ANTARCTIC TREATY

Final Report of the Twenty-Seventh Antarctic Treaty Consultative Meeting

Cape Town, South Africa, 24 May – 4 June 2004
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<th>Description</th>
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<tr>
<td>ASOC</td>
<td>Antarctic and Southern Ocean Coalition</td>
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<td>ASMA</td>
<td>Antarctic Specially Managed Areas</td>
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<td>ASPA</td>
<td>Antarctic Specially Protected Areas</td>
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<td>ATS</td>
<td>Antarctic Treaty System</td>
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<td>ATCM</td>
<td>Antarctic Treaty Consultative Meeting</td>
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<td>CCAMLR</td>
<td>Convention for the Conservation of Antarctic Marine Living Resources</td>
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<td>CCAS</td>
<td>Convention for the Conservation of Antarctic Seals</td>
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<td>CEE</td>
<td>Comprehensive Environmental Evaluation</td>
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<td>CEP</td>
<td>Committee for Environmental Protection</td>
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<td>COMNAP</td>
<td>Council of Managers of National Antarctic Programmes</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>IAATO</td>
<td>International Association of Antarctic Tour Operators</td>
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<td>ICG</td>
<td>Intersessional Contact Group</td>
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<td>ICSU</td>
<td>International Council for Science</td>
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<td>IEE</td>
<td>Initial Environmental Evaluation</td>
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<td>IHO</td>
<td>International Hydrographical Organization</td>
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<td>IMO</td>
<td>International Maritime Organization</td>
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<td>IOC</td>
<td>Intergovernmental Oceanographic Commission</td>
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<td>IP</td>
<td>Information Paper</td>
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<td>IUCN</td>
<td>World Conservation Union</td>
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<td>SATCM</td>
<td>Special Antarctic Treaty Consultative Meeting</td>
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<td>SCAR</td>
<td>Scientific Committee on Antarctic Research</td>
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<td>SPA</td>
<td>Specially Protected Areas</td>
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<tr>
<td>SSSI</td>
<td>Site of Special Scientific Interest</td>
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<td>UNEP</td>
<td>United Nations Environmental Programme</td>
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<td>WG</td>
<td>Working Group</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>WMO</td>
<td>World Meteorological Organization</td>
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<td>WP</td>
<td>Working Paper</td>
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<td>WTO</td>
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<td>WWF</td>
<td>World Wildlife Fund</td>
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PART I

FINAL REPORT OF XXVII ATCM
FINAL REPORT OF THE XXVII ANTARCTIC TREATY CONSULTATIVE MEETING

Cape Town, South Africa, 24 May – 4 June 2004

(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 Cape Town from 24 May to 04 June 2004, 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 of the following Contracting Parties to the Antarctic Treaty which are not Consultative Parties: Austria, Canada, the Czech Republic, Denmark, Estonia, Greece, Hungary, Romania, Slovakia, Switzerland and Ukraine. A representative of Malaysia was present by invitation of the XXVII ATCM to observe the Meeting.

(3) In accordance with Rules 2 and 30 of the Rules of Procedure (RP), Observers from the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the Scientific Committee on Antarctic Research (SCAR), and the Council of Managers of National Antarctic Programs (COMNAP) attended the Meeting.

(4) In accordance with Rule 38 of the Rules of Procedure, Experts from the following International Organizations and Non-Governmental Organizations were invited to attend the Meeting: the Antarctic and Southern Ocean Coalition (ASOC), the International Association of Antarctica Tourist Operators (IAATO), the International Hydrographic Organization (IHO) the International Maritime Organization (IMO), the Intergovernmental Oceanographic Commission (IOC), the International Union for the Conservation of Nature (IUCN), the World Tourism Organization (WTO), the World Meteorological Organization (WMO) and the United Nations Environment Program (UNEP). The Chairman of the Arctic Council was also invited to attend the Meeting for the purpose of participating in item 10 of the Agenda.

(5) The information requirements of the Host Country towards the Contracting Parties, Observers and Experts were fulfilled by Secretariat Circular Notes, letters and through a website with an open as well as a password protected area.

**Item 1: Opening of the Meeting**

(6) In accordance with Rules 5 and 6 of the Rules of Procedure, Ms. Theressa Akkers, Head of the South African Delegation, opened the Meeting and proposed Mr. Horst Kleinschmidt as Chair of ATCM. The proposal was accepted. The Chair welcomed Representatives of Governments, International Organizations, NGOs and the media, indicating that South Africa was pleased to host an ATCM for the first time, which coincided with the tenth year of South Africa’s democracy. The Chair mentioned that South Africa was now fully integrated into the community of nations and is fulfilling its role in support of the Antarctic Treaty. The Chair appealed to participants to use time effectively and efficiently.

(7) The ATCM was inaugurated by the South African Minister of Environmental Affairs and Tourism, Mr. Martinus van Schalkwyk. In his address the Minister conveyed South Africa’s determination to actively participate in international ventures.
To this end the South African Government had this year increased direct research funding for science connected to Antarctica by thirty percent. It was the intention of the government to double that funding in the near future.

The Minister offered the spare capacity at the South African base at SANAE IV as an international scientific platform for other Antarctic Treaty Parties with similar research objectives as South Africa. The Minister welcomed the creation of a permanent Secretariat for the Antarctic Treaty System and the forthcoming election of the first Executive Secretary at ATCM. Noting the increase in tourism in Antarctica, the Minister emphasized the need for sustainable solutions in this regard and he expressed the hope that the liability regime for the Antarctic Treaty System would be advanced at the ATCM. The Minister added that the development of a second runway in Dronning Maud Land would result in greater prospects for reliable and regular access. He believed that Cape Town was set to become the next major gateway to the Antarctic. His statement is included in this Report at Annex D.

**Item 2: Election of Officers and Creation of Working Groups**

(8) Ambassador Gregor Widgren, Head of the Delegation of Sweden (Host Country of the next ATCM) was elected Vice-Chair, and Mr. Henry Valentine was appointed Executive Secretary of the Meeting.

(9) Four Working Groups were established: (i) Legal and Institutional WG, (ii) Operational WG, (iii) Liability WG and (iv) a new Working Group on Tourism and Non-Governmental Activities.

(10) The following Chairs of the Working Groups were elected:

i) Legal and Institutional WG : Mr. Jan Huber of the Netherlands.
ii) Operational Matters WG : Ambassador Jose Manuel Ovalle of Chile
iii) Liability WG : Ambassador Don MacKay of New Zealand
iv) Tourism WG : Mr. Michel Trinquier of France

**Item 3: Adoption of the Agenda and Allocation of Items**

(11) The following Agenda was adopted:

(1) Opening of the Meeting
(2) Election of Officers and Creation of Working Groups
(3) Adoption of the Agenda and Allocation of Items
(4) Operation of the Antarctic Treaty System: Reports by Parties, Observers and Experts
(5) Operation of the Antarctic Treaty System
5(a) General matters
5(b) Ukraine’s request to become a Consultative Party
(6) Operation of the Antarctic Treaty System: Antarctic Treaty Secretariat
6(a) Review of the Secretariat’s situation
6(b) Appointment of the Executive Secretary
(7) Report of the Committee for Environmental Protection
(8) The Question of Liability as Referred to in Article 16 of the Protocol
(9) Safety and Operations in Antarctica
(10) Relevance of Developments in the Arctic and in the Antarctic and the International Polar Year 2007/2008
(11) Tourism and Non-Governmental Activities in the Antarctic Treaty Area
(12) Inspections under the Antarctic Treaty/Protocol
(13) Science Issues, particularly Scientific Co-operation and Facilitation
(14) Operational Issues
(15) Education Issues
(16) Exchange of Information
(17) Biological Prospecting in Antarctica
(18) Preparation of the XXVIII Meeting
(19) Other Business
(20) Adoption of the Final Report
(21) Closing of the Meeting

(12) The Meeting adopted the following allocation of agenda items:

i) Plenary: Items 1, 2, 3, 4, 5b, 6b, 18, 19, 20 & 21
ii) Committee on Environmental Protection 7
iii) Liability Working Group 8
iv) Legal and Institutional Working Group 5a, 6a, 11 (in part) & 17
v) Tourism Working Group 11
vi) Operational Working Group 9, 10, 12, 13, 14, 15 & 16

Item 4: Operation of the Antarctic Treaty System: Reports by Parties, Observers and Experts

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

- The United States Government as the Depositary of the Antarctic Treaty;
- The Australian Government as the Depositary of the Convention on the Conservation of the Antarctic Marine Living Resources (CCAMLR);
- The United Kingdom Government as the Depositary of the Convention for the Conservation of Antarctic Seals;
- The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR);
- The Scientific Committee on Antarctic Research (SCAR);
- The Council of Managers of National Antarctic Programs (COMNAP).

These reports are reproduced at Annex E.

(14) Pursuant to Article III-2 of the Antarctic Treaty, the meeting also received reports from:

- The Antarctic and Southern Ocean Coalition (ASOC);
- The World Conservation Union (IUCN);
- The International Association of Antarctic Tour Operators (IAATO);
- The International Hydrographical Organization (IHO);

These reports are reproduced at Annex F.

(15) The US in its capacity as the Depositary of the Antarctic Treaty and its Environmental Protocol, and in accordance with Recommendation XIII-2 confirmed the ratification by Canada of the Environmental Protocol. This action by Canada was warmly welcomed by the meeting. The US noted with gratitude the timely approval previously adopted of Recommendations and Measures. It especially noted the actions of Belgium, China, India, the Netherlands, Peru and Poland in this regard. Attention was drawn to the expiry of terms of some Parties’ Arbitrators, named in accordance with the Schedule to the Environmental Protocol. Contracting Parties were reminded to provide notification in this regard.
(16) With reference to the requirements of paragraph 4 of Decision 2 (2003), the Depository Government notified the Meeting that pledges of approximately US$750 000 had been received from Consultative Parties. Over US$500 000 of assessed voluntary contributions had been received and paid into a temporary interest-bearing account held by CCAMLR in accordance with paragraph 8 of Decision 2 (2003). The Depository Government also reported that it had received a Note from the Argentine Republic dated 19 May 2004 informing it that its constitutional requirement for the provisional application of the Headquarters Agreement had been completed.

(17) Australia in its capacity as the Depository for the Convention on the Conservation of the Antarctic Marine Living Resources (CCAMLR) presented a report XXVII ATCM/IP-65. No new states have become Contracting Parties of the CCAMLR. The Agreement on the Conservation of Albatrosses and Petrels (ACAP) had entered into force on 1 February 2004, after ratification by five countries. The first meeting of States Parties is scheduled for Hobart, Australia. Australia agreed to provide future ATCM’s with reports on the work of ACAP.

(18) The UK introduced XXVII ATCM/IP-01 in respect of the Convention for the Conservation of Antarctic Seals (CCAS). Parties to the Convention were reminded of time lines. Since the last ATCM there have been no further accessions to the Convention.

(19) The Chair of the Scientific Committee on Antarctic Research (SCAR) referred to the substantial reorganization within SCAR and preparations for conferences in Bremen in July and October 2004. Substantial progress had been achieved in respect of scientific programmes in the Antarctic and the Southern Ocean. Attention was drawn to the next International Polar Year (IPY) in 2007, and the overwhelming number of scientific proposals received from scientific communities in 15 countries.

(20) The Executive Secretary of CCAMLR introduced XXVII ATCM/IP-04 on behalf of the Commission. The following points were emphasized:

(21) Fisheries in the CCAMLR Convention Area during 2002/2003 had targeted Patagonian and Antarctic Toothfish, Mackerel Icefish and Krill. Indications are that krill fishing was on the rise with an increase of 30% being anticipated in the 2003/04 season.

(22) The problem of ‘Illegal,’ Unregulated and Unreported (IUU) fishing still undermined CCAMLR’s efforts to ensure that resources were managed in a responsible manner. Vigorous action had been taken by individual CCAMLR Contracting Parties to combat IUU fishing in areas under their national jurisdiction. A database of vessels known to have fished in contravention of CCAMLR regulations and the use of satellite monitoring systems (VMS) had facilitated dissemination of information among CCAMLR Members. The use of the Catch Documentation Scheme (CDS) for Toothfish had been one of the most important steps taken by CCAMLR to address IUU fishing in the Convention Area. A pilot scheme to establish an electronically-based CDS was being developed.

(23) Compliance with the provisions of CCAMLR Conservation Measure 25-02 had improved to such an extent that seabird by-catch levels as a result of long-line fishing in regulated CCAMLR fisheries had reached negligible levels. There was still, however, considerable concern about levels of seabird by-catches attributable to IUU fishing.

(24) CCAMLR was considering ways in which developing States could be encouraged to participate in its work and be invited to the Commission’s meetings.
(25) CCAMLR expressed satisfaction with the growing co-operation between CCAMLR and the ATCM/CEP. The CCAMLR Secretariat continued to provide advice on the development of the Antarctic Treaty Secretariat in Buenos Aires. Voluntary contributions to be used in the setting up of the Treaty Secretariat were held by the CCAMLR Secretariat in a temporary, interest-bearing account.

(26) Finally, CCAMLR had adopted a resolution on ice-strengthening standards for high-latitude fishing vessels. It had also developed terms of reference for an Advisory Subgroup on Protected Areas.

(27) The US thanked the CCAMLR Executive Secretary for the assistance the CCAMLR Secretariat had provided in the process of establishing the Antarctic Treaty Secretariat. The US expressed the hope that the ATCM’s Rules of Procedure could be amended to facilitate the participation of non-Party States.

(28) The UK supported the participation of such states, emphasizing the valuable contribution that they could make. Unfortunately within the current procedures of the ATCM there was no scope formally to invite non-Party States. In consequence the attendance of Malaysia to observe the ATCM had only been achieved through an ad hoc mechanism. A more structured mechanism needed to be found. The ATCM could well benefit from the input of other States to its proceedings. As an example, the UK noted that up to 30% of tourist vessels operating in the Antarctic Treaty Area were flagged with non-Party States.

(29) COMNAP introduced XXVII ATCM/IP-22 and provided a brief summary of its annual meeting in Brest, France. The draft “Practical Guidelines for Developing and Designing Environmental Monitoring Programs” were due to be tabled at COMNAP’s upcoming meeting for discussion and endorsement. The results would be reported to ATCM. The draft guidelines can be viewed on the COMNAP website.

(30) COMNAP officers participated actively in planning discussions with the SCAR Executive Committee; members of the International Council of Science IPY Planning Group, WMO officials, as well as with officials from IASC and FARO. The COMNAP meeting in 2005 would be held in Sofia, Bulgaria. A brochure had been prepared, and COMNAP hoped to distribute it during the meeting.

(31) ASOC introduced XXVII ATCM/IP-66 and called on all Parties, Observers and Experts at the XXVII ATCM to re-dedicate themselves to ensuring full and faithful implementation of the Protocol and to make concerted efforts to ensure the comprehensive protection of the Antarctic environment as the common heritage of all humankind. ASOC supported the adoption of an accreditation scheme as a useful mechanism to regulate commercial tourism. ASOC expressed the wish that ATCM would see the conclusion of the liability issue, election of an Executive Secretary and the functioning of the Secretariat at the earliest possible date.

(32) ASOC encouraged the development of practical mechanisms to give effect to the formal capacity to designate marine areas as ASPA’s or ASMA’s under the Antarctic Protected Areas System. ASOC applauded the decision to place Biological Prospecting on the Agenda of the meeting. ASOC further applauded the ratification of the Agreement on the Conservation of Albatrosses and Petrels (ACAP) by five Parties and encouraged Parties to the Antarctic Treaty that had not yet ratified this Agreement, to do so as soon as possible.

(33) The UK expressed concern about the intemperate tone of elements of the ASOC report and expressed the view that CCAMLR and the ATCM would begin addressing the issue of Marine Protected Areas in a constructive manner.
The IUCN introduced XXVII ATCM/IP-25. During the Fifth IUCN World Parks Congress (Durban, South Africa, 8-17 September 2003), congress participants had highlighted the need to create and expand marine protected area networks beyond national jurisdiction, including Antarctica, by 2012. The Fifth World Parks Congress underlined the value of Marine Protected Areas (MPAs) as powerful tools for biodiversity, conservation and sustainable fisheries. The IUCN urged that the Ross Sea area receive priority attention for protection.

IAATO introduced XXVII ATCM/IP-68 and commented that the 2003-2004 season was the most active since tourism began in Antarctica in the 1960’s. No accidents had been reported.

IAATO continued to focus its activities on several key areas including:

- Providing a forum for its Members to be able to successfully resource information needed to effectively manage Antarctic Tourism,
- Improving vessel scheduling in the Antarctic Peninsula,
- Improving vessel communication methods,
- Updating the Emergency Medical Evacuation Response (EMER) Plan,
- Trial-testing the IAATO Site Specific Guidelines.

IAATO expressed concern about tourists traveling on non-IAATO operated vessels, which may not be aware of the Environmental Protocol and its obligations.

During the 2003-2004 season some 152 scientists, support personnel and gear from various Antarctic Programs had been provided with transport to and from various stations in the Antarctic by IAATO. During the same period some nine observers were appointed to sail on provisional IAATO Member vessels. IAATO had provided some US$242,000 towards Antarctic conservation groups.

The IHO introduced XXVII ATCM/IP-80. The IHO emphasized its commitment to improving safety of life at sea, safety of navigation and the protection of the marine environment in the Antarctic through coordination between national hydrographic services and the provision of reliable hydro-cartographic products. The recommendations included in Resolution 3 (2003), served not only as recognition of the efforts made so far by the IHO but also represented a clear expression of support for the initiatives undertaken by the IHO.

Of the 90 INT charts proposed to cover the Antarctic waters, 29 have been published. Bathymetric data represented one of the most important elements required to produce nautical charts.

IHO in liaison with the Intergovernmental Oceanographic Commission (IOC) Secretariat had prepared a draft proposal to improve the structure of the existing global ocean mapping programs/projects. The number of INT charts produced had increased by 6. At present 32% of the scheme had been completed.

The attention of the ATCM was drawn to the fact that the next IHO meeting was scheduled to take place in Greece. An invitation to attend that meeting was extended to the ATCM. The IHO recommended that ATCM:

- accepts the IHO Report,
- acknowledges the progress made to-date by the Hydrographic Committee on Antarctica (HCA) and encourages continuation of its commitments,
- expresses support for the launching of the IBCSO projects,
- expresses support for the use of continuous multibeam surveys to foster bathymetric data gathering and the production of INT nautical charts.
- urges Member States to augment the hydrographic survey in Antarctic.

(43) In response to the IHO, the UK drew attention to the close co-operation between the ATCM and the IHO, and the considerable progress made by the Hydrographic Committee on Antarctica to achieve greater coverage through Hydrographic charting in the Treaty area.

(44) The Meeting supported the proposal of the UK that the recommendations of the IHO be endorsed.

**Item 5: Operation of the Antarctic Treaty System:**

**Item 5(a): General Matters**

(45) Proposed amendments to the Rules of Procedure of the ATCM related primarily to the start-up of the Antarctic Treaty Secretariat. In this connection, the following Working Papers were introduced:
- XXVII ATCM/WP-08, submitted by Peru, on Amendments to the Rules of Procedure
- XXVII ATCM/WP-37 and XXVII ATCM/IP-27, submitted by Japan, on the Intersessional Consultation Process
- XXVII ATCM/WP-39 (Australia) on Amended Rules of Procedure of the ATCM relating to the establishment of the Secretariat.

(46) Amendments proposed by Peru and Australia with respect to the organisation of meetings, were augmented by amendments relating to intersessional consultations, the responsibilities of the Host Government and the Secretariat. These were presented in XXVII ATCM/WP-39 (Rev1) submitted by Australia, Peru and Sweden.

(47) The question whether specific procedures should be set out in the Rules of Procedure concerning intersessional consultation between the Executive Secretary and the Consultative Parties was also raised. Many Parties considered that some specific procedures were necessary to regulate the process of intersessional consultation, but there was a wide range of views on such issues as:
- whether there should be separate rules on consultation and on intersessional decision-making
- rules on intersessional decision-making, and whether a tacit approval process should be adopted or explicit approval would be required
- should there be a simple approval process or a more involved, multi-stage process, similar to the Rules of Procedure of the CCAMLR Commission?

(48) Several Parties felt that decision-making should be the preserve of the ATCM. In the view of other Parties, any rules on intersessional decisions should be limited to cases where Measure 1 (2003) and other instruments regarding the establishment of the Secretariat required the consent of the ATCM and decisions could not wait until the next ATCM. It was pointed out that such cases would be very rare.

(49) Due to the variety of views on this issue, the Meeting was not able to reach agreement on specific rule changes regarding intersessional consultations. It was decided to limit amendments to the Rules of Procedure to a few necessary items, which were spelled out in XXVII ATCM/WP-48 submitted by Australia and Japan. The meeting accordingly adopted the draft Decision contained in XXVII ATCM/WP-48 (rev 1), with minor modifications (Decision 1 (2004). This is reproduced in Annex B.
(50) Japan expressed the view that a rule on intersessional consultations needed to be added to the Rules of Procedure in order to discharge the Meeting’s responsibility of supervision over the Secretariat called for by Art. 3.3 of Measure 1 (2003). Japan expressed its intention to submit a Working Paper to address this issue at ATCM.

(51) The Meeting considered two categories of Measures that had been superseded by subsequent Measures. This view was supported by many Parties. The first category consisted of Measures which had been specifically terminated by later Measures. It was agreed that the following four Measures in this category required no further action by Treaty Parties:

- Recommendation IV-6 (Santiago, 1966): Designation of SPA 6 (Cape Crozier)
- Recommendation IV-10 (Santiago, 1966): Designation of SPA 10 (Byers Peninsula)
- Recommendation IV-12 (Santiago, 1966): Designation of SPA 12 (Fildes Peninsula)

(52) The criteria used in reaching this decision were that: a) the superseding Measure made specific reference to the termination of the earlier Measure, and b) the superseding Measure had become effective, i.e., it had been approved by the Consultative Parties in accordance with the provisions of Article IX of the Antarctic Treaty.

(53) The second category of Measures consisted of those which had been superseded as a result of their redesignation as ASPAs under Annex V. It was agreed that Recommendation IV-5 (Santiago, 1966): Designation of SPA 5 (Beaufort Island) in this category required no further action on the basis that a) both the original designation and the area’s management plan had been superseded by subsequent Measures and b) the superseding Measures had become effective.

(54) The Meeting decided to defer adoption of the draft Decision concerning this matter to the XXVIII ATCM as the terminology used required further reflection. The Parties would continue the review of Measures so that further consideration could be undertaken at the ATCM as to which other Measures could be considered spent, superseded or otherwise obsolete.

(55) Chile introduced XXVII ATCM/WP-43 on the enquiry procedure of Article 18 of the Environmental Protocol. This matter concerned an unfulfilled mandate set out in the Final Act of the XI SATCM (Madrid, October 1991), which had been on the agenda of the ATCM for some years. Delegations were urged to look into this question thoroughly and to come to ATCM prepared to deal with the issue.

(56) The Meeting took note of XXVII ATCM/IP-51 on the naming of unnamed geographic Antarctic features as well as XXVII ATCM/IP-52, submitted by Russia, on the Russian volume of legal acts and comments on the Antarctic Treaty System.

**Item 5(b): Ukraine’s Request to Become a Consultative Party**

(57) At a Plenary Session held at 09h00 on Thursday, 27 May 2004, the Chair of the XXVII ATCM announced that the Consultative Parties had agreed that Ukraine had met with the requirements of Article IX para. 2 of the Antarctic Treaty and Decision 2 (1997) and was therefore accepted as a Consultative Party.

(58) The statement of the Ukrainian Minister of Education and Science, Prof. Vasil Kremen, is included at Annexe G.
**Item 6: Operation of the Antarctic Treaty System: Antarctic Treaty Secretariat**

**Item 6(a): Review of the Secretariat’s Situation**

(59) The Depositary Government confirmed that Argentina, Belgium, Bulgaria, China, Japan and New Zealand had already approved Measure 1 (2003). Sweden stated that it had approved the Measure in the meantime. Finland and Germany stated that they expected to approve the Measure in the course of 2004, and Australia, the Netherlands and Norway indicated that they expected to complete approval procedures by the time of the XXVIII ATCM.

(60) The work programme and the budget of the Secretariat were discussed on the basis of two documents:

- XXVII ATCM/WP-30 submitted by Argentina, Australia and the Netherlands containing a draft Decision on financial considerations for the Secretariat of the Antarctic Treaty
- A Non-Paper submitted by the Executive Secretary-elect containing a draft work programme, a draft budget for 2004/05 and a forecast budget for 2005/06. This was a revised and expanded version of the budget and work programme contained in XXVII ATCM/WP-29 submitted by Argentina and Australia.

(61) Several Parties indicated that they were only prepared to approve a budget for the Secretariat if complete information about the voluntary contributions received, were made available, in view of the important principle of financial transparency in international entities of this kind, especially in the initial year. The Depositary Government indicated that a considerable number of Parties had made voluntary contributions, about US$750,000 had been pledged and more than US$500,000 paid over, which was more than sufficient to finance the start-up of the Secretariat. Some of the pledged amounts had not yet been received but there were expectations that further pledges would be made. Any report to be made at this stage would therefore only have the status of an interim report.

(62) Some Parties stated that there would be countries that for various reasons might not be able to make voluntary contributions, and urged for some degree of confidentiality to be maintained about the data on contributions.

(63) The third clause of the Draft Decision contained in XXVII ATCM/WP-30, concerning the establishment of a Special Fund to deal with expected surpluses in the budget, was felt to be unnecessary, as the Financial Regulations provided adequate procedures to handle surpluses. The provision in the last clause of the draft Decision was expanded to clarify the exact roles of the Depositary Government and the Executive Secretary in regard to the start-up of the Secretariat.

(64) With regard to the draft work programme contained in XXVII ATCM/WP-44, several Parties questioned the need for appointing an Environment Officer during the first half year of the Secretariat. Some Parties questioned the need for an Environment Officer, pointing out that in the specific tasks assigned to the Secretariat in Art. 2 of Measure 1 (2003) no mention was made of environmental affairs. Others considered that environmental affairs constituted an increasingly important part of the work of the ATCM, and that throughout the negotiations on the establishment of the Secretariat the Parties had assumed that the second executive position in the Secretariat would be that of Environment Officer.

(65) The selection criteria for the position were also felt by a number of Parties to be excessive regarding training and experience in polar science. It was also felt by some Parties to be inappropriate to require fluency in one specific official language of the ATCM and knowledge of the region.
(66) The Executive Secretary-elect stated that he felt a natural science background and experience with polar programs would be essential for the second executive position, considering that he himself did not have such a background. He undertook to take account of the points made in the discussion when he formulated the requirements for the position.

(67) The Meeting reviewed the specific tasks assigned to the Secretariat and agreed that in the coming year the Secretariat should attach priority to the following as set out in Article 2 of Measure 1 (2003) (a) preparation for ATCM and CEP VIII, (e) development and maintenance of databases, and (g) collection and maintenance of ATCM and CEP records. In case of capacity pressure, the Secretariat should assign less priority to tasks (f) circulation of information, (h) facilitating the availability of information, (j) assisting the review of records and (k) updating the “Handbook”.

(68) Certain amounts in the draft budget for 2004/05 and in the forecast budget for 2005/06 were adjusted after questions by various Parties. A draft Decision with amended versions of the Work Programme, the Draft Budget for 2004/05, the Forecast Budget for 2005/06 and the Scale of Contributions for 2005 was adopted by the Meeting (Decision 2 (2004)), reproduced in Annex B.

(69) Argentina assured the Meeting that it would render any such assistance needed to ensure that the ATCM Secretariat becomes operational at the earliest opportunity, while maintaining sufficient distance to ensure the Secretariat’s independent functioning.

**Item 6(b): Appointment of the Executive Secretary**

(70) At a Plenary Session held at 09h00 on Thursday, 27 May 2004, the Chair of ATCM announced that, in accordance with the agreed procedures, Mr. Jan Huber of the Netherlands had been elected as the first Executive Secretary of the Antarctic Treaty and would take up his duties in Buenos Aires as soon as possible. This agreement is reflected in Decision 3 (2004) reproduced in Annex B.

(71) It was noted that Article 21 of the Headquarters Agreement for the Secretariat required the ATCM to notify the Argentine Government of the appointment of the Executive Secretary and the date when he or she was to take up the post. The meeting mandated the Chair to write to the Argentine Government to this effect. Copies of these letters are attached at Annex H.

**Item 7: Report of the Committee for Environmental Protection**

(72) The Chairman of the CEP presented the Report of CEP VII and noted that the CEP had welcomed Canada to the table after its ratification of the Madrid Protocol and had also welcomed the progress the Czech Republic had made to ratify the Protocol.

(73) The United Kingdom noted that not all Parties had met the reporting requirements of Article 17 of the Protocol and urged that, in future, this provision be met in full. Noting that an increasing number of Parties were now providing their reports under Article 17 electronically, the United Kingdom urged that such reports be placed on the website set up by Argentina, www.infoantarctica.org.ar, to bring all reports into a centralised location. This proposal was supported by Argentina who reminded the Meeting of the agreement of ATCM XXIV, particularly now that the Antarctic Treaty Secretariat will be established.

(74) The Chair advised that 26 Working Papers and 64 Information Papers were considered. These included 4 draft CEEs, 2 management plans for Antarctic Specially Managed Areas, 5 for Antarctic Specially Protected Areas and 2 designations for Historic Sites and Monuments.
(75) The Chair presented advice to ATCM on each of the four draft CEEs (Appendixes 1-4 of the CEP VII Report); the Draft Measures for the Antarctic Specially Managed Areas and Antarctic Specially Protected Areas (Appendixes 6 and 7 to the CEP Report); and the Draft Measure for the Historic Sites and Monuments (Appendix 8 of the CEP Report).

(76) The ATCM adopted Measure 1 (2004) reproduced in Annex A: Antarctic Protected Area System: Management Plans for Antarctic Specially Managed Areas. The Meeting agreed with the proposal made by Brazil to confirm the Antarctic Specially Managed Areas. It agreed to number the ASMA’s referred to in Measure 1 (2004) as No. 2 and No.3 respectively.


(79) The Netherlands noted that among the management plans adopted at ATCM were some that would replace earlier plans. The Netherlands proposed that the Legal and Institutional Working Group be asked to look at the Draft Measures to see whether, in accordance with the principles adopted at ATCM XXVI, language needs to be added to make it clear which earlier Measures, if any, would be superseded by the new Measures. The ATCM accepted this proposal.

(80) The Meeting considered the advice of the CEP in relation to the four draft CEE’s relating to the changes at Troll Station (Norway); the Development and Implementation of Surface Traverse Capabilities in Antarctica (USA); Project Ice Cube (USA); and the Czech Scientific Station in Antarctica: Construction and Operation (Czech Republic). The ATCM accepted that advice (see Appendices 1-4 of the report of the CEP).

(81) The Chair noted the extensive discussion on the revision of Annex II of the Protocol and referred the ATCM to the draft revised Annex II text at Appendix 9 of the CEP VII report. The Meeting agreed to refer this for further discussion at the XXVIII ATCM.

(82) The Meeting welcomed the valuable work done by the ICG and the CEP in reviewing Annex II to the Protocol and agreed to attach a draft text of the Annex, as amended, to its Final Report (see Appendix 9).

(83) The Meeting noted that a number of technical matters had been resolved through this extensive exercise. However, some key policy matters of a more substantive nature remained to be addressed, in particular whether:

- the title of the Annex should be amended and if, in doing so, whether its scope would be extended;
- the Definitions (in Article I) should be modified;
- to extend the designation of Special Protected Species to include marine species.

(84) Parties were urged to give these matters their attention during the intersessional period with a view to resolving any outstanding issues at the XXVIII ATCM.

(85) The Meeting also discussed whether there was a need to refine the guidance to the CEP on how it should carry out its rolling review of the Annexes to the Protocol.
(86) The Chair submitted to the consideration of the Meeting a draft Resolution presented by Spain, on “Enhancing prevention of marine pollution by fishing activities”. Accordingly, Resolution 1 (2004), reproduced at Annex C was adopted.

(87) XXVII ATCM/WP-45 on the salvage by the British Antarctic Survey of the De Havilland Single Otter from Whalers Bay, Deception Island, which had been discussed in the CEP, was discussed in the Legal and Institutional Working Group with reference to the legal aspects. These concerned especially the prohibition in Art. 8(4) of Annex V of the Environmental Protocol of removal of artefacts from Historic Sites and Monuments. The situation described in XXVII ATCM/-45, namely plans to remove the aircraft by a person claiming the right to salvage, had led the United Kingdom to take action to prevent this desecration. It was also argued that proper curatorial practice could include the temporary or the permanent removal of artefacts, in order that they are better preserved.

(88) Different views were expressed on the best way to provide for such cases and avoid a seeming conflict with Art. 8(4). The Meeting decided to continue this discussion intersessionally and to review the issue at the next ATCM.

(89) The Chair noted the discussion in the CEP on the Guidelines for the Operation of Aircraft Near Concentrations of Birds in Antarctica, and the work of COMNAP on this issue. The meeting adopted Resolution 2 (2004), reproduced at Annex C.

(90) The Chair drew attention to the proposed intersessional work on draft management plans for protected areas, on the refinement of guidelines for environmental impact assessment, on environmental monitoring, and on the State of the Antarctic Environment Reporting.

(91) The Chair noted the discussion on site-specific guidelines and noted that this matter would be further discussed under Agenda Item 11.

(92) The Meeting noted that the Agenda of CEP VIII would be the same as CEP VII, attached at Appendix 10 to the CEP report.

(93) The Meeting thanked Dr Press for his report and commended the CEP on its hard work during CEP VII (The CEP VII Report is attached at Annex I).

Item 8: The Question of Liability as Referred to in Article 16 of the Protocol

(94) The Working Group on Liability (LWG) met during the first week of the ATCM and was chaired by Ambassador Don MacKay (New Zealand). The Chair referred to XXVII ATCM/WP-06, containing the revised Chairman’s draft of the Liability Annex and covering letter, and noted XXVII ATCM/WP-34, prepared by the Antarctic Treaty Consultative Parties which were also Member States of the European Union, and relating to draft article 7. The Chair noted, in particular, that WP-42 from the Madrid ATCM on a new draft Article 14, providing a further step towards a more comprehensive regime was clearly a fundamental issue for many Delegations and still needed to be resolved.

(95) The Chair explained the changes made to the Chairman’s draft, following discussions at Madrid and the Chair’s follow-up discussions with Mr Lloyd Watkins, Secretary of the International Group of the P&I Club.

(96) Regarding draft Article 9, dealing with limits on compensation, the Chair explained that draft Article 9(1)(a) reflected the discussion that the LWG had with Mr Watkins at Madrid, and was designed to take advantage of liability insurance which already existed but could not be triggered in the absence of a liability regime for Antarctica. The efforts to tap into existing
liability insurance mechanisms was supported, but several Delegations expressed concern that
the draft Article would incorporate, by reference, other unintended provisions of existing
liability conventions.
It was also noted that some ATCPs were not party to these liability conventions. The Chair
requested Mr Mark Simonoff (United States) to establish a Contact Group (CG) on draft
Article 9(1) (a).

Draft Articles 9(1) (b) and (c) had been discussed. The Chair drew attention to the US $10
million (ship-based) and US $3 million (land-based) amounts for worst-case scenarios
developed by COMNAP (Madrid, WP 009) and which had been incorporated as a basis for
discussions on limits. Some Delegations felt the limits proposed were acceptable. The Chair
asked those who felt that the figures were too low to discuss with COMNAP the basis upon
which the figures had been arrived at.

Draft Article 9(2) and mechanisms for the amendment of limits was also discussed. Some
Delegations objected to amendments by a Decision rather than through a Measure. Another
issue was whether there should be a stipulation as to the criteria for amendment. The Chair
said there was a need for consultations amongst the Parties on this issue and on and the
frequency of review as well. The Chair referred to the question of the currency to be used for
monetary limits for compensation and said that the issue had been raised at ATCM XXVI
(Madrid), where the suggestion was made that SDR’s be used instead of US dollars. The
Chair said that further time would be needed to reflect on this.

Draft Article 7 concerning actions for compensation had been extensively discussed but
important technical issues still needed to be resolved.

On behalf of the Antarctic Treaty Consultative Parties that are also Member States of the
European Union, the Netherlands had introduced XXVII ATCM/WP-34, through which
attention had been drawn to recent developments in European Community Law relating to the
division of competence between the European Community and the Member States of the
European Union in respect of actions for compensation. The matter was put to one side until it
was clear that there was an issue at stake.

Under draft Article 7(1), the Chair noted general support that actions could only be brought
by State Parties. In this connection, the Chair also noted that there was a general
understanding that only States Parties could take response action pursuant to draft Article
5(2). Regarding the second sentence of draft Article 7(1), the Chair noted that the appropriate
trigger for beginning the three-year time period in which to take action for compensation, was
the commencement of the response action, or from the date that the identity of the non-State
operator was known or reasonably should have been known, whichever was the later. The
Chair noted that there was support for an overall cap period of fifteen years from the date of
the response action.

On draft Article 7(2), the Chair noted that various suggestions, proposed in Warsaw and
Madrid, had been included as options in the draft text. Several Delegations had supported the
second and third options only, as the first option was said to introduce uncertainty and
disparity in the treatment of different actors.

Extensive discussion had taken place on appropriate dispute settlement mechanisms of both a
compulsory and non-compulsory nature, including possible reference to Articles 18-20 of the
Protocol. Some Delegations had expressed opposition to the application of Article 20 in this
context.
(103) On draft Article 7(5) (a) discussion had taken place on how best to clarify the obligation of enforcement in the light of differing legal systems. A Contact Group on this issue was to be convened by Mr. Akiho Shibata (Japan). The issue of whether quantification of costs should be left to domestic courts had been considered. The Chair noted that the balance of opinion in the LWG seemed to be on leaving quantification to domestic courts. The question of the situation where the matter does not go to court had also been considered. The role of the ATCM in cases covered by draft Articles 7(5) (a) and (b) had been discussed.

(104) On draft Article 7(5)(b) there had been discussion on dispute settlement mechanisms. Interest was expressed in the use of an inquiry commission. Chile referred to, and later re-circulated as document XXVII ATCM/WP-43, a working paper from the Madrid ATCM, on the enquiry procedure under Article 18 of the Protocol.

