information circulated to national operators has been provided as an information paper to ATCM XXIII.

Characteristics of Antarctic Vessels Used by National Operators

22. Under the discussions on the "Safety of Operations in the Antarctic, ATCM XXII requested that COMNAP compile information on the current standards of shipping used by national Antarctic operators. The results of the survey have been presented to ATCM XXIII as an information paper. The ice class, length, breadth, year of build and displacement of 40 vessels used by national Antarctic programs is given.

Education and Training

23. At ATCM XXII COMNAP advised its intention to hold a Forum on Education in conjunction with its annual meeting in Concepcion during July 1998. The aim of the Forum was to consider the findings of a survey on education and training that was presented to ATCM XXII in Information Paper 5. COMNAP was asked to report to ATCM XXIII on the outcomes of the Forum.

24. The report on the Forum is presented in an information paper submitted to ATCM XXIII. As a result of the Forum COMNAP has established an Antarctic Information Officers Network and an Antarctic Training Network. List servers have been established through the COMNAP Secretariat to facilitate e-mail communication between the members of both networks that will facilitate the coordination and exchange of relevant information.

Information Exchange

25. As a result of a discussions at ATCM XXII on the rationalisation of data exchange within the Antarctic Treaty system it was agreed that this issue would be include on the agenda of ATCM XIII. COMNAP has submitted a working paper to the ATCM (WP17) that describes its process of exchanging operational information and the extent to which this duplicates information circulated through the diplomatic channels. The

paper notes that COMNAP has moved to exchange operational information via e-mail attachments that have greatly improved the efficiency and timeliness of the process. COMNAP is also redeveloping its Home Page to include operational information that is best stored and accessed centrally.

26. COMNAP concludes that there is some duplication of operational information exchanged largely because of the delay in receiving data through the official diplomatic process and recommends that the ATCM: consider the potential of using the facilities of the COMNAP Home Page to store operational information that is best stored centrally thereby eliminating the need to provide this information through the formal Antarctic Treaty exchange process; encourage national agencies to make available up-to-date operational information through the formal Antarctic Treaty information exchange process; and encourage Contracting Parties to use the INTERNET for the formal exchange of information under the Antarctic Treaty

27. SCAR and COMNAP have established a Joint Committee on Antarctic Data management (JCADM) which met in Concepcion in conjunction with the SCAR and COMNAP meetings. The group is continuing to pursue Antarctic Treaty objectives for data management as requested under Resolution XXII-4 (1998). It was agreed to convene a workshop in Chile with Latin American experts to promote the establishment of National Antarctic Data Centres (NADCs) in each country. Participants from Argentina, Brazil, Chile, Peru and Uruguay attended the workshop during 15-16 April 1999.

PLANNED ACTIVITIES FOR 1999/2000

COMNAP 1999 Meeting in Goa

28. The eleventh annual meeting of COMNAP will be held in Goa, India from 20-24 September 1999.

The SCAR Executive plan to meet in conjunction with the COMNAP meeting which facilitate a meeting of the both Executive Committees to discuss items of mutual interest.

Workshop on EIAs and Environmental Monitoring

29. COMNAPs Antarctic Environmental Officers Network (AEON) will be holding a Workshop on Environmental Monitoring and EIAs in conjunction with the Goa meeting. The objectives of the meeting are to:

- provide an opportunity for environmental officers to exchange information on current environmental initiatives within their Antarctic programs;

- evaluate the effectiveness and functioning of AEON into the 21st Century including specific aspects of the operation of AEON such as the WWW homepage, the email network and coordination of work in the future. The interface with COMNAP and the ECG will also be discussed;
- review membership of the Steering Committee and elect new members, if appropriate;
- identify AEON initiatives for 1999/2000 and assign responsibilities for coordination and
- identify potential future initiatives for COMNAP consideration.

Attachment

COMNAP Terms of Reference, Committees, Working Groups and Networks

Terms of Reference of COMNAP

- To review, on a regular basis, operational matters and to facilitate regular exchanges of information;
- to examine, discuss and seek possible solutions to common operational problems;
- to provide a forum for discussion in order to frame in a timely, efficient and harmonious manner:
 - responses to common issues directed to Antarctic Operators, in particular requests from and Recommendations of the ATCM, and
 - appropriate input to SCAR responses to questions involving science and operations/logistics
- to provide, in conjunction with the Scientific Committee on Antarctic Research (SCAR), the appropriate forum for discussions on international collaboration in operations and logistics.

COMNAP Executive (EXCOM)

Ms Gillian Wratt (NZ)	Chairperson
Dr Carlos A Rinaldi (AR)	Member
Mr Dirk van Schalkwyk (SAF)	Member
Mr Patricio Eberhard (CH)	SCALOP Chairman
Mr Jack Sayers (AU)	Executive Secretary

COMNAP Secretariat

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Committees

Executive Committee	EXCOM
Standing Committee on Antarctic Logistics and Operations	SCALOP
SCALOP Planning and Coordination Committee	SPAC
Joint Committee on Antarctic Data Management (with SCAR)	JCDADM
Finance Committee	FICOM

Working Groups

Air Operations WG	AIROPS
Environmental Coordinating Group	ECG
Education and Training WG	EDAT
Electronic Information WG	ELINF
Emergency Response and Contingency Planning WG	EMRAC
WG to Monitor the Liability Annex	MOLIBA
Ship Operations WG	SHIPOPS
Symposium WG	SYMP
Tourism and NGOs WG	TANGO

Networks

Antarctic Managers Electronic Network	AMEN
Antarctic Environmental Managers Network	AEON
Information Officers Network	INFONET
Training Officers Network	TRAINET

Notes:

- *A comprehensive list of COMNAP and SCALOP members and the membership of various committees, working groups and networks may be found on the COMNAP Home Page at URL:
<http://www.comnap.aq>*
- *Please note that a revised version of the COMNAP Home Page is available for preview at URL:
<http://preview.comnap.aq/>*
- *ATCM XXIII delegates are encouraged to view this site before or at the meeting.*

*The revised page will be further developed and made public by late June 1999
at URL:*

<http://www.comnap.aq>

ANNEX I

Report of ATS (5b)

ANNEX I

REPORT OF THE ANTARCTIC AND SOUTHERN OCEAN COALITION (ASOC) Report pursuant Article 111 (2), under Agenda Item 5 (b)

Since XXII ATCM in Tromsø, ASOC and its member groups have continued to work on the protection of the Antarctic environment, and in particular on the implementation of the Madrid Protocol. With this purpose, ASOC has established two Regional offices in Latin America (Buenos Aires) and Europe (Amsterdam) to complement the work of its Southern and Northern Hemisphere Secretariats (in Canberra and Washington DC, respectively). We expect to establish a similar Regional office in Asia shortly.

Protocol implementation

As a contribution to the process of implementing the Protocol, ASOC has developed a Protocol Implementation Checklist to evaluate compliance with the Protocol. The checklist enumerates the items fundamental to the Protocol's implementation and identifies Parties' efforts to comply with and enforce each of the Protocol's provisions. Applying the same checklist to each Party will facilitate a uniform and systematic review.

ASOC hopes that this checklist, which has been submitted as an Information Paper, will be of use to Contracting Parties and the CEP and welcomes comments that would improve the checklist and make it more useful.

ASOC notices that pending ratification by some Parties, Annex V has not yet entered into force. This is plainly a matter of concern, and means that even a part of the Protocol that is completed is not yet in force. ASOC congratulates those Parties that have ratified, and urges those Parties that have not to ratify as a matter of urgency.

EIA process

ASOC participated in the intersessional discussions on EIA guidelines coordinated by Argentina. The final document is an important contribution towards the standardization of the EIA process in the Antarctic Treaty System. ASOC congratulates the Parties that contributed to the production of a very useful document.

ASOC considers that the tasks ahead in this issue include the implementation of the EIA process with uniform standards through the Antarctic Treaty System, and the

development of mechanisms to ensure the continuous improvement of this process, including an improved feedback of the accuracy of assessments.

Liability

ASOC remains concerned about the lack of progress towards the liability regime promised by Article 16 of the Protocol, some eight years after its adoption. The elaboration of a comprehensive liability regime is essential to give full effect to the undertakings of the Protocol. The extremely restricted conception of liability enunciated by some Parties would undercut the spirit and purposes of the Protocol. We are alarmed that Parties who have designated Antarctica as a natural reserve, devoted to peace and science, should contemplate lower liability standards for Antarctica than are found domestically, and emerging elsewhere under international treaties.

Secretariat

Once again, ASOC notes with disappointment the continuing failure to establish a Secretariat that would greatly facilitate implementation of the Protocol and increase the effectiveness of the entire Antarctic Treaty system.

Tourism

ASOC is concerned about the unrestricted growth of tourism in Antarctica. A number of extremely large ships - with a capacity of several hundred to over a thousand passengers - are scheduled to operate in Antarctic Treaty waters in the 1999/2000 austral summer. We note that as some of these proposed activities are organized in a Non-Consultative Party (Canada) which has neither ratified the Protocol, nor enacted domestic legislation requiring prior EIA, these activities will be conducted without complying with the Protocol. ASOC believes that this should concern all Parties, and again urges Canada to ratify the Protocol.

Southern ocean Whaling and Fishing

One ASOC member group - Greenpeace - carried out an expedition to the Southern Ocean from December to March 1999 to inspect, document and publicly expose illegal, unsustainable and pseudo-scientific harvesting activities in the Southern ocean. The expedition included, but was not limited to, waters of the Antarctic Treaty Area. No landings were intended or made. ASOC has tabled as Information Papers a report on this expedition, and the IEE prepared prior to the expedition.

ASOC considers that the serious issue of illegal unreported and unregulated fishing and its consequences for the credibility of the Antarctic Treaty System should be discussed at this meeting. ASOC congratulates New Zealand for sending a ship to patrol the waters of the Northern Ross Sea in the search for illegal fishing vessels.

Climate Change

ASOC is concerned about the growing evidence of human-induced climate changes around the world, particularly with reference to impacts on Antarctica, and the role Antarctica will play in influencing global climatic changes over the next years. ASOC is currently working with IUCN to update its Information Papers circulated to ATCM XIX and XXII.

Conclusion

ASOC looks forwards to working with delegates at this XIII ATCM and to the successful resolution of some of the most important issues mentioned above.

IAATO ANNUAL REPORT

THE INTERNATIONAL ASSOCIATION OF ANTARCTICA TOUR OPERATORS (IAATO) is pleased to present a report of its activities to the XXIII ATCM, Lima, Peru, 24 May - 4 June 1999 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 improved exchange of information among its members, emergency response and contingency planning, and the role of IAATO relative to larger cruise vessels in the Antarctic. Liaison with national Antarctic programs, scientific and environmental organizations, is an important objective of IAATO and its members.

1. Introduction

1.1 Founded by seven private tour operators in 1991, the International Association of Antarctica Tour operators has grown to include 30 member and associate member companies in Argentina, Australia, Belgium, Canada, Chile, Germany, Japan, Netherlands, New Zealand, United Kingdom, and the United States. A current Membership Directory is included with this report (ATTACHMENT A).

1.2 Antarctic tourism has grown along with IAATO. From November 1998 to March 1999, a total of 10,026 persons traveled to the Antarctic on privately organized expeditions, including 9,857 passengers aboard commercially organized ships, 90 persons on chartered yachts and 79 land-based visitors. This continues a trend, representing a slight increase over the total of 9,604 visitors and 9,378 ship-borne visitors in the 1997-98 season. An overview of Antarctic tourism activity is presented as a separate information paper to the XXIII ATCM under agenda item 13.