(105) Draft Article 12 had been considered. The questions of “reasonable” and of the time limit for appealing to the fund and the nature and scope of the fund were discussed. There was no strong support for conferring legal personality on the fund. Several Delegations questioned the role for the fund, some supported the narrower parameters for the fund in the Chair’s revised draft, but others suggested these parameters should not preclude a broader role for the protection of the Antarctic environment.

(106) Insurance under draft Article 11 had been considered. Several Delegations had supported the inclusion, either in the draft Annex or elsewhere, of an interpretative note on the meaning of “self-insurance” to clarify the understanding that Parties would not need to take out insurance in respect of government operators, but could bear the risk themselves. Some consideration was given to a proposal that direct action should be possible against insurance companies. Several Delegations noted that they would need time to reflect on this.

(107) IAATO had expressed concern that yachts may not be able to obtain insurance of US $ 10 million. The Chair reported that the CG on draft Article 9(1)(a) would also consider this particular issue.

(108) Several issues had been discussed in relation to scope, which the Chair noted had been extensively considered in the past. There was discussion around the need for an explicit reference to non-retroactivity. Discussion centred around whether reference back to Article VII(5) of the Antarctic Treaty should be further expanded, and if so, how. The Chair noted that his optional additional sentence did not seem to have general acceptance but that alternatives seemed to obtain broader support. Further consideration would be given to the issue of overflying aircraft (those that land were clearly covered). Some Delegations had proposed that the Executive Secretary should be requested to compile the information provided by the Contracting Parties under Article VII (5) of the Antarctic Treaty, to identify categories of activities, and to present the information in a table by category and by Contracting Party. There had been a proposal to reintroduce the text of draft Article 1 from the Chairman’s draft of 12 July 2002.

(109) Draft Article 2 had been extensively discussed. There was broad support for deleting the definition of “agreed measures”, for including a reference to “Parties” in the preamble to the draft annex, and for defining “Decisions”.

There was discussion on and various drafting suggestions made to the definition of “environmental emergency”, in particular, the inclusion of the word “accidental”. The Chair had invited Delegations to discuss these informally amongst themselves.

(110) On the definition of “operator” some Delegations had proposed the deletion of the second sentence. The Chair drew attention to the fact that there had previously been extensive
discussion on the issue but clearly significant technical issues remained. The Chair noted that it was intended to ensure that liability did not attach to, for example, a scientist on a government expedition. There was discussion on the appropriate wording of the third sentence, with a view to ensuring clarity on the requisite nexus between a Party and its operator. This was considered particularly important in terms of draft Articles 5 and 6 of the draft Annex. Various drafting suggestions had been made and the possibility of removing the third sentence of the definition of “operator” and defining the nexus between “operator” and “party” in each relevant draft article was also canvassed. The Chair noted the support for requiring that the Party had actually “approved” or “permitted” an activity, so as to remove the possibility of creating a nexus between an operator and a State where only a minor part of the activity had been organised and suggested including alternative language to cover those States where activities were not formally “approved” or “permitted”. There was extensive discussion about how to determine the principal State or organisation, in cases where authorisation was not easily identified.

(111) On draft Article 7(5)(a), a text had been circulated and had received general support. It was however suggested that the possibility of criminal or administrative action being brought in more than one jurisdiction, should be avoided.

(112) On draft Article 9(1)(a), a revised draft text was being considered and non-binding consultation on this text would continue intersessionally by email.

(113) Various proposals had been made on the definition of “response action”, including a proposal to include reinstatement action in the definition, which received support from some Delegations, but was opposed by others, as in previous discussions of this issue. Chile had proposed revisions to several definitions. The Chair requested that Delegations consult informally, noting that while the definition in his draft had been discussed exhaustively in the past, any alternative language that attracted consensus would be welcomed. The Chair noted that the definition of “reasonable” had also been discussed exhaustively in the past. Several other drafting suggestions had been made. There had been general support for linking the definition of “reasonable” to “preventative measures” and “response actions”.

(114) Some Delegations had expressed regret that after the deletion of draft Article 6(3) of the previous draft the consideration of scientific research was only made in the preamble of the draft Annex and this issue remained unresolved.

(115) With regard to draft Article 5 (Response Action), the Chair noted that there had been extensive discussion on this in the past. Discussion on draft Article 5(1) had centered on defining clearly the nexus between a Party and its operator, and the extent to which it was necessary to point to only one Party in regard to non-State operators. It had been pointed out that where Parties had jurisdiction under domestic law which they might be able to exercise, they should not be precluded from doing so. The possibility of a saving clause to cover this situation was raised.

(116) A Contact Group convened by Prof. Francesco Francioni (Italy) had been established to consider questions arising from the discussion of draft Article 5(1).

(117) On draft Article 5(2), there had been a proposal to replace the Chair’s text providing for an obligation on the part of Parties to endeavour to take action in the event an operator did not take action, with a right on the part of Parties to do so. Some Delegations had questioned this. The issue of whether a Party that took response action under draft article 5(2) should have prior consent from the State of the operator that had not taken action had been raised.

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(118) Some Delegations felt that in the case of State operators, other Parties may take response action only upon authorisation by the Party, unless a threat to the environment was absolutely imminent and it would be unreasonable in all circumstances not to take immediate action. They also expressed the view that private entities should under no circumstances be entitled to act, in a direct and effective way, on an international level against a Party.

(119) With regard to draft Article 5(4), the meeting had discussed the most appropriate way to refer to expert groups, including by deleting reference to particular observer Delegations. It was suggested that Parties should be able to, but not required to, take their guidance into account. The view was also expressed that the paragraph referred to existing guidance.

(120) In concluding remarks, the Chair noted that it had been a very productive meeting. It was clear colleagues had come to Cape Town ready to engage. There had been a good discussion on draft Article 9 (Limits on Compensation), draft Article 7 (Actions for Compensation), draft Article 12 (Role of Antarctic Treaty Secretariat), draft Article 11 (Insurance), draft Article 1 (Scope), draft Article 2 (Definitions) and draft Article 5 (Response Action). The Chair thanked the convenors of the contact groups on draft Article 9(1)(a) and draft Article 5(1) for their agreement to continue work on these inter sessionally by email.

(121) It has been possible to resolve a number of difficult technical issues and there had been an opportunity to address some – but not all – policy issues. Many had been dealt with before, but new dimensions to these issues had been explored. The Chair encouraged colleagues to continue contact inter sessionally by email on these issues. The Chair undertook to consult all members of the Liability Working Group in that case.

(122) In the Chair’s view, the shape of the final text, which would involve compromise by all, was becoming clear. He was encouraged by the flexibility shown by Delegations, particularly in accepting a text that was the result of previous compromise. The Chair issued a new draft text (included at Annex J).

(123) It was still the Chair’s aim to conclude negotiations on the Annex by the ATCM in Stockholm. He believed that with good intersessional work and with necessary compromises by all, it would be possible to reach an outcome that contributed to the protection of the Antarctic environment.

(124) The Chair of the Liability Working Group noted that he would like to reserve the possibility of an intersessional meeting on Liability, if it was clear that such a meeting would add value, and that he undertook to consult all members of the Liability Working Group in that case. The Meeting agreed in principle that the Chair of that Group having the discretion to determine this.


Item 9: Safety and Operations in Antarctica

(126) COMNAP introduced XXVII ATCM/WP-09 Rev A (The applicability to the Antarctic of the IMO “Guidelines for ships operating in Arctic ice-covered waters”).

It was noted that the topic of Antarctic shipping guidelines originated in a workshop held in London, which resulted in XXIV ATCM/WP-26 being submitted by the UK to the ATCM. COMNAP was subsequently asked by the ATCM to review the final IMO Arctic Shipping Guidelines in the context of their applicability to the Antarctic. COMNAP concluded that only a few modifications to the Arctic Guidelines would be needed, most of them editorial.
The changes were summarized in Annex A to XXVII ATCM/FP-09 Rev A and the annotated draft Antarctic guidelines document is attached as Annex B to XXVII ATCM/FP-09.

(127) COMNAP highlighted the importance of on-the-job experience and training of ice navigators and recommended this as an additional element in the guidelines. The containment of pollutants in tanks with double-skins was important for environmental protection. COMNAP noted an important issue concerning ship construction which it was unable to resolve. This related to the question of double bottoms on ships. The Safety of Life at Sea (SOLAS) Convention stated that cargo ships over 500 tons have to have double-bottoms. Cargo ships are defined as any ship that is not a passenger ship, which therefore includes research ships. This requirement stems from the issue of ship stability, strength and safe handling. The question was whether the same goals could be achieved by other means. COMNAP concluded, from an operational perspective, that the Arctic Guidelines provided a good basis for an Antarctic Shipping Code. COMNAP suggested that the question of double-bottoms be looked at by experts in naval architecture when the IMO considers Antarctic Shipping Guidelines.

(128) The UK noted the excellent work done by COMNAP. It noted that very few modifications were needed. On-the-job training for ice navigators was very important, as was the recommendation regarding double-skins. Naval architects would need to look at the question of double-bottoms, which was the province of experts at IMO and should then be forwarded to the IMO with a covering letter from the Chair of the XXVII ATCM. The UK further noted that its IMO Experts had advised that the guidelines would need strong support to be taken up speedily at the IMO.

(129) Chile noted that these were guidelines, not requirements, and therefore voluntary. Current Arctic guidelines were adopted for ice covered waters, but the Working Group had noted the differences between the Arctic and the Antarctic. These voluntary guidelines should be made known to tourist vessels traveling to the Antarctic. Vessels traveling to Antarctica needed additional requirements, including navigational aids etc, to ensure the necessary level of safety should an emergency arise.

(130) Spain noted that the guidelines would be helpful to all those operating in the Antarctic and that the guidelines referred to all ships, defined as any vessel covered by the SOLAS Convention. The Convention was developed for merchant vessels, but was now applied to all ships. The 1993 Torremolinos Protocol had been approved for the safety of fishing vessels. Therefore there should be reference to both the SOLAS Convention and the 1993 Torremolinos Protocol.

(131) Russia noted that most fishing does not take place in ice-covered waters, whilst the Arctic Guidelines place a major emphasis on shipping in ice-covered waters, with the help of icebreakers, which necessitates the requirement of double-bottoms. In the Antarctic, most operations were not accompanied by ice breakers, and most shipping did not sail in ice-covered waters. There was no such thing as a completely identical set of requirements for the Arctic and the Antarctic. It was the prerogative of the IMO to adopt the guidelines. Clear requirements were needed to make it mandatory.

All navigators must be trained in ice-covered water. In Russia no master of a ship could be appointed unless qualified as a navigator in ice-covered water.

(132) Norway supported the process for the provisional adoption, of the Arctic guidelines, as voluntary guidelines for the Antarctic, until such guidelines for the Antarctic were adopted by the IMO.
(133) Norway referred to the discussions on shipping guidelines, noting that there were two issues which merited further consideration at the next ATCM.

The first concerned the use of heavy fuel oil in ships operating in the Treaty Area. In such cold waters a spill of heavy fuel would have a much more significant environmental impact than lighter ship fuels such as gas oil. Norway therefore proposed that the Treaty Parties should consider a prohibition on the use of heavy oils south of 60 degree South.

(134) The possible introduction of non-native organisms into Antarctic waters through the discharge of ballast water was discussed. It was noted that the use of the same ships operating in both the Arctic and Antarctic and therefore encountering organisms that could potentially thrive in both areas, could be a particular reason to look further into this issue. The International Convention for the Control and Management of Ship’s Ballast Water and Sediment agreed to in February 2004, should be considered in this regard.

(135) The Meeting agreed that these were issues that warranted further consideration. COMNAP, in consultation with IAATO, was asked to report to ATCM on the present and planned use of heavy fuel in ships operating in Antarctic waters by national operators and by the tourism industry. The Meeting further requested SCAR, with the support of other appropriate organizations, to investigate the environmental and technical issues associated with the question of ballast water and to report to the ATCM. These organizations confirmed that they would undertake these tasks.

(136) The US indicated that they supported the idea of banning heavy fuels and looked forward to the discussion next year.

(137) Argentina agreed but underlined the importance of the difference between the Arctic and the Antarctic when it comes to ice. Argentina noted that it had a training school for shipping operating in the Antarctic.

(138) Chile noted that the IMO was the only authority that could adopt these guidelines even if these were optional guidelines. Chile emphasized that it was not possible to consider a temporary adoption of the guidelines and noted that the Chilean Delegation had received instructions in this regard.

(139) It was agreed that a draft letter from the Chair of the ATCM to the Secretary-General of the IMO was required. The Meeting subsequently endorsed the text of a letter (attached at Annex M) and requested the Chair to forward it to the Secretary-General of the IMO.

(140) The Republic of Korea introduced XXVII ATCM/IP-96 Rev 1 (A Maritime accident in King George Island). The Meeting was informed that eight Korean citizens had gone missing in early December. Three had gone missing in a snow storm at sea. Later 5 Koreans who conducted a search disappeared after their boat had hit a large wave and had overturned. The Republic of Korea had received assistance from China, Russia, Chile, Uruguay, Argentina, Brazil and an IAATO tourism vessel in the search-and-rescue effort. A young geologist participating in the Korean search party had been lost at sea, but fortunately everyone else was saved.

(141) Korea had thanked all Parties for their assistance in the search-and-rescue effort.

(142) Chile had noted the detailed report of the dramatic situation presented by Korea, and the changes to be introduced within the Korean programme to provide maximum levels of safety for the work that would be done. Korea was thanked for their expression of gratitude to the Chilean Antarctic Programme.
(143) Bulgaria thanked Korea for their information paper, noting that it was a good example of an international effort to assist Korea in the situation. Bulgaria also noted there had been another tragic incident with a young UK scientist.

(144) The UK had explained that there had been a fatality at Rothera station in July 2003 when a woman scientist was attacked by a leopard seal whilst snorkeling and dragged under water. The UK had put all diving and snorkeling operations on hold whilst an investigation was conducted. Diving operations had now resumed but the UK no longer permitted snorkeling. They had also initiated a study on the behavior of leopard seals in the presence of humans and would report on the results of this study at the next ATCM.

**Item 10: Relevance of Developments in the Arctic and in the Antarctic and the International Polar Year 2007/2008**

(145) Germany introduced XXVII ATCM/IP-08 (International Polar Year (IPY) 2007/08). The Meeting was informed that the polar science community had initiated many activities. Germany was looking to encourage activity in the following areas: Changes in the environment, climate and ecosystems; learning from the past and predictions for the future; new technology for exploration, public awareness and education.

(146) Norway noted that there was an increasing focus on bi-polar research, and therefore emphasized the importance of retaining the question of Arctic and Antarctic cooperation in the agenda. Norway suggested that by the next ATCM, the IPY plans would have been developed to such a degree that proper consideration and discussion should be possible by the ATCM. It was also noted that the upcoming SCAR/COMNAP meeting in Germany in July 2004, would be of particular importance for the evaluation and discussion of ICSU’s initial outline science plan.

(147) Chile thought that these comments were very relevant, as previously there had been an independent focus on the Polar Regions. The importance of the relationships between the two zones, and with the rest of the world, was now better understood as an issue focus area. In the context of the papers by SCAR, Germany, Russia and Chile noted the 5 themes suggested by ICSU and, drawing upon the experience of previous Polar Years, proposed further improvement in archival procedures, including ACTM’s Secretariat databases, further funding mechanisms and timely review of IPY results.

(148) Finland had noted that the Arctic Council had worked for 4 years on an Arctic Climate Impact Assessment in the light of the important role that Polar Regions played in responding to climate change. Three hundred scientists had participated in writing the report and an overview report would also be published.

The US had been the lead country in this process. Finland also drew attention to a joint statement by the Arctic Council, and several organizations, including SCAR and COMNAP, on cooperation in preparing for the International Polar Year, with a focus on raising awareness, promoting polar science etc. Everyone would share in making the International Polar Year a success.

(149) Bulgaria had suggested that national committees focusing on IPY in different countries be identified, so that there could be an exchange of information.

(150) COMNAP summarized its activities pursuant to Resolution 2 of XXVI ATCM.

The activities included coordination with the Forum of Arctic Research Operators to ensure optimum logistical support for research in both polar regions, interaction with the Arctic Council Secretariat in the drafting of a statement of support for the IPY, and working with the
President of the International Council of Science and its IPY Planning Committee in the development of high level IPY goals.

COMNAP was inviting its membership to submit papers outlining the IPY goals of member nations for discussion at the COMNAP annual meeting in Bremen in July 2004. These discussions would promote the development of multinational partnerships to support the logistics underlying major IPY research projects. COMNAP would report to the XXVIII ATCM on progress towards supporting IPY implementation.

(151) Sweden had indicated that it was actively involved in planning IPY, noting the important contributions made by Germany and Norway, and the importance of the interrelationship between the Arctic and the Antarctic. One obvious difference with the IPY of 50 years ago was the level of technology, inter alia, the internet. Data handling and archiving would be a critical input into the process. Sweden also made note of issue 4 in the German paper with respect to education and outreach. Certain aspects that go beyond pure science would be of special interest to the ATCM and the Arctic Council.

(152) SCAR had noted that data management would be a key element of the new IPY proposals and reminded Parties of the established network of Antarctic data centres organized through SCAR, together with the World Data Centres.

(153) Russia introduced XXVII ATCM/IP-46 (Third International Polar Year). Russia was one of the initiators of IPY, and was making serious efforts to celebrate the IPY in 2007/2008. Based on proposals by Russian agencies, the Russian Federation was developing a national research programme and a plan for its implementation. The programme, dealing with Russia’s contribution, would be presented to the international community. The outline of the IPY 2007/8 Programme was introduced at the International Meeting of Polar Experts held in January 2004, in Saint Petersburg by Russia’s Federal Service for Hydrometeorology and Environmental Monitoring and the Russian Academy of Sciences. The Meeting was attended by representatives of international organizations (WMO, IUCN, and SCAR), as well as research institutions and entities from interested countries. The Meeting identified the areas of joint research and activities for IPY 2007/8 and incorporated them into the Joint Statement of the Meeting.

(154) China introduced XXVII ATCM/IP-57 (Chinese Proposal and Activities for 2007/8 IPY). The Meeting was informed that China had extended an invitation to other Parties who were interested in working together for the IPY.

(155) Australia introduced XXVII ATCM/IP-70 (Circum-Antarctic Census of Marine Life for IPY). The intention of this paper was to inform the ATCM of the development of a proposal to undertake a census of Antarctic marine life. This project would examine biodiversity around Antarctica. There were a number of other countries participating, and the project would provide a benchmark on biodiversity.

(156) SCAR presented XXVII ATCM/IP-74 (Progress with planning the International Polar Year 2007/8) on behalf of the ICSU planning group for the IPY. This had provided an opportunity for Parties to see how far the Science Plan had developed in the previous year. SCAR indicated a great deal of enthusiasm for the IPY, with 20 countries having now established national committees.

SCAR was organizing an open science conference in Bremen during July at which the Science Plan would be fully discussed. It was noted that an implementation plan would be required, in which COMNAP would play a major part.
It was hoped to have both finalized by October 2004, when ICSU would establish a new joint committee with WMO to take these activities forward to 2007.

(157) Norway had indicated that this was useful in developing a comprehensive overview of planning for the IPY. It was suggested that there should be three efforts to make the IPY a success, combining science, logistics and political will.

(158) Argentina indicated support for the IPY. The theme ‘A Hundred Years of Argentinean Antarctic Science’ was being introduced to academic institutions across Latin America in order to focus on IPY. There was also a national programme and activities to commemorate this IPY.

(159) The UK noted the request for endorsement of the approach in XXVII ATCM/IP-74 and proposed that the ATCM continue to show support for this important initiative.

(160) XXVII ATCM/IP-97 (Korean activities in the Arctic in the Year 2003) had been introduced by the Republic of Korea in collaboration with China and Russia.

**Item 11: Tourism and Non-Governmental Activities in the Antarctic Treaty Area**

(161) Chaired by M. Michel Trinquier of France, the meeting of the Working Group on Tourism was held during the second week of the ATCM. The Chair recalled the highly successful intersessional Group of Experts Meeting under Recommendation IV-24 which had been held in Tromso and on the coastal steamer between Tromso and Trondheim, Norway, in March 2004, and that its Report (set out in XXVII ATCM/WP-04) provided a useful starting point.

(162) The Chair of the Working Group indicated that the issues discussed by the Tourism Working Group were divided into two broad categories, namely those that related to:

- regulations covering tourism activities, and
- the assessment of the consequences of tourism on the environment and national programmes.

(163) In respect of regulations that covered tourism activities, adventure tourism, accreditation, and related matters had been discussed as a whole. Regarding the consequences of tourism to the Antarctic environment, monitoring and environmental impact assessment, quarantine measures, the construction of permanent facilities in Antarctica and related legal issues were discussed.

(164) The various topics were addressed through the presentation of the relevant papers.

(165) Australia introduced XXVII ATCM/WP-40 (Draft Decision to Establish a Database on Tourism and Non-Governmental Activities). Australia reported on the development of a database on tourism and non-governmental activities in Antarctica and noted that some systems already existed to record information, such as those run by State Parties and IAATO.

(166) XXVII ATCM/WP-40 provided a specific proposal from Australia, in particular regarding the establishment of a prototype database to be funded by Australia until it was managed by the Secretariat. It had been noted that the Secretariat would require specific funding for the database.

(167) Several Delegations raised concerns whether the idea would impose new regulations on national operators, on the possible financial implications and the relationship between the dissemination of information and domestic legislation, in particular data protection.
Australia had stated that there would not be any new obligations on national operators for reporting and that only existing information exchange requirements would be used.

(168) Most delegates supported the proposal and it was agreed that the database proposal needed to be looked at within both the legal and financial contexts and that the proposal should be referred to the Legal and Institutional Working Group prior to making any decision on the matter.

(169) The UK introduced XXVII ATCM/WP-02 on “Managing adventure tourism: The need for enhanced cooperation amongst Parties”. Adventure tourism had been identified as a particular problem in the Antarctic Treaty System. It was acknowledged that it was difficult to define “adventure tourism”. While all information should be recorded in the proposed database, it was emphasized that the nature of adventure tourism required an immediate exchange of information.

(170) There was general support for the objectives of the proposal. One Delegation had noted that the proposal could be strengthened by proposing a “Measure” rather than a “Resolution”. A second Delegation expressed concern regarding the confidentiality of information exchanged in accordance with the draft resolution. A third Delegation noted that the definition of “adventure tourism” would need to be addressed and a definition would be useful in order to achieve a comparable standard for notifications.

(171) Several other Delegations, proposed the broadening of the application of XXVII ATCM/WP-02 to all forms of tourism, noting that the exchange of information should cover all tourism activities. It was also suggested that it be further expanded to include all non-governmental activities in the Antarctic.

(172) The meeting adopted Resolution 3 (2004), reproduced in Annex C.

(173) The United Kingdom introduced XXVII ATCM/WP-23 (The Regulation of Adventure Tourism), which proposed a Measure designed to regulate adventure tourism in Antarctica and provided for a series of requirements for such activities. There was some support for the need to regulate adventure tourism in the Antarctic but other Delegations questioned the need to address adventure tourism separately and believed that such requirements should apply to all forms of tourism. Moreover, it was noted that certain of the requirements in the draft Measure were objectively determinable, e.g. contingency plans, insurance and the undertaking of EIAs, while others were subject to value judgments, e.g. sufficient and demonstrable experience, psychological fitness, training and proficiency in the use of equipment. One Delegation proposed listing as requirements those objective requirements only and then providing guidelines for the approval of expeditions. Several Delegations agreed that some of these requirements could only serve as guidelines since if they were included in a Measure, they could not be made legally binding.

(174) New Zealand introduced XXVII ATCM/WP-46 (Insurance Cover for the Costs of Search and Rescue, Medical Care and Evacuation from Antarctica in Case of Tourist and other Non-Governmental Activities) co-sponsored by New Zealand, France, Norway and South Africa. New Zealand had consulted with the Chair of the Liability Working Group and confirmed that the proposal contained in XXVII ATCM/WP-46 had no implications for the work of the Liability Working Group nor the draft liability Annex. It was also clear that XXVII ATCM/WP-46 would not apply to fishing vessels because of the competence of the CCAMLR within the Antarctic Treaty area.

The main purpose of the working paper was to avoid situations where national programmes had to bear the costs and safety risks associated with search and rescue operations.
It was also hoped that more extreme forms of adventure tourism could be filtered out by accepting the recommendations. Several Delegations supported the proposal.

(175) One Delegation viewed XXVII ATCM/WP-46 as a positive step but raised concerns regarding the legal capacity of States to enact the proposed Measure and proposed that consideration be given to the acceptance of a Resolution rather than a Measure. It requested greater clarity regarding whether the proposed Measure would apply to individual tourists or operators.

(176) One Delegation welcomed the New Zealand initiative but stressed that this proposal should apply only to adventure tourism. IAATO welcomed XXVII ATCM/WP-46 but cautioned that its Members were self-insured and could not require individual tourists to carry insurance.

(177) Following discussion on XXVII ATCM/WP-23 and XXVII ATCM/WP-46 in the Working Group, it was decided that the two issues would be better addressed together and the Working Group produced both a draft Measure “Insurance and Contingency Planning for Tourism and Non-Governmental Activities in the Antarctic Treaty Area” and a draft Resolution “Guidelines on Contingency planning, insurance and other matters for tourist and other non-governmental in the Antarctic Treaty Area”. It was noted that the Resolution would supplement Recommendation XVIII-1 and give immediate voluntary effect to the agreed Measure, in addition to recommending further guidelines to be followed by those organizing or conducting activities without the supervision or support in the field of another operator or a national programme.

(178) One observer expressed a concern that the standard of “sufficient and demonstrable experience” in the Antarctic was too strict. Another observer suggested a rewording of the third operative paragraph to read as follows: “that all participants have sufficient and demonstrable experience appropriate for the proposed activity operating in polar, or equivalent, environments”. The proposal was accepted.

(179) One Delegation expressed concern over the possible difficulty of implementing the content of the Measure rapidly, but accepted it bearing in mind that a certain period of time would be required for approval by its government. The Measure (Measure 4 (2004), reproduced in Annex A) and Resolution (Resolution 4 (2004), reproduced in Annex C) were adopted by the Meeting.

(180) Australia introduced XXVII ATCM/WP-38 which proposed an accreditation scheme for Antarctic tour operators. It suggested that an Intersessional Contact Group (ICG) be established to deal with the matter and proposed terms of reference for the ICG.

(181) The proposal for the establishment of the ICG was supported by most delegates. Some Delegations, however, raised concerns over the costs and financial implications of the proposal and the potential legal overlap with already existing obligations under the Antarctic Treaty and the Environmental Protocol. Some concerns was also raised regarding possible overlaps in the insurance debate as it was also covered by the Liability Working Group. But it was noted that the Liability Working Group was only tasked with drafting language on liability for the harm done through environmental emergencies. The meeting approved a revised terms of reference and the establishment of an ICG co-ordinated by the United Kingdom. The contact address is: polar.regions@fco.gov.uk

(182) COMNAP introduced XXVII ATCM/WP-9/Rev.A (Applicability to the Antarctic of the IMO Guidelines for Ships Operating in Arctic Ice-Covered Waters), noting it had held several consultations with external institutions, such as maritime experts.
Many Delegations expressed the view that the issue of shipping guidelines was the exclusive competence of the IMO and should be left to the IMO.

Other Delegations noted, however, that provisional guidelines should be adopted by the ATCP's which would apply until IMO guidelines were adopted. It was decided to refer COMNAP's shipping guidelines for further discussion in the Operational Working Group.

The UK had introduced XXVII ATCM/WP-3 “Tourism: Guidelines related to Shipping. Provisions for Non-Treaty Flagged Vessels”. The paper was predicated on the adoption of Antarctic Shipping Guidelines by means of a Decision at the XXVII ATCM. It proposed a Resolution which urged IAATO to extend implementation of such Guidelines to tourist vessels which are operated by IAATO-affiliated Tour Companies, but flagged with non-Treaty Parties. There was some support for such a Resolution. However, some Parties reiterated the view that adoption of shipping guidelines was exclusively within the competence of the IMO, and consideration of the proposed Resolution was deferred.

The UK introduced XXVII ATCM/WP-26 (Proposed Amendment of Recommendation XVIII-1 (1994): Site Guidelines for Sites Visited by Tourists), which recommended that Recommendation XVIII-1 be extended so that it not only addresses a code of behaviour for visitors to Antarctica but also Site-specific Guidelines. These would set out advice and recommendations to be followed at each visitor site. Such Guidelines would help minimise the potential impact from visitors at those sites. The UK noted that the issue had been previously considered and modified by the CEP, but proposed that XXVII ATCM/WP-26, as submitted, be referred to the Legal and Institutional Working Group.

The Legal and Institutional Working Group discussed the legal aspects of the Amendments to Recommendation XVIII-1 proposed by the United Kingdom and endorsed the mechanism for amending Recommendation XVIII-1 as contained in the Draft Resolution.

The Draft Resolution on Site Guidelines, which had been tabled in both the Tourism Working Group and the Legal and Institutional Working Group was considered by the ATCM. After a lengthy debate on this matter, it was decided to defer the issue of Site Guidelines to the ATCM.

The United Kingdom regretted that it was not possible to address a Resolution on Site Guidelines. These would have provided a new and important means to manage tourism and tour operators at certain frequently visited sites in Antarctica. Delay on this matter by the Treaty Parties was therefore unfortunate. The UK recognized that the tourist operators, through IAATO, would undoubtedly implement the Site Guidelines anyway, but would do so under no mandate from the ATCM. This, in the view of the UK, reflected a lack of leadership on the matter.

The UK emphasized the need for improved co-ordination between the respective ATCM Working Groups and the CEP to ensure that issues dealt with in more than one of the Working Groups are finalized in time for consideration by the Plenary. Australia and Germany objected to negative references made by the United Kingdom to the work of the CEP.

Australia introduced XXVII ATCM/WP-21 (Establishment of Effective Antarctic Quarantine Controls for Tourism and Non-Governmental Activities consideration of which had not been possible during the Group of Experts Meeting. The paper proposed that the CEP assess the risk of tourist activities introducing non-native species to Antarctica, or introducing native species to areas where they had not been previously recorded, and advise whether further controls are required.
The meeting welcomed the paper and agreed to discuss the question involved in more detail. Some Delegations noted that quarantine issues apply to all human activities, not just tourism activities. The Meeting considered that the tourism aspects of quarantine should be referred to the CEP to address in its wider consideration of such issues.

(191) Argentina introduced XXVII ATCM/WP-28 (The Application of Existing EIA Procedures to Tourist Activities in Antarctica).

Argentina noted that the proposal was to provide the capacity to prevent or change activities should the EIA process foresee environmental harm as a consequence of the cumulative impact of many visits to the same site. Argentina also noted that at the time when the present EIA procedures were established, they were intended more to refer to single activities carried out by national programmes than to a complex activity such as tourism.

(192) The Working Paper had also been presented to, and extensively debated in, the CEP, which had consequently decided to establish an ICG to assess the cumulative impact of tour operators. The ATCM took note that this issue was being addressed through such an ICG.

(193) The issue of land-based tourism to the Antarctic had also been debated in Tromso, Norway.

(194) One Delegation noted that IAATO had introduced a by-law related to its activities and requested further information on that by-law. IAATO noted that land-based tourism, as one example of its activities, had barely increased over the last 15 years as noted in IAATO’s overview paper, XXVII ATCM/IP-63, which summarised its statistics. The change to IAATO’s by-laws reflected that members of IAATO subscribe to the principle that each of their planned activities would have no more than a minor or transitory impact on the Antarctic environment. It was noted that construction of any structure would require submission of a CEE to the relevant national authority and its review by the CEP.

(195) It was recalled that various issues had been identified in the discussion of land-based tourism including the need to define this concept. A possible definition might include the creation of permanent or semi-permanent infrastructure ashore in order to promote and support tourist activities. Concerns that were raised included environmental impact, the protection of wilderness values and consistency with Antarctica’s designation as a “natural reserve devoted to peace and science”, possible jurisdictional issues, the assertion of private property rights, and the possible assertion of rights to usufructory benefits through regular permitting. One Delegation noted that it was important to formulate general provisions before land-based tourism became a major problem.

(196) Another Delegation proposed that this issue be discussed at the next ATCM and called on members to prepare papers for the discussion. This proposal was agreed to by the Meeting.

**Item 12: Inspections under the Antarctic Treaty/Protocol**

(197) Finland introduced its report of the 2004 Finnish Antarctic inspection and reported to the meeting that Finland had undertaken the first inspection of Antarctic stations in January and February 2004. Finland expressed appreciation to all the Parties which cooperated and for their hospitality. This was the only visit to other Parties’ stations during the previous year. They had focused on operational and management questions. The CEP had discussed the environmental aspects of the report. Several Delegations had commended the report and noted that the recommendations of the report were applicable throughout the Antarctic.

(198) The environmental recommendations had been recorded in the CEP report.
(199) Note had been taken of:
- recommendations to develop homogenous sets of station information for inspectors and summaries of scientific plans.
- recommendation to improve communication together with COMNAP
- recommendation to make full use of the opportunity for increase cooperative research, using available surplus capacity of stations.

(200) ASOC had commented that inspections could play a fundamental role in protecting the Antarctic.

(201) Russia had introduced XXVII ATCM/IP48 on the inspection of a Russian station, to summarize the work at the Russian station and towards the IPY. The results had been presented to CEP.

**Item 13: Science Issues, Particularly Scientific Co-operation and Facilitation**

(202) Ukraine introduced XXVII ATCM/IP-16 on the Ukraine Antarctic Research Program (1996-2003). Ukraine noted that it had conducted complex and systematic research in the Antarctic since 6 February 1996 at the Akademik Vernadsky station (formerly the British station Faraday). The main reasons behind its Antarctic activity were scientific research in the fields of global climate change, space weather and marine resources. The most important principle of their researchers was the continuous monitoring of the environmental impact of activity in Antarctica and most of the research activities were continuous in nature. The Ukraine extended an open invitation to ATCP’s to participate in the scientific programmes conducted by the Ukraine.

(203) Australia set out the highlights of its science programme in XXVII ATCM/IP-18 and referred to the contributions to eco-science and the understanding of climate change.

(204) South Africa submitted XXVII ATCM/IP-29 (Antarctic Research Strategy for South Africa). South Africa recognized the importance of Antarctic research to understanding global scientific problems and had increased government investment in research. In order to ensure that key issues were addressed, South African had launched a broad consultative programme. The draft science plan was a key part of motivating and encouraging the next generation of South African scientists and would be linked to a developing outreach programme.

(205) India had reported in XXVII ATCM/IP-33 (India’s Antarctic Science Programme 2003-2004) that the country’s Antarctic research programme was concentrated in the fields of, but not limited to, Earth Science, Geophysics, Meteorology and Atmospheric Science, Glaciology, Environmental Science, Human Physiology and Medicine, and Engineering and Communication. The National Centre for Antarctic and Ocean Research had made efforts to collaborate with the National Antarctic Agencies of Germany, Iran, Peru and Poland. India also referred to the International Polar Year planning group and noted the emphasis on the social aspect.

(206) Ecuador reported in XXVII ATCM/IP-34 that 23 members of the Ecuadorian Antarctic programme stayed for 78 days in the Pedro Vicente Maldonado Station. They performed scientific research in the fields of biology, environmental science, geology, and geodesic science. Furthermore, Ecuador highlighted that the President of Ecuador had taken great interest in their Antarctic programme and that he had created an Antarctic Institute in April 2004. The Institute involved the Ministries of the Environment, the Economy, Foreign Affairs and Defence, as well as various universities.
(207) XXVII ATCM/IP-43, results of the Studies and Activities under the Subprogram “Study and Research of the Antarctic” in the Federal programme “World Ocean”, submitted by the Russian Federation summarized the major outcomes of the Antarctic Study and Research Subprogramme implemented under the Global Ocean Federal Targeted Programme, in 2003. The summary covered various fundamental research activities, including the study of Antarctica’s climate, paleoclimates, upper atmosphere, lithosphere, and ecosystems, as well as applied research, environmental monitoring and protection, and logistical support of the Russian Antarctic Expedition. The paper also provided information on Russia’s plans to continue ice core drilling and penetrate into subglacial Lake Vostok.

(208) South Africa reported that its paper XXVII ATCM/IP-76 (Influence of Climate on Seabirds at Sub-Antarctic Marion Island, Southern Ocean) outlined the influence of long term climate change on breeding populations of three seabirds at Marion Island: Gentoo Penguins, Eastern Rochhopper Penguins and Crozet Shag or Cormorants. These species had shown reductions in the breeding populations. Increases in sea surface temperatures had negatively affected food availability for the breeding populations feeding close to the island. The research provided valuable information for understanding the influence climate change could have on bird populations in the Antarctic Southern Ocean.

(209) SCAR had informed the Operational Working Group that XXVII ATCM/IP-100 on Subglacial Lakes of Antarctica was designed to support the presentation by Dr Bell by providing further background information on her presentation.

(210) Poland submitted XXVII ATCM/IP-101 on the 27th Polish Antarctic Expedition to Arctowski Station and noted that the scientific interest of the 27th Polish Antarctic expedition was centered on geological problems. Their wintering scientists focused mainly on biological topics.

**Item 14: Operational Issues:**

(211) Germany noted that XXVII ATCM/IP-28 was a notification to the XXVII ATCM on the planned construction of a new station, replacing the current Neumayer station at the Ekstrom ice shelf. The replacement was becoming necessary because the Neumayer station was located on ice and had a limited lifetime. Construction works were scheduled to commence in the 2006/07 season, and to be completed during the 2007/08 season. The draft CEE had been initiated this year and will be submitted to XXVIII ATCM. Germany considers the continuation of scientific and logistic activities by running this new station as a major national contribution to IPY and beyond.

(212) The United Kingdom had informed the Operational Working Group that it planned to replace its Halley Station on the Brunt ice shelf, commencing in 2006/7, and to remove the present station by 2010. A draft CEE would be submitted to the XXVIII ATCM.

(213) South Africa, with the assistance of the Alfred Wegener Institute in Germany, had established a safe overland route of approximately 300 km between SANAE IV and the Neumayer Station in Antarctica during the 2003/04 season. As far as South Africa was concerned a safe, heavy vehicle route between SANAE IV and Neumayer Station was possible and would be clearly marked and established. Initial concept designs were being evaluated and once this had been finalized, an EIA would be conducted and submitted at CEP VIII as well as to the Operational Working Group during XXVIII ATCM.

(214) ASOC introduced XXVII ATCM/IP-94 noting that at least five new Antarctic national stations were currently proposed or planned in addition to several major infrastructure projects currently underway in Antarctica.
ASOC stated that it welcomed scientific activity that was conducted in accordance with the objectives, principles and rules of the Protocol, but that the Antarctic Treaty Parties should avoid unjustified impacts on the Antarctic wilderness. It further noted that there were several practical alternatives for cooperation that do not require the construction of new stations.

(215) In response to XXVII ATCM/IP-94 submitted by ASOC, Estonia had expressed the view that as a primary logistical means of implementing a national research programme and scientific cooperation, every Party should exercise the freedom and acceptance by other Parties to establish at least one research station in the Treaty Area. Estonia also noted that as the environmental evaluation procedures had become more complex than they had ever been before, the newly established or still planned facilities should meet considerably higher environmental standards and therefore encouraged Parties and observers to evaluate the establishment of new stations on a case by case basis and not to develop any generally discouraging approach.

(216) In response to Estonia, ASOC had noted that it was not a priori opposed to any new stations being proposed, but that a strategic approach to the construction of new Antarctic stations was needed.

(217) Belgium submitted XXVII ATCM/IP-99 on a new Belgium Research Base in Dronning Maud Land. Belgium had noted that it planned to establish a new station, which would be inaugurated during the International Polar Year. It would serve as a base for international cooperation and for monitoring. Belgium would present more information at the next ATCM and CEP.

(218) Norway introduced XXVII ATCM/IP-50 (International Project of the Cooperative Air Network in East Antarctica) and noted that it was jointly prepared by Norway and the Russian Federation. The project, which provided for transcontinental and inland flights, was an example of efficient cooperation between the National Antarctic programmes of Germany, Norway, Sweden, Finland, the UK, South Africa, the Netherlands, India, Russia, Belgium and Japan. Norway indicated that the paper explained the reasons behind the Dronning Maud Land Air Network Project.

(219) The Russian Federation added that a major emphasis was placed on the issue of safe flight operations. The airfield was being reclassified by the Russian Aviation Authority.

**Item 15: Education Issues**

(220) Japan submitted XXVII ATCM/IP-79 (Public Outreach through Mass Media). Japan reported on its efforts to bring the knowledge gained at Antarctica to the public’s attention. Public support was important to maintain Antarctic programmes. Japan had a television team spend a year at their station in 2003. The team broadcast programmes throughout the year. A newspaper team would currently produce Articles for their daily newspapers in Japan. These initiatives would allow the public to learn about the scientists’ work, which would hopefully lead to greater support.

(221) Germany reported on a public relations art project ‘Library on ice”. The idea was to establish a quiet room where books would be placed which had been selected by prominent personalities. The library container would be located at Neumayer station. The Alfred Wegener Institute supported the art project for Polar and Marine Research.

(222) CCAMLR had reported (XXVII ATCM/IP-04) that they had started with the development of a web-based education package aimed at secondary schools. CCAMLR was also planning to extend this project by means of a hard copy version.
(223) The Russian Federation welcomed the above-mentioned documents, adding that public outreach was vital and crucial not only for national programmes, but for the Antarctic Treaty system. This was also important because work in the Antarctic was supported by taxpayers-money.

**Item 16: Exchange of Information**

(224) Argentina, Netherlands and Australia submitted XXVII ATCM/WP-12 on the Review of the Process for the Exchange of Information. Argentina said that XXVII ATCM/WP-12 dealt with the process for the exchange of information, noting that various Articles of the Protocol obliged Parties to exchange information. Up to now, this was usually done through normal diplomatic channels, but this option was not always practical. In St. Petersburg it had been agreed to utilize a web-based transfer of documents. Argentina had therefore created a web site for this purpose. Argentina indicated that Parties were already using the site and that this process was more efficient and cheaper. The three Parties suggested the creation of an intersessional contact group to address the process for exchanging information.

(225) A Resolution on the establishment of an intersessional Contact Group to improve exchange of information between Parties (Resolution 5 (2004), reproduced in Annex C) was adopted.

(226) Peru said that XXVII ATCM/IP-11 described the main Antarctic activities of Peru during 2003/2004. The main element was the institutional strengthening of Antarctic activities. Peru also referred to the political support received from the Peruvian Government for Antarctic activities.

(227) Chile submitted XXVII ATCM/IP-47 on “National Contact Points of the Antarctic Treaty System”. Chile noted that its Foreign Ministry had compiled a contact list of the Treaty System, which was distributed to all Parties. Chile invited Parties to send updates to the address indicated in the contact list.

(228) Chile referred to XXVII ATCM/IP-82 and informed the Operational Working Group that the Chilean Air Force had launched a technology-oriented web page, which covered the history of the Air Force presence in the Antarctic continent. The site was written in Spanish but from December 2004 it would also be available in English.

**Item 17: Biological Prospecting in Antarctica**

(229) The representative from UNEP gave a short introduction to XXVII ATCM/IP-106 on industrial involvement in Antarctic bio-prospecting. A number of Parties emphasized the increasing importance of this topic for the ATCM and urged interested Delegations to introduce working papers at the next ATCM, so that consideration of this important subject can progress. The need for the ATCM to be informed of developments on this topic in other international fora was stressed.

**Item 18: Preparation of the XXVIII Meeting**

**Item 18(a): Date and Place of the Next Meeting**

(230) The Meeting welcomed the kind invitation of the Government of Sweden to host the XXVIII Consultative Meeting in Stockholm, June 6-17, 2005. For future planning, the following likely timetable of upcoming ATCMs was noted by the meeting. The representative of the United Kingdom announced the intention of his government to host the XXIX ATCM. In order to commemorate the 25th anniversary of India’s accession to the Antarctic Treaty and attainment of Consultative Party status, India suggested that it would offer to host the XXX
ATCM, to be followed by the newest Consultative Party, Ukraine, which intends to host the XXXI ATCM. The United States suggested that the 50th Anniversary of the signing of the Antarctic Treaty, might appropriately be commemorated by meeting in the USA in 2009 for the XXXII ATCM. Uruguay expects to host the ATCM in 2010.

**Item 18(b): Invitation of International and Non-Governmental Organisations**

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

**Item 18(c): Invitation to Third States**

(232) The ATCM decided to invite the Malaysian Government to send representatives to observe the XXVIII Meeting.

**Item 18(d): Preparation of the Agenda for XXVIII ATCM**

(233) The Meeting approved a preliminary agenda for the XXVIII ATCM, which is attached as *Annex K*. Australia proposed that the agenda item currently named “Science Issues, Particularly Scientific Co-operation and Facilitation” be amended to read “International Polar Year 2006/7’. This proposal was endorsed.

**Item 18(e): SCAR’s verbal presentation**

(234) Taking into account the valuable oral presentations at the XXVI and XXVII ATCM’s, the Meeting decided to invite SCAR to make another oral presentation on scientific issues relevant to the ATCM at its XXVIIIth Meeting.

**Item 19: Other Business**

(235) The Meeting decided to send a message to the stations in Antarctica. The text of the message is reproduced as *Annex L*.

(236) Argentina said that incorrect extra-Antarctic references had been made in some documents at ATCM concerning the status of the Malvinas, South Georgia and the South Sandwich Islands, and reserved its well known legal position and reasserted its sovereignty rights over those islands and the surrounding maritime areas.

(237) The United Kingdom indicated that it had no doubt about its sovereignty over the Falkland Islands, South Georgia and the South Sandwich Islands and their surrounding maritime areas. Furthermore, the United Kingdom regretted that matters which had no bearing on the Antarctic Treaty Area should be raised in the Report of the ATCM.

(238) Argentina rejected the UK’s views and reiterated its legal position. It also regretted that historical and political references were introduced into documents of a technical nature and requested that this be avoided in the future.

**Item 20: Adoption of the Final Report**

(239) The draft Final Report was adopted by the Consultative Parties on 4 June 2004.
Item 21: Closing of Meeting

(240) The Representative of Sweden, as the host country for XXVIII ATCM expressed on behalf of all the Delegations, their appreciation for the hospitality provided by South Africa and the quality of the organisation of the ATCM. He invited representatives of the Parties, Observers and Experts to participate in the XXVIII ATCM in Sweden in June 2005.

(241) Mr Horst Kleinschmidt, the Chair of ATCM, delivered the closing address to the Meeting.
PART II

MEASURES, DECISIONS AND RESOLUTIONS ADOPTED AT THE XXVII ATCM
ANNEX A

MEASURES
MEASURE 1 (2004)

ANTARCTIC SPECIALLY MANAGED AREAS: DESIGNATIONS AND MANAGEMENT PLANS

The Representatives,

Recalling Article 4, 5 and 6 of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty, providing for the designation of Antarctic Specially Managed Areas and the approval of Management Plans for those Areas;

Noting that the Committee for Environmental Protection has advised that the areas identified below be designated as Antarctic Specially Managed Areas and has endorsed the Management Plans appended to this Measure;

Recognising that these Areas support significant scientific, wilderness, ecological, heritage and aesthetic values and would benefit from improved co-ordination between Parties active there;

Recommend to their Governments the following Measure for approval in accordance with paragraph 1 of Article 6 of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty:

That:

1. the following be designated as Antarctic Specially Managed Areas:
   - Antarctic Specially Managed Area No. 2: McMurdo Dry Valleys, Southern Victoria Land; and
   - Antarctic Specially Managed Area No. 3: Cape Denison, Commonwealth Bay, George V Land;

2. the Management Plans for those Areas, which are annexed to this Measure, be approved.
Management Plan for
Antarctic Specially Managed Area No. 2

MCMURDO DRY VALLEYS, SOUTHERN VICTORIA LAND

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Management Plan for  
Antarctic Specially Managed Area No. 2  

MCMURDO DRY VALLEYS, SOUTHERN VICTORIA LAND

1. Description of values to be protected and activities to be managed

The McMurdo Dry Valleys are characterized as the largest relatively ice-free region in Antarctica with approximately thirty percent of the ground surface largely free of snow and ice. The region encompasses a cold desert ecosystem, whose climate is not only cold and extremely arid (in the Wright Valley the mean annual temperature is –19.8°C and annual precipitation is less than 100 mm water equivalent), but also windy. The landscape of the Area contains glaciers, mountain ranges, ice-covered lakes, meltwater streams, arid patterned soils and permafrost, sand dunes, and interconnected watershed systems. These watersheds have a regional influence on the McMurdo Sound marine ecosystem. The Area’s location, where large-scale seasonal shifts in the water phase occur, is of great importance to the study of climate change. Through shifts in the ice-water balance over time, resulting in contraction and expansion of hydrological features and the accumulations of trace gases in ancient snow, the McMurdo Dry Valley terrain also contains records of past climate change. The extreme climate of the region serves as an important analogue for the conditions of ancient Earth and contemporary Mars, where such climate may have dominated the evolution of landscape and biota.

The Area is characterized by unique ecosystems of low biodiversity and reduced food web complexity. However, as the largest ice-free region in Antarctica, the McMurdo Dry Valleys also contain relatively diverse habitats compared with other ice-free areas. The Area contains unusual microhabitats and biological communities (such as endolithic and Cryoconite systems) as well as special geological features and minerals (for example, salt deposits and desert pavements). Some of these special geological features are of value because they contain an extremely long record of natural events. The long-term data sets for environmental observations that have been collected in this region are some of the longest in Antarctica. The McMurdo Dry Valleys contain indicators of past and present regional climate change, as well as features that play a role in influencing local climate change.

These scientific values are also of global as well as regional importance. The Area is a valuable resource for understanding landscape processes and the stability of Antarctic ice sheets. The McMurdo Dry Valleys contain unique surface deposits including glacially deposited and modified sediments, sand dunes, desert pavement, glacio-lacustrine sediments, and marine fjord sediments containing valuable records of planetary change. The soil, rock, water, and ice environments and their associated biota are of scientific value as model ecosystems that allow deep insights into natural processes operating throughout the biosphere. Finally, the species that reside in the McMurdo Dry Valleys provide a biological resource for understanding adaptation to extreme environments, and are true end members of ecological continua.

The McMurdo Dry Valleys are also valued for their wilderness quality. They represent a nearly pristine environment largely undisturbed and uncontaminated by humans. The dramatic landscape, composed of high ridges and sweeping valleys, and contrasts of ice-free and glacier-covered terrain creates unique vistas with high aesthetic value.

Activities conducted in the area include a variety of scientific research, operations in support of science, media, arts, education and other official national programme visitors; and tourism. A Long Term Ecological Research site has been established in the Taylor Valley.

2. Aims and objectives

The Area requires special management to ensure that its scientific, wilderness, ecological, and aesthetic values are protected, including that data sets collected over the last 100 years will continue to be of high value.
Increasing human activity and potentially conflicting interests have made it is necessary to more effectively manage and coordinate activities within the Area. The overall aim is to manage and coordinate human activities in the Area such that the values of the McMurdo Dry Valleys are protected in the long term. The specific objectives of management in the Area are to:

- Facilitate scientific research while maintaining stewardship of the environment;
- Assist with the planning and coordination of human activities in the McMurdo Dry Valleys to manage conflicts among different values (including those of different scientific disciplines), activities and operators.
- Ensure the long-term protection of ecosystem integrity and special features through the minimization of cumulative environmental impacts of human activities;
- Minimize the possibility of the introduction of alien plants, animals and microbes to the Area;
- Promote the use of transportation modes that have the least environmental impact;
- Minimize the use of fossil fuels for the conduct of activities in the Area;
- Minimize the footprint of all facilities and scientific experiments established in the Area, including the proliferation of field camps.

3. Management activities

The following management activities are to be undertaken to achieve the aims and objectives of this plan:

- National Programs active within the Area should establish a McMurdo Dry Valleys Management Group to oversee coordination of activities in the ASMA. The Management Group is established to ensure effective communication among those parties active in the Area, to provide a forum to resolve any potential conflicts in uses, to minimize the duplication of activities, and to evaluate the effectiveness of management activities. This group should convene on an annual basis to review past, existing, and future activities and make recommendations on the implementation of this Management Plan.

- National Programs operating in the Area shall promote the dissemination of information to all parties operating in the Area to ensure the enforcement of the Management Plan.

- All operators in the Area shall ensure that all personnel in their programs visiting the Area have been briefed on the requirements of the Management Plan and in particular on the Environmental Code of Conduct that applies within the Area.

- Copies of this management plan together with the maps and appendices shall be kept in appropriate stations and research hut facilities and be made available to all persons in the Area.

- Tourism and any other non-governmental activities should be coordinated with National Programs operating in the Area.

- Visits shall be made as necessary (no less than once every five years) to evaluate whether the Management Plan is effective and to ensure management measures are adequate.

Note that guidelines for the conduct of specific activities and for specific zones within the Area are found in Appendices B, C, D, and E (also see section 7 of this Management Plan).
4. Period of designation

Designated for an indefinite period.

5. Maps and photographs

The following maps are included in the plan:

Map A: Map of the McMurdo Dry Valleys Area
Map B: Wright Valley and Taylor Valley Map
Map C: Lake Vanda Huts Facilities Zone
Map D: Lower Wright Camp Facilities Zone
Map E: Bull Pass Hut Facilities Zone
Map F: Cape Roberts Camp Facilities Zone
Map G: New Harbor Camp Facilities Zone
Map H: F-6 Camp Facilities Zone
Map I: Lake Fryxell Camp Facilities Zone
Map J: Lake Hoare Camp Facilities Zone
Map K: Lake Bonney Camp Facilities Zone
Map L: Marble Point Refueling Station Facilities Zone
Map M: Mt. Newall Facilities Zone
Map N: Canada Glacier Tourism Zone

6. Description of the Area

The McMurdo Dry Valleys are located in southern Victoria Land along the western coast of McMurdo Sound, southern Ross Sea, at approximately 77°S, 162°E. An area of approximately 15,000 km² is designated as an Antarctic Specially Managed Area (hereafter referred to as the “Area”) to manage human activities in the valleys, for the protection of scientific, wilderness, ecological, and aesthetic values.
6(i) Geographical coordinates, boundary markers, and natural features
The Area boundaries have been defined primarily on the basis of the hydrological catchments in the McMurdo Dry Valleys, including all of the ice-free ground and adjacent areas within these catchments, all of the Convoy Range, and the catchment of the Alph River. Starting at the northwest corner and moving counter-clockwise, the boundary is delineated by the following features: the northwest tip of Allan Nunatak (76.7167°S, 159.6667°E), Carapace Nunatak (76.8833°S, 159.4°E), Mt. DeWitt (77.2°S, 159.8333°E), the western edge of Horseshoe Mountain (77.5667°S, 159.95°E), Depot Nunatak (77.75°S, 160.0667°E), the southern most peak of the Lashly Mountains (77.9606°S, 159.5603°E), Mt. Kempe (78.3167°S, 162.7167°E), the Pyramid (78.35°S, 163.5°E), the east side of Heald Island (78.25°S, 163.8167°E), DeMaster Point (off the eastern end of Marshall Valley, 78.0792°S 164.4131°E), north along the coast following the mean low tide level to the east side of Tripp Island (76.6333°S, 162.7°E), the southern edge of Fry Glacier (76.6333°S, 162.3°E), and, again the northwest tip of the Allan Nunatak (76.7167°S, 159.6667°E). Given the large size of the Area and the prominence of physical features that define the boundaries, boundary markers are not installed.
All geographic coordinates in this Management Plan are given in decimal degrees format.

6(ii) Restricted and managed zones within the Area
This Management Plan establishes three types of managed zones within the Area: Facilities Zones, a Tourism Zone, and Special Features. The objective of a zoning concept is to manage for multiple uses of and activities within the Area while providing protection for those features for which the Area is valued. The Facilities Zones are intended to contain primary areas of human activity, the Tourism Zone specifies the area where tourism activities may occur, and the Special Features are established to provide additional protection for environmental features of special value. Each zone, discussed in the sections below, has specific guidelines for the conduct of activities, found in Appendices C, D, and E.

6(ii)(a) Facilities Zones
Facilities Zones have been established to contain temporary and semi-permanent facilities within pre-defined areas and thereby control their distribution. Facilities Zones may be areas where human presence is intended to be semi-permanent or for a defined period of time in which significant activity is occurring. They may also be areas where human presence is expected to have regular occupation and/or repetitive activity. New Facilities Zones may need to be established from time to time. The establishment of new Facilities Zones should be considered and coordinated by the Management Group, and should be designed to minimize the footprint of facilities and associated materials. The following management activities should be undertaken for Facilities Zones:

- Alternative energy sources and energy efficiency should be considered in the planning and maintenance of activities within the Facilities Zones;
- Waste management should be considered in the planning and maintenance of activities within the Facilities Zone;
- Facilities Zones should be periodically assessed for usefulness, improvement or removal;
- As appropriate, contingency plans for emergencies should be developed to take into account the special needs of specific Facilities Zones;
- Facilities Zones should not be located on or in close proximity to Special Features.

Facilities Zones are listed in Appendix C with locations, boundary descriptions, and guidelines for conduct in the Zones. Maps A, B, and C shows the location of the Facilities Zones, and Maps D-M show the individual Facilities Zones.
6(ii)(b) Tourism Zone
The Tourism Zone is located in an area of high aesthetic value near the Canada Glacier in the Taylor Valley, where safe and easy access and movement within the area can be reasonably assured with minimal impact to science activities or the environment. The site was established based on consultation among the national programs operating in the Area and the tourism industry. The site has received carefully managed visitation by tour parties in the past. Tourism activities should be restricted to this area.

Guidelines for the conduct of activities within the Tourism Zone are located in Appendix D, along with the location and boundary description of the Tourism Zone. Map N shows the location of the Tourism Zone.

6(ii)(c) Special Features
Special Features are designated areas which are of particularly high scientific value and which are particularly sensitive to human disturbance. For these reasons, Special Features require additional measures to ensure their protection. Special Features are listed in Appendix E with a brief description of their scientific importance, their locations, and guidelines for conduct. Map A shows the location of Special Features.

6(iii) Structures within and near the Area
The main structures in the Area are located within the Wright and Taylor valleys, at Marble Point, at Cape Roberts, and at Odell Glacier. There are three semi-permanent field camps in the Wright Valley, and five semi-permanent field camps in the Taylor Valley. Map A shows the location of all structures within the Area.

Table 1 summarises information about each of the sites containing structures in the Area, including the National Program maintaining each site, the geographic coordinates and location description of each site, and a description of the structures at each site including dimensions.

Table 1: Structures within the Area

<table>
<thead>
<tr>
<th>Name</th>
<th>MP</th>
<th>Geographic Location</th>
<th>Description of Location</th>
<th>Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bull Pass Camp (or Lake Vanda Seismic Station)</td>
<td>US</td>
<td>77.5169°S, 161.8513°E</td>
<td>Along the north edge of the Wright Valley near the entrance to Bull Pass.</td>
<td>Two shelters located at this site, an equipment shelter and an environmental shelter approximately 28.7 sq. m. (290 sq. ft.) which houses a hybrid power system.</td>
</tr>
<tr>
<td>Cape Roberts Camp</td>
<td>NZ</td>
<td>77.0333°S, 163.2°E</td>
<td>The southern cape of Granite Harbor, on the coast.</td>
<td>Two huts on the ice-free area of Cape Roberts with accommodation for four people (approximately 10 sq. m.) as well a living hut 19 sq. m. (205 sq. ft.). A storage rack for drummed fuel is also at the site.</td>
</tr>
<tr>
<td>F-6 Camp</td>
<td>US</td>
<td>77.6083°S, 163.255°E</td>
<td>On the southeast end of Lake Fryxell across from the Commonwealth Glacier in the Taylor Valley.</td>
<td>A 42 sq. m. (448 sq. ft.) main building with outhouse adjacent.</td>
</tr>
</tbody>
</table>

1 Maintaining party
<table>
<thead>
<tr>
<th>Location</th>
<th>Country</th>
<th>Coordinates</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Bonney Camp</td>
<td>US</td>
<td>77.715°S, 162.555°E</td>
<td>On a steep slope on the south side of Lake Bonney in the Taylor Valley. A 55.7 sq. m. (600 sq. ft.) Jamesway, a 2.2 sq. m. (24 sq. ft.) outhouse, an 8.9 sq. m. (96 sq. ft.) generator building, and three 8.9 sq. m. (96 sq. ft.) laboratories.</td>
</tr>
<tr>
<td>Lake Fryxell Camp</td>
<td>US</td>
<td>77.6067°S, 163.1217°E</td>
<td>Midway along Lake Fryxell on the north side of the lake in the Taylor Valley. A 62.7 sq. m. (675 sq. ft.) Jamesway (main building), four 13.9 sq. m. (150 sq. ft.) laboratories, and one 13.9 sq. m. (150 sq. ft.) generator building.</td>
</tr>
<tr>
<td>Lake Hoare Camp</td>
<td>US</td>
<td>77.6233°S, 162.905°E</td>
<td>On the north side of Lake Hoare at the base of Canada Glacier in the Taylor Valley. A 55.7 sq. m. (600 sq. ft.) main building, three 13.9 sq. m. (150 sq. ft.) labs, a generator building (96 sq. ft.), a tool shed (96 sq. ft.), and three outhouses: two 2.2 sq. m. (24 sq. ft.) and one 1.7 sq. m. (18 sq. ft.). Below the active camp are the old Lake Hoare Camp buildings, which are still in use. These include a 37 sq. m. (400 sq. ft.) Jamesway used primarily for storage, a 6 sq. m. (64 sq. ft.) generator shed, and a 7.5 sq. m. (81 sq. ft.) old laboratory used as a shower room.</td>
</tr>
<tr>
<td>Lake Vanda Huts</td>
<td>NZ</td>
<td>77.5233°S, 161.6717°E</td>
<td>At the eastern end of Lake Vanda in the upper part of the Wright Valley. Three interconnected huts with a total floor area of 30 sq. m. (323 sq. ft.).</td>
</tr>
<tr>
<td>Lower Wright Hut</td>
<td>NZ</td>
<td>77.4333°S, 162.6167°E</td>
<td>South of Lake Brownworth in the lower part of the Wright Valley. One small hut with accommodation for 2 people with a floor area of 6 m. sq (65 sq. ft.).</td>
</tr>
<tr>
<td>Marble Point Refueling Station</td>
<td>US</td>
<td>77.413°S, 163.68°E</td>
<td>5 km (3 miles) north of Cape Bernacchii on the coast of Victoria Land, and approximately 60 km (37 miles) across McMurdo Sound from Cape Royds. A 69.7 sq. m. (750 sq. ft.) main building, a 41.8 sq. m. (450 sq. ft.) bunkhouse, a 55.7 sq. m. (600 sq. ft.) bunkhouse, a 7.4 sq. m. (80 sq. ft.) fuel shack, 6 fuel storage tanks (25,000 gallons each), a 2.2 sq. m. (24 sq. ft.) outhouse and incinerator for solid waste, a 1.9 sq. m. (20 sq. ft.) storage shed, a 21 sq. m. (224 sq. ft.) generator shed, a 27 sq. m. (288 sq. ft.) workshop and storage building, and a 7 sq. m. (76 sq. ft.) ASOS weather station.</td>
</tr>
<tr>
<td>Mt. Newall Radio Repeater Site</td>
<td>US/ NZ</td>
<td>77.5049°S, 162.6221°E</td>
<td>On Mt. Newall, a peak in the northeast extremity of the Asgard Range (20 km (12 miles) east of Lake Vanda).</td>
</tr>
<tr>
<td>New Harbor Camp</td>
<td>US</td>
<td>77.575°S, 163.4983°E</td>
<td>At the far eastern end of the Taylor Valley, beside New Harbor Bay.</td>
</tr>
<tr>
<td>Odell Glacier Camp</td>
<td>US</td>
<td>76.6810°E, 159.9134°S</td>
<td>Beside the Allan Hills on the western edge of the Odell Glacier.</td>
</tr>
</tbody>
</table>

There are a number of sites of scientific and operational instrumentation located throughout the Area, for example, automatic weather stations (AWSs), radio repeater sites, and glacier mass balance devices. There are also several sites in the McMurdo Dry Valleys where semi-permanent camps have been decommissioned and removed. These are shown in the Table 2.

Table 2: Known Sites of Decommissioned Semi-Permanent Camps in the Area

<table>
<thead>
<tr>
<th>Decommissioned site</th>
<th>Geographic coordinates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asgard Hut (NZ)</td>
<td>77.5833°S, 161.6°E</td>
</tr>
<tr>
<td>Brownworth Hut (NZ)</td>
<td>77.45°S, 162.8833°E</td>
</tr>
<tr>
<td>Bull Pass Hut (New Zealand)</td>
<td>77.5169°S, 161.8513°E</td>
</tr>
<tr>
<td>Meserve Glacier Camp (US)</td>
<td>77.5133°S, 162.2833°E</td>
</tr>
<tr>
<td>Miers Valley Hut (NZ)</td>
<td>78.1333°S, 163.8333°E</td>
</tr>
<tr>
<td>Old Lake Bonney Hut (US)</td>
<td>77.7033°S, 162.51°E</td>
</tr>
<tr>
<td>Lake Fryxell Hut (NZ)</td>
<td>77.6167°S, 163.05°E</td>
</tr>
<tr>
<td>Vanda Station (NZ)</td>
<td>77.5267°S, 161.6683°E</td>
</tr>
<tr>
<td>Commonwealth Glacier Camp (NZ)</td>
<td>77.5824°S, 163.5969°E</td>
</tr>
<tr>
<td>Old New Harbor Camp (US)</td>
<td>77.575°S, 163.4983°E</td>
</tr>
</tbody>
</table>
Seven sites in the Area were drilled as a part of the McMurdo Dry Valley Drilling Project carried out between 1971 and 1975. Drill sites for the program are located at Lake Vanda (DVDP 4) (drilled 85.8 m below ice surface), Don Juan Pond (DVDP 5) (3.4 m), Lake Vida (DVDP 6) (305.8 m), Lake Fryxell (DVDP 7) (11.1 m), New Harbor (DVDP 8 and 9) (157.5 m and 38.3 m, respectively), and Commonwealth Glacier.

6(iv) Location of other protected areas within the Area
There are four existing ASPAs within the Area. A permit is required for entry into these protected areas. They are:

ASPA 123, Barwick and Balham Valleys
ASPA 131, Canada Glacier
ASPA 138, Linnaeus Terrace
ASPA 154, Botany Bay

7. Code of Conduct

The Code of Conduct in this section is the main instrument for the management of activities in the Area. It outlines the overall management and operational principles for the Area.

In addition, further guidance is provided in the Environmental Code of Conduct for the McMurdo Dry Valleys (Appendix A). An earlier version of the Environmental Code of Conduct has already been adopted by the national Antarctic programs of New Zealand and the United States. It is important that all persons visiting the McMurdo Dry Valleys be aware of the guidelines outlined in the Appendix A before entering the Area.

7(i) Access to and movement within the Area
The Area is large and has numerous potential access points. Access to the Area is normally made by helicopter from Ross Island, or over sea ice via New Harbor or Marble Point. Designated helicopter pads should be used for helicopter landings. Where these are unavailable, previously used landing sites should be selected when possible. Where it is expected that helicopters will be used for repetitive access to a particular location, consideration should be given to establishing a designated site for landing. Such suggestions should be referred to the Management Group. Overflight restrictions are in place over ASPA No. 123 in the Barwick and Balham Valleys, ASPA No. 131 at Canada Glacier, and ASPA No. 154 at Botany Bay. Special provisions on overflight of and landing near Special Features may apply, and these are described in Appendix E, Guidelines for Special Features.

All pedestrian access routes and movement within the Area should be undertaken so as to minimize disturbance to the soil and vegetated surfaces. There are a number of walking routes in the Area. In the Taylor Valley, these include routes between F-6 Camp and Lake Fryxell Camp, F-6 Camp and Lake Hoare Camp, Lake Hoare Camp and Lake Fryxell Camp, and Lake Hoare Camp and Lake Bonney Camp. There is a route from the edge of Lake Fryxell to the weir at Canada Stream. There are also routes outside the immediate vicinity of F-6, Lake Fryxell, Lake Bonney, and Lake Hoare camps. In the Wright Valley, there is a route between the Vanda Weir and the Vanda Huts. There is a loosely defined route along the Onyx River between Lake Vanda and Lake Brownworth. In places, remnants of tracks from overland vehicles moving along the route in the 1970s remain.

The use of vehicles in the Area should be restricted to lake ice except where specifically authorised to do so, or at Marble Point, New Harbor, and Cape Roberts where vehicles should keep to existing vehicle tracks.
7(ii) Activities that may be conducted in the Area
Activities which may be conducted in the area include scientific research; operations in support of science; media, arts, education or other official national program visitors; management activities including maintenance or removal of facilities; and tourism visits within the Tourism Zone, where these activities do not jeopardize the values of the area.

All activities in the McMurdo Dry Valleys should be conducted in such a manner as to minimize environmental impacts. Alternative energy sources (e.g. solar, wind, fuel cells) should be used as much as possible to minimize fossil fuel usage. Specific guidelines on the conduct of activities in the Area can be found in the Appendices.

Tourism activities should be undertaken so as to minimise as much as possible adverse impacts on the McMurdo Dry Valleys ecosystem and the scientific activities in the Area. Tour operators should provide visit schedules to National Programs operating in the Area in advance of their visits, which should be circulated to the Management Group. Tourism movements in the Area should avoid stream crossings. If streams must be crossed, designated crossing points including existing boulders should be used. Tourism activities should be confined to the designated Tourism Zone. Guidelines for conduct of activities in the Tourism Zone are outlined in Appendix D.

7(iii) Installation, modification, or removal of structures
Care should be exercised when locating and establishing installations to minimise their impact on the environment. Installation sites should be re-used to the greatest extent possible and the location recorded. The footprint of installations should be kept to the minimum practicable. No structures should be installed outside of Facilities Zones. The installation of new structures and establishment of new Facilities Zones should be considered by the Management Coordination Group.

7(iv) Field camps
In the McMurdo Dry Valleys, a field camp is considered to be a small (generally one or two tents), temporary camp set up for research in a field season. Field camps are generally remote from Facilities Zones. Care should be exercised when locating and establishing campsites to minimise their impact on the environment. Campsites should be re-used to the greatest extent possible and the location recorded. The footprint of campsites should be kept to the minimum practicable.

7(v) Taking or harmful interference with native flora or fauna
This is prohibited, except in accordance with a permit issued under Article 3 of Annex II of the Protocol on Environmental Protection. Where animal taking or harmful interference is involved, this should, as a minimum standard, be in accordance with the SCAR Code of Conduct for the Use of Animals for Scientific Purposes in Antarctica.

7(vi) Collection or removal of material found in the Area
Material not covered by 7(v) above should only be collected or removed from the Area for scientific and associated educational purposes or essential management purposes and should be limited to the minimum necessary for those needs. Any meteorites taken are to be collected and curated according to accepted scientific standards, and are made available for scientific purposes. Material of human origin likely to compromise the values of the Area may be removed unless the impact of removal is likely to be greater than leaving the material in place. If this is the case the appropriate authority should be notified.

7(vii) Waste management
All materials taken into the Area should be collected and removed from the Area to the maximum extent practicable. Water used for any human purposes, including scientific purposes, should be removed and/or treated in a greywater evaporator (and residuals removed). All human wastes should be removed from the Area, including residues from incineration.
In accordance with Article 4, Annex III of the Protocol on Environmental Protection, wastes shall not be disposed of onto ice-free areas, into fresh water systems or onto snow or ice which terminate in such areas or have high ablation.

7(viii) Requirements for reports
Reports of activities in the Area should be maintained by the Management Group to the greatest extent possible, and made available to all parties.

In accordance with Article 10 of Annex V of the Protocol on Environmental Protection, arrangements shall be made for collection and exchange of reports of inspection visits and any significant changes or damage within the Area.

Tour operators should record their visits to the Area, including the number of visitors, dates, and incidents in the Area, and submit this data to the Management Coordination Group. Geographical coordinates for all field camps should be recorded. With regard to the special features, all visits and activities at the special features should be recorded and all sampling at the special features, including type and quantity, should be recorded.

8. Provisions for the exchange of information in advance of proposed activities

In addition to the normal exchange of information by means of the annual, national reports to the Parties of the Antarctic Treaty, and to SCAR and COMNAP, Parties operating in the Area should exchange information through the Management Coordination Group.

9. Supporting documentation

Publications


Management Plans

Management Plan for Antarctic Specially Protected Area No. 123 Barwick and Balham Valleys, South Victoria Land

Management Plan for Antarctic Specially Protected Area No. 131 Canada Glacier, Taylor Valley, Victoria Land

Management Plan for Antarctic Specially Protected Area No. 138, Linnaeus Terrace, Asgaard Range, Victoria Land

Management Plan for Antarctic Specially Protected Area No. 154, Botany Bay, Cape Geology, Victoria Land
APPENDIX A:

Environmental Code of Conduct for the McMurdo Dry Valleys

Why are the McMurdo Dry Valleys considered to be so important? The McMurdo Dry Valleys ecosystem contains geological and biological features that date back thousands to millions of years. Many of these ancient features could be easily and irreversibly damaged by human actions. Unusual communities of microscopic life forms, low biodiversity, simple food webs with limited trophic competition, severe temperature stress, aridity and nutrient limitations are other characteristics that make the McMurdo Dry Valleys unique. This ancient desert landscape and its biological communities have very little natural ability to recover from disturbance. Research in such systems must aim to minimize impacts on land, water and ice to protect them for future generations.

Materials:

- Everything taken into the Area should be removed and returned to the appropriate national program station for proper handling.
- Activities that could result in the dispersal of foreign materials should be avoided (e.g. do not use spray paint to mark rocks) or should be conducted inside a hut or tent (e.g. all cutting, sawing and unpacking).
- Do not leave any travel equipment behind (e.g. ice screws, pitons).

Waste and spill incidents:

- Water used for ANY human purpose should be removed and/or treated in a greywater evaporator (and residuals removed).
- All human waste should be collected and removed.
- Individuals or groups should always carry proper containers for human waste and gray water so that they may be properly and safely transported and disposed.
- Spill incidents should be reported to the appropriate National Program.
- The location of any spill should be recorded in the group’s field report.

Energy:

- Solar and wind power should be used as much as possible to minimize fuel usage.

Travel operations:

- Ground vehicle usage should be restricted to ice surfaces unless specifically authorized to do otherwise, or at Marble Point, Cape Roberts, and New Harbor.
- Designated helicopter pads should be used for helicopter landings. Where these are unavailable, known previous landing sites should be used when possible.
- Markers that are clearly visible from the air should be used to mark helicopter pads.
- Helicopter operations should not use smoke bombs, except for essential safety purposes.
• Care should be taken to ensure that helicopter sling loads are properly secured. Trained personnel should supervise these operations.

• Fuel release is to be avoided.

• When traveling on foot, stay on established trails whenever possible.

• Avoid walking on vegetated areas.

• Cairns should not be built in the Area.

• Be aware of Special Features and their guidelines.

_Safety:_

• Individuals or groups should bring sufficient equipment, survival or otherwise, into the Area to ensure safety.

_Field camps: location and set up:_

• Campsites should be located as far away as practical from lakeshores, streambeds, Special Features, and long-term experiments to avoid damage or contamination. Do not camp in streambeds, even if they are dry.

• Where rocks are moved for campsites or other activities, they should be replaced in their footprint if possible, and at minimum should be placed with the salt-encrusted side faced-down.

• Campsites should be re-used wherever possible.

• The location of field camps should be recorded in the group’s field report.

• Ensure that equipment and supplies are properly secured at all times to avoid dispersion by high winds.

_Fuel and chemicals:_

• Steps should be taken to prevent the accidental release of chemicals including laboratory reagents and isotopes (stable or radioactive). Chemicals of all kinds should be dispensed over drip trays or other forms of containment. When permitted to use radioisotopes, safety and handling instructions should be followed precisely.

• When using chemicals or fuels, ensure that spill kits appropriate to the volume of the substance are available. Those working with chemicals and fuels should be familiar with their use and with appropriate spill response procedures.

• Chemical and fuel containers should be securely positioned and capped, particularly on lake ice.