1.3 IAATO held a general meeting on 15-17 July 1998 in Arlington, Virginia, USA, attended by 19 IAATO members representing 14 Antarctic tour operators. In addition observers and experts participated from the U.S. National Science Foundation, COMNAP, International Hydrographic office (IHO), Australian National Antarctic program (ANARE), British Antarctic Survey (BAS), Government of South Georgia, and the German Federal Environment Agency and other organizations.

1.4 IAATO will hold its 10th general meeting in Hamburg at the offices of IAATO-Member Hapag Lloyd Seetouristik, 27 June - 01 July 1999. This will be the first time

IAATO will hold its annual meeting outside the United States, marking the growing international nature of Antarctic tourism and IAATO. The meeting will include a visit to the Antarctic expedition vessel *M/S Hanseatic*, which will be in port, and a visit to the Alfred Wegener Institute. Interested parties should contact the IAATO Secretariat.

1.5 IAATO representatives and members attended the July 1998 COMNAP meeting, a meeting on visitor management in the Ross Sea, a public meeting with the U.S. Environmental Protection Agency, meetings with the German Department of the Environment, a World Wildlife Fund conference on Arctic tourism and other international meetings.

2. Membership

2.1 At its July 1998 meeting, IAATO reviewed the membership status of Adventure Associates (AUS), Clipper Cruise Line (USA), Pelagic Expeditions (UK) and Special Expeditions (USA), all of whom were elected as full members after one year as provisional members of IAATO, a category reserved for new members.

2.2 No new tour operators applied for membership at the July 1998 annual meeting although incentives for membership by yacht owners, the status of associate members and the issue of companies operating ships carrying more than 400 passengers was discussed at length. According to the 1991 IAATO Bylaws, IAATO member companies agree to carry no more than 400 passengers per voyage. The role of IAATO in relation to larger vessels and the 400-passenger limit will be discussed at the Hamburg general meeting of IAATO members.

2.3 As a matter of principle and in practice, all tour operators - whether or not associated with IAATO - are included in emergency contact information, exchange of information and other activities of the IAATO Secretariat.

3. Field Coordination

3.1 As part of its annual exchange of operational information, IAATO compiles and distributes Vessel Call Data (ATTACHMENT B). Contact information for private camps (ANI), tour vessels and yachts is included in the Antarctic Communications Directory (MINIATOM) compiled and distributed by the COMNAP Secretariat.

3.2 In addition, preliminary cruise itineraries are compiled by the IAATO Secretariat and distributed to Antarctic tour operators and national Antarctic programs via COMNAP.

3.3 Expedition leaders and ship's officers circulate advance itineraries and maintain

regular contact throughout the season to coordinate site visits and exchange general information, a key factor in managing Antarctic tourism and mitigating any potential environmental impact. An example of the annual instructions to ships' captains, radio officers and expedition leaders is included here. (ATTACHMENT C).

3.4 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.

4. Environmental Impact Assessment

4.1 According to information received by the IAATO Secretariat, all IAATO members prepared an Environmental Impact Assessment of planned activities for the 1998-99 season, which were submitted to appropriate national authorities in accordance with national procedures, including documents submitted to authorities in Australia, New Zealand, United Kingdom, and United States.

4.2 IAATO, its members and particularly Toronto-based Marine Expeditions urge non-Consultative parties to the Antarctic Treaty such as Canada to ratify the Environmental Protocol to the Antarctic Treaty.

5. Procedures to Prevent the Introduction of Alien Species

5.1 IAATO participated in the Diseases of Antarctic Wildlife workshop hosted by the Australian Antarctic Division (Hobart, Oct 1998), a report of which was distributed to Antarctic Tour Operators along with the poster produced by the workshop.

5.2 Recognizing that tourists are a highly mobile population in the Antarctic, visiting a number of sites within a short time, IAATO looks forward to continuing advice from SCAR and experts on the best practices to avoid transfer of exotic organisms to Antarctica and translocation of organisms between sites.

5.3 Pending further research, IAATO intends to adopt a standard protocol to report any high mortality incidents and to avoid the introduction and translocation of alien diseases. Comments on the draft procedures (ATTACHMENT D) should be directed to the IAATO Secretariat.

6. Reporting of Tourism and Non-Governmental Activities

6.1 Antarctic tour operators made use of a standard reporting form as noted by ATCM XXII (Final Report, Annex J).

6.2 IAATO strongly supports the continued use of this single form, which reduces the burden of paperwork and facilitates studies of the scope, frequency and intensity of tourist activities. 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.

6.3 Antarctic tourism trends as compiled by the U.S. National Science Foundation since 1989 presented to this meeting as part of the Information paper, "IAATO overview of Tourism Activities." This information is also posted online at www.iaato.org.

7. Implementation of Recommendation XVIII-1

7.1 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.

7.2 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.

7.3 A pre-season checklist is appended to this report, indicating the kind of educational materials prepared and distributed by IAATO each Antarctic season. (ATTACHMENT E).

7.4 Recommendation XVIII-1, "Guidance for Visitors to the Antarctic" has been translated and made available to tour operators in English, Chinese (Mandarin), French, German, Italian, Japanese, Russian and Spanish.

8. Emergency Response Action and Contingency Planning

8.1 Following Resolution 1 (1997), IAATO presented a report on emergency response and contingency planning (ATCM XXII/IP104). At the July 1998 meeting, the Maritime Committee identified several areas that may not be already covered in detail by the provisions of the ISM Code (International Safety Management), including notification of shore authorities, specialized containment equipment that may be required, and specialized training for ship's officers and crew.

8.2 IAATO is seeking advice from the International Maritime organization (IMO) and ship operators to examine existing international regulations as they apply to Antarctic

shipping and to determine where any further work may be needed given the special operating conditions and nature of the Antarctic.

8.3 Several IAATO members participated in the “Antarctic oil Pollution Control Course sponsored by the British Antarctic Survey and oil Spill Response Limited (Southampton, August 20-21, 1998) and the International oil Spill Conference (IOSC, Seattle, March 8-11, 1999).

8.4 IAATO is completing a survey of the types and quantities of fuel carried by Antarctic tour vessels, which preliminary research indicates may be a significant factor in determining appropriate response in the event of a catastrophic marine pollution emergency. Unlike national supply vessels, Antarctic tour vessels do not carry quantities of bulk diesel fuel for shore-based generators and no refueling is carried out in the Antarctic Treaty Area. Most Antarctic tour vessels use light diesel fuels.

8.5 In addition to the survey of fuels, IAATO is completing a survey of tour vessels and specifications and other information that would contribute to a risk assessment of Antarctic tourism activities.

8.6 IAATO is also seeking advice from experts in the field regarding recommended oil spill containment equipment and collecting the results of a survey of the spill kits currently being carried by tour vessels operating in the Antarctic. In addition, IAATO is seeking advice regarding appropriate specialized oil spill response training.

8.7 Following Resolution 1 (1997), IAATO supports emergency drills and exercises, an example of which is a two-day emergency response exercise for cruise vessels operating in Glacier Bay, Alaska (March 22-23, 1999). IAATO members who also operate in Alaska participated in these exercises. Adventure Network International (ANI) which provides Search and Rescue and Emergency Medical Evacuation for IAATO members, participated in an emergency response drill this season with the British Antarctic Survey. IAATO looks forward to joint exercises, both practical and theoretical, involving national and private operators.

8.8 All IAATO member companies have Shipboard oil Pollution Emergency Plans (SOPEP) in place that satisfy regulation 26 of Annex I of MARPOL. A “Special Antarctic Addendum” to the SOPEP was developed by IAATO and distributed to Antarctic tour operators for implementation and comment in 1998. While the addendum has no legal status, it includes notice to contact Antarctic stations in the vicinity of any marine pollution incident along with appropriate national authorities.

9. 1998-99 Scientific and Environmental Research Initiatives

9.1 IAATO member companies continued to provide logistic and scientific support to national Antarctic programs and Antarctic organizations in 1998-99. Four vessels have provided a cost-effective resource for science and IAATO members the opportunity to assist. More than 100 scientists and others from five Antarctic Treaty Parties and their gear were supported, mainly in transport to and from stations and field areas, in the 1998-99 season. Specific requests for logistic or other support should be made to individual members or the IAATO Secretariat. A current IAATO Membership directory is attached to this report. (ATTACHMENT A).

9.2 Support offered this season included major transfer of personnel for Australian Antarctic program as a result of problems with their supply ship, Aurora Australis. Four personnel and gear were transported from Fremantle to Davis Station, and four from Auster Station to Davis Station, 12 scientists were transported from Davis to Hobart, (including two personnel from the United States Antarctic Program who had worked at Zhongshan Station) to Hobart, and 22 scientists, support personnel, and their gear were transported from Casey Station to Hobart.

9.3 IAATO members also transported one German scientist from Argentina to Bellingshausen Station; two personnel to Jubany Station; four to Great Wall Station; seven plus gear to Bellingshausen for station clean-up, and nine from that station afterwards. Provisions were also donated to the Bellingshausen. Two U.S. scientists were transported from Ushuaia to Palmer Station. Logistical and planning assistance were provided to the Argentine Antarctic Program as part of preparations for operating Almirante Brown Station. Support was provided to the Bulgarian Antarctic Program in transporting four personnel and gear to and from Livingston Island. Other tour vessels in various capacities of support transported an additional 30 personnel.

9.4 Members of the Antarctic Site Inventory Project were provided with accommodations, transport and access to visitor sites. Transportation was also provided to members of Project Antarctic Conservation.

9.5 In addition to support for Antarctic science and logistics, IAATO members provided transport for researchers, personnel and material in the sub-Antarctic, including the Falkland Islands, South Georgia, Macquarie island and the New Zealand Sub-Antarctic Islands.

9.6 Antarctic 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.

9.7 According to the annual report of the Antarctic Heritage Trust (31 March 1998), \$17,368 or 13% of the annual income was provided by per person donations by tour operators with itineraries including the historic huts. An additional contribution of \$16,259 was made through the raffle of a donated Antarctic cruise.

Appendices:

- A. IAATO Membership Directory, May-99
- B. IAATO Call Data 1998-99
- C. IAATO Annual Instructions
- D. IAATO Disease Protocol
- E. IAATO Pre-Season Checklist

ATTACHMENT A

IAATO MEMBERSHIP DIRECTORY, May-99

Members

Abercrombie & Kent/
 Explorer Shipping Corporation
 1520 Kensington Road
 Oak Brook IL 60523 USA
 Victoria Underwood
 RES 800 323 7308
 TEL 630 954 2944.
 FAX 630 572 1833
 vunderwood@compuserve.com
 www.abercrombiekent.com

Adventure Associates
 197 Oxford Street Mall
 PO Box 612
 Bondi Junction, Sydney, NSW 2022
 Australia
 Dennis Collaton
 TEL (+612) (02) 9389 7466
 FAX (+612) (02) 9369 1853
 mail@adventureassociates.com
 www.adventureassociates.com

Adventure Network International
 Canon House, 27 London End
 Beaconsfield, Bucks
 HP9 2HN U.K.
 Anne Kershaw
 TEL 44 1494 671808
 FAX 44 1494 671725
 adventurenetwork@compuserve.com
 www.adventure-network.com

Aurora Expeditions
 Level 1, 37 George Street
 Sydney NSW 2000 Australia
 Greg Mortimer
 TEL 61 2 9252 1033

Heritage Expeditions
 PO Box 20 219
 Christchurch, New Zealand
 Rodney Russ
 TEL 64 3 359 7711
 FAX 64 3 359 3311
 hertexp@ibm.net

Lindblad Special Expeditions
 720 Fifth Avenue
 New York, NY 10019 USA
 RES 800 397 3348
 TEL 212 765 7740
 Peter Butz
 peterb@specialexpeditions.com
 www.expeditions.com

Marine Expeditions
 890 Yonge Street, 3rd fl
 Toronto, Ontario
 M4W 3P4 Canada
 Patrick Shaw
 RES 800 263 9147
 TEL 416 964 5751
 FAX 416 964 2366
 pat@marineex.com
 www.marineex.com

Mountain Travel-Sobek
 6420 Fairmount Avenue
 El Cerrito, CA 94530 USA
 Olaf Malver
 RES 800 227 2384
 TEL 510 527 8105
 FAX 510 525 7710
 richard@mtsobek.com
 www.mtsobek.com

FAX 61 2 9252 1373
 auroraex@world.net
 www.auroraexpeditions.com.au

Clipper Cruise Line
 7711 Bonhomme Avenue
 St. Louis, Mo 63105
 Naomi Morse
 RES 800 325 1933
 TEL 314-727-2929
 FAX 314-727-5246
 nmorse@intrav.com
 www.clippercruise.com

Hapag-Lloyd Cruiseship
 Management GmbH
 Ballindamm 2S
 20020 Hamburg Germany
 Barbel Kramer
 TEL 49 40 3001 4600
 FAX 49 40 3001 4601
 baerbel.kraemer@hls-cruises.com
 www.hapag-lloyd.com

Society Expeditions
 2001 Western Avenue, Suite 300
 Seattle, WA 98121 USA
 John Tillotson
 RES 800 548 8669
 TEL 206 728 9400
 FAX 206 728 2301
 Societyexp@aol.com
 www.societyexpeditions.com

Travel Dynamics
 132 East 70 Street
 New York, NY 10021 USA
 Jim Smith
 RES 800 367 6766
 TEL 212 517 7555
 FAX 212 517 0077
 jim@travdyn.com
 101 Columbia, Suite 150

Wildwings
 International House
 Bank Road, Bristol

Pelagic Expeditions
 92 Stachell Lane
 Hamble Hants
 SO314HL UK
 Skip Novak
 TEL/FAX 44 1703 454120
 skipnovak@compuserve.com
 www.pelagic.co.uk

Quark Expeditions
 980 Post Road
 Darien CT 06820USA
 Denise Landau
 RES 800 356 5699
 TEL 203 6S6 0499
 FAX 203 655 6623
 quarkexpeditions@compuserve.com
 www.Quark-expeditions.com

Japan Euro-Asia Service Co.
 9-3 Rokubancho, Chiyoda-ku
 Tokyo 102 JAPAN
 Matsui Sadaaki
 Michi Takahashi
 TEL (81) 3 3221 9121
 FAX (81) 3 3221 9120
 jes@jes-tour.co.jp
 www.jes-tour.co.jp

LaTour Chile
 Fidel oteiza 1933
 Santiago CHILE
 Mike Gallegos
 TEL (56) 2 22S 2883
 FAX (56) 2 22S 2545

LifeLong Learning

Aliso Viejo, CA 92656
 Bill Diebenow
 RES. 800 8S4 4080

BSIS 2LX Avon U.K.
 John Brodie-Good
 TEL 44 117 9848040
 FAX 44 117 9674444
 John.brodiegood@wildwings.co.uk
 www.wildwings.co.uk

Zegrahm Expeditions
 1414 Dexter Avenue, Suite 327
 Seattle, WA 98109 USA
 Werner Zehnder
 RES. 800 628 8747
 TEL 206 285 4000
 FAX 206 285 5037
 werner@zeco.com
 www.zeco.com

Associate Members

Agencia Maritima Internacional
 25 de mayo 555 / 20th Floor
 10002 Buenos Aires
 Argentina
 Gonzalo Chantir
 TEL (54) 1 310 2400
 FAX (54) 1 313 1996
 amisa@interprov.com

Asteria Travel
 Middelburg 2
 b-1170 Brussels Belgium
 Herman Hannon
 Asteria Antarctica
 TEL (32) 2 675 1188
 FAX (32) 2 674 1188

Plancius-Oceanwide
 Rapenburberstraat 1009
 Amsterdam, THE NETHERLANDS
 Tours
 J. de Korte
 TEL (31) 20 4221411
 FAX (31) 20 4222126
 info@ocnwide.com
 www.ocnwide.com

Playguide Tours
 Mandai Building

TEL 714 362 2900
 FAX 714 362 2075
 jwdiebenow@msn.com

Natural Habitat Adventures
 2945 Center Green Court
 Boulder, CO 80301
 Sean Jones
 RES 800 S43 8917
 TEL (303) 449 3711
 FAX (303) 449 3712
 nat@nathab.com
 www.nathab.com

Ocean Adventures
 Two Jays, Kemple End, Burdy
 Brow, Stonyhurst
 Lancashire BB7 9QY U.K.
 TEL 44 1254 826116
 FAX 44 1254 826780
 ocean@birdquest.com.uk

Overseas Adventure Travel
 626 Mt. Auburn Street
 Cambridge, MA 02138
 Robin Price
 RES 800 221 0814
 TEL 617 876 0533
 FAX 617 876 0455

Park East Tours
 1841 Broadway
 New York, NY 10023
 Eric Gordon
 RES. 800 223 6078
 TEL 212 765 4870
 FAX 202 265 8952

Victor Emanuel Nature
 2S2S Wallingwood Drive, Suite 1003
 Austin, TX USA 78746
 800 328 8368
 TEL 512 328 S221
 FAX 512 328 2919

4-4 Kojimachi, Chiyoda-Ku, Tokyo
102 JAPAN
Tensin Kobayashi
USA
TEL (81) 3 3288 0911
FAX (81) 3 3288 3391

Ventbird@aol.com

Radisson Seven Seas Cruise
600 Corporate Drive, No 410
Ft. Lauderdale, FL USA 33334
Paul Goodwin
RES. 800 333 3333
TEL 954 776 6123
FAX 954 776 2283
pgoodwin@radisson.com
www.rssc.com

Spokesperson

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1003 Buenos Aires Argentina
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www.iaato.org

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IAATO Secretary Elect
0025 Dakota Meadows Drive
Carbondale, CO 81623
TEL 970 704 9178
FAX 970 704 9660
iaato@iaato.org

ATTACHMENT B

IATTO CALL DATA 1998-99

Name	Operator	Call Sign	Fax	Voice	Email	Telex
EMER	Adventure Network PUQ	24 hour Emergency Station	(56) 61 226167	(56) 61247735 Emergency: (56) 61220565	Ani@chilesat.net	
Patriot Hills	Adventure Network		874-683-14198	874-683-14397	113251.2240@compuserve.com	
Blue One	Adventure Network		871-683-141511	871-683-141510		
Bremen	Hapag-Lloyd	C6JC3	xxx-1103405 xxx-1103736	xxx-1103404 xxx-1103735	Captain_bremen@bremenms.comail.compuserve.com	1103404 1103735
Caledonian Star	Special Expeditions	C6BE4	xxx-330 818 213	xxx-330 818 210 xxx-330 818 211 xxx-330 818 212		
Clipper Adventurer	Clipper Cruise Line	C6PG6	xxx-330 999 716	xxx-330 999 710 xxx-330 999 711 xxx-330 999 712 xxx-330 999 713 xxx-330 999 714		330999718
Disko	Marine Expeditions	OVQV	xxx-321 969 321	xxx-321 969320 xxx-321 969310		
Explorer	Abercombie & Kent/Explorer Shipping	ELJD8	xxx-(81)124 1224	xxx-(81)124 1223	explorer@super-hub.com	xxx-1241223
Hanseatic	Hapag-Lloyd	C6KA9	xxx-110 3726 xxx-110 3727	xxx-110 3730 xxx-110 3725 0171-6426938 MOBIL	captain_hanseatic@hanseaticms.comail.compuserve.com	1103725 & 1103727
Ioffe	Marine Expeditions	UAUN	xxx-140 0655 (V/F)	xxx-140 0655 (V/F)		
Kapitan Khlebnikov	Quark Expeditions	UGSE	xxx-140-2733	xxx-140-0676		
Marco Polo	Orient Lines	C6J27	xxx-6308 69313 xxx-130 6216	xxx-6306 69310 xxx-6308 69311		130 625
Molchanov	Quark Expeditions	UUQR	xxx-627 315412	xxx-627 315410 xxx-627 315411		473-00256
Mutanovsky	Quark Expeditions	UJFO	xxx-327 314 910			
Pelagic	Pelagic Expeditions	ZJL5390	4378 00434 (F)			
Shokalskiy	Heritage Expeditions	UBNF				427320148 (incoming)
Shuleykin	Marine Expeditions	UBNZ	xxx-321-410	xxx-761-321-399	Ubnz@globeemail.com (Via Globe Wireless)	286-06
Vavilov	Quark Expeditions	UAUO	xxx-140-1507	xxx-140-1507		
World Discoverer	Society Expeditions	ELDU3	xxx-363 650 920	xxx-363 650 910	xxx-463 650 730	

ANI monitors HF radio frequencies (MHz): 15026, 11228, 8992

IAATO HF radio schedule (kHz) (0700, 1900 Ushuaia local time): 44145 (1°), 6224 (2°), 8294 (3°)

ATTACHMENT C

ANNUAL INSTRUCTIONS

September 25, 1998

MEMORANDUM

TO All Antarctic Captains, Expedition Leaders and Radio officers

FM IAATO

RE 1998/99 Season

We developed the following notice at the IAATO annual meeting to help guide the exchange of information among vessels, co-ordination of itineraries and reporting for the season.

Exchange of Itineraries

- IAATO members agree to exchange itineraries and coordinate schedules. This is a key factor in self-regulation, monitoring of activities and also in effective emergency response.
- Consult the IAATO preliminary schedule (and updates circulated by In.Fue.Tur) to determine which vessels will be in your cruising area.
- Circulate your proposed final itinerary via fax, telex or radio (preferred) or e-mail. (Please note that few tour vessels have regular real-time exchange of e-mail).
- Itineraries may also be circulated via In.Fue.Tur but this is a method of last resort. Not all ships call at Ushuaia and the responsibility to circulate information is on individual vessels.
- Be sure to also exchange environmental information and management recommendations for individual landing sites or other notices with your colleagues as the season progresses.

Itinerary Changes

- To avoid conflicts, notify vessels in the region of any changes in planned itinerary as soon as practical.
- Notification can be by fax, telex, VHF or HF (see below).
- To preserve the spirit of discovery, vessels should also make efforts to stay out of sight of each other.

Landing Priority

- In general, priority is given to the first vessel that has made its intentions known.
- In the event of conflict, expedition leaders should coordinate between themselves to determine priority, which is best accomplished through negotiation via HF or VHF.
- Please resolve any conflicts equitably. It is assumed that vessels visiting a site with some regularity will give way to a vessel that is not but any number of factors may come into play.
- Two vessels are not to land at the same place at the same time and, to avoid any potential environmental impacts, efforts should be made to spread out visits over time.

Station Visits

- Tour operators have agreed to provide at least 72 hour-notice of any planned station visit.
- Follow individual procedures determined by national programs/station leaders.
- Provide timely notice of cancellation, generally at least 48 hours in advance.
- Please include any additional station contact information, standard procedures or incidents involving stations in your voyage report to the home office.

Channel 16

- Channel 16 is used for hailing purposes only, NOT general communication.
- After making contact, immediately switch to another channel to continue conversation.
- Expedition Leaders should periodically review radio etiquette with staff. The airwaves during the height of the season in the Peninsula have been crowded, an issue with IAATO members and potentially with research stations. Take care to follow standard international procedures.