• All fuel drums should be provided with some form of secondary containment.

• Fuel cans with spouts should be used when refueling generators. Generators and vehicles should be refueled over drip trays with absorbent spill pads.

• Vehicle oil should not be changed except over a drip tray.
• Any accidental releases of fuel should be cleaned up to the greatest extent possible and documented, including coordinates, in activity reports.

_Lakes:_

• Explosives should not be used on a lake.

• Vehicles should be used on lake ice only when essential; they should be parked on permanent ice rather than moat ice during the period of summer melt.

• Where possible, ensure that nothing is left frozen into the lake ice that may ablate out and cause later contamination.

• Avoid swimming or diving in the lakes, except when approved by a national program for scientific purposes.

_Stream:_

• Stream crossings should be avoided; when it is necessary to cross streams, designated crossing points should be used whenever possible.

• Avoid walking in the streambed at any time to avoid disturbing the stream biota.

• Avoid walking close to stream sides, to prevent erosion.

_Valley floor and sides:_

• Avoid disturbing mummified seals or penguins.

• Avoid sliding down screes or sand dunes.

• Avoid disturbing (e.g. by walking through) long-term soil experiments.

• Avoid disturbing the raised delta surfaces, which mark ancient shorelines.

_High Desert:_

• Beware not to damage delicate rock formations.
APPENDIX B:

Additional Guidelines for Conduct of Scientific Research

Research activities in the McMurdo Dry Valleys include research on climate, glaciers, streams, lakes, soils, and local geology and geomorphology. The following prevention and mitigation guidelines for scientific conduct seek to reduce the impact of research activities specific to key environments in the Area. These guidelines have been drawn from the report McMurdo Dry Valley Lakes: Impacts of Research Activities (Wharton, R.A. and Doran, P.T., 1998), the product of an international workshop of scientists conducting research in the Area.

Sampling and experimental sites
- All sampling equipment should be clean before being brought into the Area.
- The location of sampling sites should be recorded in the group’s field report.
- Do not displace or collect specimens of any kind, including fossils, except for scientific and associated educational purposes.
- Once a sampling hole has been drilled in lake ice or a soil pit has been dug, it should be kept clean and all sampling equipment should be securely tethered.
- Avoid leaving markers (e.g. flags) and other equipment for more than one season without marking them clearly with the event number and duration of the project.

Scientific installations
For scientific installations, including meteorological stations, geographic monuments, communication repeaters, lake monitoring systems, and level recorders:
- Installations should be sited carefully, should be easily retrievable when required, and properly secured at all times to avoid dispersal by high winds.
- All installations in the Area should be clearly identified by country, name of the principal investigator and year of installation.
- Installations should be as energy-efficient as possible and use renewable energy sources wherever practicable.
- Installations should pose minimal risk of harmful emissions to the environment (e.g. use gel cells or other non-spill batteries).
- Geographic locations of installations should be recorded.
- Materials liable to shatter at low temperatures, for example many polyethylene based plastics, should be avoided. Likewise, wooden and fabric components in semi-permanent structures should be avoided as these are subject to wind abrasion and occasional failure.
**Streams**

- Use flumes rather than weirs.
- Use local sand or soil in sandbags when constructing flumes or control structures.
- Document the geographic location of all stream control structures, biological transects, and instrumentation.
- Periodically (every 3-5 years) evaluate in-stream structures (e.g., flumes) for deterioration, usefulness, and potential removal.
- Limit the number of tracer and manipulative experiments. Whenever possible, use modeling approaches to extend the application of experimental results to other streams and lake basins.
- Use only naturally occurring tracers and document tracer use.
- Design tracer experiments to limit the movement of tracers in lakes. The incremental flux from the experiment should be appropriately small in proportion to the average annual total flux for that solute from streams. Choose an experimental site with a long enough reach such that reactions will be completed by the end of the reach.
- Establish specific sites for biomass sampling and document geographic locations, sampling extent, and frequency.
- Limit biomass sample size to that required for the planned analyses and archiving.
- Develop and apply methods (e.g., spectral analysis) that do not rely on removal of samples for quantifying changes in biomass in streams.

**Lakes**

- Minimize the duration and extent to which structures are placed on the ice. When placing structures on the ice near shore, place them on the perennial ice rather than the moat (the moat is highly susceptible to rapid melting). Document the geographic location of the placement of structures on the ice.
- Minimize the use of fossil-fuel-powered equipment; use solar-powered and hand devices when possible. Use barriers (e.g., drip pans) between equipment (e.g. motors, tools) and ice to minimize the potential for hydrocarbon introduction into the ice as well as the physical melting of the ice surface. Always have appropriate spill kits available.
- Document the area and the extent to which lake ice has been excavated, taking geographic coordinates. Areas that have been used for sampling or accessing the lake should be reused to the greatest extent possible.
- Minimize the use of motorized vehicles. All-terrain vehicles with four-stroke engines are preferable to snowmobiles with two-stroke engines (less efficient combustion in two-stroke engines causes an increase in the release of hydrocarbons and particulates).
- Use extreme caution when driving motorized vehicles to avoid rolling the vehicle or breaking through the ice cover.
• Remove materials brought up from beneath the ice. Do not dump or deposit water and sediment samples on the lake ice.

• Reduce helicopter overflights after the ice surfaces begin to melt and keep landings on lakes to a minimum.

• Avoid storage of materials on the lake ice surface.

• Use separate samplers (e.g., water collectors, plankton nets) and instruments, if feasible, for each lake to avoid cross contamination. Samplers or instruments used in more than one lake should be thoroughly cleaned (sterilize if possible) prior to reuse in a different lake.

• Carefully manage chemical waste, glycol, and all other liquid wastes (including gray water from the lakes themselves) to avoid spills.

• Consider laboratory-based alternatives to in situ experiments involving any radioisotope, stable isotope, or other tracer in view of the future integrity of the biological and chemical properties of the lakes. Complete preliminary calculations to ascertain the potential impact of isotope experiments. Document and record any introductions.

• Incorporate metal-free haul lines and sampling containers such as “go-flow” bottles into sampling protocols to minimize metal contamination of the lakes.

• Promote use of an environmentally friendly substitute for glycol for use in melting access holes (e.g., a biodegradable antifreeze).

• Minimize the amount of gray water waste by collecting the least volume of water and sediment needed for research purposes.

• Train individuals working on the lake ice to take steps to reduce the loss of equipment through ice holes.

• Provide adequate training for research divers and support teams so that impacts to the lake environment are minimized.

• Prior to conducting diving or ROV operations in a particular lake, consider previous diving history at the proposed research site, the proximity of other areas of interest, and the vulnerability of the water column and benthos to disturbance. These considerations should also be applied to other sampling and measuring activities.

• Assemble and maintain records of diving and ROV activities, including timing, intensity, and duration.

• Use technological developments (e.g. rebreather apparatus, push-pull systems) that mitigate the environmental impacts of diving.

Soils

• Restore disturbed surfaces as close as possible to their natural state upon completion of the work. For larger-scale excavations (greater than 1 m²), take photographs prior to breaking ground to provide a basis for restoration. Record the location of the remediated site.

• Place excavated soil on mats or groundsheets during soil sampling.
• Backfill all excavations to approximate original contour and replace desert pavement where possible. The desert pavement can be skimmed from the surface prior to digging and kept aside for replacement.

• Document the geographic location of all soil sampling sites (even if they have been back-filled).

• Conduct thorough environmental assessment of proposed exogenous amendment experiments.

• Limit use of mechanical equipment (e.g., Cobra drills, soil augers).

**Glaciers**

• Minimize the use of liquid water (e.g., with hot water drills).

• Avoid the use of chemicals and chemical solutions on the ice.

• If stakes or other markers are placed on a glacier, use the minimum number of stakes required to meet the needs of the research; where possible, label these with event number and project duration.

• Provide spill kits on-site where power tools are being used. Always refuel using drip pans.

• Properly tune generators to minimize emissions and use only when necessary. Always place generators and fuel cans in drip pans.

• Use electric chainsaws powered by a four-stroke generator whenever possible for large-scale sawing operations (less contamination than from two-stoke engines). Avoid the use of chainsaw blade lubricants when cutting cold ice.

• Upon completion of a research project, remove all materials – wood, metal, and sensors – embedded in the ice to minimize contamination.

• Use gel cell or other non-spill batteries.

**High Desert:**

• Only the minimum sample of endolithic community required for scientific analysis should be collected.
APPENDIX C:

Guidelines for Facilities Zones

Facilities Zones include a designated area around the following facilities operated by national programs in the Area: Lake Vanda Huts, Lower Wright Camp, Bull Pass Hut, Cape Roberts Camp, New Harbor Camp, F-6 Camp, Lake Fryxell Camp, Lake Hoare Camp, Lake Bonney Camp, Marble Point Refueling Station, Odell Glacier Camp and Odell Landing Site, and the radio repeater stations at Mt. Newall. Special guidelines for activities in the Facilities Zones include that:

- Facilities, camping, helicopter pads, and storage of materials should be located within the boundaries of the Facilities Zones;
- Existing camping and storage sites within the Facilities Zones should be re-used where practicable;
- Provisions for fuel storage and handling within the sites should take account of the requirements set out in the McMurdo Dry Valleys ASMA Management Plan by providing secondary containment, appropriate equipment for refilling, decanting or servicing operations, secure storage and appropriate spill response materials; and
- All wastes should be securely stored until removal.

Table 3 gives boundary descriptions for the Facilities Zones.

Table 3: Boundaries for each of the Facilities Zones within the Area.

<table>
<thead>
<tr>
<th>Facility Zone</th>
<th>Boundary Description</th>
<th>Boundary Corners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bull Pass Huts</td>
<td>The boundary encompasses the pebbly flat on which the huts and tent sites are situated, and is bounded by a large boulder to the north, small rocky ridges to the east and west, and a line between ridge ends to the south. An AWS is established well to the west of the zone boundary.</td>
<td>77.5181°S, 161.8539°E; 77.5179°S, 161.8493°E; 77.5164°S, 161.8519°E; 77.5167°S, 161.8559°E;</td>
</tr>
<tr>
<td>Cape Roberts Huts</td>
<td>The boundary encompasses all of the flat area between North and South beaches on Cape Roberts, including the two huts and fuel rack. The south-east corner of the Zone is at the fuel rack, and the boundary continues north along the edge of a bouldery slope, west along the edge of a rocky area, and south behind the huts along the edge another rocky slope. The Zone is bounded to the south by the shoreline of a small bay.</td>
<td>77.0346°S, 163.1789°E; 77.0346°S, 163.1799°E; 77.0348°S, 163.1807°E; 77.0360°S, 163.1798°E;</td>
</tr>
<tr>
<td>F-6 Camp</td>
<td>The boundary goes from a point southwest of the helicopter pad, northeast to a point just east of the emergency cache (survival box), north around the northern-easternmost tent site, west to a point northwest of the tent sites (by the lake), south around the stream weir, and southeast to the original point by the helicopter pad.</td>
<td>77.6088°S, 163.2554°E; 77.6084°S, 163.2571°E; 77.6076°S, 163.2577°E; 77.6076°S, 163.2566°E; 77.6077°S, 163.2535°E;</td>
</tr>
<tr>
<td>Location</td>
<td>Description</td>
<td>Coordinates</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>Lake Bonney Camp</td>
<td>The boundary goes from a point west of the generator shed by the lake, southeast up to a boulder behind a tent site, northeast to a hill above a tent site, northeast, north to a point northeast of the easternmost tent site, west to the shoreline, southwest along the shoreline passing north of the helicopter landing pad, continuing southwest along the lake shore to a point northwest of the meteorological station and back to the original point below the generator shed.</td>
<td>77.7160°S, 162.4562°E; 77.7165°S, 162.4593°E; 77.7162°S, 162.4632°E; 77.7158°S, 162.4655°E; 77.7150°S, 162.4621°E; 77.7153°S, 162.4602°E;</td>
</tr>
<tr>
<td>Lake Fryxell Camp</td>
<td>The boundary follows the lake edge in the southeast corner to a point southwest of the helicopter pad, up to the small plateau below hill, behind the farthest tent site in the northwest corner, east to the stream, southeast along the stream bank to the eastern most tent and south back to original point by the lake.</td>
<td>77.6063°S, 163.1267°E; 77.6066°S, 163.1229°E; 77.6057°S, 163.1218°E; 77.6056°S, 163.121°E; 77.6049°S, 163.1212°E; 77.6048°S, 163.1252°E; 77.6052°S, 163.1265°E; 77.6063°S, 163.1266°E;</td>
</tr>
<tr>
<td>Lake Hoare Camp</td>
<td>The boundary goes from the rocky area southeast of the helicopter pads, north around the emergency cache, northeast to a rock northwest of the westernmost tent site, northeast to a point north of another tent site, northeast again to the northeastern most tent site, south along the stream/glacier to a point east of the Old Lake Hoare facilities (shower and dive storage buildings), southwest to the end of the spit, northwest to the beach below the main building, and northwest to the original point by the helicopter pads.</td>
<td>77.6233°S, 162.8978°E; 77.6231°S, 162.8977°E; 77.6225°S, 162.8979°E; 77.6219°S, 162.8993°E; 77.6210°S, 162.9047°E; 77.6210°S, 162.9058°E; 77.6232°S, 162.9066°E; 77.6245°S, 162.9056°E; 77.6235°S, 162.9008°E;</td>
</tr>
<tr>
<td>Lake Vanda Huts</td>
<td>The boundary follows the edge of the flat area on which the huts, AWS, marked helicopter landing site and tent sites are located.</td>
<td>77.5236°S, 161.6859°E; 77.5234°S, 161.6861°E; 77.5223°S, 161.6909°E; 77.5224°S;</td>
</tr>
<tr>
<td>Location</td>
<td>Boundary Description</td>
<td>Coordinates</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Lower Wright Camp</td>
<td>The boundary encompasses the hut, a marked helicopter landing site, and an emergency box and is bounded by rising slopes on the western and eastern sides, a large pavement crack at the southern end and rocky areas at the northern end. A met screen and weir are outside the zone within walking distance of the site.</td>
<td>161.6919°E; 77.5226°S; 161.6919°E; 77.5235°S; 161.6875°E; 77.4426°S; 162.6507°E; 77.4422°S; 162.6503°E; 77.4421°S; 162.6522°E; 77.4425°S; 162.6525°E;</td>
</tr>
<tr>
<td>Marble Point Refueling Station</td>
<td>The boundary goes from the easternmost point (east of soil pits), northwest around the main facilities area, northwest around the fuel storage tanks and pipe, northwest along the road, southwest around the end of the road and staging area, southeast along the road and around the helicopter pads, southeast around the pond, and northeast back to the point east of the soil pits.</td>
<td>77.4143°S; 163.6901°E; 77.4136°S, 163.687°E; 77.4135°S, 163.6837°E; 77.4134°S, 163.6801°E; 77.4119°S, 163.6708°E; 77.4123°S, 163.6692°E; 77.4143°S, 163.679°E; 77.4148°S, 163.6878°E;</td>
</tr>
<tr>
<td>Mt. Newall Radio Repeater Site</td>
<td>The boundary goes from the northeastern most point northeast of the green equipment shelter, southwest along the southeastern side of the ridge around the green equipment shelter, the NZ Repeater, the wind turbine, the AFTEC Hut, the antenna, the survival camp hut, the survival cache, around the helicopter landing pad, northeast along the northwestern side of the ridge around the camp hut, the antenna, the AFTEC Hut, the wind turbine, the NZ Repeater, and the green equipment shelter back to the original point.</td>
<td>77.5039°S, 162.6267°E; 77.5041°S, 162.6266°E; 77.5043°S, 162.6258°E; 77.5045°S, 162.6253°E; 77.5045°S, 162.6253°E; 77.5048°S, 162.6244°E; 77.5052°S, 162.6222°E; 77.5049°S, 162.6213°E; 77.5047°S, 162.6233°E; 77.5043°S, 162.6249°E; 77.5039°S, 162.626°E;</td>
</tr>
<tr>
<td>New Harbor Camp</td>
<td>The boundary goes from a point northwest of the generator shed (on the bank edge), southwest beyond the slingload area, east to a point south of the helicopter pad, northeast to a point east of the main Jamesways, northwest to a point north of the lab building, southwest to a point just north of the</td>
<td>77.5777°S, 163.5175°E; 77.5785°S, 163.5163°E; 77.5783°S, 163.5199°E;</td>
</tr>
<tr>
<td>Facilities Zone</td>
<td>Number of Designated Helicopter Landing Sites</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Bull Pass Hut</td>
<td>1 pad</td>
<td></td>
</tr>
<tr>
<td>Cape Roberts Camp</td>
<td>0 pads</td>
<td></td>
</tr>
<tr>
<td>F-6 Camp</td>
<td>1 pad</td>
<td></td>
</tr>
<tr>
<td>Lake Bonney Camp</td>
<td>1 pad</td>
<td></td>
</tr>
<tr>
<td>Lake Fryxell Camp</td>
<td>2 pads plus sling load area</td>
<td></td>
</tr>
<tr>
<td>Lake Hoare Camp</td>
<td>2 pads plus sling load area</td>
<td></td>
</tr>
<tr>
<td>Lake Vanda Huts</td>
<td>1 pad</td>
<td></td>
</tr>
<tr>
<td>Lower Wright Hut</td>
<td>1 pad</td>
<td></td>
</tr>
<tr>
<td>Marble Point Refueling Station</td>
<td>3 pads</td>
<td></td>
</tr>
<tr>
<td>Mt. Coates Radio Repeater Site</td>
<td>0 pads</td>
<td></td>
</tr>
<tr>
<td>Mt. Newall Radio Repeater Site</td>
<td>1 pad</td>
<td></td>
</tr>
<tr>
<td>New Harbor Camp</td>
<td>1 pad plus sling load area</td>
<td></td>
</tr>
<tr>
<td>Odell Glacier Camp and Odell Landing Site</td>
<td>1 pads</td>
<td></td>
</tr>
</tbody>
</table>

Table 4 shows the number of helicopter landing sites that exist at each of the Facilities Zones.

Table 4: Helicopter landing sites within each of the Facilities Zones in the Area
APPENDIX D:

Guidelines for the Tourism Zone

Special guidelines for activities within the Tourism Zone include that:

- Tourist movements in the Tourism Zone should be conducted in small, guided groups;

- Tour operators should ensure that footpaths in the Tourism Zone are clearly marked and that visitors stay on those routes. Markers used to mark tourist routes and sites of interest should be removed at the end of each visit;

- Tour expedition landings should be made at a landing site at 77.6358°S, 163.0656°E;

- Tents should only be established at the designated site and groups should not camp in the Tourism Zone except for reasons of safety;

- Stream and pond beds should be avoided. If streams must be crossed, designated crossing points including existing boulders should be used; and

- Activities planned for and conducted within the Zone should be in accordance with ATCM Recommendation XVIII-1.

The Tourism Zone is located in the Taylor Valley by the Canada Glacier. The boundary goes from a northernmost point by the Canada Glacier, southeast to a point northwest of a mossy area and nearby mummified seal, continuing southwest along the Canada Glacier, south to a point southwest of a bamboo marker, southeast to a point south of a rock cairn, southeast following high points encompassing the flat area of the Zone and a footpath to a point in the south, north continuing to parallel the footpath along elevated features in the landscape, northwest passing northeast of a mummified seal and the tent site and back to the original northernmost point by the Canada Glacier.
APPENDIX E:

Guidelines for Special Features

The following guidelines apply to the Special Features listed in this Appendix.

- Minimize sampling and research activities at or around Special Features.
- All sampling at the Special Features, including type and quantity, should be recorded in group field reports and provided to the appropriate national program.
- Helicopters should land at least 50m away from each Special Feature.

Special Features, including a geographic location, description, and special guidelines:

1. **Prospect Mesa** (77.5237°S, 161.8896°E)
   - Prospect Mesa contains unique marine deposits.
   - Avoid walking on top of the mesa unless conducting research activities.

2. **Argo Gully** (77.5197°S, 161.6901°E)
   - This stream section across from Vanda Station is a unique middle-Miocene marine deposit.
   - Avoid walking along the surface edge above the Gully.

3. **Boulder Pavement** (77.5227°S, 161.7466°E)
   - Boulder Pavement is on the Onyx River and contains the most extensive area of microbial mat in the Wright Valley and serves as a biofilter for Lake Vanda.
   - Avoid crossing the Boulder Pavement unless necessary for sampling purposes.
   - While sampling, walk only on the rocks and avoid trampling the microbial mats.

4. **Battleship Promontory** (76.8996°S, 161.0055°E)
   - A sandstone promontory containing rich cryptoendolithic communities.
   - Avoid damage to these ancient communities and rocks.

5. **Don Juan Pond** (77.5630°S, 161.1896°E)
   - A hypersaline ecosystem containing unique salt deposits.
   - Avoid walking through the lake and adjacent salt deposits.
   - Do not disturb salt deposits to avoid further deterioration.

6. **Trough Lake Catchment** (78.2736°S, 163.4652°E)
   - A pristine example of a complete hydrological unit (streams, ponds, lakes).
   - Minimize visits to this catchment that has not been highly visited and is therefore useful as a reference site with its relatively pristine landscape.

7. **Sand Dune Field** (77.3715°S, 162.2205°E), (in Lower Victoria Valley)
   - The largest sand dune feature in the Area.
   - Avoid walking on the dunes.

8. **Explorers Cove** (77.5770°S, 163.5169°E)
   - A tidally inundated sand flat characterized by tide pools containing unique benthic mats of diatoms and cyanobacteria.
   - Avoid walking in areas of scientific sampling and in tide pools after they thaw in mid-November.

9. **Mount Feather Sirius Deposit** (77.9320°S, 161.4367°E)
   - An important location of Sirius deposits.
Map E. Bull Pass Hut Facilities Zone

- Designated Boundary Corners
- Abandoned core samples
- Survey Marks
- Tent Sites
- Helicopter Pad

Facilities Zone Boundary

AFTEC Building
Rock Outcrop
Large Boulder
Barrel
Seismic Boreholes
Cook Shack
Weather Station

Projection: Lambert Conic Conformal
Map F: Cape Roberts Camp Facilities Zone

- Designated Boundary Corners
- Large Boulders
- Survey mark

Projection: Lambert Conic Conformal
Contour interval = 1m
Map H: F-6 Camp Facilities Zone

- Designated Boundary Corners
- Survey Marks
- Tent Sites
- Helicopter Pad

Projection: Lambert Conic Conformal
Contour interval = 1m
Management Plan for Historic Site and Monument 77 and Antarctic Specially Managed Area No. 3

CAPE DENISON, COMMONWEALTH BAY, GEORGE V LAND, EAST ANTARCTICA

Latitude 67° 00’ 13” S — 67° 00’ 50” S
Longitude 142° 40’ 00.1” E — 142° 41’ 27” E

Introduction
Cape Denison, Commonwealth Bay is one of the principal sites of early human activity in Antarctica. It is the location of the base of the Australasian Antarctic Expedition of 1911-14 organised and led by Dr (later Sir) Douglas Mawson. An important symbol of the ‘heroic age’ of Antarctic exploration (1895-1917), it is one of only six hut sites remaining from this period. Cape Denison hosted some of the earliest comprehensive studies of Antarctic geology, geography, terrestrial magnetism, astronomy, meteorology, glaciology, oceanography, biology, zoology and botany. It was also the base of numerous explorations inland and features artefacts associated with these sledging parties, including food caches and equipment. Due to the considerable historical, cultural and scientific significance of Cape Denison, the entire area is designated as an Antarctic Specially Managed Area (ASMA) consistent with Articles 2, 4, 5 and 6 of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty. It is also listed as a Historic Site and Monument in accordance with Article IX(1) of the Antarctic Treaty and Article 8(2) of Annex V of the Protocol.

Cape Denison is characterised by four valleys aligned northwest/southeast. The majority of Australasian Antarctic Expedition artefacts, including buildings (‘Mawson’s Huts’) and other structures, are concentrated in the westernmost valley and on the ridges on either side of the valley. The historic huts and their immediate surrounds constitute Antarctic Specially Protected Area (ASPA) No. 162.

1.0 Description of Values to be Protected
1.1 Primary values
This ASMA encompasses Cape Denison which is a site of historic, archaeological, social and aesthetic values.

• Historic value
Antarctica’s ‘heroic age’ was a period of great human adventure and discovery. Cape Denison, Commonwealth Bay provides the setting for the buildings, structures and relics of the Main Base of the Australasian Antarctic Expedition (AAE) of 1911–14, led by Dr Douglas Mawson.

The prime focus of Mawson’s was scientific research. Nevertheless, the expedition also had an exploratory agenda, with the aim of charting the entire Antarctic coastline immediately south of Australia. For this purpose at least five sledging expeditions were undertaken from Cape Denison from spring 1912, including the infamous Far-Eastern Sledging Party during which expeditioners Belgrave Ninnis and Xavier Mertz perished and Mawson himself barely survived. Overall, more than 6,500 km of coastline and hinterland was explored by sledging parties of the Expedition.

Cape Denison contains numerous relics relating to the work of Mawson’s expedition, including Mawson’s Huts and other significant and relatively untouched artefacts from the ‘heroic age’. While the majority is concentrated in the westernmost valley and its immediate surrounds, the historical boundaries of the Main Base extend further. Artefacts and other evidence of occupation, such as food caches, extend across the entire Cape, forming a rich resource of material available for research and interpretation, and potentially yielding scientific data and information about aspects of expeditioner life not included in official written accounts.
• **Aesthetic values**

This ASMA is designated to preserve not only the artefacts remaining *in situ* but also the cultural landscape of Cape Denison in which Mawson and his men lived and worked. Cape Denison is characterised by its almost incessant blizzard conditions, which severely limit access to the region and activities at the site. System and katabatic winds pour down the plateau and funnel through the Cape’s valleys; blasting the hut with gusts that in May 1912 reached 322 km/h. (The average wind speed for the month was 98 km/h). Cape Denison is not only the windiest place in Antarctica, but also the windiest place on Earth at sea level. The site thus provides the physical and symbolic context of the extreme isolation and harsh conditions endured by the expedition members and, by association, all other ‘heroic age’ researchers and explorers. In designating the entire area as an ASMA, Cape Denison’s unique ‘sense of place’ is protected, with Mawson’s Huts and Boat Harbour as the focus of the visual catchment. Mawson’s Huts themselves are provided with additional protection in ASPA 162.

• **Educational values**

Cape Denison’s wildlife and undisturbed artefacts, framed against the dramatic backdrop of the Antarctic Plateau, represent significant educational values. The Area’s isolation and extreme weather provide visitors with a unique insight into the conditions endured by ‘heroic age’ researchers and explorers, and a chance to form a deeper appreciation of their achievements.

• **Environmental values**

The paucity of relatively ice-free areas in the immediate region means that Cape Denison represents an important assemblage of life forms (Appendices A and C). The closest ice-free areas of equal or greater size to Cape Denison are approximately 20 km to the east of Cape Denison (from the centroid of the ASMA), and approximately 60 km to the west respectively. A haul-out site for Weddell, leopard and elephant seals, the Cape is also an important breeding area for Adélie penguins, Wilson’s storm-petrels, snow petrels and south polar skuas.

Flora at Cape Denison is represented by 13 lichen species distributed on boulders and other moraines throughout the peninsula. These species are listed at Appendix C. No bryophytes are evident. The lichens’ distribution on rocks, which are subject to different patterns of snow ablation, makes them vulnerable to trampling and other interference by visitors, however infrequent visitation may be.

Cape Denison has 13 small lakes. These are associated with glacial action, are a permanent feature, and are frozen over for most of the year. Since such lakes are also susceptible to physical, chemical and biological modification within their catchment boundaries, a catchment-based approach to the management of human activities is required.

• **Scientific values**

Mawson, a geologist, planned his expedition in order to examine the theories about continental connection and the processes of glaciation and climate. He also sought to study the South Magnetic Pole and magnetic charting for navigational purposes; to conduct biological studies, including the identification of new species; and to establish a weather station.

Cape Denison provides opportunities to repeat Mawson’s experiments and conduct further research into magnetism, meteorology, biology, and other sciences. For example, although Antarctic lakes are generally recognised as valuable due to their relatively simple natural ecosystems, the lakes at Cape Denison have neither been sampled nor their biota studied. There are also numerous non-marine algae present; however, no surveys have been undertaken. The records from Mawson’s expedition provide a dataset against which the results of modern research may be compared, and the site’s isolation lends it considerable value for future use as a reference site for other areas that experience a greater level of human activities.
2.0 Aims and Objectives
Management of the Area aims to assist in planning and co-ordinating current and future activities in the Area, to avoid possible conflicts, and to improve co-operation between Parties in order to avoid degradation of, or substantial risk to, the values of the Area. Management objectives are:

- to prevent degradation of the Area, its features, artefacts, and values;
- to maintain the heritage values of the Area through planned conservation and archaeological work programs; and
- to provide for management activities which support the protection of the values and features of the Area.

3.0 Management Activities
The following management activities may be undertaken to protect the values of the Area:

- research and other activities essential or desirable for understanding, protecting and maintaining the values of the Area;
- the removal of objects not related to the AAE of 1911–14 and/or the British Australian New Zealand Antarctic Research Expeditions (BANZARE) of 1929–31 and that compromise the historic and aesthetic values of the Area, provided that removal does not adversely impact on the values of the Area, and that the objects are appropriately documented prior to removal. Priority should be given to the removal of field infrastructure from the Visual Protection Zone, giving consideration to the needs (including those of safety) of conservation workers and the program of conservation works;
- essential maintenance of other objects and infrastructure, including the Automatic Weather Station;
- installation of signage to indicate the boundaries of the HSM and ASMA;
- visitation of the Area as necessary to assess whether it continues to serve the purposes for which it was designated and to ensure that management activities are adequate; and
- consultation with other national Antarctic programs operating in the region, or those with an interest or experience in Antarctic historic site management, with a view to ensuring the above provisions are implemented effectively.

4.0 Period of designation
This ASMA is designated for an indefinite period.

5.0 Description of the Area
5.1 Geographical coordinates, boundary markers and natural features
Cape Denison (67° 00’ 13” S—67° 00’ 050” S; 142° 39’ 02” E—142° 41’ 28” E) is located in the centre of Commonwealth Bay, a 60 km-wide stretch of coast in George V Land some 3,000 km south of Hobart, Australia. The Cape itself is a rugged, 1.5 km-wide tongue of ice, snow, rock and moraine projecting into Commonwealth Bay from the steeply rising wall of the ice cap of continental Antarctica. On the western side of the Cape is Boat Harbour, a 400m-long indentation in the coast.

2 In the context of this Management Plan the term conservation “means all the processes of looking after a place so as to retain its cultural significance”, as defined in Article 1.4, of The Burra Charter: The Australian ICOMOS Burra Charter, 1999.
The designated ASMA (Map A) extends from Land’s End (67° 00’ 46” S, 142° 39’ 24” E) in the west, along the coastline to the northern tip of the western shore of Boat Harbour (67° 00’ 24” S, 142° 39’ 28” E), across the mouth of Boat Harbour (in a straight north-easterly diagonal) to the northern tip of Penguin Knob (67° 00’ 17” S, 142° 39’ 31” E) on the eastern shore of Boat Harbour, and then along the coastline in a south-easterly direction down to John O’Groats (67° 00’ 47” S, 142° 41’ 27” E). The southern boundary extends in a straight line from Land’s End to John O’Groats along latitude 67° 00’ 47” S. With the exception of the boundary across the mouth of Boat Harbour, the northern coastal boundary extends to that land above the lowest tide.

The shoreline and the ice cliffs at both ends of the Cape (Land’s End and John O’Groats) form a clearly defined boundary; as such, no boundary markers have been installed because the coast is a clearly defined boundary. Signs will be installed at the eastern (John O’Groats) and western (Land’s End) limits of the southern boundary.

Natural features: Topography and geomorphology
The topography of Cape Denison is defined by a series of four rocky ridges, running south-southeast to north-northwest, and three valleys. The largest, most westerly of these valleys contains the AAE buildings, which are protected within ASPA 162. The basement of the Cape Denison area consists of partially migmatised, massive felsic orthogneiss intruded about 2350 million years ago (Ma) into an older metamorphosed sequence. Above the basement the area features a lower zone of relatively polished rock and a higher zone of relatively unpolished rock; the former being especially prominent below 12 metres above sea level and indicative of more recent uplift and exposure than the upper zone. An upper and lower moraine are apparent, with the upper moraine, closer to the edge of plateau, containing a diversity of angular boulders. The lower moraine is dominated by local rocks sorted into bands, perhaps the result of an ‘ice push’ from the sea rather than being genuine glacial moraine.

Water bodies
Cape Denison contains 13 small glacial lakes, which are generally oriented parallel to the foliation of the basement rocks. At the height of summer Cape Denison also features numerous melt streams which flow into Commonwealth Bay. It is not known whether the streams flow down established courses, or whether the streams are a feature of the regular freeze/thaw cycle.

Biological features
Cape Denison is the summer habitat for breeding Adélie penguins, Wilson’s storm-petrels, snow petrels and the south polar skua (Map C). Other species sighted in the area include the Cape petrel, Antarctic petrel, southern giant petrel and emperor penguin. A full list of species and number of breeding pairs (where available) is attached as Appendix A. Weddell seals, southern elephant seals and leopard seals have been recorded as hauling out and, in the case of elephant seals, moulting at Cape Denison. However, the sporadic nature of visits to the Area means that monitoring has been inconsistent and the exact extent of the seal population uncertain. Some data is presented in Appendix Bii.

The only flora evident at Cape Denison is lichens, for which a list of species is included at Appendix C, and non-marine algae, which have yet to be studied.

5.2 Access to the Area
Sea, land and air access to Cape Denison is difficult due to the rugged topography and climate of the area. Sea ice extent and uncharted bathymetry may constrain ship access to approximately 3nm from the coastline. Access is then gained either by small watercraft or by helicopter, although attempts to land are frequently hampered by heavy seas and prevailing north-westerly or katabatic winds. Boat landings may be made at Boat Harbour and due north of Sørensen Hut. The helicopter landing site and approach and departure flight paths are indicated on Map C.

There are no roads or other transport infrastructure on shore. Land vehicles should only be used in accordance with the Code of Conduct (see Section 8.0).
Pedestrian access within the Area is unrestricted except in places where AAE buildings, artefacts, or bird or lichen colonies are present, and should be conducted in accordance with the Code of Conduct (see Section 8.0).

5.3 Location of structures and other anthropogenic objects within and near to the Area

Cape Denison is notable for being the location of four historic buildings and a Memorial Cross constructed by the AAE of 1911-1914. The buildings and their immediate environs are protected by ASPA 162.

Within the ASMA there are several AAE structures, including survey markers and the mast on top of Anemometer Hill, about 150 m east of Mawson’s Main Hut. On 5 January 1931 members of the BANZARE party (including Douglas Mawson) visited Cape Denison to claim formal possession of George V Land on behalf of Great Britain, and used the mast to support the proclamation flag and canister containing the proclamation itself. A small timber plaque and proclamation, still attached to the mast, are the only ‘formal’ artefacts of that visit remaining in situ today.

Cape Denison additionally features six other structures: an automatic weather station (AWS); a field shelter known as Sorensen Hut; a red fibreglass ‘Apple’ hut; a wooden platform on which tents may be pitched; a field shelter known as Granholm Hut, and a plaque near Mawson’s Main Hut indicating that the hut is a Historic Monument.

The AWS is located at 67° 00’ 33” S; 142° 39’ 51” E on a rise near Round Lake and approximately 150 m southeast of Mawson’s Main Hut. It has been operating since 1990 as part of the Antarctic Automatic Weather Project of the University of Wisconsin—Madison, and is the property of that institution.

Sorensen Hut is located about 400m east of Mawson’s Main Hut at 67° 00’ 29” S; 142° 40’ 12” E. It was constructed by the Australian national program in 1986 to provide temporary shelter for parties conducting conservation works on Mawson’s Huts and contains some provisions and field equipment. Numerous items are also stored underneath and immediately adjacent to Sorensen Hut, and in the adjacent Apple hut.

Granholm Hut is situated at 67° 00’ 29” S; 142° 39’ 26” E, some 160 m northwest of Mawson’s Main Hut. It was constructed in 1978 to provide a temporary shelter and workshop for parties working on Mawson’s Huts. It contains numerous building materials, some field equipment and limited provisions. Additional building materials are stored beneath the hut.

To the east of Granholm Hut is a stack of Oregon and Baltic pine timbers for use in conservation work on the Main Hut. This stack is secured with galvanised cables attached to rock bolts. A similar timber stack is located on rocks some 100 m southeast of the Main Hut and 10 m east of the designated helicopter landing site.

The HSM marker currently situated adjacent to the Main Hut will be replaced by appropriate signage to indicate that the whole of Cape Denison has been designated as a Historic Site. The signage will be in the English, French, Spanish and Russian languages, and will indicate the protection status of the site and its contents under the Antarctic Treaty.

Objects left by Mawson’s expedition are scattered throughout the Area, and appear from year to year depending on snow cover. These include cairns; cached seal and penguin carcasses; timbers; and a large collection of disassembled penguin skeletons. It is believed that a significant number of artefacts exist under the snow and have yet to be uncovered. It is additionally possible that artefacts from the ice cave known as ‘Aladdin’s Cave’, a sledging depot excavated by Mawson’s expedition in 1912, may also be present in the vicinity of the ASMA, if not within the ASMA itself. The cave was originally located on the plateau at 67° 05’ S, 142° 38’ E, some 8 km south of Mawson’s Main Hut, but it may have been relocated (via the movement of ice) up to 4.5 km down-slope from the original 1912 location. Its exact location has yet to be determined.
5.4 Location of other protected areas in or near to the Area
ASPA 162, encompassing the four AAE huts, is located within the Cape Denison ASMA, and exists to protect their historic and social values.

The Cape Denison ASMA is to be simultaneously listed as Historic Site No. 77 under the Antarctic Treaty.

There are no other ASPAs or ASMAs within 50 km of Cape Denison.

6.0 Zones within the Area
All activities within the Area are to comply with the provisions of the Madrid Protocol and the Code of Conduct contained in this management plan (see Section 8.0). In addition to these general guidelines, three zones are defined in which restrictions on certain activities are deemed necessary in order to meet the management objectives for the Area.