IAATO Radio Schedule

- IAATO members have agreed to implement a twice daily radio schedule.
- All ships should report in with their position/destination at 0700 and 1900 daily (Ushuaia local time). Each radio officer should record this information.
- Suggested HF hailing frequencies are: 44146 (1°), 6224 (2°), 8294 (3°), to be finalized by radio officers during the season based on experience.
- Expedition leaders should make use of this schedule whenever VHF communication is impossible for exchange information. This will reduce communication costs.
- Please switch to another frequency for any extended conversation.

EMER (Emergency and Medical Evacuation Response)

- Review the IAATO Emergency Contingency Plan included in your briefing package.
- The reporting scheme indicated above is an integral part of emergency response. Please insure that it is followed and report any difficulties to your home office.

Post-Visit Reporting

- Following Antarctic Treaty recommendations, complete Part 1 and Part 2 of the standard Post-Visit report for every expedition. This should be the ONLY form completed and it should be completed carefully and returned to the office. This information is tabulated and circulated internationally.
- Please note guests of the company, guest lecturers, other “non-revenue passengers” should be reported as passengers for the purposes of this report unless they have a specific role ashore. In general, those responsible for supervising passenger operations ashore who report to the expedition leader are considered staff. Your office will provide additional guidance.
- Please use the standard list of “Antarctic Peninsula Region Landing Sites” for Part 2, in which case you need not complete the Latitude/Longitude. Please correct duplications or inconsistencies. In general, the most specific place name is used.
- Make additions to the list of landing sites as necessary — taking note of the standard procedures included in your briefing packet for assessing new or rarely visited sites.

Have a safe and successful Antarctic season.

ATTACHMENT D**IAATO DISEASE PROTOCOL****Introduction or Detection of Diseases in Antarctic Wildlife, IAATO Perspective****Preamble**

Inherent in the mandate of IAATO member companies is a long term commitment to environmentally sensitive travel to Antarctica. For a number of years IAATO members, being mindful of Environmental Protocol Recommendation XVIII-I, have been using simple precautionary techniques to ensure that foreign material and/or potential pathogens are not introduced into Antarctica by tourists. In the last several years these procedures have been formalized and reviewed by national authorities via Environmental Impact Assessments.

Recognizing that tourists in Antarctica are a highly mobile population and that little is known about the introduction and translocation of alien organisms in the Antarctic, IAATO hopes to play a continuing active role in responding to new information.

Resulting from the Diseases of Antarctic Wildlife workshop hosted by the Australian Antarctic Division (Hobart, Oct 1998), this document is intended to address the concern about the potential translocation of diseases by tourists in Antarctica, and to suggest a cost effective, practical solution. Given the current lack of scientific data on natural disease status and microbial populations of Antarctic wildlife, and of methods to prevent anthropogenic transmission, a sensible precautionary approach is proposed.

Antarctic tour operators and staff can be a resource for disease surveillance, reporting and containment. Vessels operated by IAATO members cover a wide variety of coastal terrain in a short space of time and can provide valuable data to the scientific community on the overall state of wildlife populations.

IAATO members have continued to make use of boot-washing stations before and after each landing along with a visual check of clothing and gear for any exotic organisms. Following the Diseases of Antarctic Wildlife workshop, IAATO researched a simple effective antiseptic which could be used to limit possible translocation of diseases, such as in penguin feces, when passengers moved from one rookery to another for example.

We were surprised to find that experts in the field do not agree whether any further action is required beyond simply washing boots and soiled clothing in clean water. A number of researchers suggested that a weak solution of iodine might be a suitable antiseptic. Bearing in mind the variance in opinion amongst experts in the field, IAATO suggests the following:

1. PREVENTATIVE ACTION

- Prior to their first landing in Antarctica, all passengers receive a comprehensive briefing on Antarctic conservation. An integral part of this briefing is explaining the importance of preventing the possible introduction of foreign materials to Antarctica, and the potential for translocation between Antarctic sites.
- Before each shore visit passengers and staff are asked to check their clothing for seeds and other extraneous material and scrub their boots in a foot bath on the ship's deck. Given that most voyages depart from Ushuaia and many passengers spend time in Tierra del Fuego before embarkation, the opportunity to transport material to the Antarctic is obvious and a thorough cleaning before the first landing is particularly important.
- Following each landing for the duration of the voyage, passengers scrub boots at the water's edge prior to boarding Zodiacs and again aboard the ship at the head of the gangway. The foot bath should contain a diluted iodine solution (ratio: three tablespoons of saturated solution to a ten gallon bucket).
- Disposal of the used iodine solution, which may possibly contain pathogens and is a poison, must be considered. Iodine occurs naturally in the ecosystem and is present in foot bath water in low enough concentrations that it is not considered a threat to the environment. We propose that dirty foot bath water should be disposed into the sea at the place of anchorage at each landing rather than flushed into the ship's tanks. In this way any contaminants acquired at that site will be returned to the waters from which they came, rather than being translocated.
- Zodiacs are kept clean between landings and care is taken to remove stones, kelp etc. from the floor of the Zodiac after each landing.
- Helicopter skids and passenger compartments are cleaned between landings using clean sea water.

2. PROCEDURES UPON THE DISCOVERY OF A HIGH MORTALITY EVENT

Antarctic tour vessels can potentially act as monitors of the health of wildlife populations, traveling along coastal areas throughout the Antarctic summer. We are not proposing that IAATO vessels take any formal responsibility of monitoring the health of wildlife populations but rather that IAATO instigates a code of practice for responding to a high mortality event.

While acknowledging that high mortality events are open to interpretation in size and cause, the critical issue is that any perceived, highly unusual event be noted and reported appropriately. In the event of discovering a mortality event, tour operators should:

- Describe and report the event to the nearest scientific station and ships operating in the area. The national authority that the tour organizer provided advance notification should also be notified and an incident report should be prepared for IAATO.
- In such a scenario, the primary responsibility of the operator is to say that he/she has seen something unusual.
- Where the operator has reason to believe that landing passengers could lead to translocation of disease or may otherwise be ill-advised, the landing should be aborted.
- In the event of a landing being made and a mass mortality event not being recognized, then normal boot scrubbing procedures and adherence to approved landing procedures should be enough to minimize the risk of spreading disease.

IAATO Pre-Season Checklist

1998-99 Season

- Memorandum to Antarctic Captains, Expedition Leaders and Radio officers
- Antarctic Peninsula Region Landing Sites [REVISED]
- Antarctic Communications Directory (COMNAP MINI-ATOM)
- IAATO Call Data, 1998-99
- Preliminary Ship Schedules, November 1998 - March 1999
- Copy of Environmental Impact Assessment (varies by organizer)
- CCAMLR Marine Debris in Antarctic Waters (placard)
- Ship observation of Antarctic Icebergs
- Help Stop Toothfish Poaching
- Diseases of Antarctic Wildlife (conference poster)
- Approved 1998-99 Palmer Station Cruise Ship Visits

General

- Post-Visit Report, Part 1 (Expedition Record) and Part 2 (Site Visit Record) [REVISED]
- General Medical Information, Parts I, II and III
- IAATO Emergency and Medical Response Contingency Plan
- Recommendation XVIII-1 (English, Spanish, French, Russian, German, Japanese)
- IAATO Slide Presentation, Safety and Conservation Briefing
- Antarctic Tourism statistics, graphs and charts compiled by NSF

- IAATO Annual report to the ATCM and other relevant papers
- Compendium of Antarctic Peninsula Visitor Sites
- “Behold Antarctica” Video (produced by U.S. National Science Foundation)
- Handbook off the Antarctic Treaty System

REPORT FROM THE INTERNATIONAL HYDROGRAPHIC ORGANISATION

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 XXII in Tromsø in 1998.

Progress of surveying and charting

The national hydrographic offices of IHO Member States have continued to progress the work of conducting surveys and improving charts in the Antarctic area. This work was described in greater detail in the IHO report to ATCM XXII.

The nations which carry out regular surveying and charting activities in Antarctica are Argentina, Australia, Brazil, Chile, China, Ecuador, France, Germany, India, Italy, Japan, New Zealand, Norway, Peru, Republic of Korea, Republic of South Africa, Russian Federation, Spain, Ukraine, United Kingdom, United States and Uruguay.

Links with other Organisations.

COMNAP. The IHO was represented at the 1998 COMNAP conference in Concepcion, Chile, and provided delegates with a briefing in the IHO work in Antarctica. COMNAP members remain supportive of the Antarctic survey programmes of the IHO, recognising that they are a vital component of the Antarctic navigation infrastructure.

IAATO. An IHO representative attended the 1998 IAATO meeting in Washington DC, and provided a briefing to IAATO members concerning the IHO activities. It is felt that IAATO members can make a significant contribution to the improvement of the charts in the Antarctic area, since their ships frequently visit poorly charted areas and are able to report uncharted dangers and recommended routes. By contrast, the survey activities of IHO members are focussed on the areas frequented by government vessels. However this focus is being modified as resource allocations permit, recognising the regular traffic patterns of IAATO members, as indicated in the IAATO traffic statistics.

SCAR. An IHO representative attended the 1998 meeting of the SCAR Working Group on Geodesy and Geographic Information [SCAR WGGI], held in Concepcion, Chile. Bathymetry is one of four fundamental data sets for the Antarctic Spatial Data Infrastructure [ASDI]. A significant amount of the detailed bathymetric data for Antarctica is in the custodianship of IHO members. The IHO is working with the International Standards Organisation to provide standards for the compilation and transfer of bathymetric data, which will be of great benefit in constructing the ASDI.

IMO. The IHO has made a submission to IMO concerning the development of the Polar Navigation Code. It should be noted, however, that the Polar Navigation Code is mainly concerned with the technical features of vessels and the training of personnel. Although the Code refers in its Preamble to the 'relative lack of good charts', it is not strictly concerned with the polar or the Antarctic navigation infrastructure, of which navigation charts are one of the most significant elements.

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 the national hydrographic offices of the IHO Member States.

The Managers of National Antarctic Programmes should be invited to continue their support for this important work.

**REPORT OF THE WORLD CONSERVATION UNION (IUCN)
UNDER ARTICLE III (2) OF THE ANTARCTIC TREATY**

IUCN, The World Conservation Union, is a unique partnership of States, government agencies and non-governmental organisations. Founded in 1948, it now has over 880 members, including 173 state and government agency members, from 133 countries. In addition, over 8000 volunteer scientists, legal experts, 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 Congress 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 extensive and diverse membership, worldwide networks of experts and long experience in Antarctic matters, 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 impact assessment, environmental legislation, and liability for environmental damage.

IUCN has been concerned with Antarctic conservation issues for over 37 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, non governmental 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, the second Protected Areas Workshop, which was held immediately prior to this ATCM, and which followed from the first such workshop before ATCM XXII; Both workshop built on many of the recommendations of the SCAR/IUCN workshop on Protected Areas held in 1992.

IUCN would like to raise the following specific issues:

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.

Environmental Impact Assessment

It is pleasing to note the progress made intersessionally on EIA guidelines, and Argentina has to be commended for its efforts in coordinating this work.

IUCN is looking forward to Programmes meeting the challenge of minimising cumulative impacts through joint regional planning, or in a first step, at least producing joint EIAs for separate programmes and projects. For example, an overall EIA could be produced for activities in the Dry Valleys, covering science, tourism, other activities, US, New Zealand and other nations, covered in one overall assessment and mitigation effort.

Alien species and diseases

IUCN is looking forward to the report from the workshop on Diseases in Antarctic Wildlife, which was held in Hobart, Australia in 1988. 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. It is now believed that globally, invasive introduced species, including those that cause diseases, are responsible for more species extinctions than habitat loss. Fortunately, the Antarctic situation is not as dramatic, but rather than a reason for complacency, this is a reason for increased efforts of prevention of introductions. Intersessional work would be welcome on this matter, and the Global Invasive Species Programme (GISP), coordinated by the Scientific Committee on Problems of the Environment (SCOPE) and which includes IUCN, and IUCN's Invasive Species Specialist Group (ISSG) can usefully contribute to this work.

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 address this, as there would be the ability to specifically manage numbers and access for tourists and other visitors, in those sites most at risk by direct or cumulative impacts.

IUCN's concern is also based in large part on the lack of knowledge on how best to deal with repetitive visits of large groups of people in areas of close contact with wildlife. At the moment, for example, we lack sufficient understanding to decide whether in practice impacts are best minimised by "lumping" or "spreading" visitors over sites. IUCN suggests that the precautionary approach would call for a freeze on Antarctic tourist numbers and sites until we have a better understanding of the contribution to cumulative impact.

Another area of concern, is the planned visit next season, of several large ships to Antarctica: in November 1999, the World Cruise Company of Canada intends to send the 850 passenger *Ocean Explorer I* on an Antarctic cruise. At the end of December 1999, Marine Expeditions Inc. (MEI, also of Canada) plans to sail the *Aegean 1*, with 830 passengers and crew. In 2000, the U.S.-based Holland American Line Westours, Inc., will sail the Dutchflagged *ms Rotterdam* to the Antarctic with 1,600 people on board. At least one of those voyages is presently intending to make landings. The concern is not only based on the risk of impacts from these ships in case of a mishap - there is also the cumulative impact of ever increasing numbers, and the possibility that

this is the beginning of a trend of large vessels, which in future could be expected to wish to carry out landings.

Protected Areas

The workshop preceding this Meeting certainly provided good points for further discussion. Intersessional work by an open ended contact group, with terms of reference agreed on by this the CEP, is desirable.

However, last year's workshop, as well as the more recent one, were limited in their terms of reference to discussing Antarctic Specially Protected Areas, ASPAs. This is of course a very good start. But it is also clear that the discussion needs to widen, and that it needs to include Antarctic Specially Managed Areas ASMAs. Without this it will be very difficult to manage large areas - where access may need to be regulated but not restricted. ASMAs also are potentially relevant and likely one of the best tools in the management of tourism.

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 and the Environmental Protocol.

Unregulated fishing

IUCN notes with alarm the continuing 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 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.

Science in a rapidly changing world

Globally, ownership of scientific data is increasingly commercial, and as a consequence, access to the results of scientific research and to knowledge will be increasingly concentrated in the hands of those able to pay the high price demanded. If this attitude were to find its way into the Antarctic, both Antarctic science and mankind as a whole would suffer. The concept of freedom of access to scientific data is enshrined in the Antarctic treaty. The challenge will be to safeguard it against global trends that run counter to this admirable principle.

Conclusion

IUCN continues to place a high priority on helping the Antarctic Treaty System to maintain and enhance its effectiveness in conserving and protecting the Antarctic region. As always, IUCN puts its resources and expertise at the service of the ATCM towards this end.

Many challenges are waiting to be dealt with at this Meeting. What better place to face challenges and find innovative solutions than our venue, Peru. This country, and its neighbor, Ecuador, have after all managed recently to find a peaceful answer to a political problem that many thought impossible to solve. These nations proved that goodwill and the willingness to embrace innovative thinking can solve the most complex of problems. We are looking forward to see this same spirit applied by all to the challenges facing us at this Meeting.

OVERVIEW OF WMO'S ANTARCTIC ACTIVITIES

The highly successful International Geophysical Year of 1957/58 gave rise to the formulation of the Antarctic Treaty in 1959 and its ratification in 1961. The Treaty was given considerable impetus for the investigation of major scientific problems in Antarctica and encouraged cooperation between nations. The Antarctic Treaty is unique in the field of international relations in that it guarantees freedom of scientific research and exchange of data. The Treaty promotes the exchange of information on the scientific program plans, of scientific observations and results, and of scientific personnel; encourages collaboration and opens all installations to international inspection. It encourages co-operative working relations with those specialized agencies of the United Nations and other international organizations having a scientific or technical interest in Antarctica.

Article II of the present Antarctic Treaty promotes international co-operation in scientific investigation in Antarctica. Under Article III(2) Contracting Parties agree that, to the greatest extent feasible and practicable, every encouragement shall be given to the establishment of co-operative working relations with those Specialized Agencies of the United Nations and other international organizations having a scientific or technical interest in Antarctica. The World Meteorological Organization (WMO) is one of ten organizations invited to present reports on their Antarctic activities to a Plenary Session of Antarctic Treaty Consultative Meetings.

*To maintain the Antarctic Treaty System
and enhance the influence of nations within the System*

National meteorological and sea ice information services

Provision of operational meteorological services and sea ice information to operators of National Antarctic Programs are significant ways in which Members of WMO can honor their commitments under the Antarctic Treaty System. The consequential data bank gathered from all Antarctic weather stations is fundamental to our understanding of climate change in Antarctic which may profound influence on the weather and climate of other regions of the world.

Antarctic meteorological activities are often not entirely controlled by National Meteorological Services but by other national agencies e.g. the Manager of National Antarctic Programmes or a research institute. Meteorological activities may not receive

high priority for resources. At the international level there are other organizations that influence what is achievable in Antarctic Meteorology:

- ATCM – International cooperation and political/legal/environmental aspects.
- SCAR – Scientific research.
- COMNAP – Practical management, communications and services.
- IOC – Co-operation.

The Chairman of the WMO Executive Council Working Group on Antarctic Meteorology presented a report on Antarctic Activities to the 50th session of WMO's Executive Council, while he was in Geneva in June 1998. Advancement of Antarctic Meteorology requires cooperation at two levels:

- NATIONAL – WMO Permanent Representative and Antarctic Agency.
- INTERNATIONAL – Between WMO and other international agencies.

Scientific research

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 Executive Council 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.

Understanding the role of Antarctica in the global climate system

The Antarctic continent and its surrounding Southern Ocean, south of the Antarctic convergence, are probably the least known regions of the world. Antarctic studies are crucial for a global perspective of ozone depletion, atmospheric pollution, climate change and sea level rise. The effects of increases of radiatively active gases may have profound effects on Antarctica and indeed the rest of the world as a consequence.

Since the discovery in 1985 by BAS scientists, depletion of the ozone layer continues to be a matter of considerable international concern. The Antarctic springtime ozone hole is one of the most dramatic manifestations of global change. The 1998 Antarctic ozone hole was broadly similar to those seen in recent years, although a little larger and a little longer lasting. It reached its maximum extent of 25 million square kilometers in October, and follows a sequence of ozone holes for the last six years that have exceeded 20 million square kilometers. There is concern about exposure of the biosphere to increased levels of ultra-violet radiation (UV-B in particular).

The last ten years have seen a growing international political awareness of the fragility of the Antarctic region and the need to preserve its near-pristine environment. This has increased the relevance of research to the development of scientifically informed conservation and resource management. Research projects that answer questions with respect to understanding the role of Antarctica in the global climate system including atmosphere/sea ice/ocean interactions; the direct and indirect effects of aerosols; stratospheric cooling/ ozone depletion/increasing are relevant to the goals of government in of some Antarctic Treaty Consultative Parties.

Substantial meteorological activity is required to support human operations in the Antarctica and the Southern Ocean. The surface weather observing and upper air sounding networks organized by WMO are examples of scientific work of practical and economic importance. The consequential historical data bank gathered is fundamental to our understanding of contemporary processes of global relevance such as ozone depletion, atmospheric pollution, climate change, melting of ice shelves and glaciers, sea level rise, all require Antarctic data to ensure true global perspective.

Climate and Cryosphere (CLIC)

Influence in the Treaty System is enhanced by the quality of science undertaken against the other output groups. But besides individual scientific contributions, it is important that Australian Antarctic research contributes to the major relevant international scientific programs, and that Australian scientists and institutions have a high profile within these programs. Particularly relevant international programs include SCAR-GLOCHANT (ASPeCt and ITASE); WMO-WCRP (GEWEX, CLIVAR and the nascent CLIC project).

A new initiative of the World Climate Research Programme (WCRP)

Following a recommendation from the International Symposium on Antarctica and Global Change: Interactions and Impacts held in Hobart, 13-18 July 1997, it was decided that the World Climate Research Programme (WCRP) would be expanded into a broader programme on Climate and Cryosphere (CLIC). The key aim of CLIC is to

provide a globally integrated approach to the study of the role of the cryosphere in the climate system. This will include enhancing links between existing global and regional cryosphere studies conducted under other organizations such as SCAR. It will also be important to consider mechanisms for interaction with other WCRP projects, in particular GEWEX and CLIVAR. CLIC will examine factors determining the extent and variability of the global cryosphere and its role in global climate variability by addressing two issues:

- Collection of some cryospheric data and assemblage of the appropriate data sets,
- Develop procedures for the collection of solid precipitation measurements in Polar Regions.

Function of WMO with respect to the observing System

It is important for WMO to define the Basic Synoptic Network and then encourage Member nations to cooperate in using it for the purposes of real time weather analysis and prediction. Increasingly, we can no longer distinguish between Numerical Weather Prediction (NWP) and climate prediction models. As well, the raw climate data bank, that is formed from the archiving routine weather data from specific observation sites, is of long term strategic importance as climate reference data. The analyses of NWP systems are increasingly being used to define fields of climate parameters for recent decades. These requirements lead to the specification of the Global Climate observing System (GCOS) collection of long term climate reference stations that are vital if we are to adequately represent Antarctica in global weather and climate analysis and prediction systems.

The Global Climate Observing System (GCOS)

Surface network

The WMO Commissions for Climatology (CCI) and for Basic Systems (CBS) are working jointly with GCOS to establish a global reference network of land surface observation stations which would include observed data from most land areas, including many mid-oceanic islands, at an approximate density of one station per 250 000 square kilometres. This density of stations is considered adequate, in combination with representative sea surface temperature data, to monitor global and large hemispheric temperature variability and would permit some multi-element analysis. It is intended that the network be regarded as a standard for developing and improving denser national networks and that the existence of the network will encourage the preservation and exchange of data into the future.

The objectives of the Global Climate observing System include providing the data required to meet the needs for climate system monitoring, climate change detection, and research toward improved understanding, modelling and prediction of the climate

system (Spence and Townshend, 1995). Currently a large number of weather stations report internationally over synoptic or CLIMAT networks. However, these stations may not be the best stations for climate monitoring: many are recent stations rather than the long-term stations needed for climate studies and their spatial distribution is very uneven. The selection of GCOS Surface Network (GSN) stations, by contrast, needs to be based on the suitability of data for climate analysis resulting in a well-distributed network of the very best long-term climate stations in the world. The procedure to initially select stations for the GSN was based on a specially developed computer algorithm. WMO Members will be informed on this process and will be asked to review and comment on the selection of stations in their country.

The Antarctic component

There are 18 Antarctic surface observing stations included in the 984 stations world-wide that make up the GCOS Surface Network - see Figure 1. The importance of Antarctic operational activities in the provision of meteorological services in support of marine and air navigation as well as for climate research and prediction is emphasized.

Upper air network

The purpose of the GCOS Upper-Air Network is to ensure a relatively homogenous distribution of upper-air stations to meet requirements of GCOS. The key issue is to establish a network of stations with reliable prior records, and which could be relied upon to continue in the future. The criteria used by the Atmospheric observation Panel to select presently-operating World Weather Watch Global observing System (GoS) stations to be included in the Network are, in order of importance:

- (1) the remoteness of the station, which determines its relative contribution to as homogeneous a distribution as possible (given the global land/ocean distribution);
- (2) the performance of a site in producing high quality observations; and
- (3) the existence of a reasonable length of historical record.