6.1 ASPA 162
ASPA 162 (Mawson’s Huts) is located within the ASMA. This ASPA encompasses the four Australasian Antarctic Expedition huts in order to protect their historic and social values. Entry to the ASPA and activities within it require a permit and must be carried out in accordance with the ASPA Management Plan.

6.2 Visual Protection Zone
The visual catchment of Mawson’s Huts and the Memorial Cross is of particular importance within the Cape Denison cultural landscape. In order to protect the landscape setting and ‘sense of place’ of Mawson’s Huts, a Visual Protection Zone is defined within the ASMA. To preserve these values, no new structures should be built within the Visual Protection Zone. The Visual Protection Zone is illustrated on Maps A and B and is generally defined as the area enclosed by the western and eastern ridge lines of the valley containing the historic structures. The boundary extends from the coastline (67° 00’ 24.9” S, 142° 39’ 14.3” E) and runs southeast along the western side of the westernmost ridge to the ice plateau (67° 00’ 46.8” S, 142° 39’ 37.2” E); northeast along the edge of the ice plateau to 67° 00’ 43.9” S, 142° 40’ 5.6” E; north-northwest between Round Lake and Long Lake to 67° 00’ 33.7” S, 142° 39’ 59.8” E; then as far as Magnetograph House (67° 00’ 20.3” S, 142° 39’ 46.6” E); and then northwest along the eastern side of the eastern ridge line to the sea (67° 00’ 15.7” S, 142° 39’ 28.2” E).

6.3 Helicopter Zone
Helicopter operations have the potential to disturb breeding and moulting wildlife. To minimise disturbance to seals and nesting birds at Cape Denison during the summer months, helicopters should only land at the site indicated on Map C and approach and depart in accordance with the flight paths indicated on the map. Departure paths have been selected to avoid wildlife concentrations as much as possible. Use of a single-engined helicopter is preferable; however twin-engined helicopters may be used with due regard for the potentially greater disturbance to wildlife. The presence of seals and the breeding cycle of birds nesting in the Area are charted at Appendices Bi and Bii; twin-engine helicopter operations should be avoided during weeks that birds are hatching eggs or raising chicks (late October to early March).

7.0 Maps of the Area
Map A: Cape Denison Management Zones. This map shows the boundaries of the ASMA, the Historic Site, the Visual Protection Zone, ASPA No. 162, and significant topographic features of the Area. The inset map indicates the location in relation to the Antarctic continent.

Map Specifications:
- Projection: UTM Zone 54
- Horizontal Datum: WGS84
Map B: Cape Denison Visual Protection Zone. This map shows the boundaries of the Visual Protection Zone and indicates the position of significant historic artefacts, including the four Australasian Antarctic Expedition huts, the Memorial Cross, and Anemometer Hill, the site of the BANZARE Proclamation Pole.

Map Specifications:
- Projection: UTM Zone 54
- Horizontal Datum: WGS84

Map C: Cape Denison Flight Paths and Bird Colonies. This map indicates the approaches, departures and landing site for helicopters, as well as the location of bird colonies in the vicinity.

Map Specifications:
- Projection: UTM Zone 54
- Horizontal Datum: WGS84

8.0 Code of Conduct
The actions of individuals contribute significantly to protecting the Antarctic environment. This Code of Conduct is intended to provide general guidelines to help minimise environmental impacts at Cape Denison, but it cannot be expected to cover every situation. All visitors, including national program personnel and tourists, should consider their responsibilities and seek to minimise their impact on all aspects of the environment and most particularly the values described.

8.1 Access to and movement within or over the Area
- All land vehicles are prohibited within the Area, with the exception of small all-terrain vehicles which, due to the colonisation of rocky areas by lichens and seabirds, should be used on snow and ice surfaces only and with due consideration of the location of historic artefacts.
- Pedestrian access within the Area is unrestricted but artefact-rich areas (such as the scatter immediately to the north of the Main Hut), bird or lichen colonies, and penguin ‘highways’ (the established route of birds moving between their nest and the sea) should be avoided.

8.2 Activities which are or may be conducted within the Area
- Historic conservation and archaeological work.
- Research, including scientific research.
- Visitation for the purposes of education or recreation, including tourism in line with Recommendation XVIII-1.
- Essential maintenance of non-historic infrastructure, including the Automatic Weather Station, and removal of non-historic objects that compromise the historic and aesthetic values of the Area. These activities should be conducted by authorised personnel only.

8.3 The installation, modification, or removal of structures
- To preserve the historic, archaeological, social, aesthetic and environmental values of the ASMA, no new structures should be constructed, nor additional scientific equipment installed in the Area, except for the conservation, research or maintenance activities specified in Section 3.0 above.
- All equipment and infrastructure left in the Area should be periodically reviewed for maintenance and potential removal.

8.4 The location of field camps
- Existing non-historic infrastructure should be used by Parties undertaking activities in accordance with this management plan, in preference to establishing new infrastructure.
- Tents should be pitched on the wooden platform adjacent to Sørrensen Hut. Use of the huts and any supplies should be reported to the Australian national program as soon as practicable to ensure the safety of other people who may be reliant upon known stores.
8.5 The taking of or harmful interference with native flora and fauna

- Approach distances to wildlife should be consistent with those agreed within the Committee for Environmental Protection. Until guidelines are adopted by the Committee, Table 1 below provides guidance.
- Visitors should not wash, swim or dive in the lakes. These activities could contaminate the water body and disturb the water column, microbial communities, and sediments.

Table 1: Minimum distances to maintain when approaching wildlife on foot

<table>
<thead>
<tr>
<th>Species</th>
<th>Phase of life</th>
<th>On foot (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snow petrels</td>
<td>Nesting</td>
<td>15</td>
</tr>
<tr>
<td>Wilson’s storm-petrels</td>
<td>Nesting</td>
<td>15</td>
</tr>
<tr>
<td>South polar skuas</td>
<td>Nesting</td>
<td>15</td>
</tr>
<tr>
<td>Adélie penguins</td>
<td>Summer: on ice or away from colony</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Summer: breeding birds in colonies</td>
<td>15</td>
</tr>
<tr>
<td>Breeding Weddell seals and pups</td>
<td>All times</td>
<td>15</td>
</tr>
<tr>
<td>(includes weaners)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mature seals on their own (all</td>
<td>All times</td>
<td>5</td>
</tr>
<tr>
<td>species)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.6 The collection or removal of anything not brought into the Area by the visitor

- Cape Denison is listed as a Historic Site under the Antarctic Treaty. In accordance with Annex V, Article 8 (4) of the Protocol, no historic structure or other artefact at Cape Denison should be damaged, destroyed or removed, unless removal of an artefact is essential for conservation purposes. Any artefacts may only be removed by authorised and appropriately trained personnel. The repatriation of the artefact to the location at Cape Denison from which it was removed is generally preferable unless further damage or deterioration may result from repatriation.
- If an artefact is to be removed, the Australian national program should be informed so that documentation regarding that program’s archaeological research at Cape Denison may be amended accordingly.

8.7 The disposal of waste

- All wastes, including human wastes, should be removed from the Area.
- Refuelling of vehicles, generators and other essential equipment should be conducted with due care for the surrounding environment. Refuelling activities should not be conducted in the catchment areas of lakes or melt streams, at the ice edge, or in other sensitive areas.

8.8 Reports to be made to the appropriate authority regarding visits to the Area

To enhance cooperation and the coordination of activities in the Area, to allow for effective site monitoring and management, to facilitate the consideration of cumulative impacts, and to fulfill the aims and objectives of this Management Plan:

- National program personnel, tourists and other non-government personnel proposing to visit, land, and/or conduct activities in the Area should inform the Australian national program of their intentions as soon as is practicable.
- The details of all field activities should be accurately recorded for transfer to the management database of the Australian national program. See Section 9.0 below.
9.0 Information exchange

Parties with active programs in the Area and non-government operators should exchange information obtained during visits to the Area that may have a bearing on the operation of this Management Plan. For example, the expedition or tour leader should submit to the appropriate authority a report describing the activities undertaken in the Area. Such reports should include, as appropriate, the information identified in the Visit Report form contained in Appendix 4 of Resolution 2 (1998)(CEP 1). 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 this Management Plan.

Parties should, wherever possible, deposit originals or copies in a publicly accessible archive (such as the dedicated Mawson’s Huts website at http://www.aad.gov.au/mawsons_huts) to maintain a record of visitation or usage of the site, to be used both in any review of this Management Plan and to assist in organising the use of the Area.

10.0 Supporting Documentation

Dr Ian Allison, glaciologist, Australian Antarctic Division, pers. comm. 28 March 2003.


Dr Jo Jacka, glaciologist, Australian Antarctic Division, pers. comm. 27 March 2003; 28 March 2003.


Professor Rod Seppelt, botanist, Australian Antarctic Division, pers. comm. 19 February 2003.

David Smith, mapping officer, Australian Antarctic Division, pers. comm. 15 April 2003.


Appendix A

Fauna recorded at Cape Denison, Commonwealth Bay

Breeding populations (pairs) of seabirds at Cape Denison

<table>
<thead>
<tr>
<th>Species</th>
<th>No. pairs, December 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adélie penguin <em>Pygoscelis adeliae</em></td>
<td>18,737</td>
</tr>
<tr>
<td>Wilson’s storm-petrel <em>Oceanites oceanicus</em></td>
<td>38</td>
</tr>
<tr>
<td>Snow petrel <em>Pagodroma nivea</em></td>
<td>30</td>
</tr>
<tr>
<td>South polar skua <em>Catharacta maccormicki</em></td>
<td>8</td>
</tr>
</tbody>
</table>

? Antarctic prion *Pachyptila desolata* (indeterminate breeding status)
? Cape petrel *Daption capense* (indeterminate breeding status)

Other seabirds sighted at Cape Denison

<table>
<thead>
<tr>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antarctic petrel <em>Thalassoica antarctica</em></td>
</tr>
<tr>
<td>Southern giant petrel <em>Macronectes giganteus</em></td>
</tr>
<tr>
<td>Sing penguin <em>Aptenodytes patagonica</em></td>
</tr>
<tr>
<td>Royal penguin (carcase) <em>Eudyptes schlegeli</em></td>
</tr>
<tr>
<td>Chinstrap penguin <em>Pygoscelis Antarctica</em></td>
</tr>
<tr>
<td>Emperor penguin <em>Aptenodytes forsteri</em></td>
</tr>
</tbody>
</table>

Seals recorded at Cape Denison

<table>
<thead>
<tr>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weddell seal <em>Leptonychotes weddellii</em></td>
</tr>
<tr>
<td>Leopard seal <em>Hydrurga leptonyx</em></td>
</tr>
<tr>
<td>Southern elephant seal <em>Mirounga leonina</em></td>
</tr>
</tbody>
</table>
Appendix B

Helicopter operations:
Breeding cycles of nesting seabirds at Cape Denison, Commonwealth Bay

<table>
<thead>
<tr>
<th>Species breeding at Cape Denison</th>
<th>Number</th>
<th>Summer breeding cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilson’s storm-petrel (Oceanites oceanicus)</td>
<td>Approximately 38 pairs; three small colonies</td>
<td>Before mid-December: adults; after mid-December: adults, eggs and chicks</td>
</tr>
<tr>
<td>Snow petrel (Pagodroma nivea)</td>
<td>Approximately 30; one small colony</td>
<td>Before late November: adults; after late November: adults, eggs and chicks</td>
</tr>
<tr>
<td>Adélie penguin (Pygoscelis adeliae)</td>
<td>Approximately 18,800 pairs, numerous colonies</td>
<td>Before November: adults; after November: adults, eggs and chicks</td>
</tr>
<tr>
<td>South polar skua (Catharacta maccormicki)</td>
<td>Approximately 8 pairs, scattered nests on fringes of penguin colonies</td>
<td>Before mid-December: adults; after mid-December: adults and eggs; after late December: adults and chicks</td>
</tr>
</tbody>
</table>

Appendix Bii

Helicopter operations:
Seals at Cape Denison, Commonwealth Bay

<table>
<thead>
<tr>
<th>Species</th>
<th>Number</th>
<th>Summer breeding cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weddell seal (Leptonychotes weddellii)</td>
<td>Exact number not known, no established colonies</td>
<td>Before November: no seals; between mid-November to end December, approx. 24 adults per day</td>
</tr>
<tr>
<td>Southern elephant seal (Mirounga leonina)</td>
<td>Exact number not known, no established colonies</td>
<td>Approx. 2 or adults per day in December</td>
</tr>
</tbody>
</table>
Appendix C

Flora recorded at Cape Denison, Commonwealth Bay

The following taxa were recorded at Cape Denison by the Australasian Antarctic Expedition (AAE) of 1911–14 and the British Australian New Zealand Antarctic Research Expedition (BANZARE) in 1929–31 and published by Carroll W. Dodge in BANZARE Reports, Series B, Vol. VII, July 1948.

LICHENS

**Lecideaceae**
*Lecidea cancriformis* Dodge & Baker
*Toninia johnstoni* Dodge

**Umbilicae**
*Umbilicaria decussata* (Vill.) Zahlbr.

**Lecanoraceae**
*Rhizoplaca melanophthalma* (Ram.) Leuck.& Poelt
*Lecanora expectans* Darb.
*Pleopsidium chlorophanum* (Wahlenb.) Zopf

**Parmeliaceae**
*Physcia caesia* (Hoffm.) Th. Fr.

**Usnaceae**
*Pseudhebe minuscula* (Nyl. ex Arnold) Brodo & D. Hawksw.
*Usnea antarctica* Du Rietz

**Blasteniaceae**
*Candelariella flava* (C.W. Dodge & Baker) Castello & Nimis
*Xanthoria elegans* (Link) Th. Fr.
*Xanthoria Mawsonii* Dodge

**Buelliae**
*Buellia frigida* Darb.

**BRYOPHYTES**
No bryophytes evident at Cape Denison.

There are numerous non-marine algae; however, no surveys have been undertaken.
Map A Cape Denison Management Zones

Legend
- Antarctic Specially Managed Area and Historic Site boundary
- Visual Protection Zone
- Lake
- Ice Sheet
- Contour (interval 5m)
- Building and Antarctic Specially Protected Area extending 5m from building perimeter
- Refuge

Horizontal Datum: WGS84
Projection: UTM Zone 54

Produced by the Australian Antarctic Data Centre, Australian Antarctic Division, April 2003
MEASURE 2 (2004)

ANTARCTIC SPECIALLY PROTECTED AREAS: DESIGNATIONS AND MANAGEMENT PLANS

The Representatives,

Recalling Articles 3, 5 and 6 of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty, providing for the designation of Antarctic Specially Protected Areas and approval of Management Plans for those Areas;

Recalling Recommendation VIII-1 (1975), which designated Litchfield Island as Specially protected Area No. 17, Recommendation VIII-4 (1975), which annexed a management plan for Site of Special Scientific Interest (SSSI) No. 2: Arrival Heights, Hut Point Peninsula, Ross Island, Recommendation XIII-8 (1985), which annexed a management plan for SSSI No. 20: Biscoe Point, Anvers Island, Palmer Archipelago, and Measure 1 (1999) which attached a new management plan for SSSI No. 23: Svarthamaren and Decision 1 (2002) which renamed and renumbered these Areas and Sites as Antarctic Specially Protected Areas;

Noting that the Committee for Environmental Protection has advised that the area identified below be designated as a new Antarctic Specially Protected Area, and has endorsed the Management Plans appended to this Measure;

Recognising that the area identified below supports outstanding scientific, wilderness, ecological, heritage and aesthetic values, and would benefit from special protection;

Desiring to adopt Management Plans for this area and for Antarctic Specially Protected Area No. 113, and to replace the Management Plans for Antarctic Specially Protected Area No. 122, No. 139 and No. 142 with revised and updated Management Plans;

Recommend to their Governments the following Measure for approval in accordance with paragraph 1 of Article 6 of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty:

That:

1. the following be designated as an Antarctic Specially Protected Area:

   - Antarctic Specially Protected Area No. 162: Mawson’s Huts, Commonwealth Bay, George V Land, East Antarctica;

2. the Management Plans for the following Areas, which are annexed to this Measure, be adopted:

   - Antarctic Specially Protected Area No. 113: Litchfield Island, Arthur Harbour, Anvers Island, Palmer Archipelago, Antarctic Peninsula

   - Antarctic Specially Protected Area No. 122: Arrival Heights, Hut Point Peninsula, Ross Island

   - Antarctic Specially Protected Area No. 139: Biscoe Point, Anvers Island, Palmer Archipelago, Antarctic Peninsula
- Antarctic Specially Protected Area No. 142: Svarthamaren, Muhlig-Hofmannfjella, Dronning Maud Land

- Antarctic Specially Protected Area No. 162: Mawson’s Huts, Commonwealth Bay, George V Land, East Antarctica.

3. any prior management plans for Antarctic Specially Protected Areas No. 122, 139 and 142, shall cease to be effective.
1. Description of values to be protected

Litchfield Island (Latitude 64°46' S, Longitude 64°06' W, 2.7 km²), Arthur Harbour, Anvers Island, Antarctic Peninsula was originally designated as a Specially Protected Area through Recommendation VIII-1 (1975, SPA No. 17) after a proposal by the United States of America. It was designated on the grounds that “Litchfield Island, together with its littoral, possesses an unusually high collection of marine and terrestrial life, is unique amongst the neighboring islands as a breeding place for six species of native birds and provides an outstanding example of the natural ecological system of the Antarctic Peninsula area”.

The current management plan reaffirms the original reasons for designation associated with the bird communities. The island supports a diverse assemblage of bird species that is representative of the mid-western Antarctic Peninsula region. The number of bird species recorded as breeding on Litchfield Island is seven, not six as originally stated. The species are Adélie penguins (Pygoscelis adeliae), southern giant petrels (Macronectes giganteus), Wilson’s storm petrels (Oceanites oceanicus), kelp gulls (Larus dominicanus), south polar skuas (Catharacta maccormicki), brown skuas (Catharacta loennbergi), and Antarctic terns (Sterna vittata). The status of these bird colonies as being relatively undisturbed by human activities is also an important value of the Area.

In 1964 Litchfield Island supported one of the most extensive moss carpets known in the Antarctic Peninsula region, dominated by Warnstorffia laculosa which was then considered near its southern limit (Corner, 1964a). W. laculosa is now known to occur at a number of sites further south, including Green Island (ASPA No. 108, in the Berthelot Islands) and Avian Island (ASPA No. 118, in Marguerite Bay). Accordingly, the value originally cited that this species is near its southern limit at Litchfield Island is no longer valid. Nevertheless, at the time Litchfield Island represented one of the best examples of maritime Antarctic vegetation off the western coast of Graham Land. Furthermore, several banks of Chorisodontium aciphyllum and Polytrichum strictum of up to 1.2 m in depth were described in 1982, which were considered to be some of the best examples of their kind in the Antarctic Peninsula area (Fenton and Smith, 1982). In February 2001 it was observed that these values have been severely compromised by the impact of Antarctic fur seals (Arctocephalus gazella), which have damaged and destroyed large areas of vegetation on the lower accessible slopes of the island by trampling and nutrient enrichment.
Some areas previously richly carpeted by mosses have been completely destroyed, while others have suffered moderate-to-severe damage. Slopes of *Deschampsia antarctica* are more resilient and have persisted even where fur seals have been numerous, although here signs of damage are also obvious. However, on the steeper and higher parts of the island, and other areas that are inaccessible to seals, the vegetation remains undamaged. While the vegetation is less extensive and some of the moss carpets have been compromised, the remaining vegetation continues to be of value and an important reason for special protection of the island. Litchfield Island also has the most varied topography and the greatest diversity of terrestrial habitats of the islands in Arthur Harbour.

Litchfield Island has been afforded special protection for most of the modern era of scientific activity in the region, with entry permits having been issued only for compelling scientific reasons. Litchfield Island has therefore never been subjected to intensive visitation, research or sampling and has value as terrestrial area that has been relatively undisturbed by human activities. The Area is thus valuable as a reference site for some types of comparative studies with higher use areas, and where longer-term changes in the abundance of certain species and in the micro-climate can be monitored. The island is easily accessible by small boat from nearby Palmer Station (US), and Arthur Harbour is visited frequently by tourist ships. Continued special protection is therefore important to ensure the Area remains relatively undisturbed by human activities. The designated Area is defined as including all of Litchfield Island above the low tide water level, excluding all offshore islets and rocks.

2. **Aims and objectives**

Management at Litchfield Island aims to:

- avoid degradation of, or substantial risk to, the values of the Area by preventing unnecessary human disturbance and sampling in the Area;
- allow scientific research on the natural ecosystem and physical environment in the Area provided it is for compelling reasons which cannot be served elsewhere and provided it will not compromise the values for which the Area is protected;
- minimize the possibility of introduction of alien plants, animals and microbes to the Area;
- allow visits for management purposes in support of the aims of the management plan.

3. **Management activities**

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

- Copies of this management plan, including maps of the Area, shall be made available at Palmer Station (US) on Anvers Island.
- Markers, signs or other structures erected within the Area for scientific or management purposes shall be secured and maintained in good condition.
• Visits shall be made as necessary (at least once every five years) to assess whether the Area continues to serve the purposes for which it was designated and to ensure management and maintenance measures are adequate.

4. **Period of designation**
Designated for an indefinite period.

5. **Maps and photographs**
Map 1: Litchfield Island, ASPA No. 113, in relation to Arthur Harbour and Anvers Island, showing the location of nearby stations (Palmer Station, US; Yelcho Station, Chile; and Port Lockroy Historic Site and Monument No. 61, UK), and the location of nearby protected areas. Projection UTM Zone 20S, Spheroid WGS84, Data source SCAR Antarctic Digital Database V4.0 (2002). Inset: the location of Anvers Island and the Palmer Archipelago in relation to the Antarctic Peninsula.

Map 2: Litchfield Island ASPA No. 113: Physical features and selected wildlife. Map specifications: Projection: UTM Zone 20S; Spheroid: WGS84; Vertical datum: mean sea level; Contour interval: 5 m. The base map is derived from digital orthophotography with a horizontal and vertical accuracy of ± 2 m (Sanchez and Fraser, 2001). The northeastern coastline and adjacent offshore islet are beyond the limits of the orthophotograph and are digitised from a rectified aerial image covering the wider area (estimated accuracy ± 10 m – image ref: TMA 3210 025V, 12/23/98). Elevation data for the small islet off the northeastern coast are not available. Bird distribution data from Fraser (pers. comm. 2001); elephant seal wallow from orthophoto.

6. **Description of the Area**
6(i) **Geographical coordinates, boundary markers and natural features**

**GENERAL DESCRIPTION**
Litchfield Island (64°46'15" S, 64°05'40" W, 0.35 km²) is situated in Arthur Harbour approximately 1500 m west of Palmer Station (US), Gamage Point, Anvers Island, in the region west of the Antarctic Peninsula known as the Palmer Archipelago (Map 1). Litchfield Island is one of the largest islands in Arthur Harbour, measuring approximately 1000 m northwest to southeast and 700 m from northeast to southwest. Litchfield Island has the most varied topography and the greatest diversity of terrestrial habitats of the islands in Arthur Harbour (Bonner and Smith, 1985). Several hills rise to between 30-40 m, with the maximum elevation of 48 m being in the central western part of the island (Map 2). Rocky outcrops are common both on these slopes and on the coast. The island is predominantly ice-free in summer, apart from small snow patches occurring mainly on the southern slopes and in valleys.
Cliffs of up to 10 m form the northeastern and southeastern coasts, with pebble beaches found in bays in the north and south.

The designated Area is defined as all of Litchfield Island above the low tide water level, excluding all offshore islets and rocks. The coast itself is a clearly defined and visually obvious boundary feature, so boundary markers have not been installed.

CLIMATE
Few meteorological data are available for Litchfield Island, although temperature data were collected at two north- and south-facing sites on Litchfield Island from January – March 1983 (Komárková 1983). The north-facing site was the warmer of the two, with January temperatures generally ranging between 2° to 9°C, February between -2° to 6°C, and March -2° to 4°C in 1983. A maximum temperature of 13°C and a minimum of -3°C were recorded at this site over this period. The south-facing site was generally about 2°C cooler, with January temperatures generally ranging between 2° to 6°C, February between -2° to 4°C, and March -3° to 2°C. A maximum temperature of 9°C and a minimum of -4.2°C were recorded at the south-facing site.

Longer-term data available for Palmer Station show regional temperatures to be relatively mild because of local oceanographic conditions and because of the frequent and persistent cloud cover in the Arthur Harbour region (Lowry, 1975). Monthly air temperature averages recorded for Palmer Station over a 22-year period range from -7.8°C in August (the coldest month) to 2.5°C in January (the warmest) (Baker, 1996). The minimum recorded temperature is -31°C and the maximum is 9°C, while the annual mean is -2.3°C. Storms and precipitation at Palmer Station are frequent, with winds being persistent but generally light to moderate in strength, prevailing from the northeast.

GEOLOGY, GEOMORPHOLOGY AND SOILS
Litchfield Island is one of numerous small islands and rocky peninsulas along the southwestern coast of Anvers Island which are composed of an unusual assemblage of late Cretaceous to early Tertiary age rock types called the Altered Assemblage (Hooper, 1962). The primary rock types of the Altered Assemblage are tonalite, a form of quartz diorite, and trondhjemite, a light-colored plutonic rock. Also common are granite and volcanic rocks rich in minerals such as plagioclase, biotite, quartz and hornblende. Litchfield Island is characterized by a central band of medium-dark gray, fine-grained diorites which separate the predominantly light gray medium-grained tonalites and trondhjemites of the east and west (Willan, 1985). The eastern part is characterized by paler dykes up to 40 m across and trending north-south and east-west. Minor quartz, epidote, chlorite, pyrite and chalcopyrite veins of up to 8 cm thick strike SSE, cutting the tonalite. Dark gray fine-grained plagioclase-phyric dykes with traces of magnetite strike ENE to ESE.
Numerous dark gray feldspar-phyric dykes are present in the west, up to 3 m thick and trending north-south and ESE. Some cut, or are cut by, sparse quartz, epidote, chlorite, pyrite, chalcopyrite and bornite veins of up to 20 cm thick.

The soils of Litchfield Island have not been described, although peaty soils of up to one meter in depth may be found in areas where there is, or once was, rich moss growth.

FRESHWATER HABITAT
There are a few small ponds on Litchfield Island: one small pond on a hill in the central, northeastern part of the island has been described as containing the algae *Heterohormogonium* sp. and *Oscillatoria brevis*. Another pond 50 m further south has been described as containing *Gonium* sp., *Prasiola crispa*, *P. tesselata* and *Navicula* sp (Parker et al., 1972).

VEGETATION
The plant communities at Litchfield Island were surveyed in detail in 1964 (Corner, 1964a). At that time, vegetation on Litchfield Island was well-developed and comprised several distinct communities with a diverse flora (Smith and Corner, 1973). Both species of Antarctic vascular plant, Antarctic hair grass (*Deschampsia antarctica*) and Antarctic pearlwort (*Colobanthus quitensis*) were present on Litchfield Island (Corner, 1964a; Greene and Holtom, 1971; Smith and Corner, 1973). Corner (1964a) noted that *D. antarctica* was common along the northern and northwestern coast of the island, with more localized patches growing further inland on ledges with deposits of mineral material (Greene and Holtom, 1971). *C. quitensis* was present in two localities: a patch on the northeastern coast measuring approximately 9x2 m and a series of about six cushions scattered over a steep, flushed cliff above the northwestern coast. Commonly associated with the two vascular plants was a moss carpet assemblage comprising *Bryum pseudotriquetrum* (= *Bryum imperfectum*), *Sanionia uncinata* (= *Drepanoclados uncinatus*), *Syntrichia princeps* (= *Tortula grossiretis*) and *Warnstorfia laculosa* (= *Calliergidium austro-stramineum*) (Corner, 1964a).

On well-drained rocky slopes, several banks of *Chorisodontium aciphyllum* (= *Dicranum aciphyllum*) and *Polytrichum strictum* (= *Polytrichum alpestre*) were described in 1982 as up to 1.2 m in depth, and were considered to be some of the best examples of their kind in the Antarctic Peninsula area (Fenton and Smith, 1982). The more exposed areas of moss turf were covered by crustose lichens, species of *Cladonia* spp. and *Sphaerophorus globosus* and *Coelocaulon aculeatum* (= *Cornicularia aculeata*). In deep, sheltered gullies there was often a dense lichen cover comprising *Usnea antarctica*, *U. aurantiaco-atra* and *Umbilicaria antarctica*. Raised areas of *P. strictum* turf of approximately 0.5 m high occurred at the bottom of a narrow, east to west trending, valley.
The hepatics *Barbilophozia hatcheri* and *Cephaloziella varians* were associated with the turf communities, particularly in frost heave channels and often occurred as stunted specimens on exposed humus.

There were a number of permanently wet areas on the island, an outstanding feature of which was one of the most extensive moss carpets known in the Antarctic Peninsula region, dominated by *W. laculosa* (Fenton and Smith, 1982). Elsewhere, *S. uncinata* and *Brachythecium austro-salebosum* formed smaller stands. *Pohlia nutans* lined the drier areas where the moss carpet communities merged with the moss turf communities.

Rock surfaces supported a variety of lichen-dominated communities in addition to the numerous epiphytic species that occurred on the moss banks. An open lichen and bryophyte community covered rocks and cliffs around the coast and in the center of the island. The southern coast of the island consisted of primarily crustose species of lichen, predominantly *Usnea antarctica* along with the mosses *Andreaea depressinervis* and *A. regularis*. The foliose alga *Prasiola crispa* forms small stands associated with the penguin colonies and other seabird habitats.

Other species recorded as present within the Area are: the hepatic *Lophozia excisa*; the lichens *Buellia* spp., *Caloplaca* spp., *Cetraria aculeata*, *Coelopogon epiphorellus*, *Lecanora* spp., *Lecidia* spp., *Lecidella* spp., *Lepraria* sp., *Mastodia tessellata*, *Ochrolechia frigida*, *Parmelia saxatilis*, *Physcia caesia*, *Rhizocarpon geographicum*, *Rhizocarpon* sp., *Stereocaulon glabrum*, *Umbilicaria decussata*, *Xanthoria candelaria* and *X. elegans*; and the mosses *Andreaea gainii* var. *gainii*, *Bartramia patens*, *Dicranoweisia grimmiiacea*, *Pohlia cruda*, *Polytrichastrum alpinum*, *Sarconeurum glaciale* and *Schistidium antarctici* (BAS Plant Database, 1999).

In recent years, increasing populations of Antarctic fur seals (*Arctocephalus gazella*) have caused significant damage to the moss banks and carpets at lower elevations (Lewis-Smith, 1996; Harris, 2001). South polar skuas (*Catharacta maccormicki*) nest in the moss banks and cause some local destruction.

**INVERTEBRATES, BACTERIA AND FUNGI**

The invertebrate fauna of Litchfield Island has not been studied in detail. The tardigrades *Macrobiotus furciger*, *Hypsibius alpinus* and *H. pinguis* have been observed in moss patches, predominantly on north-facing slopes (Jennings, 1976).
BREEDING BIRDS

Seven bird species breed on Litchfield Island, making it one of the most diverse avifauna breeding habitats within the Arthur Harbour region. A small Adélie penguin (*Pygoscelis adeliae*) colony is situated on the eastern side of the island, which has been censused regularly since 1971 (Table 1). Numbers of breeding pairs have declined substantially over a 30-year period, a trend which Fraser and Patterson (1997) suggested has been driven principally by long-term changes in patterns of snow accumulation. The colony is located on a landform susceptible to increases in snow accumulation, which if persistent compromises the ability of the penguins to establish nests.

Table 1. Numbers of breeding Adélie penguins (*Pygoscelis adeliae*) on Litchfield Island 1971-2002

<table>
<thead>
<tr>
<th>Year</th>
<th>Breeding pairs</th>
<th>Count Type</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971-72</td>
<td>890</td>
<td>N3</td>
<td>2</td>
</tr>
<tr>
<td>1972-73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1973-74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1974-75</td>
<td>1000</td>
<td>N4</td>
<td>2</td>
</tr>
<tr>
<td>1975-76</td>
<td>884</td>
<td>N1</td>
<td>3</td>
</tr>
<tr>
<td>1977-78</td>
<td>650</td>
<td>N1</td>
<td>2</td>
</tr>
<tr>
<td>1978-79</td>
<td>519</td>
<td>N1</td>
<td>2</td>
</tr>
<tr>
<td>1979-80</td>
<td>564</td>
<td>N1</td>
<td>2</td>
</tr>
<tr>
<td>1980-81</td>
<td>650</td>
<td>N1</td>
<td>2</td>
</tr>
<tr>
<td>1981-82</td>
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<tr>
<td>1982-83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>2</td>
</tr>
<tr>
<td>1984-85</td>
<td>549</td>
<td>N1</td>
<td>2</td>
</tr>
<tr>
<td>1985-86</td>
<td>586</td>
<td>N1</td>
<td>2</td>
</tr>
<tr>
<td>1986-87</td>
<td>577</td>
<td>N1</td>
<td>3</td>
</tr>
<tr>
<td>1987-88</td>
<td>430</td>
<td>N1</td>
<td>3</td>
</tr>
</tbody>
</table>

1. N = Nest, C = Chick, A = Adults; 1 = $\pm 5\%$, 2 = $\pm 5-10\%$, 3 = $\pm 10-15\%$, 4 = $\pm 25-50\%$ (classification after Woeihler, 1993)

2. Parmelee and Parmelee, 1987 (N1 and December counts are shown where several counts were made in one season).

Southern giant petrels (*Macronectes giganteus*) breed in small numbers on Litchfield Island. Approximately 20 pairs were recorded in 1978-79, including an incubating adult that had been banded in Australia (Bonner and Smith, 1985). More recent data on numbers of breeding pairs are given in Table 2.

**Table 2.** Numbers of breeding southern giant petrels (*Macronectes giganteus*) on Litchfield Island 1993-2003 (nest counts accurate < ± 5%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Breeding pairs</th>
<th>Year</th>
<th>Breeding pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993-94</td>
<td>26</td>
<td>1998-99</td>
<td>44</td>
</tr>
<tr>
<td>1994-95</td>
<td>32</td>
<td>1999-2000</td>
<td>41</td>
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<td>37</td>
<td>2000-01</td>
<td>39</td>
</tr>
<tr>
<td>1996-97</td>
<td>36</td>
<td>2001-02</td>
<td>46</td>
</tr>
<tr>
<td>1997-98</td>
<td>20</td>
<td>2002-03</td>
<td>42</td>
</tr>
</tbody>
</table>


It is likely that Wilson’s storm petrels (*Oceanites oceanicus*) breed within the Area, although numbers have not been determined. Up to 50 pairs of south polar skuas (*Catharacta maccormicki*) occur on the island, although the number of breeding pairs fluctuates widely from year to year. Brown skuas (*Catharacta loennbergi*) are closely associated with the Adélie penguin colony (Map 2), the number of breeding pairs of which has ranged from two to eight. The low count of two pairs in 1980-81 followed an outbreak of fowl cholera, which killed many of the brown skuas on Litchfield Island in 1979. Hybrid breeding pairs also occur. Although 12-20 kelp gulls (*Larus dominicanus*) are seen regularly on the island, there are only two or three nests each season. A small number of Antarctic terns (*Sterna vittata*) regularly breed on Litchfield Island, usually less than a dozen pairs (approximately eight pairs in 2002-03) (Fraser, pers. comm., 2003). They are most commonly found on the NE coast although their breeding sites change from year to year, and in 1964 they occupied a site on the NW coast (Corner 1964a).

Among the non-breeding birds commonly seen around Litchfield Island, the Antarctic shag (*Phalacrocorax [atriceps] bransfieldensis*) breeds on Cormorant Island several kilometers to the east; chinstrap penguins (*Pygoscelis antarctica*) and gentoo penguins (*P. papua*) are both regular summer visitors in small numbers. Snow petrels (*Pagodroma nivea*), cape petrels (*Daption capense*), Antarctic petrels (*Thalassoica antarctica*) and southern fulmars (*Fulmarus glacialis*), are irregular visitors in small numbers, while two gray-headed albatross (*Diomedea chrysotoma*) were sighted near the island in 1975 (Parmelee *et al.*, 1977).
MARINE MAMMALS

Antarctic fur seals (*Arctocephalus gazella*) started to appear in Arthur Harbour in the mid-1970s and are now common on Litchfield Island from around February each year. Regular censuses conducted in February and March over the period 1988-2003 have recorded on average 160 and 340 animals on the island in these months respectively (Fraser, pers. comm., 2003).

Elephant seals (*Mirounga leonina*) haul out on accessible beaches from October to June, numbering on average 43 animals throughout these months since 1988 (Fraser, pers. comm., 2003). The larger groups of a dozen or more are found in the low-lying valley on the northeastern side of the island (Map 2). A few Weddell seals (*Leptonychotes weddellii*) occasionally haul out on beaches. Both crabeater seals (*Lobodon carcinophagus*) and leopard seals (*Hydrurga leptonyx*) may also commonly be seen on ice floes near Litchfield Island.

LITTORAL AND BENTHIC COMMUNITIES

Strong tidal currents occur between the islands within Arthur Harbour, although there are numerous sheltered coves along the coast (Richardson and Hedgpeth, 1977). Subtidal rocky cliffs grade into soft substrate at an average depth of 15 m and numerous rock outcrops are found within the deeper soft substrate. Sediments in Arthur Harbour are generally poorly sorted and consist primarily of silt sized particles with a low organic content (0.43 to 0.88 percent organic by weight).

The predominantly soft mud substrate approximately 200 m off the northeastern coast of Litchfield Island has been described as supporting a rich macrobenthic community, characterized by a high diversity and biomass of non-attached, deposit-feeding polychaetes, arthropods, molluscs and crustaceans (Lowry, 1975). The fish species *Notothenia neglecta*, *N. nudifrons* and *Trematomus newnesi* have been recorded between 3 and 15 meters depth (De Witt and Hureau, 1979). The Antarctic limpet (*Nacella concinna*) is common in the marine area around Litchfield Island (Kennicutt *et al.*, 1992b).