The selection process considered performance records of existing GOS stations and station quality information from the Lead Centre quality-monitoring programme of the WMO Commission for Basic Systems (CBS). It has been noted that the present GOS has experienced and continues to experience problems in the number, availability and quality of its upper-air network in some areas of the world. Although a number of geographically isolated, and therefore important, sites have been closed for logistic and economic reasons, the density and performance of stations is generally adequate for the GCOS Initial operational System (IOS) objectives over the major land areas of the Northern Hemisphere. The situation is not as bright for much of the tropics and the

Southern Hemisphere. The current performance of the GOS upper-air network, compared with the performance ten years ago, can be judged by the fact that in 1985 approximately 1500 soundings per day were produced by the GOS while in early 1994 that number was reduced to about 1050 per day. Moreover, it now appears likely that key stations, in particular island sites, will not continue in the future unless action is taken to reverse the decline of the GOS.

The CBS Working Group on observations has reviewed the network. It has been presented to Members of WMO responsible for its operation. Members have provided their comments on the proposed stations, which in nearly all cases have been accepted by the AOP. The Members have consequently agreed to provide data from these stations as a contribution to GCOS. At the second session of the AOP (GCOS-17), a set of guidelines were developed. The concept of "best practice" was proposed whereby the operators of the stations should consider, inter alia, the following elements:

- long-term continuity;
- provision of detailed metadata;
- use of high altitude soundings (to reach 5 hectoPascal, if possible);
- rigorous quality control;
- back-up release in case of failure or major data loss;
- co-location with atmospheric constituent measurements where possible.

The Antarctic component

There are 12 Antarctic upper-air stations included in the 150 stations that make up the GCoS Upper Air Network – see Figure 2.

SCAR Reference Antarctic Data for Environmental Research (READER) Project

The SCAR Working Group on Physics and Chemistry of the Atmosphere (PACA) agreed that PACA should produce the best climatological fields for Antarctica of key variables, such as near-surface temperature, wind velocity, moisture, cloud cover, precipitation and long wave radiation. As well, single station analyses of surface and upper air radiosonde data will also be completed. All these analyses will be used to integrate studies of atmospheric variability into the interpretation of proxy climatic records from the Antarctic ice sheet and sedimentary records from the Southern Ocean. Another possible use of these analyses is inclusion in the State of the Antarctic Environment Report (SAYER) to be commissioned by the Antarctic Treaty

Consultative Meeting, now that the Committee for Environmental Protection (CEP) has been established.

SCAR Physics and Chemistry of the Atmosphere (PACA) Working Group is to produce the best possible climatological fields for Antarctica of key variables, such as near-surface temperature, wind velocity, cloud cover/long wave radiation, etc. Single station analyses of surface and upper atmosphere climatic trends, including cooling in the low stratosphere as detected from radiosonde data, will form part of READER.

Professor Godwin Obasi re-appointed Secretariat General of WMO

The 13th World Meteorological Congress re-appointed Prof. Godwin P. Obasi to serve as Secretary-General of the World Meteorological Organization (WMO). The new mandate of the Secretary-General runs for a period of four years starting 1st January 2000. Representatives of 153 Members have cast their votes in a ballot held to appoint one of three candidates running for the post of Secretary-General of WMO. Prof. Obasi won the first round of voting with 105 votes, a comfortable two third majority.

The Secretary-General spoke about the immense responsibility and forward-looking leadership that is expected of the WMO Secretary-General, especially in meeting the ever-growing challenges in atmospheric sciences, in hydrology, in the environment and in related areas. We must transform such challenges into opportunities for the further enhancement and strengthening of the national Meteorological and Hydrological Services of all nations. our performance in the early years of the next decade in responding effectively to these challenges will therefore be crucial to the future of our organization.

PART IV

Additional Documents
from ATCM XXIII

ANNEX J

Message from XXIII ATCM to the Stations in the Antarctic

ANNEX J

MESSAGE FROM THE XXIII CONSULTATIVE MEETING TO STATIONS IN THE ANTARCTIC

The XXIII ATCM was hosted by the Peruvian government in the city of Lima, between 24 May and 4 June.

The meeting marked the fortieth anniversary of the signing of the Antarctic Treaty and the occasion was duly commemorated through several special events. A formal ceremony was held at the Presidential Palace with the President of Peru in attendance, and a special session of the ATCM was held at which the Parties adopted the Lima Declaration, whereby they noted that, in the forty years since its signing, the Treaty had fostered the formation, development, and consolidation of an Antarctic Treaty System that had made significant progress towards the attainment of its core objectives and institutional development. The Parties also reaffirmed the commitments undertaken through the various instruments that embody the principles of the Treaty and the Treaty System, with an eye to safeguarding the Antarctic environment and the integrity of the surrounding marine ecosystem. They further declared that Antarctica would forever remain devoted to peace and science, and reiterated their resolve to stand together to face the challenges of the future and to continue, in a spirit of cooperation and mutual support, the historic mission that had been laid out forty years earlier in the Antarctic Treaty.

The ATCM extended a warm welcome to the Republic of Venezuela, which had recently adhered to the Treaty and had thus become the forty-fourth member of the Antarctic family.

The delicate and complex issue of liability was the subject of an extensive debate that yielded some key definitions, which would help in future, deliberations to meet the objectives set forth in Article 16 of the Madrid Protocol.

Significant headway was also made with the question of the agenda of the Committee for Environmental Protection (CEP), specifically as concerned compliance with the Protocol and its annexes. Special attention was accorded to the matter of cooperation among Parties with respect to Article 6 of the Protocol, with the recommendation that the Parties explore possibilities for broader and closer cooperation.

The ATCM expressed its support for CCAMLR in its efforts to address the problem of illegal, unreported, and unregulated fisheries in the Treaty area.

The continuing increase in Antarctic tourism and its potential impact on the environment also received special attention.

To all those in Antarctica for the 1999 winter, the delegations participating in the XXIII Consultative Meeting send their warmest greetings and wish you every success in your important scientific endeavors during the coming months.

ANNEX K

“Ministerial Meeting on Ice” Communiqué

ANNEX K

The following communiqué was issued by participants at the Ministerial Meeting hosted by New Zealand in Antarctica from 23-25 January 1999. The meeting was not under the auspices of the Antarctic Treaty System.

COMMUNIQUE

At the invitation of New Zealand, representatives from twenty-three Parties to the Antarctic Treaty met informally in the fortieth anniversary year of the Treaty at Ross Island, Antarctica, from 25-28 January 1999. Representatives were hosted by New Zealand, with assistance from the Italian and United States Antarctic programmes.

Representatives recorded the achievements of the Treaty in keeping the continent free from discord and dedicated to peace and science. They stressed the importance of the entry into force of the Protocol on Environmental Protection to the Treaty (the Madrid Protocol) that will promote the protection of the Antarctic environment for the benefit of present and future generations.

Representatives noted the importance of the scientific research being conducted in Antarctica, in fields such as global climate change, much of which is through successful international co-operation. They stressed the value of this co-operation in fostering the aims of the Antarctic Treaty System.

The Antarctic Treaty System is facing new challenges, including pressures from non-sustainable use of resources. Representatives expressed in particular their grave concern at the threat posed by continuing illegal, unregulated and unreported fishing for toothfish. Representatives pledged themselves to work to meet these new challenges and to maintain the integrity of the Antarctic Treaty System.

Representatives drew attention to the integrated nature of the marine and terrestrial ecosystems of the Antarctic. Recalling the origins of the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) as an integral part of the Antarctic Treaty System, representatives acknowledged the significance of the work of the CCAMLR Commission in the conservation of Antarctic marine living resources. They welcomed the prospect of close co-operation between the Committee for Environmental Protection established under the Madrid Protocol and the CCAMLR Scientific Committee in addressing the threats to the Antarctic ecosystems.

Representatives looked forward to the Twenty-third Consultative Meeting of Parties to be held in Lima, Peru, from 24 May to 4 June 1999, and to the commemoration at that occasion of the fortieth anniversary of the Antarctic Treaty. They looked forward to making progress at the Meeting on key policy matters, including the further development of a Liability Annex, or Annexes, to the Madrid Protocol.

Representatives reaffirmed their commitment to the Antarctic Treaty and to the System as the best means of protecting and preserving the Antarctic in the twenty-first century.

Representatives thanked the Government of New Zealand for its kind invitation to familiarise themselves with the reality and challenges of Antarctica, and for the hospitality and support of the Italian and United States Antarctic programmes.

Scott Base
Antarctica

ANNEX L

**List of Documents
for XXIII ATCM**

XXIII Antarctic Treaty Consultative Meeting
Lima, May 24 – June 4 1999

LIST OF INFORMATION PAPERS

N° Doc.	Presented by	Title	N° Item		Original Language	Trans.	Distrib.
			CEP II	XXIII ATCM			
IP1	New Zealand	Ross Sea Region State of the Environment Report—An Update on progress	7		English		Apr-23-99
IP2	New Zealand	Antarctic stratigraphic drilling East of Cape Roberts in Southwest Ross Sea, Antarctica 1998/99 Activities	5a)		English		Apr-23-99
IP3	New Zealand	Nomination of two New Zealand Arbitrators in accordance with Article 2 of the Schedule on Arbitration to the Protocol of Environmental Protection to the Antarctic Treaty.		6	English		Apr-23-99
IP4	France	Información Relativo a la Denominación del archipiélago "Max Douguet" en Terre-Adelie		20 7a)	French	E, S, R	Apr-23-99
IP5	ASOC	Protocol Implementation Checklist	5	7a)	English	S, F, R	Apr-23-99
IP6	Germany	Annual Report of the Federal Republic of Germany pursuant to Article 17 of the Protocol on Environmental Protection to the Antarctic Treaty (1998)	5	7a)	English		Apr-23-99
IP7	Norway	Annual Report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	5	15	English		Apr-23-99
IP8	SCAR/ COMNAP	Antarctic Data Management		7b)	English		Apr-23-99
IP9	Secretariat	Environmental Impact Assessment Circulation of Information (Res. 6,1995)	5a)	7b)	English		Apr-23-99
IP9 Rev.1	Secretariat	Environmental Impact Assessment Circulation of Information (Res. 6,1995)	5a)	7b)	English		Apr-23-99
IP10	Secretariat	A Summary of Environmental Impact Assessments (EIAs)	5a)	7b)	English		Apr-23-99
IP10 Rev.1	Secretariat	A Summary of Environmental Impact Assessments (EIAs)	5a)	7b)	English		Apr-23-99
IP10 Rev.2	Secretariat	A Summary of Environmental Impact Assessments (EIAs)	5a)	7a)	English		Apr-23-99
IP11	Italy	Annual Report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	5	20	English		Apr-23-99
IP12	New Zealand	Antarctic Historic Resources	5e)	15	English	S, F, R	Apr-23-99

N° Doc.	Presented by	Title	N° Item		Original Language	Trans.	Distrib.
			CEP II	XXIII ATCM			
IP13	China	Chinese Scientific Antarctic Program Near Zhongshan Station 98/99		15	English		Apr-23-99
IP13 Rev. 1	China	Chinese Scientific Antarctic Program Near Zhongshan Station 98/99		16	English		
IP14	Sweden	Environmental Aspects of Energy Use in the Swedish Antarctic Program	5	4	English		Apr-23-99
IP15	Denmark	Secretariat of the Antarctic Treaty			English/Spanish	F, R	Apr-23-99
IP16	Italy	Preliminary Environmental Evaluation of the APE-GAIA Campaign	5a)	7	English		Apr-23-99
IP17	United Kingdom	Implementation of the Protocol on Environmental Protection to the Antarctic Treaty	5	7a)	English		Apr-23-99
IP18	Uruguay	Medidas Adoptadas en Cumplimiento del Protocolo al Tratado Antártico sobre Protección del Medio Ambiente		7a)	Spanish	F, E, R	Apr-23-99
IP19	France	Nouvelles dénominations de trois îles (île Le Mauguén, île Fiorese et île Lattanzi) de l'archipel de Pointe-Géologie, en Terre-Adélie		20	French	E, S, R	Apr-23-99
IP19 Corr.1	France	Nouvelles dénominations de trois îles (île Le Mauguén, île Fiorese et île Lattanzi) de l'archipel de Pointe-Géologie, en Terre-Adélie		20	French	S, E, R	Apr-23-99
IP20	Germany	Opening Address by Ambassador Dr. Jochen Trebesch. Head of the Delegation of the Federal Republic of Germany		1	English	E, F, R	Apr-23-99
IP21	Chile	Patrulla Antártica Naval Conjunta de Chile y Argentina		8	Spanish		Apr-23-99
IP22	Chile	Capacidades Operacionales en la Antártica		16	Spanish		Apr-23-99
IP23	Chile	Seguridad de las Operaciones Aéreas de las Zonas Antárticas próximas al Continente Sudamericano		11	Spanish		Apr-23-99
IP24	Chile	Actividades al Norte de la Península Antártica y Protección del Medio Ambiente		7	Spanish		Apr-23-99
IP25	Australia	Protected Areas: Timetable or the Preparation or Revision of Management Plans		7f)	English		Apr-23-99
IP26	COMNAP	Antarctic Shipping		11	English		Apr-23-99
IP27	COMNAP	The Training Requirements for Ships' Officers and on Navigation/Communication Equipment for Antarctic Vessels		11	English		Apr-23-99
IP28	COMNAP	Education and Training		17	English		Apr-23-99
IP29	Spain	Actuaciones Españolas relacionadas con el cumplimiento del Protocolo al Tratado sobre Protección al Medio Ambiente y de las Resoluciones del Tratado Antártico		7a)	Spanish		Apr-23-99

N° Doc.	Presented by	Title	N° Item		Original Language	Trans.	Distrib.
			CEP II	XXIII ATCM			
IP30	Germany	Basic data and environmental indicators for the development of management plans for landing sites in Antarctica that are particularly heavily frequented by visitors	5c)		English		Apr-23-99
IP31	Germany	Inventory of Locations of Past Scientific Activities of Germany in Antarctica	5c)		English		Apr-23-99
IP32	U.S.A., United Kingdom/ Germany	Antarctic Site Inventory: Update on Results following completion of the 1998-1999 Field Season		13	English		Apr-23-99
IP33	ASOC	Greenpeace 1998/99 Southern Ocean Expedition Initial Environmental Evaluation	5a)	7b)	English		Apr-23-99
IP34	United Kingdom	Antarctic Education Resource Pack for Schools		17	English		Apr-23-99
IP35	United Kingdom	Historic Sites and Monuments	5e)	7f)	English		Apr-23-99
IP36	Uruguay	Evaluación Medioambiental Inicial (EMI) Rehabilitación de las Instalaciones de la Estación Científica Antártica Teniente de Navío Ruperto Elechiribehety (ECARE)		7b)	Spanish		Apr-23-99
IP37	Germany	Environmental Protection through the Law of International Liability		10	English		Apr-23-99
IP38	Germany	Factors Influencing Risk Analysis in Relation to Human Activities in Antarctica Based on German Experience with Logistics During German Antarctic Research		10	English		Apr-23-99
IP39	WTO	Declaración sobre el Turismo Antártico		13	Spanish		May-24 99
IP40	Italy	Pending Issues after the entry into force of the Environmental Protocol		4	English		May-24 99
IP41	IHO	Report from the International Hydrographic Organisation		5b), 16	English, Spanish/French		May-24 99
IP42	Belgium / France	Joint Inspection in Eastern Antarctica conducted in 1999 by Belgium and France under article VII of the Antarctic Treaty		14	English		May-24 99
IP43	COMNAP	COMNAP Report to ATCM XXIII		5b)	English		May-24 99
IP44	Peru	Medidas de Respuesta en casos de emergencia y planes de contingencia formulados para la Estación Científica "Macchu Picchu"		9	Spanish		May-24 99
IP45	Peru	Información sobre fauna y flora antártica de las Expediciones ANTAR IX y X del Perú		15	Spanish		May-24 99
IP46	Peru	Informe Preliminar sobre los aspectos de meteorología – Verano Austral 1998/1999		15	Spanish		May-24 99
IP47	Peru	Radiactividad Ambiental en la Estación Científica Antártica "Macchu Picchu"		15	Spanish		May-24 99

N° Doc.	Presented by	Title	N° Item		Original Language	Trans.	Distrib.
			CEP II	XXIII ATCM			
IP48	Peru	Información del Programa de Ciencias Marinas por el Perú, durante el verano austral 1999		15	Spanish		May-24 99
IP49	Peru	Informe Preliminar de la Investigación sobre Oceanografía física y Dinámica en el estrecho Bransfield – Verano Austral 1998-1999		15	Spanish		May-24 99
IP50	Peru	Informe preliminar del Programa de Biología Humana – Verano Austral 1998/1999		15	Spanish		May-24 99
IP51	Peru	Información del Programa desarrollado por el Perú sobre Protección Ambiental Antártico durante el Verano Austral 1999		15	Spanish		May-24 99
IP52	Peru	X Expedición Científica Peruana a la Antártida-Perú ANTAR X- verano austral 1998 – 1999		16	Spanish		May-24 99
IP53	Peru	XI Expedición Científica Peruana a la Antártida – Perú ANTAR XI		16	Spanish		May-24 99
IP54	Canada	Opening Statement by the Representative of Canada		1	English		May-24 99
IP55	Canada	Relevance of Developments in the Arctic and the Antarctic		12	English		May-24 99
IP56	Peru	La Antártida: Tema Educacional Permanente a partir de 1999		17	Spanish		May-24 99
IP57	Norway	Clean – up of small private field station		16	English		May-24 99
IP58	Norway	Environmental Impact Assessment of Ny – Alesund International Research and Monitoring Station, Svalbard	5a)		English		May-24 99
IP59	Italy	Opening Address of the Head of the Italian Delegation		1	English		May-24 99
IP60	Japan	Waste Management at Syowa Station	5c)	7d)	English		May-24 99
IP61	Japan	Protected Areas: Timetable for the Preparation or Revision of Management Plans	5e)	7f)	English		May-24 99
IP62	Japan	Alternative Energy at Syowa Station		16	English		May-24 99
IP63	Japan	A Travelling Exhibition of Antarctica		17	English		May-24 99
IP64	CCAMLR	Report of the CCAMLR Observer to ATCM XXIII		5b)	English/ Spanish		May-24 99
IP65	Australia	Australia's Approach to Resolution 4 (1998)	9	18	English		May-24 99
IP66	Peru	Discurso de apertura del Embajador José Urrutia Jefe de la Delegación del Perú a la XXIII Reunión Consultiva del Tratado Antártico		1	Spanish		May-24 99
IP67	Chile	Actividades para conmemorar el 40° Aniversario del Tratado Antártico		17	English/ Spanish		May-24 99

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			CEP II	XXIII ATCM			
IP68	Chile	Taller Latinoamericano sobre Centros Nacionales de Datos Antárticos		17	English/ Spanish		May-24 99
IP69	Chile	Discurso de Apertura Delegación de Chile		1	English/ Spanish		May-24 99
IP70	Chile	Designacion de arbitros		7a)	English/ Spanish		May-24 99
IP71	South Africa	Annual Report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	5	7a)	English		May-24 99
IP72	Japan	Opening Address by the Representative of Japan		1	English		May-24 99
IP73	Russia	Deep Borehole 5G1 Current Environmental State and Perspectives (Vostok Station, East Antarctica)		7b)	English		May-24 99
IP74	Russia	On creating a four-language glossary of the main terms and definitions used in the Antarctic Treaty Documentation		7a)	English		May-24 99
IP75	Russia	Russian activity in the field of renewable energy sources. Utilization in Antarctica		7d), 15	English		May-24 99
IP76	Russia	Subprogram "Study and Research in the Antarctica" under the Federal Research Program "World Ocean" as a new long-term concept of Russian Activities in the Antarctic		15	English		May-24 99
IP77	Russia	Activities of the Russian Antarctic Expedition in respect of studies of subglacial Lake Vostok		15	English		May-24 99
IP78	Russia	Procedure for consideration and issuance of permits to authorize activities of the Russian individual persons and legal entities in the Antarctic		7a)	English		May-24 99
IP79	Russia	Initial Environmental Evaluation Compacted Snow Runway at the Lassermaun Hills		7b)	English		May-24 99
IP79 Corr 2.	Russia	Initial Environmental Evaluation Compacted Snow Runway at the Lassermaun Hills		5a)	English		May-24 99
IP80	New Zealand	Towards additional protection for Antarctic Wilderness Areas.	4		English		May-24 99
IP81	United Kingdom	Report to the XXIII ATCM by the Depositary Government for the Conservation of Antarctic Seals		5a)	English		May-25-99
IP82	Brazil	Opening Statement by the Representative of Brazil		1	English		May-25-99
IP83	ASOC	Report of the Antarctic and Southern Ocean Coalition (ASOC)		5b)	English/ Spanish		May-25-99
IP84	Germany	Removal and clean up of Filchner summer base from iceberg A-38B by the Alfred Wegener Institute for Polar and Marine Research		16	English		May-25-99

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			CEP II	XXIII ATCM			
IP85	WMO	Report by WMO in relation to article III (2) of the Antarctic Treaty		5b)	English		May-25-99
IP86	Republic of Korea	International Collaborations on Science on related activities in the Antarctic		8	English		May-25-99
IP87	Republic of Korea	Environment related studies at the King Sejong Station, King George Island during the 1998/99		15	English		May-25-99
IP88	Republic of Korea	Opening Address by the Head of Delegation of the Republic of Korea		1	English		May-25-99
IP89	China	Opening Address by Ambassador Xu Guangjian, Head of the Chinese Delegation at the XXIII Antarctic Treaty Consultative Meeting		1	English		May-25-99
IP90	Argentina	Environmental Review of the Argentine Activities at Marambio Station Update 1999	5a)		English/ Spanish		May-25-99
IP91	ASOC/	IUCN Environmental Liability		10	English		May-25-99
IP92	Finland	Opening Statement by Ambassador Heikki Puurunen Head of the Delegation of Finland		1	English		May-25-99
IP93	Brazil	Annual Report on the Implementation of the Protocol on Environmental Protection to the Antarctic Treaty		5	English		May-25-99
IP94	New Zealand	Antarctic Stratigraphic Drilling East of Cape Roberts in Southwest Ross Sea - A review of the Project against its CEE		5a)	English		May-25-99
IP95	Germany	European Project for ice coring in Dronning Maud Land - Information on forthcoming CEE	5a)		English		May-25-99
IP96	United States	Schedule for Revised Management Plans of Antarctic Protected Areas in accordance with Resolution 1 (1998)		7f)	English		May-25-99
IP97	IAATO	Report of the International Association of Antarctica Tour Operators		5b)	English		May-25-99
IP98	IAATO	Overview of Antarctic Activities		13	English		May-25-99
IP99	Chile	Institutional Aspects, Trends And Developments In The Arctic - Antarctic Relationship		12	English		May-25-99
IP100	India	Indian Antarctic Programme/Research Report to SCAR N°13 1998		15	English		May-26-99
IP101	India	Opening Address OF Dr. A. E. Muthunayagam, Secretary, Department of Ocean Development, Government of India and Head of the Delegation		1	English		May-26-99
IP102	India	Exchange of Information under Antarctic Treaty Article VII (5) Indian Antarctic Activities 98 - 99		15	English		May-26-99
IP103	COMNAP	COMNAP Home Page		15	English		May-26-99