HUMAN ACTIVITIES AND IMPACT

In January 1989 the vessel *Bahia Paraiso* ran aground 750 m south of Litchfield Island, releasing more than 600,000 liters (150,000 gallons) of petroleum into the surrounding environment (Kennicutt, 1990; Penhale *et al.*., 1997). The intertidal communities were most affected, and hydrocarbon contaminants were found in both sediments and inter- and sub-tidal limpets (*Nacella concinna*), with an estimated mortality of up to 50% (Kennicutt *et al.*, 1992a&b; Kennicutt and Sweet, 1992; Penhale *et al.*, 1997). However, numbers recovered soon after the spill (Kennicutt, 1992a&b). Levels of petroleum contaminants found in intertidal sample sites on Litchfield Island were among some of the highest recorded (Kennicutt *et al.*, 1992b; Kennicutt and Sweet, 1992).
It was estimated that 80% of Adélie penguins nesting in the vicinity of the spill were exposed to hydrocarbon pollution, and exposed colonies were estimated to have lost an additional 16% of their numbers in that season as a direct result (Penhale et al., 1997). However, few dead adult birds were observed.

US permit records show that between 1978-92 only about 35 people visited Litchfield Island, with possibly around three visits being made per season (Fraser and Patterson, 1997).

This suggests a total of approximately 40 visits over this 12-year period, although given that a total of 24 landings were made at the island over two seasons in 1991-93 (Fraser and Patterson, 1997), this would seem likely to represent an underestimate. Nevertheless, visitation at Litchfield Island was undoubtedly low over this period, and has remained at a minimal level. Visits have been primarily related to bird and seal censuses and work on terrestrial ecology.

Plant studies carried out on Litchfield Island in 1982 (Komárková 1983) used welding rods inserted into the soil to mark study sites. At nearby Biscoe Point (ASPA No. 139), where similar studies were conducted, numerous rods left in situ killed surrounding vegetation (Harris, 2001). It is unknown how many of the rods were used to mark sites on Litchfield Island, or whether most were subsequently removed. However, one was found and removed from a vegetated site in a small valley, approximately 100 m west of the summit of the island, after a brief search in February 2001 (Harris, 2001). A more comprehensive search would be required to determine whether further welding rods remain within the Area. No other impacts on the terrestrial environment that could be attributed to human visitation were observed on 28 February 2001, although one of the two protected area signs was in poor condition and insecurely placed.

The impact of human activities upon the terrestrial ecology, birds and seals on Litchfield Island from direct visits may thus be considered to have been minor (Bonner and Smith, 1985; Fraser and Patterson, 1997; Harris, 2001).

6(ii) Restricted and managed zones within the Area
None.

6(iii) Structures within and near the Area
With the exception of a cairn on the summit of the island, there are no structures present within the Area. A permanent survey marker, consisting of a 5/8” stainless steel threaded rod, was installed on Litchfield Island by the USGS on 9 February 1999.
The marker is located near the summit of the island at 64°46'13.97"S, 64°05'38.85"W at an elevation of 48 m, about 8 m west of the cairn (Map 2). The marker is set in bedrock and marked by a red plastic survey cap. A survival cache is located near the crest of a small hill overlooking the Adélie colony, approximately 100 m south of the small boat landing site.

6(iv) Location of other protected areas within close proximity of the Area
The nearest protected areas to Litchfield Island are: Biscoe Point (ASPA No. 139) which is 16 km east of the Area adjacent to Anvers Island; South Bay (ASPA No. 146), which is approximately 27 km to the southeast at Doumer Island; and Eastern Dallmann Bay (ASPA No. 153) which is approximately 90 km to the northeast, adjacent to Brabant Island (Map 1).

7. Permit conditions
Entry into the Area is prohibited except in accordance with a Permit issued by an appropriate national authority. Conditions for issuing a Permit to enter the Area are that:

- it is issued only for compelling scientific reasons that cannot be served elsewhere, or for essential management purposes consistent with plan objectives such as inspection, maintenance or review;
- the actions permitted will not jeopardize the ecological values of the Area or the value of the Area as a terrestrial reference site;
- any management activities are in support of the objectives of the Management Plan;
- the actions permitted are in accordance with the Management Plan;
- the Permit, or an authorized copy, shall be carried within the Area;
- a visit report shall be supplied to the authority named in the Permit;
- permits shall be issued for a stated period.

7(i) Access to and movement within the Area
Access to the Area shall be by small boat, or over sea ice by vehicle or on foot. Vehicles are prohibited and all movement within the Area shall be on foot. The recommended landing site for small boats is on the beach in the small cove mid-way along the eastern coast of the island (Map 2). Access by small boat at other locations around the coast is allowed, provided this is consistent with the purposes for which a Permit has been granted. When access over sea ice is viable, there are no special restrictions on the locations where vehicle or foot access may be made, although vehicles are prohibited from being taken on land.

Boat crew, or other people in boats or vehicles, are prohibited from moving on foot beyond the immediate vicinity of the landing site unless specifically authorised by Permit.
Visitors should move carefully so as to minimize disturbance to flora, fauna, and soils, and should walk on snow or rocky terrain if practical, but taking care not to damage lichens. Pedestrian traffic should be kept to the minimum consistent with the objectives of any permitted activities and every reasonable effort should be made to minimize effects.

Landing by aircraft is prohibited within the Area and any necessary overflight shall be conducted according to the height restrictions imposed in Table 3:

**Table 3. Minimum overflight heights within the Area according to aircraft type**

<table>
<thead>
<tr>
<th>Aircraft type</th>
<th>Number of Engines</th>
<th>Minimum height above ground*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Feet</td>
</tr>
<tr>
<td>Helicopter</td>
<td>1</td>
<td>2460</td>
</tr>
<tr>
<td>Helicopter</td>
<td>2</td>
<td>3300</td>
</tr>
<tr>
<td>Fixed-wing</td>
<td>1 or 2</td>
<td>1500</td>
</tr>
<tr>
<td>Fixed-wing</td>
<td>4</td>
<td>3300</td>
</tr>
</tbody>
</table>

*Heights derived from XXV ATCM (2002) Working Paper WP-026 (UK); if an updated set of overflight guidelines is adopted by the ATCM, the plan will be revised to reflect the current agreement.

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

- Scientific research that will not jeopardize the ecosystem values of the Area or the value of the Area as a reference site, and which cannot be served elsewhere;
- Essential management activities, including monitoring;
- The appropriate authority should be notified of any activities/measures undertaken that were not included in the authorized Permit.

7(iii) Installation, modification or removal of structures

Structures shall not be erected within the Area except as specified in a Permit and, with the exception of permanent survey markers and the existing cairn at the summit of the island, permanent structures or installations are prohibited. All structures, scientific equipment or markers installed in the Area must be approved by Permit for a specified period, and adequately identified by country, name of the responsible investigator or agency, and year of installation. All such items should be made of materials that pose minimal risk of harm to fauna or of contamination of the Area.
Installation (including site selection), maintenance, modification or removal of structures shall be undertaken in a manner that minimizes disturbance to flora and fauna. Removal of structures, equipment or markers for which the period specified in the Permit has expired shall be a condition of the Permit.

7(iv) Location of field camps
Camping should be avoided within the Area. However, when necessary for essential purposes specified in the Permit, temporary camping is allowed at the designated site on the terrace above the penguin colony. The camp site is located at the foot of a small hill (~35 m), on its eastern side, approximately 100 m south-west of the small boat landing beach (Map 2). Camping on surfaces with significant vegetation cover is prohibited.

7(v) Restrictions on materials and organisms which can be brought into the Area
No living animals, plant material or microorganisms shall be deliberately introduced into the Area and the precautions listed in 7(ix) below shall be taken against accidental introductions. Dressed poultry should be free of disease or infection before shipment to the Area and, if introduced to the Area for food, all parts and wastes of poultry shall be completely removed from the Area and incinerated or boiled long enough to kill any potentially infective bacteria or viruses. No herbicides or pesticides shall be brought into the Area. Any other chemicals, including radio-nuclides or stable isotopes, which may be introduced for scientific or management purposes specified in the Permit, shall be removed from the Area at or before the conclusion of the activity for which the Permit was granted. Fuel is not to be stored in the Area, unless specifically authorized by Permit for scientific or management purposes. Anything introduced shall be for a stated period only, shall be removed at or before the conclusion of that stated period, and shall be stored and handled so that risk of their introduction into the environment is minimized. If release occurs which is likely to compromise the values of the Area, removal is encouraged only where the impact of removal is not likely to be greater than that of leaving the material in situ.

7(vi) Taking or harmful interference with native flora or fauna
Taking or harmful interference with native flora or fauna is prohibited, except by Permit issued in accordance with Annex II to the Protocol on Environmental Protection to the Antarctic Treaty. Where taking or harmful interference with animals is involved, the SCAR Code of Conduct for the Use of Animals for Scientific Purposes in Antarctica should be used as a minimum standard.

7(vii) Collection or removal of anything not brought into the Area by the Permit holder
Collection or removal of anything not brought into the Area by the Permit holder shall only be in accordance with a Permit and should be limited to the minimum necessary to meet scientific or management needs.
Anything of human origin likely to compromise the values of the Area, which was not brought into the Area by the Permit Holder or otherwise authorized, may be removed unless the impact of removal is likely to be greater than leaving the material in situ: if this is the case the appropriate authority should be notified.

7(viii) Disposal of waste
All wastes shall be removed from the Area. Human wastes may be disposed of into the sea.

7(ix) Measures that are necessary to ensure that the aims and objectives of the Management Plan can continue to be met
1. Permits may be granted to enter the Area to carry out biological monitoring and site inspection activities, which may involve the collection of limited samples for analysis or review, or for protective measures.
2. Any specific sites of long-term monitoring shall be appropriately marked.
3. To help maintain the ecological and scientific values derived from the relatively low level of human impact at Litchfield Island visitors shall take special precautions against introductions. Of concern are pathogenic, microbial, invertebrate or plant introductions sourced from other Antarctic sites, including stations, or from regions outside Antarctica. Visitors shall ensure that sampling equipment or markers brought into the Area are clean. To the maximum extent practicable, footwear and other equipment used or brought into the Area (including backpacks, carry-bags and tents) shall be thoroughly cleaned before entering the Area.

7(x) Requirements for reports
Parties should ensure that the principal holder for each Permit issued submits to the appropriate authority a report describing the activities undertaken. Such reports should include, as appropriate, the information identified in the Visit Report form suggested by SCAR. Parties should maintain a record of such activities and, in the Annual Exchange of Information, should provide summary descriptions of activities conducted by persons subject to their jurisdiction, 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 organizing the scientific use of the Area.
References


Hooper, P.R. 1962. The petrology of Anvers Island and adjacent islands. FIDS Scientific Reports 34.


Map 2. Litchfield Island, ASPA No. 113
Arthur Harbor, Anvers Island
Physical features and selected wildlife
Management Plan for  
Antarctic Specially Protected Area No. 122  
ARRIVAL HEIGHTS, HUT POINT PENINSULA, ROSS ISLAND

1. Description of values to be protected

An area at Arrival Heights was originally designated in Recommendation VIII-4 (1975, SSSI No. 2), after a proposal by the United States of America on the grounds that it was “an electromagnetically quiet site offering ideal conditions for the installation of sensitive instruments for recording minute signals associated with upper atmosphere programs.” While it is now recognized that the electromagnetically quiet conditions have to some degree been degraded by base operation and radio communication activities adjacent on the Hut Point Peninsula, the nature, magnitude and extent of these transmissions is such that the original values for which the site was designated are still considered worthy of protection. Moreover, the original geographical characteristics of the site, such as its elevated position and thus broad viewing horizon, the volcanic crater morphology, and the close proximity to the full logistic support of nearby McMurdo Station (US) 1.5 km south and Scott Base (NZ) 3 km SE, continue to render the Area valuable for upper atmospheric studies and boundary layer air sampling studies.

In recent years increases in nearby science and support operations have raised the levels of locally generated electromagnetic noise since the site was first designated. It is recognized that the values of the Area as an electromagnetically quiet site are at risk from broad and narrow band electromagnetic interference, particularly from the nearby stations, as identified in SCAR Recommendation XXIII-6 (1994). However, there are scientific, financial and practical constraints associated with any proposed relocation of the Area and the associated facilities. Thus, the current preferred option for management is to minimize both internal and external sources of electromagnetic interference to the maximum extent practicable, and to monitor these levels routinely so that any significant threat to the values of the site can be identified and addressed as appropriate.

Since original designation the site has been used for several other scientific programs that benefit from the restrictions on access in place within the Area. In particular, the broad viewing horizon and relative isolation from activities (e.g. vehicle movements, engine exhausts) has been valuable for spectroscopic and air particulate investigations, pollution surveys, as well as auroral and geomagnetic studies. These additional values are also important reasons for special protection at Arrival Heights.

The Area continues to be of high scientific value for a variety of high quality and long-term atmospheric data sets that have been collected at this site.
Despite the acknowledged potential for interference from surrounding sources, the long-term data series, the accessibility of the site for year-round observations, its geographical advantages, and the high cost of relocation, warrant that the site receive ongoing and strengthened protection. The vulnerability of this research to disturbance through chemical and noise pollution, in particular electromagnetic interference, is such that this Area requires continued special protection.

2. **Aims and objectives**

Management at Arrival Heights aims to:

- avoid degradation of, or substantial risk to, the values of the Area by preventing unnecessary human disturbance to the Area;

- allow scientific research in the Area, in particular research on the atmosphere, while ensuring protection from incompatible uses and uncontrolled equipment installation that may jeopardize such research;

- minimize the possibility of generation of excessive electromagnetic noise interference within the Area through regulating the types, quantity and use of equipment that can be installed and operated in the Area;

- encourage the consideration of the values of the Area in the management of surrounding activities and land uses, in particular to monitor the levels, and encourage the minimization of, sources of electromagnetic radiation that may have the potential to compromise the values of the Area;

- allow access for maintenance, upgrade and management of communications equipment located within the Area;

- allow visits for management purposes in support of the aims of the management plan; and

- allow visits for education or public awareness purposes associated with the scientific studies being conducted in the Area.

3. **Management activities**

The following management activities are to be undertaken to protect the values of the Area:
• Signs showing the location and boundaries of the Area with clear statements of entry restrictions shall be placed at appropriate locations at the boundaries of the Area to help avoid inadvertent entry.

• Signs showing the location of the Area (stating the special restrictions that apply) shall be displayed prominently, and a copy of this management plan shall be kept available, in the principal research hut facilities within the Area and at McMurdo Station and Scott Base.

• Markers, signs or structures erected within the Area for scientific or management purposes shall be secured and maintained in good condition, and removed when no longer necessary.

• Visits shall be made as necessary (no less than once every five years) to assess whether the Area continues to serve the purposes for which it was designated and to ensure management and maintenance measures are adequate.

• Electromagnetic noise surveys shall be undertaken within the Area bi-annually to detect equipment faults and to monitor levels of interference that may have potential to compromise the values of the Area unacceptably, for the purposes of identification and mitigation of their sources.

• National Antarctic Programs operating in the region shall consult together with a view to ensuring these steps are carried out. Specifically, each such program shall appoint an Activity Coordinator who will be responsible for inter-program consultation regarding all activities within the Area.

4. Period of designation

Designated for an indefinite period.

5. Maps and photographs

Map A: Arrival Heights regional topographic map.

Map specifications:

- Projection: Lambert conformal conic
- Standard parallels: 1st 76° 40’ 00” S; 2nd 79° 20’ 00” S
- Central meridian: 166° 10’ 00” E
- Latitude of Origin: 78° 01’ 16.211” S
- Spheroid: WGS84
Inset: Ross Island region, showing the location of McMurdo Station (US) and Scott Base (NZ),
and the location of the other protected areas on Ross Island.

Map B: Arrival Heights site topographic map.
Map specifications are the same as those for Map A. Contours are derived from a digital elevation model.

6. Description of the Area

6(i) Geographical coordinates, boundary markers and natural features
Arrival Heights is a small range of low hills near the SE end of Hut Point Peninsula, SE Ross Island, 1.5
km north of McMurdo Station and 3 km northwest of Scott Base. Hut Point Peninsula is formed by a line
of craters that extend south from the flanks of Mt. Erebus. The basaltic rocks are particularly rich in
ultramafic inclusions, including dunite, peridotite, pyroxenite, gabbro and sandstone. The soil consists
mostly of volcanic scoria overlying volcanic tuffs from Mt Erebus, with rocky and weathered volcanic
magma. Arrival Heights is exposed to frequent strong winds, and is generally colder and windier than
nearby McMurdo Station and Scott Base, with consequently minimal snow cover.

The highest elevation within the Area is Second Crater at 255 m, one of two inactive volcanoes that are
apart of the boundaries of the Area. The boundary of the Area extends in a straight line from Trig T510
NW over First Crater to the 150 m contour. The boundary follows this contour north to a point
immediately west of Second Crater. The boundary extends east to Second Crater, the lip of which forms
the NE corner of the Area. The boundary then extends south in a straight line to Trig T510.

The research facility is at approximately 220 m (700 ft) above sea level, and has excellent views of
McMurdo Sound, Mount Erebus and the Royal Society Range. The majority of McMurdo station is
hidden from view, enhancing the radio-quiet characteristics of the area.

Arrival Heights is located at a geomagnetic latitude of about 80 degrees, right above the boundary
between the auroral zone and the polar cap. It is also close enough to the geographic pole for total
darkness to occur at local noon for a significant part of the year. This allows low intensity auroral events
to be observed. Its location near the geomagnetic pole also means that Arrival Heights lies inside the polar
cap at all times.

The Area is an electromagnetically quiet site offering good conditions for the installation of sensitive
instruments to record high-resolution (less than a minute) signals associated with upper atmosphere
research programs.
It is also the site closest to McMurdo Sound and Scott Base with these conditions that still allows good access and logistics support year-round. A 1993 electromagnetic interference survey of Hut Point Peninsula and surrounding regions found that noise levels at Arrival Heights lacked the impulsive character of interference in noisier areas, eliminating the occasional bursts of high amplitude noise prevalent in these areas.

Research teams from McMurdo Station and Scott Base use the Area extensively. Science programs being conducted at Arrival Heights laboratories examine natural phenomena occurring in the earth’s atmosphere and magnetosphere. The broad focus of these science programs is toward improved understanding of the mechanisms that couple solar processes with those of the terrestrial environment. These include investigations of phenomena associated with short-term environmental effects (auroras, induced electrical currents, radiowave communications interference), as well as those associated with longer-term effects (solar forcing on climate, changes in the ozone layer, atmospheric composition, stratospheric winds, and weather). Instruments for these tasks include optical and radio devices for remote sensing, as well as sensors that monitor changes in the electric and geomagnetic fields.

The instruments that measure local fields, including geomagnetic field sensors and very low frequency receivers, are sensitive to perturbations that propagate from remote generation regions. Apart from natural sources, there are sources of radio noise detected within the Area both within the Area itself and outside the Area. Sources of noise from within the Area include power lines, vehicle ignition systems, and equipment within the laboratories. Sources from outside the Area include HF (2-30 MHz), VHF (30-300 MHz) and UHF (300-3,000 MHz) communications, fire and tank level alarms that use radio transmissions, entertainment broadcast systems, ship, aircraft, or satellite radio transmissions, and aircraft surveillance radars. Sources of noise from both within and outside of the Area include household and operational appliances and equipment.

The VLF antennas are located in the crater of the larger cone, which provides shielding from local radio transmissions and station noise.

6(ii) Restricted and managed zones within the Area
None.

6(iii) Structures within and near the Area
Both the New Zealand and United States programs have research and living facilities within the Area. The New Zealand program is planning to replace its laboratory facility in the near future. A Satellite Earth Station (SES) is located on First Crater.
6(iv) **Location of other protected areas within close proximity of the Area**

The nearest protected areas to Arrival Heights are on Ross Island: Cape Evans (ASPA 155) is the closest at 22 km north; Backdoor Bay (ASPA 157) is 32 km north, Cape Royds (ASPA 121) is 35 km NNW; Tramway Ridge (ASPA 130) near the summit of Mt. Erebus is 40 km north; Lewis Bay (ASPA 156) the site of the 1979 DC-10 passenger aircraft crash is 50 km NE; New College Valley (ASPA 116) is 65 km north at Cape Bird; and Cape Crozier (ASPA 124) is 70 km to the NE. NW White Island (ASPA 137) is 35 km to the south across the Ross Ice Shelf.

7. **Permit conditions**

Entry into the Area is prohibited except in accordance with a permit issued by an appropriate national authority. Conditions for issuing a permit to enter the Area are that:

- it is issued for scientific study of the atmosphere, in particular for studies of electromagnetic radiation, trace gases, air particulates, auroras and geomagnetism or for other scientific purposes consistent with the management plan;

- it is issued for management and maintenance of science support facilities (including communications equipment), on the condition that movement within the Area be restricted to that necessary to access those facilities;

- it is issued for educational or public awareness activities associated with the scientific studies being conducted, on the condition that they are accompanied by permitted personnel responsible for the facilities being visited;

- it is issued for health and safety reasons, or for essential management purposes consistent with plan objectives such as inspection or review;

- the actions permitted are in accordance with the management plan and will not jeopardize the scientific values of the Area;

- the permit, or a copy, shall be carried within the Area;

- a report or reports shall be supplied to the authority or authorities named in the permit;

- permits should be valid for a stated period.
7(i) Access to and movement within the Area

Access to the Area is permitted by vehicle and on foot. Landing of aircraft and overflight within the Area is prohibited. When required for scientific or management purposes, transient overflight or landing may be allowed within the Area if specifically authorized by permit. Prior written notification must be given to the appropriate authority or authorities supporting scientists conducting research in the Area at the time of the proposed aircraft activity. The timing of the activity should be coordinated as appropriate so that possible disruption to scientific programs is minimized.

Entry by vehicle is restricted to those entering the Area to carry out science, servicing or equipment maintenance, installation of new facilities in accordance with a permit, and those permitted persons accompanying such people at the time of the visit. All other visitors should enter the Area on foot, leaving any vehicles at the ‘Glacier Road’ intersection. Vehicle and pedestrian traffic should be kept to the minimum necessary consistent with the objectives of any permitted activities and every reasonable effort should be made to minimize effects: e.g. personnel entering the Area by vehicle should coordinate travel so vehicle use is kept to a minimum. Vehicles shall keep to the established vehicle tracks as shown on Map A, unless specifically authorized by permit otherwise. Pedestrians should also keep to established tracks wherever possible.

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

Activities that may be conducted within the Area include:

- scientific research that will not jeopardize the scientific values of the Area;

- management activities, including the installation of new facilities to support scientific research monitoring;

- use of hand-held and vehicle radios by visitors entering the Area is allowed; however, their use should be minimized and shall be restricted to communications for scientific, management or safety purposes.

7(iii) Installation, modification or removal of structures

No structures are to be erected within the Area except as specified in a permit. All scientific equipment installed within the Area outside of research hut facilities must be approved by permit and clearly identified by country, name of the principal investigator and year of installation.
All such items should be made of materials that pose minimal risk of environmental contamination of the Area, and structures should be electromagnetically compatible with activities in the Area. The time period for removal of equipment shall be specified in the permit.

No Radio Frequency (RF) transmitting equipment other than low power transceivers for local essential communication may be installed within the Area. Electromagnetic radiation produced by equipment introduced to the Area shall not have significant adverse effects on any on-going investigations unless specifically authorized otherwise. Precautions shall be taken to ensure that electrical equipment used within the Area is adequately shielded to keep electromagnetic noise to a minimum.

Installation or modification of structures or equipment within the Area is subject to an assessment of the likely impacts of the proposed installations or modifications on the values of the Area, as required according to national procedures. Details of proposals and the accompanying assessment of impacts shall, in addition to any other procedures that may be required by appropriate authorities, be submitted by investigators to the activity coordinator for their national program, who will exchange documents received with other activity coordinators for the Area. Activity coordinators will assess the proposals in consultation with national program managers and relevant investigators for the potential impacts on the scientific or natural environmental values of the Area. Activity coordinators shall confer with each other and make recommendations (to proceed as proposed, to proceed with revisions, to trial for further assessment, or not to proceed) to their national program within 60 days of receiving a proposal. National programs shall be responsible for notifying investigators whether or not they may proceed with their proposals and under what conditions.

7(iv) Location of field camps
Camping within the Area is prohibited. Overnight visitation is permitted in buildings equipped for such purposes.

7(v) Restrictions on materials and organisms that can be brought into the Area
There are no specific restrictions on materials and organisms that can be brought into the Area.

7(vi) Taking or harmful interference with native flora or fauna
Taking or harmful interference with native flora or fauna is prohibited, except in accordance with a permit issued in accordance with Annex II to the Protocol on Environmental Protection to the Antarctic Treaty. Where animal taking or harmful interference is involved, this should, as a minimum standard, be in accordance with the SCAR Code of Conduct for the Use of Animals for Scientific Purposes in Antarctica.
7(vii) Collection or removal of anything not brought into the Area by the permit holder
Material may be collected or removed from the Area only in accordance with a permit and should be limited to the minimum necessary to meet scientific or management needs. Material of human origin likely to compromise the values of the Area, which was not brought into the Area by the permit holder or otherwise authorized, may be removed from any part of the Area unless the impact of removal is likely to be greater than leaving the material *in situ*: if this is the case the appropriate authority should be notified.

7(viii) Disposal of waste
All wastes shall be removed from the Area.

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

- Permits may be granted to enter the Area to carry out scientific monitoring and site inspection activities, which may involve the collection of data for analysis or audit, or for protective measures.

- Any specific sites of long-term monitoring shall be appropriately marked.

- Spectral bands of specific science interests that warrant special protection should be identified by parties active within the Area and electromagnetic noise should be maintained as much as is practicably possible outside of those frequencies.

- Intentional electromagnetic radiation outside of the agreed frequency bands and power levels is prohibited except within agreed frequency bands and power levels or in accordance with a permit.

7(x) Requirements for reports
Parties should ensure that the principal holder for each permit issued submits to the appropriate authority a report describing the activities undertaken. Such reports should include, as appropriate, the information identified in the Visit Report Form suggested by SCAR. Parties should maintain a record of such activities and, in the Annual Exchange of Information, should provide summary descriptions of activities conducted by persons subject to their jurisdiction, 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 for review of the management plan and in organizing the scientific use of the Area.
Management Plan for
Antarctic Specially Protected Area No. 139
BISCOE POINT, ANVERS ISLAND, PALMER ARCHIPELAGO

1. Description of values to be protected
Biscoe Point (64°48'47"S, 63°47'41"W, 2.7 km²), Anvers Island, Palmer Archipelago, Antarctic Peninsula, was originally designated as a Site of Special Scientific Interest through Recommendation XIII-8 (1985, SSSI No. 20), after a proposal by the United States of America. It was designated on the grounds that the “Site contains a large (approximately 5000 m²) but discontinuous stand of the two native vascular plants, Antarctic hair grass (Deschampsia antarctica) and, less commonly, Antarctic pearlwort (Colobanthus quitensis). A relatively well developed loam occurs beneath closed swards of the grass and contains a rich biota, including the apterous midge Belgica antarctica. Long-term research programs could be jeopardized by interference from nearby Palmer Station and from tourist ships.”

The present management plan reaffirms the exceptional ecological and scientific values associated with the rich flora and invertebrate fauna within the Area. In addition, it is noted that the first observation of C. quitensis growing south of 60°S was made at Biscoe Point, reported by Jean-Baptiste Charcot from the Expédition Antarctiques Française in 1903-05. The island on which Biscoe Point lies contains the most extensive communities of D. antarctica and C. quitensis in the Anvers Island vicinity, and they are of unusual abundance for this latitude. The abundance is much greater than previously described, with almost half of the island of Biscoe Point, and much of the ice-free area of the peninsula to the north, possessing significant stands of vegetation. The communities extend over a large proportion of the available ice-free ground, with a discontinuous cover of D. antarctica, C. quitensis and bryophytes and lichens of several species varying in density over an area of approximately 250,000 m². One stand of mosses in the prominent valley on the northern side of the main island extends almost continuously for 150 m along the valley floor, covering an area of approximately 6500 m². Individual, near-continuous stands of D. antarctica and C. quitensis reach a similar size, both on the main island and, to a lesser extent, on the promontory to the north. Several plant community studies were in progress when the Area was designated in 1985. Although these studies were discontinued soon after site designation, botanical research at the site has continued. For example, D. antarctica and C. quitensis seeds have been collected from Biscoe Point for plant studies examining the influence of climate change and enhanced UV-B radiation (Xiong et al. 2000). Biscoe Point was valuable for these studies because of the amount and quality of seeds available within the Area. In addition, Biscoe Point is one of the few low-lying vegetated sites that have not yet been substantially damaged by Antarctic fur seals, and as such the Area has been identified as a potential control site for assessing Antarctic fur seal impacts on vegetation and soils in this region.
Biscoe Point is also valuable for ornithological research. Long-term studies are being conducted on both Adélie (Pygoscelis adeliae) and gentoo (Pygoscelis papua) penguin colonies present within the Area. The gentoo colony became established at Biscoe Point some time around 1992 and, as a recently founded colony, is of particular value for monitoring long-term ecological changes to the local bird population structure and dynamics (Fraser, pers. comm., 1999). The Adélie colony is valuable for long-term monitoring and comparison with other colonies in Arthur Harbour that are subjected to higher levels of human influence. In this respect, the fact that the Area has been protected from significant human use, and that use allowed has been regulated by permit, for such a long period of time is of particular value. The Adélie colony is one of the oldest in the southern Anvers Island region (more than 700 years), and as such is valuable for paleoecological studies. The site is also the only site in the region where brown (Catharacta loennbergi), south polar (C. maccormicki) and hybrid skuas are known to occur annually.

Until recently, Biscoe Point was on a peninsula joined to Anvers Island by an ice ramp extending from the adjacent glacier. The ice ramp disappeared as the glacier retreated, and a narrow channel now separates Anvers Island from the island on which Biscoe Point lies. The original boundary of the Area was of geometric shape and extended to include a separate ice-free promontory 300 m to the north of this island, and also included the intervening marine environment. The Area is now defined to include all land above the low tide water level of the main island on which Biscoe Point is situated (0.53 km²), all offshore islets and rocks within 100 m of the shore of the main island, and most of the predominantly ice-free promontory 300 m to the north (0.1 km²). The marine component has now been excluded from the Area because of the lack of information on its values. The Area in total is now approximately 0.63 km².

In summary, the Area at Biscoe Point therefore has high value for its outstanding:

- examples of vegetation communities, soils and associated terrestrial ecology;
- ornithological interest, with several of the resident breeding bird species and associated paleoecological features possessing unusual properties, and which are the subject of long-term studies; and
- utility as a reference site for comparative studies and monitoring.

In order to protect the values of the Area, it is important that visitation continue to remain low and be carefully managed.

2. **Aims and Objectives**

Management at Biscoe Point aims to:

- avoid degradation of, or substantial risk to, the values of the Area by preventing unnecessary human disturbance and sampling in the Area;
allow scientific research on the ecosystem and physical environment associated with the values for which the Area is protected, while ensuring protection from over-sampling;
allow other scientific research within the Area provided it is for compelling reasons which cannot be served elsewhere and provided it will not compromise the values for which the Area is protected;
minimize the possibility of introduction of alien plants, animals and microbes to the Area;
allow visits for management purposes in support of the aims of the management plan.

3. Management activities
The following management activities shall be undertaken to protect the values of the Area:

- Copies of this management plan, including maps of the Area, shall be made available at Palmer Station (US) on Anvers Island and at Yelcho Station (Chile) on Doumer Island.
- Markers, signs or other structures erected within the Area for scientific or management purposes shall be secured and maintained in good condition.
- Visits shall be made as necessary (at least once every five years) to assess whether the Area continues to serve the purposes for which it was designated and to ensure management and maintenance measures are adequate.

4. Period of designation
Designated for an indefinite period.

5. Maps and photographs
Map 1: Biscoe Point, ASPA No. 139, in relation to Biscoe Bay and Anvers Island, showing the location of nearby stations (Palmer Station, US; Yelcho Station, Chile; and Port Lockroy Historic Site and Monument No. 61, UK), and the location of nearby protected areas. Projection UTM Zone 20S, Spheroid WGS84, Data source SCAR Antarctic Digital Database V4.0. Inset: the location of Anvers Island and the Palmer Archipelago in relation to the Antarctic Peninsula.

Map 2: Biscoe Point, ASPA No. 139: Physical features and access guidelines. Map specifications:
Projection: UTM Zone 20S; Spheroid: WGS84; Vertical datum: mean sea level; Contour interval: 5 m.
The map of the island on which Biscoe Point lies is derived from digital orthophotography with a horizontal and vertical accuracy of ±2 m (Sanchez and Fraser, 2001). The peninsula to the north of Biscoe Point, several offshore islands and Anvers Island are beyond the limits of the orthophotograph. These features were digitized from a rectified aerial image covering the wider area (Ref: TMA 3208 006V, 12/23/98) and are estimated as accurate to ±20 m. No elevation data are available for these areas.

6. Description of the Area

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

GENERAL DESCRIPTION

Biscoe Point (64°48'47"S, 63°47'41"W) is at the western extremity of a small island (0.53 km²), located close to the southern coast of Anvers Island (2700 km²) about 6 km south of Mount William (1515 m), in the region west of the Antarctic Peninsula known as the Palmer Archipelago (Map 1). Until recently, this island was joined to Anvers Island by an ice ramp extending from the adjacent southward-flowing glacier, and many maps (now incorrectly) show Biscoe Point as lying on a peninsula. A narrow, permanent, marine channel of approximately 50 m in width now separates the island on which Biscoe Point lies from Anvers Island. This mostly ice-free island lies south-east of Biscoe Bay and to the north of Bismarck Strait. A smaller extent of mostly ice-free land about 300 m to the north remains joined as a peninsula to Anvers Island by an ice ramp.

The island on which Biscoe Point lies is approximately 1.8 km long in an east-west direction and of up to about 450 m in width (Map 2). Topography consists of a series of low-lying hills, with the main east-west oriented ridge rising to a maximum altitude of about 24 m. A small remnant ice cap (0.03 km²) rises to 12 m at the eastern end of the island, where it was formerly bridged to Anvers Island by an ice ramp. The coastline is irregular and generally rocky, studded by offshore islets and rocks, and pitted by numerous bays. A number of the more sheltered bays Harbour gentle and accessible gravel beaches. The unnamed promontory to the north is approximately 750 m in length (east-west) by 150 m wide and is of similar character, although of lower topography.

Palmer Station (US) is located 13.8 km north-west of the Area at Arthur Harbour, Yelcho Station (Chile) is located approximately 12 km to the southeast at Doumer Island, while ‘Base A’ (UK, Historic Site No. 61) is located at Port Lockroy Historic Site and Monument No. 61, Goudier Island (off Wiencke Island) approximately 13 km to the east (Map 1).

BOUNDARIES

The original boundary of the Area was of geometric shape to include the land associated with Biscoe Point, the separate ice-free promontory 300 m to the north, and also the intervening islands and marine environment. A recent detailed review revealed little information to substantiate special values associated with the local marine environment. The marine area is not the subject of current or planned scientific studies, nor is it being subjected to specific pressures or threats requiring management. For these reasons, the boundary has been revised to exclude the marine environment.
The Area is now defined to include all land above the low tide water level of the main island on which Biscoe Point is situated (0.53 km²), all offshore islets and rocks within 100 m of the shore of this main island, and most of the predominantly ice-free promontory 300 m to the north (0.1 km²) (Map 2).

The landward (eastern) boundary on the northern promontory bisects the peninsula at the point where it protrudes from Anvers Island, distinguished by a small bay cutting into the glacier in the south and a similar, although less pronounced, coastline feature in the north. The total area including the main island and the northern promontory is approximately 0.63 km².

CLIMATE
No meteorological data are available for Biscoe Point, although data are available for Palmer Station (US), where conditions are expected to be broadly similar. Monthly air temperature averages recorded for Palmer Station over a 22-year period range from -7.8°C in August (the coldest month) to 2.5°C in January (the warmest) (Baker, 1996). The minimum recorded temperature is -31°C and the maximum is 9°C, while the annual mean is -2.3°C. Storms and precipitation at Palmer Station are frequent, with winds being persistent but generally light to moderate in strength, prevailing from the north-east. Cloud cover is frequently extensive, often with a ceiling of less than 300 m. While these broad patterns are expected to be reflected at Biscoe Point, the Area is in a more exposed position that is open to weather particularly from the west and south, which may result in some minor climatic differences.

GEOLOGY AND SOILS
Specific descriptions are not available of the geology of island on which Biscoe Point lies, or of the peninsula to the north. However, the bedrock appears to be composed mainly of gabbros and adamellites of Late Cretaceous to Early Tertiary age belonging to the Andean Intrusive Suite, which dominate the composition of southeastern Anvers Island (Hooper, 1958). Gabbro is a dark, coarse-grained plutonic rock that is mineralogically similar to basalt, and which is composed mainly of calcium-rich plagioclase feldspar and pyroxene. Adamellite is a granitic rock composed of 10-50% quartz and which contains plagioclase feldspar. A fine mineral soil is present on the gentle terrain, although precise soil characteristics have yet to be described. A relatively well-developed, loamy soil is associated with the closed swards of *Deschampsia*.

FRESHWATER HABITAT
A number of small seasonal streams and ponds are present on the island on which Biscoe Point lies, although they have not been scientifically described. A small pond (perhaps the largest, at approximately 30 m x 8 m) and stream occur in a valley on the southern side of the principal ridge of the island, 50 m NE of the southern small boat landing site (Map 2).
The presence of a long rubber hose suggests that at one time visitors may have collected fresh water from this site. Another freshwater pond of similar size (approximately 25 m x 6 m) is found in the prominent east-west trending valley on the northern side of the island. A small associated stream drains this pond to the west. The freshwater environment has thus far escaped significant disturbance from seals. Information on the hydrology of the separate promontory to the north is not available.

VEGETATION

The most significant aspect of the vegetation at Biscoe Point is the abundance and reproductive success of the two native Antarctic flowering plants, the Antarctic hair grass *Deschampsia antarctica* and Antarctic pearlwort *Colobanthus quitensis*. The communities of *D. antarctica* and *C. quitensis* at Biscoe Point are the most extensive in the Anvers Island vicinity and are considered particularly abundant for such a southerly location (Greene and Holtom 1971; Komárková 1983, 1984; Komárková, Poncet and Poncet 1985). The first observation of *C. quitensis* growing south of 60°S was made near Biscoe Point, recorded (as *C. crassifolius*) by the biologist Turquet on Jean-Baptiste Charcot’s Expédition Antarctiques Française (1903-05). More recently, seeds from both flowering plants within the Area have been collected for propagation in studies on the effects of climate change and UV-B exposure on these species being conducted out of Palmer Station (Xiong et al., 2000).

The abundance of *D. antarctica* and *C. quitensis* is much greater than previously described, and almost half of the island on which Biscoe Point lies, and much of the ice-free area of the peninsula to the north, possess significant stands of these species and a wide range of bryophytes and lichens. The approximate distribution of the most substantial stands of vegetation on the main island has been estimated from air and ground photography (Map 3). The distribution illustrated in Map 3 is intended as a general guide to the main areas of vegetation cover, rather than as a definitive description, and is not based on a precise ground survey. However, it does serve to indicate the scale of the vegetated communities, which comprise a discontinuous cover of varied composition and density over an area of approximately 250,000 m². Komárková (1983) noted a discontinuous stand of *D. antarctica* and *C. quitensis* reaching approximately 5000 m² on the main island. One particularly extensive stand of mosses in the principal valley on the northern side of the main island extends almost continuously for 240 m along the valley floor, occupying an area of approximately 8000 m² (Harris, 2001). Stands of lesser extent are present elsewhere on the island and on the separate promontory 300 m to the north. Colonization has been observed occurring on recently deglaciated material. Mosses tend to dominate on valley floors, close to streams and ponds, and in moist depressions. On valley sides, mixed communities of moss and *C. quitensis* are frequent on lower north-facing slopes, with an increasing prevalence of *D. antarctica* with elevation. Mixed *D. antarctica* and *C. quitensis* communities are particularly prolific on northern slopes between 10-20 m, while *D. antarctica* tends to be more frequent on the higher exposed sites above 20 m.
Mosses and lichens are frequently co-dominants or subordinate taxa. In some habitats *C. quitensis* may occur in small patches alone. Patches of dead vascular plants of up to 20 m² have been observed within the Area, believed to result from the effects of desiccation, flooding and frost during some summers (Komárková, Poncet and Poncet 1985).

Unlike many other low-lying coastal sites in the region, the vegetation at Biscoe Point does not appear to have been severely affected by the recent substantial increase in numbers of Antarctic fur seals (*Arctocephalus gazella*). As such, the Area has been identified as a potential control site for assessing Antarctic fur seal impacts on vegetation and soil (Day, T. in e-mail to C. Harris, 1999).

INVERTEBRATES, BACTERIA AND FUNGI

The apterous midge *Belgica antarctica* has been observed associated with the well-developed loam and closed swards of grass. No further information is available on the invertebrate assemblages in the Area, although in view of the well-developed plant communities a rich invertebrate fauna might be expected. There is no information available on local bacterial or fungal communities.

BREEDING BIRDS AND MAMMALS

At least six species of birds breed on the island on which Biscoe Point lies. The most numerous colony is of Adélie penguins (*Pygoscelis adeliae*), located on the ridge of a promontory on the south side of the island, above a narrow cove on the southern coast (Map 3). A gentoo penguin (*Pygoscelis papua*) colony was discovered on slopes on the northern side of this cove, on the southern side of the main island ridge, in 1992-93 (Fraser, pers. comm., 1999) (Map 3). Data on numbers of breeding pairs are presented in Table 1.
Table 1. Numbers of breeding Adélie (Pygoscelis adeliae) and gentoo (Pygoscelis papua) penguins on
the island on which Biscoe Point lies 1971-2002.

<table>
<thead>
<tr>
<th>Year</th>
<th>Breeding pairs</th>
<th>Count type¹</th>
<th>Source</th>
<th>Breeding pairs</th>
<th>Count type¹</th>
<th>Source</th>
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</thead>
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<tr>
<td>1971-72</td>
<td>3020</td>
<td>N3</td>
<td>2</td>
<td>0</td>
<td>N3</td>
<td>2</td>
</tr>
<tr>
<td>1983-84</td>
<td>3440</td>
<td>C3</td>
<td>3</td>
<td>0</td>
<td>C3</td>
<td>3</td>
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<tr>
<td>1984-85</td>
<td>2754</td>
<td>N1</td>
<td>3</td>
<td>0</td>
<td>N1</td>
<td>3</td>
</tr>
<tr>
<td>1986-87</td>
<td>3000</td>
<td>N4</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1994-95</td>
<td></td>
<td></td>
<td>14</td>
<td>N1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>1995-96</td>
<td></td>
<td></td>
<td>33</td>
<td>N1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>1996-97</td>
<td>1801</td>
<td>N1</td>
<td>5</td>
<td>45</td>
<td>N1</td>
<td>5</td>
</tr>
<tr>
<td>1997-98</td>
<td></td>
<td></td>
<td>56</td>
<td>N1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>1998-99</td>
<td></td>
<td></td>
<td>26</td>
<td>N1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>1665</td>
<td>N1</td>
<td>5</td>
<td>149</td>
<td>N1</td>
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</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2000-01</td>
<td>1335</td>
<td>N1</td>
<td>5</td>
<td>296</td>
<td>N1</td>
<td>5</td>
</tr>
<tr>
<td>2001-02</td>
<td>692</td>
<td>N1</td>
<td>5</td>
<td>288</td>
<td>N1</td>
<td>5</td>
</tr>
<tr>
<td>2002-03</td>
<td>1025</td>
<td>N1</td>
<td>5</td>
<td>639</td>
<td>N1</td>
<td>5</td>
</tr>
</tbody>
</table>

4. N = Nest, C = Chick, A = Adults; 1 = < ± 5%, 2 = ± 5-10%, 3 = ± 10-15%, 4 = ± 25-50%
   (classification after Woehler, 1993)
5. Müller-Schwarze and Müller-Schwarze, 1975
6. Parmelee and Parmelee, 1987

The Adélie colonies are some of the oldest in the region (more than 700 years), and have been the subject
of paleoecological studies, while the gentoo colony is considered particularly interesting because it has
been recently established (Fraser, pers. comm., 1999). Long-term studies are being conducted on the
population structure and dynamics of the penguin colonies within the Area, which make a useful
comparison with other colonies in Arthur Harbour that are subjected to higher levels of human influence
(Fraser, pers. comm., 1999).
South polar skuas (*Catharacta maccormicki*) and brown skuas (*C. loennbergi*) breed within the Area annually, and hybrids also occur. On the island on which Biscoe Point lies, 132 pairs of south polar skuas and one pair of brown skuas were counted on 26-27 February 2001 (Harris, 2001). Concurrently, 15 pairs of south polar skuas, usually with one or two chicks, were counted on the promontory 300 m to the north. Kelp gulls (*Larus dominicanus*) and Antarctic terns (*Sterna vittata*) breed within the Area (Fraser, pers. comm., 2000), although data on numbers are not available. Information on other bird species that breed within the Area, or that transiently visit, is not available.

Small numbers of non-breeding Antarctic fur seals (*Arctocephalus gazella*) (several counted on the island in late-February 2001 – Harris, 2001), Weddell seals (*Leptonychotes weddellii*) and southern elephant seals (*Mirounga leonina*) have been observed on beaches in summer.

Despite the presence of beaches and terrain suitable for haul-out, relatively few seals are typically observed within the Area. This may be a result of the observed frequent persistence of dense brash ice originating from glaciers calving from nearby Anvers Island (Fraser, pers. comm., 1999). Further information on numbers and breeding status, or on other seal species, is not available. No information is available on the local marine environment.

**HUMAN ACTIVITIES AND IMPACT**

Human activity within the Area appears to have been minimal, but few details have been recorded. The first documented human activity in the vicinity of Biscoe Point occurred over 150 years ago, when John Biscoe, Royal Navy, entered the bay now named after him on 21 February 1832. Biscoe recorded a landing on Anvers Island, probably near Biscoe Point, to take formal possession for the United Kingdom of what he believed to be part of the mainland of Antarctica (Hattersley-Smith, 1991). The next recorded visit to Biscoe Point was in 1903-05, when Turquet made observations of *C. quitensis* at the site on the Première Expédition Antarctiques Française led by Charcot.

More recently, formal plots for plant studies were established on the island near Biscoe Point in 1982 (Komářková, 1983), although the long-term research originally planned was discontinued soon thereafter. Komářková used welding rods inserted into the soil to mark study sites. A partial survey accurately mapped the positions (± 2 m) of 44 welding rods found in soils and vegetation during a systematic search made on the northeastern side of the island in February 2001 (Map 3) (Harris, 2001). The rods were located in an area of some of the richest vegetation on the island, and distributed over an area of at least 8000 m². In general, they had been inserted into soil or vegetation with chemically coated ends downwards. Contaminants from the rods appeared to kill all vegetation up to 20 cm from where the rods lay. Numerous rods have been found in previous seasons, possibly numbering in the hundreds (Fraser, Patterson, Day, T.: pers. comms. in e-mail to C. Harris, 1999-2002). All rods found have been removed.
The Area is not considered suitable as a reference site for measuring chemical contamination, because there remains uncertainty over contaminant types and concentrations, which sites have been affected, and the extent to which contaminants may have moved through soil, water and biological systems.

Fraser (pers. comm., 2001) also reported markers made of lead present in the gentoo colony. In addition, seaborne litter (mostly wood) may be found on beaches, and there remains a rubber hose (15 m long, ~15 cm diameter) in a small valley near the southern small boat landing site, which may once have been used for water supply purposes.

Recent scientific studies within the Area have focused on monitoring the breeding status of penguins and skuas, and the Area has also been used for the collection of seeds of Deschampsia and Colobanthus for ecological research in the Palmer Station region. Permits have been required to visit the Area since the site was specially protected in 1985.

6(ii) Restricted and managed zones within the Area
None.

6(iii) Structures within and near the Area
No structures are known to be present within the Area. A permanent survey marker, consisting of a 5/8" stainless steel threaded rod, was installed on the island on which Biscoe Point lies by the USGS on 31 January 1999. The marker is located at 64°48'40.12"S, 63°46'26.42"W at an elevation of 23 m (Maps 2 & 3). It is sited approximately midway along the principal ridgeline of the island, about 100 m north of the southern small boat landing site. The marker is set in bedrock and marked by a red plastic survey cap.

6(iv) Location of other protected areas within close proximity of the Area
The nearest protected areas to Biscoe Point are: Litchfield Island (ASPA No. 113) which is 16 km west of the Area in Arthur Harbour; South Bay (ASPA No. 146), which is approximately 12 km to the southeast at Doumer Island; and Eastern Dallmann Bay (ASPA No. 153) which is approximately 85 km to the northeast, adjacent to Brabant Island (Map 1).

7. Permit conditions
Entry into the Area is prohibited except in accordance with a Permit issued by an appropriate national authority. Conditions for issuing a Permit to enter the Area are that:

- it is issued for scientific study of the ecology of the Area, or for other scientific study which will not compromise the values for which the Area is protected;
it is issued for essential management purposes consistent with plan objectives such as inspection, maintenance or review;

- the actions permitted will not jeopardize the ecological or scientific values of the Area;
- any management activities are in support of the objectives of the management plan;
- the actions permitted are in accordance with the management plan;
- the Permit, or an authorised copy, shall be carried within the Area;
- a visit report shall be supplied to the authority named in the Permit;
- permits shall be issued for a stated period.

7(i) Access to and movement within the Area
Access to the Area shall be by small boat, by aircraft, or over sea ice by vehicle or on foot.

Boat access
The recommended landing sites for small boats are at either of the following locations (Maps 2&3):

(i) on the beach on the northern shore of the elongated cove on the southern coast of the island, which is the site most likely to be free of sea ice;

(ii) on the beach in the small cove mid-way along the northern coast of the island, adjacent to the designated camp and helicopter landing sites.

Access by small boat at other locations around the coast is allowed, provided this is consistent with the purposes for which a Permit has been granted.

Aircraft access and overflight
When necessary for purposes consistent with plan objectives, aircraft may operate and land within the Area according to strict observance of the following conditions:

(i) All overflight of the Area for purposes other than access shall be conducted according to the height restrictions imposed in Table 2. If an updated set of overflight guidelines is adopted by the ATCM, the plan will be revised to reflect the current agreement
Table 2. Minimum overflight heights within the Area according to aircraft type

<table>
<thead>
<tr>
<th>Aircraft type</th>
<th>Number of Engines</th>
<th>Minimum height above ground</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Feet</td>
</tr>
<tr>
<td>Helicopter</td>
<td>1</td>
<td>2460</td>
</tr>
<tr>
<td>Helicopter</td>
<td>2</td>
<td>3300</td>
</tr>
<tr>
<td>Fixed-wing</td>
<td>1 or 2</td>
<td>1500</td>
</tr>
<tr>
<td>Fixed-wing</td>
<td>4</td>
<td>3300</td>
</tr>
</tbody>
</table>

(ii) Helicopter landing is permitted at two designated sites (Map 2), the first (A) on the main island on which Biscoe Point lies, and the second (B) on the separate promontory 300 m further to the north. The landing sites with their coordinates are described as follows:

(A) on beach gravels a few meters above sea level 35 m east of the beach on the eastern shore of a small cove on the northern coast of the island (64°48'35"S, 63°46'49"W).

A small tidal pool of about 25 m in diameter is located 30 m east of the landing site; and

(B) on the permanent snow slope approximately 50-100 m east of the ice-free ground on the northern promontory (64°48'22"S, 63°46'24"W).

(iii) The designated and preferred aircraft access route to landing site (A) is from the west to north-west, from the region of Biscoe Bay (Map 2). When required by prevailing conditions and for safety, access may be made from the north to north-east, over the Anvers Island ice cap, or (less preferably) from the south-west, over the area of Biscoe Point. However, because of the presence of breeding bird colonies, it is prohibited for aircraft to approach / depart landing site (A) from over the region south of the main ridge-line of the island on which Biscoe Point lies, or from directly over the ice-free ground on the separate promontory 300 m to the north.

(iv) The designated and preferred aircraft access routes to the northern peninsula landing site (B) are either from a northerly direction, from the region of Biscoe Bay or over the Anvers Island ice cap, or from a southerly direction, over the stretch of sea immediately south of the promontory (Map 2). Again because of the presence of breeding bird colonies, it is prohibited to approach / depart landing site (B) over the ice-free ground on the northern promontory, or over the region south of the main ridge-line of the island on which Biscoe Point lies.
(v) Use of smoke grenades to indicate wind direction is prohibited within the Area unless absolutely necessary for safety, and any grenades used should be retrieved.

Vehicle access and use
When access over sea ice is viable, there are no special restrictions on the locations where such access may be made, although vehicles are prohibited from being taken on land within the Area.

Foot access and movement within the Area
Movement on land within the Area shall be on foot. All people in aircraft, boats, or vehicles are prohibited from moving on foot beyond the immediate vicinity of their landing site unless specifically authorised by Permit. Visitors should move carefully so as to minimize disturbance to flora, fauna, and soils, and should walk on snow or rocky terrain if practical, but taking care not to damage lichens. Pedestrian traffic should be kept to the minimum consistent with the objectives of any permitted activities and every reasonable effort should be made to minimize effects.

7(ii) Activities that are or may be conducted in the Area, including restrictions on time or place
- Scientific research that will not jeopardize the ecosystem or scientific values of the Area;
- Essential management activities, including monitoring;
- The appropriate authority should be notified of any activities/measures undertaken that were not included in the authorised Permit.

7(iii) Installation, modification or removal of structures
Structures shall not be erected within the Area except as specified in a Permit and, with the exception of the permanent survey marker, permanent structures or installations are prohibited. All structures, scientific equipment or markers installed in the Area must be approved by Permit for a specified period, and adequately identified by country, name of the responsible investigator or agency, and year of installation. All such items should be made of materials that pose minimal risk of harm to fauna or of contamination of the Area. Installation (including site selection), maintenance, modification or removal of structures shall be undertaken in a manner that minimizes disturbance to flora and fauna. Removal of structures, equipment or markers for which the period specified in the Permit has expired shall be a condition of the Permit.

7(iv) Location of field camps
Temporary camping is allowed within the Area at the designated site about 50 m north-east of helicopter landing site (A), on the northern coast of the main island on which Biscoe Point lies. The camp site is
located on beach gravels and rocky ground a few meters above sea level, immediately north of a transient
tidal pool, and is separated from the sea further to the north by a low rocky ridge of about 8 m.

When necessary for essential purposes specified in the Permit, temporary camping is allowed on the
separate peninsula 300 m to the north, although a specific camping site has not been determined.

Camping on surfaces with significant vegetation cover is prohibited.

7(v) Restrictions on materials and organisms which can be brought into the Area
No living animals, plant material or microorganisms shall be deliberately introduced into the Area and the
precautions listed in 7(ix) below shall be taken against accidental introductions. Dressed poultry should be
free of disease or infection before shipment to the Area and, if introduced to the Area for food, all parts
and wastes of poultry shall be completely removed from the Area and incinerated or boiled long enough
to kill any potentially infective bacteria or viruses.

No herbicides or pesticides shall be brought into the Area. Any other chemicals, including radio-nuclides
or stable isotopes, which may be introduced for scientific or management purposes specified in the
Permit, shall be removed from the Area at or before the conclusion of the activity for which the Permit
was granted. Fuel is not to be stored in the Area, unless specifically authorized by Permit for scientific or
management purposes. Anything introduced shall be for a stated period only, shall be removed at or
before the conclusion of that stated period, and shall be stored and handled so that risk of their
introduction into the environment is minimized. If release occurs which is likely to compromise the values
of the Area, removal is encouraged only where the impact of removal is not likely to be greater than that
of leaving the material in situ.

7(vi) Taking or harmful interference with native flora or fauna
Taking or harmful interference with native flora or fauna is prohibited, except by Permit issued in
accordance with Annex II to the Protocol on Environmental Protection to the Antarctic Treaty. Where
taking or harmful interference with animals is involved, the SCAR Code of Conduct for the Use of
Animals for Scientific Purposes in Antarctica should be used as a minimum standard.

7(vii) Collection or removal of anything not brought into the Area by the Permit holder
Collection or removal of anything not brought into the Area by the Permit holder shall only be in
accordance with a Permit and should be limited to the minimum necessary to meet scientific or
management needs. Anything of human origin likely to compromise the values of the Area, which was not
brought into the Area by the Permit Holder or otherwise authorized, may be removed unless the impact of
removal is likely to be greater than leaving the material *in situ*; if this is the case the appropriate authority should be notified.

7(viii) *Disposal of waste*

All wastes shall be removed from the Area. Human wastes may be disposed of into the sea.

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

4. Permits may be granted to enter the Area to carry out biological monitoring and site inspection activities, which may involve the collection of limited samples for analysis or review, or for protective measures.

5. Any specific sites of long-term monitoring shall be appropriately marked.

6. To help maintain the ecological and scientific values derived from the relatively low level of human impact within the Area visitors shall take special precautions against introductions.

7. Of concern are pathogenic, microbial, invertebrate or plant introductions sourced from other Antarctic sites, including stations, or from regions outside Antarctica. Visitors shall ensure that sampling equipment or markers brought into the Area are clean. To the maximum extent practicable, footwear and other equipment used or brought into the Area (including backpacks, carry-bags and tents) shall be thoroughly cleaned before entering the Area.

7(x) *Requirements for reports*

Parties should ensure that the principal holder for each Permit issued submits to the appropriate authority a report describing the activities undertaken. Such reports should include, as appropriate, the information identified in the Visit Report form suggested by SCAR. Parties should maintain a record of such activities and, in the Annual Exchange of Information, should provide summary descriptions of activities conducted by persons subject to their jurisdiction, 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.

**References**


Hooper, P.R. 1962. The petrology of Anvers Island and adjacent islands. *FIDS Scientific Reports* 34.


Map 3, Biscoe Point, ASPA No. 139
Penguin colonies, approximate vegetation extent and known contaminated sites
Management Plan
Antarctic Specially Protected Area No. 142
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 ASPA is as follows:

- Improve the understanding of how natural as well as anthropogenic changes in the environment affect the spatial and temporal distribution of animal populations, and, furthermore, how such changes affect the interaction between key species in the Antarctic ecosystem.

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 ASPA). Map specifications are the same as for Map A.

*Map C:* Antarctic Specially Protected Area No. 142, 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 ASPA is situated in Mühlig-Hofmannfjella, 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 Antarctic Specially Protected Area. 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 feldspatic sand. The north-eastern side of the Svarthamaren 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 folioste 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) melanoplthalma*, *Umbilicaria* spp. and *Xanthoria* spp. Areas covered with *Prasiola* are inhabited by cocolmoba (*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 amphitheaters. 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.

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 ASPA. 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. Limited fuel storage at the field station Tor is acceptable, taking into account that the station and its immediate surroundings are not part of the Area.
- 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.
Bibliography

Brooke, M.D., Keith, D. & Røv, N. 1999. Exploitation of inland-breeding Antarctic petrels by south polar skuas. OECOLOGIA 121: 25-31
MAP A: Dronning Maud Land
Location of map B shown

MAP B: Svarthamaren and surroundings
Svarthamaren, ASPA No. 142 slightly left of centre
Management Plan for Antarctic Specially Protected Area No. 162

MAWSON’S HUTS
CAPE DENISON, COMMONWEALTH BAY,
GEORGE V LAND, EAST ANTARCTICA

Latitude 67° 00’ 30” S, Longitude 142° 39’ 40” E

Mawson’s Huts are four timber huts that served as the winter base of the Australasian Antarctic Expedition of 1911–14 organised and led by geologist Dr Douglas Mawson. An important symbol of the so-called ‘heroic age’ of Antarctic exploration (1895-1917), the huts at Cape Denison are the least disturbed and altered of those structures remaining from the era. The achievements of the Mawson expedition include some of the earliest and most comprehensive studies of Antarctic geology, glaciology, oceanography, geography, terrestrial magnetism, astronomy, meteorology, biology, zoology and botany.

In recognition of the rarity and richness of this social, cultural and scientific resource, including the important technical, architectural and aesthetic value of the huts, all four Australasian Antarctic Expedition huts are designated as an ASPA, embedded within the Cape Denison ASMA 3.

1.0 Description of Values to be Protected
This ASPA encompasses Mawson’s Huts which are a site of historic, archaeological, technical, social and aesthetic values.

- Historic value
Mawson’s Huts at Cape Denison, Commonwealth Bay was the main base of the Australasian Antarctic Expedition (AAE) of 1911–14, led by Dr Douglas Mawson. It is one of only six hut sites in Antarctica remaining from the ‘heroic age’.

Mawson’s Huts is one of a group of ‘heroic age’ huts where pragmatic consideration of the need to provide permanent shelter in the Antarctic environment resulted in an expedition hut form suitable for polar regions.

Mawson’s Huts were built in January, February and March 1912 and May 1913. In their surviving form and setting the huts illustrate the isolation and harsh environment of Cape Denison. They also demonstrate the cramped internal conditions endured by expedition members. The living quarters in the Main Hut, for example, a single space measuring 7.3 m x 7.3 m, provided sleeping and kitchen facilities for 18 men.

The external form and internal structure of the largest hut, the Main Hut, are a simple but strong architectural concept: a square base topped by a pyramid roof (to prevent damage by blizzards), with skylights to provide natural lighting. Following the decision to combine two expedition bases into one, a hip-roofed accommodation hut measuring 5.5 m x 4.9 m was adjoined to the living quarters and equipped as a workshop. A 1.5 m wide verandah surrounded the structure on three sides, under the same roof. The verandah was used as a storage space that also assisted in insulating the hut from the weather.

The two huts that form the Main Hut were built of Oregon timber frames clad with Baltic pine tongue-and-groove boards. They were prefabricated in Australia, and on-site construction was assisted by a branded letter code on framing members and coded colours painted on board ends. (None of the expedition party had any previous construction experience.) The survival of the Main Hut at one of the windiest sites on Earth is testimony to the strength of its design and care of its construction.

Mawson’s Huts contain numerous significant and relatively untouched artefacts from the ‘heroic age’, which form a rich resource of material available for research and interpretation, and potentially yielding information about aspects of expeditioner life not included in official written accounts.
The three other AAE huts are:

- The Absolute Magnetic Hut, constructed during February 1912. It measured 1.8 m x 1.8 m in plan with a skillion roof and had an Oregon timber frame to which boards of remnant timber were fixed. The hut was used in association with, and as a reference point for, observations made in the Magnetograph House. Today it is considered to be a standing ruin.
- The Magnetograph House was erected in March 1912 to house equipment used to measure variations in the South Magnetic Pole. It measures 5.5 m x 2 m with a shallow pitched skillion roof and no windows. After the first building attempt was demolished by high winds, large rocks were heaped against the new hut to provide a wind barrier. Sheepskin and hessian attached to the roof also assisted in keeping the internal temperature constant and in minimising the ingress of drift snow. These innovations may have contributed to the relatively intact condition of the hut today.
- Construction of the Transit Hut commenced in May 1913, with packing case timbers being affixed to an Oregon frame. The structure was also clad in sheepskin and canvas. Originally known as the Astronomical Observatory, the hut housed the theodolite used to take star sights to determine the exact longitude of Cape Denison. It is now considered to be a standing ruin.

- Aesthetic values
Mawson’s Huts are of aesthetic value; the building form of the huts themselves shows the functional and efficient planning that was undertaken in response to the site position and the elements endured by the expedition members. The weathering of the huts and the decay of the remains gives a feeling of time elapsed and exposure to the elements.

2.0 Aims and Objectives
The aim of the management plan is to provide protection for the huts so that their values can be preserved. Management of the Area aims to:

- avoid degradation of, or substantial risk to, the values of the Area;
- maintain the historic values of the Area through planned conservation and archaeological work programs;
- allow management activities which support the protection of the values and features of the Area;
- allow scientific research; and
- prevent unnecessary human disturbance to the Area, its features and artefacts by means of managed access to the four Australasian Antarctic Expedition huts.

3.0 Management Activities
The following management activities may be undertaken to protect the values of the Area:

- programs of conservation and archaeological work and environmental monitoring work on Mawson’s Huts and any artefacts contained within the huts and the five (5) metre buffer zone around the huts;
- visits made as necessary for management purposes;
- review of the Management Plan at least once every five (5) years, and update as required;
- consultation among national Antarctic programs operating in the region, or those with an interest or experience in Antarctic historic site management, with a view to ensuring the above provisions are implemented effectively; and
- installation of signage to indicate the boundaries of the ASPA.

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3 In the context of this Management Plan the term conservation “means all the processes of looking after a place so as to retain its cultural significance”, as defined in Article 1.4, of The Burra Charter: The Australian ICOMOS Burra Charter, 1999.
4.0 Period of Designation
This ASPA is designated for an indefinite period.

5.0 Description of the Area

5.1 Geographical coordinates, boundary markers and natural features
Cape Denison is a 1.5 km-wide peninsula projecting into the centre of Commonwealth Bay, a 60 km-wide stretch of coast in George V Land, east Antarctica. The topography of Cape Denison is defined by a series of four rocky ridges, running south-southeast to north-northwest, and three valleys filled with ice, snow, and glacial moraine. The largest, most westerly of these valleys contain the four Australasian Antarctic Expedition huts. At the seaward end of this valley is Boat Harbour, a 400 m long indent in the coast.

Map A indicates that Mawson’s Main Hut is located about 65 m from the harbour. The Transit Hut is located 40 m northeast of the Main Hut; the Magnetograph House is approximately 310 m north-northeast of the Main Hut; and the Absolute Magnetic Hut is about 275 m northeast of the Main Hut.

The ASPA covers four areas. Each area consists of one hut and a five (5) metre buffer zone extending from the perimeter of the hut. The huts are located at:

- Main Hut: 67° 00’ 31” S, 142° 39’ 39” E;
- Transit Hut: 67° 00’30” S, 142° 39’ 42” E;
- Absolute Magnetic Hut: 67° 00’23” S, 142° 39’ 48” E; and
- Magnetograph House: 67° 00’ 21” S, 142° 39’ 37” E.

Cape Denison is the summer habitat for breeding Adélie penguins, Wilson’s storm-petrels, snow petrels and south polar skuas. Several colonies are located close to the ASPA, and the ASPA areas may from time to time be traversed by penguins returning to their nests. Weddell seals, southern elephant seals and leopard seals have been recorded hauling out and, in the case of elephant seals, moulting at Cape Denison. However, the presence of seals within the immediate ASPA boundaries is unknown.

The only flora evident near the huts are lichens and non-marine algae. Although the non-marine algae have yet to be studied, a list of lichen species is included at Appendix A.

5.2 Access to the Area
Sea, land and air access to Mawson’s Huts is difficult due to the rugged topography and climate of the area. Sea ice extent and uncharted bathymetry may constrain ship access to approximately 3nm from the coastline. Access is then gained either by small watercraft or by helicopter, although attempts to land are frequently hampered by heavy seas and prevailing north-westerly or katabatic winds. Boat landings may be made at Boat Harbour and due north of Sørensen Hut (within ASMA 3). The helicopter landing site and approach and departure flight paths are indicated on Map C.

Onshore access to and within the ASPA is on foot. With the exception of a short boardwalk close to the Main Hut, there are no roads or other transportation infrastructure on shore. The boardwalk is frequently covered by snow and therefore unusable for all but a few weeks of the year.

5.3 Location of structures and other anthropogenic objects within and near to the Area
The ASPA is located within the Cape Denison ASMA, which features several other structures from this expedition, including survey markers and the mast atop Anemometer Hill; and six non-historic structures, including temporary field shelters. The non-historic structure located closest to the ASPA is Granholm Hut, situated some 160 m northwest of the Main Hut. It contains numerous building materials, some field equipment and limited provisions. More building materials are stored beneath the hut. To the east of Granholm Hut is a stack of timbers for use in conservation work on the Main Hut.
This stack is secured with galvanised wires attached to rock bolts. A similar timber stack is located on rocks some 100 m southeast of the Main Hut.

Objects left by the Australasian Antarctic Expedition are strewn within the Area. Of particular note is the artefact scatter located immediately north of the Main Hut. Due to their significant cultural heritage value, these artefacts have been included within the Cape Denison ASMA and HSM No. 77.

5.4 Location of other protected areas in or near to the Area
ASPA 162 is located within the Cape Denison ASMA. For further details about ASMA 3, refer to the separate document pertaining to this Area. Cape Denison is simultaneously listed as a Historic Site under the Antarctic Treaty.

6.0 Zones within the Area
There are no zones within ASPA 162.

7.0 Maps of the Area
Map A: Cape Denison Management Zones. This map shows the boundaries of the ASMA, the Historic Site, the Visual Protection Zone, ASPA No. 162, and significant topographic features of the Area. The inset map indicates the location in relation to the Antarctic continent.

- Projection: UTM Zone 54
- Horizontal Datum: WGS84

Map B: Cape Denison Visual Protection Zone. This map shows the boundaries of the Visual Protection Zone and indicates the position of significant historic artefacts, including the four Australasian Antarctic Expedition huts, the Memorial Cross, and Anemometer Hill, the site of the BANZARE Proclamation Pole.

- Projection: UTM Zone 54
- Horizontal Datum: WGS84

Map C: Cape Denison Flight Paths and Bird Colonies. This map indicates the approaches, departures and landing site for helicopters, as well as the location of bird colonies in the vicinity.

- Projection: UTM Zone 54
- Horizontal Datum: WGS84

8.0 Permit Conditions
Annex V of the Protocol on Environmental Protection to the Antarctic Treaty (Madrid Protocol) prohibits entry into an ASPA except in accordance with a Permit. Permits shall only be issued by appropriate national authorities and may contain general and specific conditions. A Permit may be issued by a national authority to cover a number of visits in a season. Parties operating in the Commonwealth Bay area shall consult together and with non-government operators interested in visiting the Area to ensure that visitors are managed appropriately.

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

- activities related to conservation, inspection, maintenance, research and/or monitoring purposes;
- management activities consistent with and/or in support of the management objectives of the ASPA Management Plan objectives; and
- educational purposes and activities, including tourism, consistent with the aims and objectives of this Management Plan.

The Permit should be issued for a stated period and shall be carried within the Area. A visit report must be supplied to the authority named in the Permit within three (3) months of the expiry date of the Permit.
8.1 Access to and movement within or over the Area
Onshore access to and within the huts is on foot. Depending on snow conditions, a short boardwalk close to the Main Hut may be accessible and should be used whenever practicable so as to avoid potential impact on the artefact scatter to the north of the Main Hut.

8.1.1 Visitor management
Day visits to Mawson’s Huts may be permitted, provided that:
- each group is accompanied by a person with cultural heritage skills (to the satisfaction of the permitting Party) who remains in the Area for the duration of the visit;
- briefings on this management plan and the values of the ASPA are conducted prior to visits and adequate site interpretation materials are made available to each visitor;
- visitors accessing the Area avoid sensitive historic artefacts, such as the artefacts scatter to the immediate north of the Main Hut, and other sensitive areas, such as lichen communities; and
- visitors do not touch the exterior fabric of the buildings or any artefacts.

Visitors may enter the Main Hut and Magnetograph House provided that:
- a person who has approved cultural heritage skills accompanies all visitors inside the huts;
- visitation of the interior of the huts is limited to up to four (4) persons (including the guide) at any one time inside the Main Hut, and up to three (3) persons (including the guide) in the Magnetograph House; and
- artefacts, scientific and related conservation management equipment and the interior building fabric are not touched.

Authorised work parties undertaking approved conservation and/or archaeological work programs are exempt from the provisions of this sub-section.

8.2 Activities which are or may be conducted within the Area
- Activities related to the regular program of conservation work, and activities for inspection, maintenance, research and/or monitoring purposes;
- scientific research;
- visitation for educational purposes, including tourism; and
- visitation to assess the effectiveness of the management plan and management activities.

8.3 The installation, modification, or removal of structures
- Other than to preserve the values of Mawson’s Huts, no new structures or equipment should be installed.
- No alteration to Mawson’s Huts shall be made, or structures installed, except for those required for the conservation, research, monitoring or maintenance activities specified above.
- Cape Denison is simultaneously designated as a Historic Site. In accordance with Annex V, Article 8 (4) of the Protocol, no historic structure or other artefact at Cape Denison (including Mawson’s Huts) should be damaged, removed or destroyed except in accordance with an approved conservation and/or archaeological work program. A historic artefact may only be removed from the Area for the purposes of conservation and/or preservation and then only in accordance with a Permit issued by a national authority.
- The repatriation of the artefact to its original location at Cape Denison is generally preferable unless further damage or deterioration may result from repatriation.

8.4 The location of field camps
- Camping is not allowed within the Area.
- Use of Mawson’s Huts for accommodation is not permitted.
- Existing non-historic infrastructure within the ASMA should be used by Parties undertaking activities in accordance with this management plan, in preference to establishing new infrastructure.
• Tents should be pitched on the wooden platform adjacent to Sørensen Hut.

8.5 Restrictions on materials and organisms that may be brought into the Area
• No living animals, plant material, micro-organisms or soils shall be deliberately introduced into the Area, and all reasonable precautions shall be taken to prevent accidental introductions.
• No poultry or poultry products, with the exception of sterilised egg powder, may be brought into the Area.
• No polystyrene packaging materials may be brought into the Area.
• No pesticides or herbicides may be brought into the Area, except those used for the purposes of conservation or preservation of historic structures or artefacts, which shall be allowed into the Area in accordance with a Permit, and then removed from the Area at or before the conclusion of the activity for which the Permit was granted.
• Fuel, food and other materials are not to be deposited in the Area, unless required for essential purposes connected with the activity for which the Permit has been granted.
• Use of combustion-type lanterns is not permitted inside the Area under any circumstances.
• Smoking in the Area is not permitted.

8.6 Taking or harmful interference with native flora or fauna
Taking or harmful interference with native flora and fauna is prohibited, except in accordance with a separate Permit issued under Article 3 of Annex II (of the Protocol on Environmental Protection to the Antarctic Treaty) by the appropriate national authority specifically for that purpose.

8.7 The collection or removal of anything not brought into the Area by the Permit holder
• No historic structure or other artefact in the Area may be handled, disturbed or removed from the Area unless for conservation, preservation or protection purposes, or for scientific reasons, and then only in accordance with a Permit issued by an appropriate national authority.
• The repatriation of the artefact to the location at Cape Denison from which it was removed is generally preferable unless further damage or deterioration may result from repatriation.
• If an artefact is to be removed, the Australian national program should be informed so that documentation regarding that program’s archaeological research at Mawson’s Huts may be amended accordingly.
• Material of human origin that is likely to compromise the values of the Area, and which was not brought into the Area by the Permit holder or otherwise authorised, may be removed unless the impact of removal is likely to be greater than leaving the material in situ. If material is to be removed, the appropriate Authority must be notified and approval obtained.

8.8 Disposal of wastes
All wastes, including human wastes, should be removed from the Area.

8.9 Measures that may be necessary to ensure aims and objectives of the Plan can continue to be met
• The provision of information for tourists and other visitors to the Area, including a briefing video and interpretative literature;
• a post-visit survey to assist in the formal monitoring of visitor impact (with primary regard to conservation requirements, rather than visitor access);
• off-site interpretation of the Area that maximises the use of available media, including the Internet; and
• the development of skills and resources, particularly those related to the excavation of artefacts from ice, to assist in the protection of the Area’s values.
8.10 Reports to be made to the appropriate authority regarding visits to the Area

To enhance cooperation and the coordination of activities in the Area, to allow for effective site monitoring and management, to facilitate the consideration of cumulative impacts, and to fulfill the aims and objectives of this Management Plan, Parties should ensure that the principal holder for each Permit issued submits a report describing the activities undertaken. Such reports should include, as appropriate, the information identified in the Visit Report Form contained in Appendix 4 of Resolution 2 (1998)(CEP 1).

9.0 Exchange of Information

Parties should maintain a record of activities approved for this ASPA 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 this Management Plan.

Parties should, wherever possible, deposit originals or copies in a publicly accessible archive (such as the dedicated Mawson’s Huts website at http://www.aad.gov.au/mawsons_huts) to maintain a record of visitation of the Area, to be used both in any review of this Management Plan and in organising further visitation and/or use of the Area.

10.0 Supporting Documentation

Angela Bender, mapping officer, Australian Antarctic Division, pers. comm. 9 April 2003; 16 April 2003.