N° Doc.	Presented by	Title	N° Item		Original Language	Trans.	Distrib.
			CEP II	XXIII ATCM			
IP104	United States	Report of the Depositary Government of the Antarctic Treaty and its Protocol (USA) in accordance with Recommendation XIII-2		5a)	English		May-26-99
IP105	WMO	Operational meteorology and sea ice information services		16	English		May-27-99
IP106	WMO	Antarctic stratospheric ozone current status report		15	English		May-27-99
IP107	Chile	Progress Report on the Development of HSM N° 71	5e)	7	English		May-27-99
IP 107 Corr.1	Chile	Progress Report on the Development of HSM N° 71	5e)	7	English		May-28-99
IP108	United States	Opening Address by Mr. Tucker Scully, Head of Delegation of the United States of America		1	English		May-28-99
IP109	Argentina	Informe sobre el tránsito de turismo antártico a través de Ushuaia 1998-99		13	English / Spanish		May-28-99
IP 110	IMO	Progress in the development of the Code on Polar Navigation in relevant IMO bodies		11	English		May-28-99
IP 111	IMO	Outcome of discussion at the 71 st session of the Maritime Safety Committee		11	English		May-28-99
IP 112	Bulgaria	Conference "Bulgaria in Antarctica" and exhibition "The wild beauty of Antarctica"		17	English		May-28-99
IP 113	Uruguay	Discurso del Presidente de la Delegación de la República Oriental del Uruguay a la XXIII Reunión Consultiva del Tratado Antártico		1	Spanish		May-28-99
IP 114	SCAR	SCAR Report to XXIII ATCM		5a)	English		May-28-99
IP 115	SCAR	SCAR Composite Gazetteer of Antarctica		15	English		May-28-99
IP 116	United States	Annual Exchange of Information on Permits Issued Pursuant to Article 6, Annex II of the Protocol	5b)	7c)	English		May-28-99
IP 117	United Kingdom	Revision of Management Plans for Antarctic Protected Areas originally proposed by the United Kingdom	5d)		English		May-28-99
IP 118	Spain	Discurso de Apertura del Jefe de la Delegación de España		1	Spanish		May-28-99
IP 119	Sweden	Introductory Statement by Ambassador Eva Kettis, Head of the Delegation of Sweden		1	English		May-28-99
IP 120	Bulgaria	Implementation by the Republic of Bulgaria the Protocol Environmental Protection to the Antarctic Treaty		7	English		May-28-99
IP 121	ASOC	Turismo Antártico de Gran Escala		13	English/ Spanish		May-28-99
IP 122	South Africa	Opening Statement by Head of the South African Delegation		1	English		May-31-99

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			CEP II	XXIII ATCM			
IP 123	SCAR	Scientific Research in the Antarctic		15	English		May-31-99
IP 124	SCAR	Inter-Relationships of Global Change Programmes		15	English		May-31-99
IP 125	SCAR	Antarctic Sea-Ice Processes and Climate		15	English		May-31-99
IP 126	Russia	Opening address of the Head of Delegation of the Russian Federation		1	English		May-31-99
IP 127	ASOC	Good Practice in Implementing Legislation		7a)	English		May-31-99
IP 128	New Zealand	Gateway Antarctica		18	English		May-31-99
IP 129	Poland	Discurso de Apertura del Embajador Wojciech Tomaszewski, Jefe de la Delegación de Polonia a la XXIII Reunión Consultiva del Tratado Antártico		1	Spanish		May-31-99
IP 130	Australia	Report by the Head of the Delegation of Australia as the Representative of the Depositary Government for the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR)		5a)	English		May-31-99
IP 131	Australia	Opening Address by Ms. Gillian Bird, Head of the Delegation of Australia		1	English		May-31-99
IP 132	IUCN	Report of the World Conservation Union (IUCN)		5b)	English		Jun-1-99
IP 133	Norway	Opening Statement by Ambassador Dagfinn Stenseth, Head of the Delegation of Norway		1	English		Jun-1-99
IP 134	Greece	Opening Address by Dr. Emmanuel Gounaris, Head of the Delegation of Greece		1	English		Jun-1-99
IP 135	Poland	Mensaje del Ministro de Relaciones Exteriores de la República de Polonia a los Delegados a la XXIII Reunión Consultiva de los Países Miembros del Tratado Antártico		1	English		Jun-2-99
IP 136	Argentina	Discurso de Apertura del Jefe de la Delegación Argentina, Dr. E. Horacio Solari		1	Spanish		Jun-2-99
IP 137	UNEP	Statement by the United Nations Environment Programme (UNEP)		5b)	English		Jun-3-99
IP 138	Ecuador	Discurso de Apertura del Embajador Horacio Sevilla Borja, Jefe de la Delegación del Ecuador a la XXIII Reunión Consultiva del Tratado Antártico		1	Spanish		Jun-3-99

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Lima, May 24 – June 4, 1999**

LIST OF WORKING PAPERS

N° Doc.	Presented by	Title	N° Item		Original Language	Trans.	Distrib.
			CEP II	XXIII ATCM			
WP1	New Zealand	January 1999 Ministerial Meeting in Antarctica	4, 5, 6	4, 6	English	S, F, R	Apr-22-99
WP2	New Zealand	Consideration of the Comprehensive Environmental Evaluations by the Committee for Environmental Protection.	4, 5		English	S, F, R	Apr-22-99
WP3	COMNAP	Contingency Planning and Emergency Response	8		English	S, F, R	Apr-22-99
WP4	COMNAP / SCAR	The Monitoring of Environmental Impacts of Scientific Activities and Operations in Antarctica	6		English	S, F, R	Apr-22-99
WP5	Sweden	Report on the Work of the Intersessional Contact Group on SAER	7		English	S, F, R	Apr-22-99
WP6	SCAR	Reporting on the State of the Antarctic Environment: The SCAR view	7		English	S, F, R	Apr-22-99
WP7	Argentina	Guidelines on Environmental Impact Assessment Procedures in Antarctica Lineamientos para los Procedimientos de evaluación de impacto ambiental en la Antártida	5a)		English/ Spanish	F, R	Apr-22-99
WP7 Rev.1	Argentina	Guidelines for Environmental Impact Assessment in Antarctica	5a)		English	S, F, R	May-25-99
WP7 Rev.2	Argentina	Guidelines for Environmental Impact Assessment in Antarctica	5a)		English	S, F, R	May-28-99
WP8	Norway	Management Plan, Site of Special Scientific Interest (SSSI) N°23, SVARTHAMAREN	5e)		English	S, F, R	Apr-22-99
WP8 Rev.1	Norway	Management Plan, Site of Special Scientific Interest (SSSI) N°23, SVARTHAMAREN	5e)		English	S, F, R	
WP9	Norway	Operation of Working Group II		4	English	S, F, R	Apr-22-99
WP10	New Zealand	Joint and Several Liability and International Collaborative Science		10	English	S, F, R	Apr-22-99
WP11	Germany	Co-operation among Parties with Respect to Article 6 of the Protocol		8	English	S, F, R	Apr-22-99
WP12	Germany	Committee for Environmental Protection (CEP): "A Discussion Paper"		5c)	English	S, F, R	Apr-22-99
WP13	Germany	The Question of Liability as Referred to in Article 16 of the Protocol		10	English	S, F, R	Apr-22-99

N° Doc.	Presented by	Title	N° Item		Original Language	Trans.	Distrib.
			CEP II	XXIII ATCM			
WP14	Australia	Antarctic Treaty Introductory Booklet		17	English	S, F, R	Apr-22-99
WP15	Australia	Principles for an Antarctic Liability Regime		10	English	S, F	Apr-22-99
WP16	COMNAP	An Assessment of Environmental Emergencies Arising from Activities in Antarctica	8	9	English	S, F, R	Apr-22-99
WP17	COMNAP	The Rationalisation of Information Exchanged Through the Antarctic Treaty System		18	English	S, F, R	Apr-22-99
WP18	Netherlands	Liability		10	English	S, F, R	Apr-22-99
WP19	Australia	Protected Areas: Revision of Management Plan for Clark Peninsula, Site of Special Scientific Interest 17	5e)	7f)	English	S, F, R	Apr-22-99
WP20	Norway	Proposal for a System of Automatic Protection of Undiscovered and Unrecorded Historical Remains in Antarctica	5e)	7f)	English	S, F, R	Apr-22-99
WP20 Rev.1	Norway	Automatic Protection of Pre-1957 Historic Remains	5e)	7f)	English	S, F, R	May-24-99
WP21	United Kingdom	Liability		10	English	S, F, R	Apr-22-99
WP22	United States	Annual Exchange of Information		18	English	S, F, R	Apr-22-99
WP23	United Kingdom /Germany	Report of a Joint Inspection under Article VII of the Antarctic Treaty		14	English	S, F, R	Apr-22-99
WP24	United Kingdom	Specially Protected Species in Antarctica	5b)	7c)	English	S, F, R	May-24-99
WP25	New Zealand	Operation of the Antarctic Treaty System		4,6,7 y 10	English	S, F, R	May-24-99
WP26	Norway	CEP Home Page	4		English	S, F, R	May-24-99
WP27	Peru	Cooperation among Parties in accordance with Article 6 of the Protocol on Environmental Protection to the Antarctic Treaty		8	Spanish	F, E, R	May-24-99
WP28	Peru	Contact Group on Renewable Energy	5	15	Spanish	F, E, R	May-24-99
WP29	Peru	Working Group on Radiological Monitoring in Antarctica	5	15	Spanish	F, E, R	May-24-99
WP30	Peru	Working Group on Radiological Monitoring in Antarctica	5	15	Spanish	F, E, R	May-24-99
WP31	New Zealand	Proposed Balleny Island Specially Protected Area	5e)	7f)	English	S, F, R	May-24-99
WP32	Australia	Report to ATCM XXIII on outcomes from the Workshop on Diseases of Antarctic Wildlife	5b)	7c)	English	S, F, R	May-24-99
WP33	Australia	Annual Exchange of Information	9	18	English	S, F, R	May-24-99

N° Doc.	Presented by	Title	N° Item		Original Language	Trans.	Distrib.
			CEP II	XXIII ATCM			
WP34	Chile	Draft Annex on Environmental Liability to the Madrid Protocol		10	English	S, F, R	May-24-99
WP35	Argentina, Brazil, Chile, Ecuador, Peru y Uruguay	Basic Definitions and Considerations for the Annex on the Liability Regime		10	English/Spanish	F, R	May-24-99
WP36	New Zealand	Development of guidelines for the Protected Area designation process		5e)	English	S, F, R	May-26-99
WP37	Peru	Report of the Second Workshop of Antarctic Protected Areas	5e)		English	S, F, R	May-26-99
WP38	United Kingdom	CEEs and the CEP	5		English	S, F, R	May-28-99
WP39	Ecuador/Canada	The World Conference on Science and the Antarctic Treaty System		15	English	S, F, R	May-31-99
WP40	United Kingdom	Polar Shipping Code		11	English	S, F, R	Jun-1-99
WP41	New Zealand	Personal Report of the Chairman of the Liability Discussion in Working Group I		10	English	S, F, R	Jun-1-99
WP42	United Kingdom	Environmental Damage		10	English	S, F, R	Jun-2-99

ANNEX M

List of Participants

ANNEX M**LIST OF PARTICIPANTS****CONSULTATIVE PARTIES**

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ANNEX N

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ANNEX O

Preliminary Agenda for ATCM XXIV

ANNEX O**PRELIMINARY AGENDA FOR ATCM XXIV**

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 Operation 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