Professor Rod Seppelt, botanist, Australian Antarctic Division, pers. comm. 19 February 2003.
Appendix A

Flora recorded at Cape Denison, Commonwealth Bay

The following taxa were recorded at Cape Denison by the Australasian Antarctic Expedition (AAE) of 1911–14 and the British Australian New Zealand Antarctic Research Expedition (BANZARE) in 1929–31 and published by Carroll W. Dodge in *BANZARE Reports, Series B, Vol. VII*, July 1948.

**LICHENS**

**Lecideaceae**
*Lecidea cancriformis* Dodge & Baker
*Toninia johnstoni* Dodge

**Umbilicariaceae**
*Umbilicaria decussata* (Vill.) Zahlbr.

**Lecanoraceae**
*Rhizoplaca melanopthalma* (Ram.) Leuck. & Poelt
*Lecanora expectans* Darb.
*Pleopsisidium chloropanum* (Wahlenb.) Zopf

**Parmeliaceae**
*Physcia caesia* (Hoffm.) Th. Fr.

**Usnaeaceae**
*Pseudephbe minuscula* (Nyl. ex Arnold) Brodo & D. Hawksw.
*Usnea antarctica* Du Rietz

**Blasteniaceae**
*Candelariella flavia* (C.W. Dodge & Baker) Castello & Nimis
*Xanthoria elegans* (Link) Th. Fr.
*Xanthoria mawsonii* Dodge

**Buelliaaceae**
*Buellia frigida* Darb.

**BRYOPHYTES**
No bryophytes evident at Cape Denison.

There are numerous non-marine algae; however, no surveys have been undertaken.
Map A  Cape Denison Management Zones

Legend
- Antarctic Specially Managed Area and Historic Site boundary
- Visual Protection Zone
- Lake
- Ice Sheet
- Contour (interval 5m)
- Building and Antarctic Specially Protected Area extending 5m from building perimeter
- Refuge

Horizontal Datum: WGS84
Projection: UTM Zone 54
Produced by the Australian Antarctic Data Centre, Australian Antarctic Division, April 2003
Map C  Cape Denison Flight Paths and Bird Colonies

Legend
- Colony Nest
- Adélie penguin
- Snow petrel
- South polar skua
- Wilson's storm-petrel
- Lake
- Ice sheet
- Contour (interval 5m)
- Building
- Refuge
- Landing site

Horizontal Datum: WGS84
Projection: UTM Zone 54

Produced by the Australian Antarctic Data Centre, Australian Antarctic Division, April 2003
MEASURE 3 (2004)

ANTARCTIC HISTORIC SITES AND MONUMENTS: CAPE DENISON, COMMONWEALTH BAY, GEORGE V LAND AND PLAQUE AND MONUMENT AT INDIA POINT, HUMBOLDT MOUNTAINS, CENTRAL DRONNING MAUD LAND

The Representatives,

Recalling Recommendations I – IX and VI-14 and Measure 3 (2003);

Noting the requirements of Article 8 of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty to maintain a list of current Historic Sites and Monuments and that such sites shall not be damaged, removed or destroyed;

Recommend to their Governments the following Measure for approval in accordance with paragraph 2 of Article 8 of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty:

1. That Historic Site and Monument numbers 12 and 13 be removed from the Antarctic Treaty list of Historic Sites and Monuments and be subsumed into the following new Historic Site and Monument to be added to the “List of Historic Sites and Monuments approved by the Antarctic Treaty Consultative Meeting” annexed to Measure 3 (2003):

No. 77: Cape Denison, Commonwealth Bay, George V Land, including Boat Harbour and the historic artefacts contained within its waters. This Site is contained within ASMA No. 3, designated by Measure 1 (2004). Part of this site is also contained within ASPA No. 162, designated by Measure 2 (2004).

Location: 67°00′30″S, 142°39′40″
Original proposing Party: Australia
Party undertaking management: Australia

2. That the following site be added to the “List of Historic Sites and Monuments approved by the Antarctic Treaty Consultative Meeting” annexed to Measure 3 (2003):

No. 78: Memorial plaque at India Point, Humboldt Mountains, Wohlthat Massif, central Dronning Maud Land erected in memory of three scientists of the Geological Survey of India (GSI) and a communication technician from the Indian Navy – all members of the ninth Indian Expedition to Antarctica, who sacrificed their lives in this mountain camp in an accident on 8th January 1990.

Location: 71°45′08″S, 11°12′30″E
Original proposing Party: India
Party undertaking management: India.

INSURANCE AND CONTINGENCY PLANNING FOR TOURISM AND NON
GOVERNMENTAL ACTIVITIES IN THE ANTARCTIC TREATY AREA

The Representatives,

Concerned at the potential impacts, including the imposition of additional costs, that tourist or other
non-governmental activities may have on national programmes, and the risks to the safety of those
involved in search and rescue operations;

Desiring to ensure that tourist or other non-governmental activities undertaken in Antarctica are
carried out in a safe and self-sufficient manner;

Desiring further to ensure that the risks associated with tourism or other non-governmental activities
are fully identified in advance, and minimised;

Noting that the “Procedures to be Followed by Organisers and Operators”, as set out in the Attachment
to Recommendation XVIII-1, contain some elements relating to self-sufficiency and insurance;

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

That Parties shall require those under their jurisdiction organising or conducting tourist or
other non-governmental activities in the Antarctic Treaty Area, for which advance notification
is required in accordance with Article VII (5) of the Antarctic Treaty, to demonstrate
compliance with the following requirements:

- that appropriate contingency plans and sufficient arrangements for health and safety, search and rescue (SAR), and medical care and evacuation have been drawn up and are in place prior to the start of the activity. Such plans and arrangements shall not be reliant on support from other operators or national programmes without their express written agreement; and

- that adequate insurance or other arrangements are in place to cover any costs associated with search and rescue and medical care and evacuation.
ANNEX B

DECISIONS
DECISION 1 (2004)

REVISED RULES OF PROCEDURE

The Representatives,

Desiring to amend the Rules of Procedure for Antarctic Treaty Consultative Meetings;

Decide:

That the "Revised Rules of Procedure (2004)" attached to this decision shall replace the existing Rules of Procedure for Antarctic Treaty Consultative Meetings with immediate effect.
REVISED RULES OF PROCEDURE (2004)

1. Meetings held pursuant to Article IX of the Antarctic Treaty shall be known as Antarctic Treaty Consultative Meetings. Contracting Parties entitled to participate in those Meetings shall be referred to as "Consultative Parties"; other Contracting Parties which may have been invited to attend those Meetings shall be referred to as "non-Consultative Parties". The Executive Secretary of the Secretariat of the Antarctic Treaty shall be referred to as the “Executive Secretary”.

2. The Representatives of the Commission for the Conservation of Antarctic Marine Living Resources, the Scientific Committee on Antarctic Research and the Council of Managers of National Antarctic Programs, invited to attend those Meetings in accordance with Rule 32, shall be referred to as "observers."

Representation

3. Each Consultative Party shall be represented by a Delegation composed of a Representative and such Alternate Representatives, Advisers and other persons as each State may deem necessary. Each non Consultative Party which has been invited to attend a Consultative Meeting shall be represented by a Delegation composed of a Representative and such other persons as it may deem necessary within such numerical limit as may from time to time be determined by the Host Government in consultation with the Consultative Parties. The Commission for the Conservation of Antarctic Marine Living Resources, the Scientific Committee on Antarctic Research and the Council of Managers of National Antarctic Programs shall be represented by their respective Chairman or President, or other persons appointed to this end. The names of members of Delegations and of the observers shall be communicated to the Host Government prior to the opening of the Meeting.

4. The order of precedence of the Delegations shall be in accordance with the alphabet in the language of the Host Government, all Delegations of non Consultative Parties following after those of Consultative Parties, and all Delegations of observers following after non-Consultative Parties.

Officers

5. A Representative of the Host Government shall be the Temporary Chairman of the Meeting and shall preside until the Meeting elects a Chairman.

6. At its inaugural session, a Chairman from one of the Consultative Parties shall be elected. The other Representatives of Consultative Parties shall serve as Vice-Chairmen of the Meeting in order of precedence. The Chairman normally shall preside at all plenary sessions. If he is absent from any session or part thereof, the Vice-Chairmen, rotating on the basis of the order of precedence as established by Rule 4, shall preside during each such session.

Secretariat

7. The Executive Secretary shall act as Secretary to the Meeting. He or she shall be responsible, with the assistance of the Host Government, for providing secretariat services for the meeting, as provided in Article 2 of Measure 1 (2003), as provisionally applied by Decision 2 (2003) until Measure 1 becomes effective.

Sessions

8. The opening plenary session shall be held in public, other sessions shall be held in private, unless the Meeting shall determine otherwise.

Committees and Working Groups
9. The Meeting, to facilitate its work, may establish such committees as it may deem necessary for the performance of its functions, defining their terms of reference.

10. The committees shall operate under the Rules of Procedure of the Meeting, except where they are inapplicable.

11. Working groups may be established by the Meeting or its committees.

**Conduct of Business**

12. A quorum shall be constituted by two-thirds of the Representatives of Consultative Parties participating in the Meeting.

13. The Chairman shall exercise the powers of his office in accordance with customary practice. He shall see to the observance of the Rules of Procedure and the maintenance of proper order. The Chairman, in the exercise of his functions, remains under the authority of the Meeting.

14. Subject to Rule 29, no Representative may address the Meeting without having previously obtained the permission of the Chairman and the Chairman shall call upon speakers in the order in which they signify their desire to speak. The Chairman may call a speaker to order if his remarks are not relevant to the subject under discussion.

15. During the discussion of any matter, a Representative of a Consultative Party may rise to a point of order and the point of order shall be decided immediately by the Chairman in accordance with the Rules of Procedure. A Representative of a Consultative Party may appeal against the ruling of the Chairman. The appeal shall be put to a vote immediately, and the Chairman's ruling shall stand unless overruled by a majority of the Representatives of Consultative Parties present and voting. A Representative of a Consultative Party rising to a point of order shall not speak on the substance of the matter under discussion.

16. The Meeting may limit the time to be allotted to each speaker, and the number of times he may speak on any subject. When the debate is thus limited and a Representative has spoken his allotted time, the Chairman shall call him to order without delay.

17. During the discussion of any matter, a Representative of a Consultative Party may move the adjournment of the debate on the item under discussion. In addition to the proposer of the motion, Representatives of two Consultative Parties may speak in favour of, and two against, the motion, after which the motion shall be put to the vote immediately. The Chairman may limit the time to be allowed to speakers under this Rule.

18. A Representative of a Consultative Party may at any time move the closure of the debate in the item under discussion, whether or not any other Representative has signified his wish to speak. Permission to speak on the closure of the debate shall be accorded only to Representatives of two Consultative Parties opposing the closure, after which the motion shall be put to the vote immediately. If the Meeting is in favour of the closure, the Chairman shall declare the closure of the debate. The Chairman may limit the time to be allowed to speakers under this Rule. (This Rule shall not apply to debate in committees.)

19. During the discussion of any matter, a Representative of a Consultative Party may move the suspension or adjournment of the Meeting. Such motions shall not be debated, but shall be put to the vote immediately. The Chairman may limit the time to be allowed to the speaker moving the suspension or adjournment of the Meeting.
20. Subject to Rule 15, the following motions shall have precedence in the following order over all other proposals or motions before the Meeting:

a) to suspend the Meeting;

b) to adjourn the Meeting;

c) to adjourn the debate on the item under discussion;

d) for the closure of the debate on the item under discussion.

21. Decisions of the Meeting on all matters of procedure shall be taken by a majority of the Representatives of Consultative Parties participating in the Meeting, each of whom shall have one vote.

Languages

22. English, French, Russian and Spanish shall be the official languages of the Meeting.

23. Any Representative may speak in a language other than the official languages. However, in such cases he shall provide for interpretation into one of the official languages.

Measures, Decisions, and Resolutions and Final Report

24. Without prejudice to Rule 21, Measures, Decisions and Resolutions, as referred to in Decision 1 (1995), shall be adopted by the Representatives of all Consultative Parties present and will thereafter be subject to the provisions of Decision 1 (1995).

25. The final report shall also contain a brief account of the proceedings of the Meeting. It will be approved by a majority of the Representatives of Consultative Parties present and shall be transmitted by the Executive Secretary to Governments of all Consultative and non-Consultative Parties which have been invited to take part in the Meeting, for their consideration.

26. Notwithstanding Rule 25, the Executive Secretary, immediately following the closure of the Consultative Meeting, shall notify all Consultative Parties of all Measures, Decisions and Resolutions taken and send them authenticated copies of the definitive texts in an appropriate language of the Meeting. In respect to a Measure adopted under the procedures of Article 6 or 8 of Annex V of the Protocol, the respective notification shall also include the time period for approval of that Measure.

Non-Consultative Parties

27. Representatives of non-Consultative Parties, if invited to attend a Consultative Meeting, may be present at:

a) all plenary sessions of the Meeting; and

b) all formal Committees or Working Groups, comprising all Consultative Parties, unless a Representative of a Consultative Party requests otherwise in any particular case.

28. The relevant Chairman may invite a Representative of a non Consultative Party to address the Meeting, Committee or Working group which he is attending, unless a Representative of a Consultative Party requests otherwise. The Chairman shall at any time give priority to Representatives of Consultative Parties who signify their desire to speak and may, in inviting Representatives of non-Consultative Parties to address the Meeting, limit the time to be allotted to each speaker and the number of times he may speak on any subject.
29. Non-Consultative Parties are not entitled to participate in the taking of decisions.

30. a) Non-Consultative Parties may submit documents to the Secretariat for distribution to the Meeting as information documents. Such documents shall be relevant to matters under Committee consideration at the Meeting.

b) Unless a Representative of a Consultative Party requests otherwise such documents shall be available only in the language or languages in which they were submitted.

**Antarctic Treaty System Observers**

c) The observers referred to in Rule 2 shall attend the Meetings for the specific purpose of reporting on:

a) in the case of the Commission for the Conservation of Antarctic Marine Living Resources, developments in its area of competence.

b) in the case of the Scientific Committee on Antarctic Research:
   i) the general proceedings of SCAR;
   ii) matters within the competence of SCAR under the Convention for the Conservation of Antarctic Seals;
   iii) such publications and reports as may have been published or prepared in accordance with Recommendations IX-19 and VI-9 respectively.

c) in the case of the Council of Managers of National Antarctic Programs, the activities within its area of competence.

d) Observers may be present at:

a) the plenary sessions of the Meeting at which the respective Report is considered;

b) formal committees or working groups, comprising all Contracting Parties at which the respective Report is considered, unless a Representative of a Consultative Party requests otherwise in any particular case.

e) Following the presentation of the pertinent Report, the relevant Chairman may invite the observer to address the Meeting at which it is being considered once again, unless a Representative of a Consultative Party requests otherwise. The Chairman may allot a time limit for such interventions.

f) Observers are not entitled to participate in the taking of decisions.

g) Observers may submit their Report and/or documents relevant to matters contained therein to the Secretariat, for distribution to the Meeting as working papers.

**Agenda for Consultative Meetings**

h) At the end of each Consultative Meeting, the Host Government of that Meeting shall prepare a preliminary agenda for the next Consultative Meeting. If approved by the Meeting, the preliminary agenda or the next Meeting shall be annexed to the Final Report of the Meeting.
i) Any Contracting Party may propose supplementary items for the preliminary agenda by informing the Host Government for the forthcoming Consultative Meeting no later than 180 days before the beginning of the Meeting; each proposal shall be accompanied by an explanatory memorandum. The Host Government shall draw the attention of all Contracting Parties to this Rule no later than 210 days before the Meeting.

j) The Host Government shall prepare a provisional agenda for the Consultative Meeting. The provisional agenda shall contain:

a) all items on the preliminary agenda decided in accordance with Rule 37; and

b) all items the inclusion of which has been requested by a Contracting Party pursuant to Rule 38.

Not later than 120 days before the Meeting, the Host Government shall transmit to all the Contracting Parties the provisional agenda, together with explanatory memoranda and any other papers related thereto.

Experts from International Organisations

k) At the end of each Consultative Meeting, the Meeting shall decide which international organisations having a scientific or technical interest in Antarctica shall be invited to designate an expert to attend the forthcoming Meeting in order to assist it in its substantive work.

l) Any Contracting Party may thereafter propose that an invitation be extended to other international organisations having a scientific or technical interest in Antarctica to assist the Meeting in its substantive work; each such proposal shall be submitted to the Host Government for that Meeting not later than 180 days before the beginning of the Meeting and shall be accompanied by a memorandum setting out the basis for the proposal.

m) The Host Government shall transmit these proposals to all Contracting Parties in accordance with the procedure in Rule 39. Any Consultative Party which wishes to object to a proposal shall do so not less than 90 days before the Meeting.

n) Unless such an objection has been received, the Host Government shall extend invitations to international organisations identified in accordance with Rules 40 and 41 and shall request each international organisation to communicate the name of the designated expert to the Host Government prior to the opening of the Meeting. All such experts may attend the Meeting during consideration of all items, except for those items relating to the operation of the Antarctic Treaty System which are identified by the previous Meeting or upon adoption of the agenda.

o) The relevant Chairman, with the agreement of all the Consultative Parties, may invite an expert to address the meeting he is attending. The Chairman shall at any time give priority to Representatives of Consultative Parties or non-Consultative Parties or observers referred to in Rule 32 who signify their desire to speak, and may in inviting an expert to address the Meeting limit the time to be allotted to him and the number of times he may speak on any subject.

p) Experts are not entitled to participate in the taking of decisions.

q) Experts may, in respect of the relevant agenda item, submit documents to the Secretariat for distribution to the Meeting as information documents.
r) Unless a Representative of a Consultative Party requests otherwise, such documents shall be available only in the language or languages in which they were submitted.

**Amendments**

s) These Rules of Procedure may be amended by a two-thirds majority of the Representatives of Consultative Parties participating in the Meeting. This Rule shall not apply to Rules 24, 28, 30, 35, 40-43, and 45, amendments of which shall require the approval of the Representatives of all Consultative Parties present at the Meeting.
DECISION 2 (2004)

FINANCIAL CONSIDERATIONS FOR THE SECRETARIAT OF THE ANTARCTIC TREATY

The Representatives,
Recalling Measure 1 (2003) of the XXVI ATCM on the establishment of the Secretariat of the Antarctic Treaty (the Secretariat);

Recalling also Decision 2 (2003) on the provisional application of Measure 1 (2003);

Bearing in mind the Financial Regulations for the Secretariat of the Antarctic Treaty adopted by Decision 4 (2003); and

Noting Decision 3 (2004) on the appointment of the first Executive Secretary, effective on 1 September 2004;

Decide:

1. To approve the budget and work program of the Secretariat for 2004/05 annexed to this Decision;

2. To approve the expenditure of up to one quarter of the forecast budget for 2005/06, annexed to this Decision, in the 2005/06 financial year subject to the availability of sufficient funds;

3. That the Executive Secretary shall perform the role previously conferred on the Depositary Government with regard to the procedure for the payment of voluntary contributions adopted in Decision 2 (2003), paragraphs 6, 7 and 8, except that the first Executive Secretary shall inform the Depositary Government when the Secretariat has established an account for its funds, and the Depositary Government shall then request the CCAMLR Secretariat to transfer all such voluntary contributions, with interest accrued thereon, to the Secretariat.
Annex to Decision 2 (2004)
Draft Work Programme 2004/05

Introduction
This Work Programme and the accompanying budget figures are based on the figures in ATCM XXVII-WP029 introduced by Argentina and Australia. The overall approach has been somewhat modified, however, to take account of the situation of the secretariat in the startup period. As there is no established practice to rely on, the staffing needs of the secretariat cannot be determined very precisely at this stage. One other executive staff member seems necessary. However, instead of fixing the local staff at nine, as proposed in XXVII ATCM/WP029, it seems more advisable to start with six positions and have some functions, e.g. in the areas of software development, technical assistance and translation, performed on a contract basis.

The Work Programme, which at this stage can only be indicative, is divided into a section on management and a section on the specific tasks assigned to the secretariat in Art. 2 of Measure 1 (2003). The appropriations of the draft budget for the period 1 September 2004 – 31 March 2005 are in Attachment 1. Attachment 2 contains the same figures, related to the outputs according to the tasks of the Secretariat as listed in Art. 2 of Measure 1 (2003). The forecast budget for the full year 2005/06 is contained in Attachment 3, and the contribution scale based on that budget is in Attachment 4.

Management
Priority for the management in the first half-year will be the recruitment of staff.

a. Executive staff
Recruitment of Assistant Executive Officer
A notice stating the requirements for this post has been distributed at XXVII ATCM and a copy will be sent to the contact points of the Consultative Parties. The Consultative Parties can advertise the position in any way that they deem appropriate. The notice sets out the deadline for nationals of the Consultative Parties to send their applications directly to the Executive Secretary.

After a first selection based on the dossiers submitted a short list of qualified candidates will be drawn up and their dossiers forwarded to Consultative Parties. The short listed candidates will be invited to an interview, after which the choice will be made by the Executive Secretary. The Consultative Parties will be informed of the names of the candidates in all stages of the selection process and of the candidates appointed.

b. Administrative/technical staff
Recruitment for the six positions listed in the budget will be made locally from nationals of the Consultative Parties, with the assistance of a recruitment agency. The vacancy notices will be sent to the Consultative Parties for their information.

Specific Tasks
Section headings refer to the paragraphs of Art. 2 of Measure 1 (2003)

(a) Preparation for the XXVIII ATCM and CEP VIII
The Secretariat will assume the responsibility for preparing the agenda and gathering and collating the working and information papers for the XXVIII ATCM and publishing them on the restricted area of the ATS website. The website, which is at the moment still in the experimental stage, will be improved and expanded. During the ATCM/CEP, the Secretariat will, in co-operation with the host government, provide the necessary secretariat services for the meeting.
During the period of provisional application of Measure 1 (2003), the budget will not include the full translation and interpretation expenses for the ATCM/CEP meeting, but the Secretariat will assist the Swedish Government in arranging these services. The Secretariat will also assume responsibility for the editing and publication of the Final Report of the XXVIII ATCM.

(b) Support intersessional work of the ATCM and the CEP

The Secretariat will provide support in the organisation of any intersessional meetings. If interpretation would be needed for meetings such as possible intersessional negotiations of the Liability Annex, provision will have to be made in the budget.

(c) Facilitate exchange of information required under the Antarctic Treaty and the Protocol

The Secretariat will support work to improve the efficiency and transparency of the exchange of information among the Consultative Parties as required under the Antarctic Treaty and the Environment Protocol. In the set-up of the Secretariat databases and website, provision will be made for facilities for the exchange of information through the website.

(d) Co-ordination and contact with other elements of, and international organisations, on matters relevant to the Antarctic Treaty system

The Executive Secretary will attend meetings such as SCAR/COMNAP, CCAMLR, IAATO and other relevant organisations. Liaison with the CCAMLR secretariat will be particularly important in the start-up period, as many of the arrangements and regulations of the secretariat have been made according to the example and experience provided by CCAMLR.

(e) Development and maintenance of databases

A high priority in this area is to set up a database of the contact points under the Antarctic Treaty and the Environment Protocol, to improve the efficiency of communication. Another is the completion of the existing database of ATCM recommendations, to make it available on the Secretariat website, and to expand it to include a) where applicable, documents in all four official languages of the Treaty, and b) Working Papers and Information Papers of the ATCM. The Secretariat will provide support for other databases that the ATCM might decide to set up such as a database on tourism.

(f) Circulation amongst the Parties relevant information and disseminate information on activities in Antarctica;

The Secretariat and its website will function as a clearinghouse for information on the Parties’ activities and relevant developments in Antarctica. It will include links to all other relevant websites. Information will be circulated also through newsletters etc.

(g) Collection, maintenance and publication of ATCM/CEP records

Consultative Parties that have hosted ATCM’s will be asked as a matter of urgency to provide the Secretariat with authentic copies of all reports of the ATCM’s and other meetings they have hosted, so that the Secretariat will become a complete and reliable repository of the documents of the ATCM. The documents will be digitised and made available through the databases mentioned above, and through the Secretariat website.

(h) Facilitate the availability of information about the Antarctic Treaty system

The Secretariat will seek to improve the visibility of the Antarctic Treaty System through its website, through newsletters and pamphlets, and through other publicity activities.

(i) Preparation of reports on the Secretariat’s activities

Under this heading falls the task of preparing the reports and budgets of the Secretariat. In principle the Secretariat will prepare half-yearly financial and programmatic reports for the ATCM.
(j) Assisting the review of past Recommendations and Measures
The examination and review of past Recommendations and Measures of the ATCM, which is at present focusing on the Protected Area System, will be assisted by the Secretariat, so as to produce well-prepared working papers and information papers for ATCM XXVIII.

(k) Maintenance and updating of the Antarctic Treaty System “Handbook”
A start will be made with the preparation of next editions of the Handbook prepared until now by the Depositary Government.
Different possibilities (separate handbooks focusing on different subjects, web-based expert systems, etc.) will be considered.

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Attachment 1 – Draft budget 2004/05 (Appropriations)
Attachment 2 - Draft budget 2004/05 (Outputs)
Attachment 3 - Forecast budget 2005/06
Attachment 4 – Scale of contributions 2005
### Annex to Decision 2 (2004)
**Draft Budget 2004/5 – Appropriations**

#### EXPENDITURE

1. **Appropriation for Salaries**

   **Executive Staff**
   - Executive Secretary
   - Assistant Executive Officer

   **Administrative/Technical Staff**
   - Finance/Admin Manager
   - Information Officer 1
   - Information Officer 2
   - Translator
   - Office Manager
   - Secretary/Admin. Assistant

   **Total Appropriation for Salaries**
   - $159,080

2. **Appropriation for Goods and Services**

   **Communications**
   - Postage & freight
   - Internet
   - Facsimile
   - Telephone

   **Travel**
   - Airfares and travel allowances

   **Support Costs**
   - Auditor
   - Computer assistance
   - Editing and publication expenses
   - Insurance
   - Legal advice
   - Light and power
   - Miscellaneous
   - Printing and copying
   - Relocation expenses for executive staff
   - Representation expenses
   - Stationery
   - Translation

   **Total Appropriation for Goods and Services**
   - $161,600

3. **Appropriation for Equipment**

   - Computers
   - Software development
   - Computer software
   - Establishment costs
   - Maintenance of equipment
   - Training
   - Photocopying equipment

   **Total Appropriation for Equipment**
   - $175,000

**Total**

**INCOME**
- $700,000

**SURPLUS/DEFICIT**
- $204,320
Draft Budget 2004/5 – Outputs

S: Salaries
G&S: Goods and Services
E: Equipment

A. Management

Executive Secretary $64,722 S
Environmental Officer $38,955 S

B. General support

Salaries
Finance/Admin Manager (60%) $6,956
Secretary/Admin. Assistant (60%) $3,160
Translator (40%) $3,730
Office Manager (60%) $3,854

Goods and Services
Auditor $6,500
Insurance $6,200
Light and power $5,700
Computer assistance $7,000
Editing and publication expenses $12,000
Printing and copying $12,000
Stationery $6,400
Representation expenses $14,000
Translation $5,000
Miscellaneous $4,000
Relocation expenses for executive staff $20,000
Postage & freight $6,500
Internet $6,300
Facsimile $3,000
Telephone $3,000
Legal advice $15,000

Equipment
Computers $30,000
Computer software $40,000
Establishment costs $30,000
Maintenance of equipment $3,000
Training $10,000
Photocopying equipment $12,000

$275,300

C. Tasks

(a1) Collation of information for ATCM/CEP
(a2) Preparation of ATCM/CEP agendas and reports
(a5) Copying, organizing and distributing ATCM/CEP documents
(a6) Assisting the ATCM in drafting the meeting documents

Information Officer 2 (20%) $2,239 S
Office Manager (20%) $1,285 S
Software development $20,000 E
Airfares for preparatory meeting $7,400 G&S
Travel allowance for preparatory meeting $2,400 G&S

$33,324

- 181 -
(b) Support intersessional work of the ATCM and the CEP
Finance/Admin Manager (20%) $2.319 S
Office Manager (20%) $1.285 S
**$3.603**

(c) Facilitate exchange of information required under the Antarctic Treaty and the Protocol
Information Officer 1 (25%) $2.899 S
Software development $10.000 E
**$12.899**

(d) Coordination and contact with other elements of the Antarctic Treaty system
Airfares and travel allowances $19.200 G&S

(e) Development and maintenance of databases
Information Officer 1 (25%) $2.899 S
Software development $10.000 E
**$12.899**

(f) Circulation amongst the Parties relevant information and disseminate information on activities in Antarctica;
Information Officer 2 (20%) $2.239 S

(g) Collection, maintenance and publication of ATCM/CEP records
Information Officer 1 (25%) $2.899 S
Information Officer 2 (20%) $2.239 S
Translator (30%) $2.799 S
Software development $10.000 E
**$17.937**

(h) Facilitate the availability of information about the Antarctic Treaty system
Information Officer 1 (25%) $2.899 S
Secretary/Admin. Assistant (20%) $1.053 S
**$3.952**

(i) Preparation of reports on the Secretariat’s activities
Finance/Admin Manager (20%) $2.319 S
Secretary/Admin. Assistant (20%) $1.053 S
**$3.372**

(j) Assisting the review of past Recommendations and Measures
Information Officer 2 (20%) $2.239 S

(k) Maintenance and updating of the Antarctic Treaty System Handbook
Information Officer 2 (20%) $2.239 S
Translator (30%) $2.800 S
**$5.039**

**Total** $495.680
Forecast Budget 2005/06

1. Appropriation for Salaries

**Executive Staff**
- Executive Secretary $114,280
- Environmental Officer $80,250

**Administrative/Technical Staff**
- Finance/Admin Manager $24,580
- Information Officer 1 $24,580
- Information Officer 2 $23,740
- Translator $19,780
- Office Manager $13,620
- Secretary/Admin. Assistant $11,160

Total $311,990

2. Appropriation for Goods and Services

**Communications**
- Postage & freight $13,800
- Internet $13,200
- Facsimile $6,400
- Telephone $6,400

**Travel**
- Airfares and travel allowances $70,200

**Support Costs**
- Auditor $6,900
- Insurance $11,100
- Light and power $10,400
- Computer assistance $15,900
- Printing and copying $12,700
- Stationery $11,600
- Representation expenses $25,400
- Miscellaneous $5,800
- Legal advice $21,200

**ATCM Translation and Interpretation**
- Airfares $26,800
- Hire of multi-lingual equipment $20,600
- Hire of translation facilities $9,300
- Interpretation $119,500
- Translation $38,600
- Translation/preparation of final report $53,600
- Travel allowance $140,600
- Typists $22,500

Total $662,500

3. Appropriation for Equipment

- Computers $30,900
- Computer software $15,000
- Software development $20,000
- Maintenance of equipment $3,200
- Training $10,600
- Photocopying equipment $8,200

Total $87,900

Total $1,062,390
### Scale of Contributions 2005

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1. Period 1 September 2004 – 31 March 2005
2. Period 1 October 2004 – 31 March 2005
4. The following inflation figures have been used: for local costs 6%, and for international costs 3%
DECISION 3 (2004)

APPOINTMENT OF THE EXECUTIVE SECRETARY

The Representatives,

*Recalling* Article 3 of Measure 1 (2003) regarding the appointment of an Executive Secretary to head the Secretariat of the Antarctic Treaty; and

*Recalling also* Articles 4 and 5 of Decision 2 (2003) regarding the procedure for the selection of the Executive Secretary;

Decide:

1. To appoint Mr Johannes Huber as Executive Secretary of the Secretariat of the Antarctic Treaty for a term of four years, pursuant to the terms and conditions set forth in the letter of the Chair of the XXVII Antarctic Treaty Consultative Meeting attached to this Decision; and

2. That this appointment shall commence on 1 September 2004.
Mr Johannes Huber  
Chairman  
Netherlands Polar Affairs Committee

Dear Mr Huber

Position of Executive Secretary

As Chair of the XXVII Antarctic Treaty Consultative Meeting (ATCM) and in accordance with Decision x (2004) of the XXXVII ATCM, I am pleased to offer you the position of Executive Secretary of the Secretariat of the Antarctic Treaty (the Secretariat).

The terms and conditions for your appointment are set out below. If you accept this offer, kindly sign your acceptance on the attached copy of this letter and return it to me.

Terms and Conditions of Appointment

(a) By your acceptance of the appointment you shall pledge yourself to discharge your duties faithfully and to conduct yourself solely with the interests of the ATCM in mind. Your acceptance of the position of Executive Secretary includes a written statement of your familiarity with and acceptance of the conditions set out in the attached Staff Regulations as well as any changes which may be made to the Staff Regulations from time to time.

(b) The duties of the Executive Secretary are to appoint, direct and supervise other staff members and to ensure that the Secretariat fulfils the functions identified in Article 2 of Measure 1 (2003), provisionally applied by Decision 2 (2003) until that Measure becomes effective.

(c) In accordance with Decision [x] (2004) your appointment shall commence on 1 September 2004.

(d) Your term of office shall be for four years and you shall be eligible for reappointment for no more than one further four-year term, subject to the agreement of the ATCM.

(e) The appointment is to the executive staff category. Your salary on commencement shall be at Level 1B, Step 1, as detailed in Schedule A to the Staff Regulations annexed to Decision 3 (2003). Annual increments shall be available to you up to the maximum salary attainable at the Level 1A.

(f) The above salary includes the base salary (Level 1A, Step I, Schedule A) with an additional 25% for salary on-costs (retirement fund and insurance premiums, installation and repatriation grants, education allowances, etc) and is the total salary entitlement in accordance with
Regulation 5.1 of the Staff Regulations. In addition, you will be entitled to travel allowances and relocation expenses in accordance with Regulation 9 of the Staff Regulations.

(g) The ATCM may terminate this appointment by prior written notice at least three months in advance in accordance with Regulation 10.3 of the Staff Regulations. You may resign at any time upon giving three months written notice or such lesser period as may be approved by the ATCM.

Yours sincerely

[signed]
Horst Kleinschmidt
Chairman XXVII Antarctic Treaty Consultative Meeting

To: The Chairman
XXVII Antarctic Treaty Consultative Meeting

I hereby accept the appointment described in this letter subject to the conditions therein specified and state that I am familiar with and accept the conditions set out in the Staff Regulations and any changes which may be made to the Staff Regulations from time to time.

__________________________________________
Date

__________________________________________
Johannes Huber
DRAFT

date

Dr Rafael Bielsa
Minister of Foreign Affairs, International Trade and Worship
Argentine Republic
BUENOS AIRES

Dear Dr Bielsa

I address you in my capacity as Chair of the XXVII Antarctic Treaty Consultative Meeting (ATCM) with reference to Article 21 of the Headquarters Agreement for the Secretariat of the Antarctic Treaty, attached to Measure 1 (2003), and to Decision 2 (2003), the letter of the Argentine Republic to the Chairman of ATCM XXVI of 16 June 2003 and the notification of the Argentine Republic to the Depositary Government of 19 May 2004.

In accordance with the requirements of Article 21 as provisionally applied, I hereby notify the Government of the Argentine Republic of the appointment by the XXVII ATCM of Mr Johannes Huber to the position of Executive Secretary, effective on 1 September 2004.

I avail myself of this opportunity to express the assurances of my highest consideration.

Yours sincerely

{signed}
Horst Kleinschmidt
Chair XXVII Antarctic Treaty Consultative Meeting
DECISION 4

GUIDELINES FOR SHIPS OPERATING IN ARCTIC AND ANTARCTIC ICE-COVERED WATERS

The Representatives:

Noting the provisions of Article 10 of Annex IV to the Environmental Protocol relating to the design, construction, manning and equipment of ships engaged in or supporting Antarctic operations;

Conscious of the increasing levels of shipping, including tourist vessels, operating in the waters of the Antarctic Treaty Area;

Desiring to ensure the safety of life at sea and the protection of the environment in the Antarctic Treaty Area;

Noting the intersessional efforts of COMNAP to produce these Guidelines;

Noting the Guidelines should be interpreted as providing recommendations, rather than mandatory directions;

Noting the IMO Guidelines for ships operating in Arctic ice-covered waters and desiring that the IMO amend those Guidelines to apply them specifically to ships in ice-covered waters in the Antarctic Treaty Area.

Decide to:

- endorse the Guidelines annexed to this Decision;

- transmit the Guidelines through the Chair of ATCM XXVII to the Secretary General of the IMO with a request for them to be considered by the IMO at the earliest opportunity;

- urge their national representatives to take action at the IMO to secure the consideration of the Guidelines at the earliest opportunity.
GUIDELINES FOR SHIPS OPERATING IN ARCTIC AND ANTARCTIC ICE-COVERED WATERS

PREAMBLE

GUIDE

Chapter 1 - General

PART A - CONSTRUCTION PROVISIONS

Chapter 2 - Structures
Chapter 3 - Subdivision and stability
Chapter 4 - Accommodation and escape measures
Chapter 5 - Directional control systems
Chapter 6 - Anchoring and towing arrangements
Chapter 7 - Main machinery
Chapter 8 - Auxiliary machinery systems
Chapter 9 - Electrical installations

PART B - EQUIPMENT

Chapter 10 - Fire safety
Chapter 11 - Life-saving appliances and survival arrangements
Chapter 12 - Navigational equipment

PART C - OPERATIONAL

Chapter 13 - Operational guidelines
Chapter 14 - Crewing
Chapter 15 - Emergency equipment

PART D - ENVIRONMENTAL PROTECTION AND DAMAGE CONTROL

Chapter 16 - Environmental protection and damage control
PREAMBLE

P-1 Introduction

| P-1.1 | Ships operating in the Arctic and Antarctic environment are exposed to a number of unique risks. Poor weather conditions and the relative lack of good charts, communication systems and other navigational aids pose challenges for mariners. The remoteness of the areas makes rescue or clean-up operations difficult and costly. Cold temperatures may reduce the effectiveness of numerous components of the ship, ranging from deck machinery and emergency equipment to sea suction. When ice is present, it can impose additional loads on the hull, propulsion system and appendages. Whilst Arctic and Antarctic waters have a number of similarities, there are also significant differences. The Arctic is an ocean surrounded by continents while the Antarctic is a continent surrounded by water. The Antarctic sea ice retreats significantly during the summer season or is dispersed by permanent gyres in the two major seas of the Antarctic: the Weddell and the Ross. Thus there is relatively little multi-year ice in the Antarctic. Conversely, Arctic sea ice survives many summer seasons and there is a significant amount of multi-year ice. Whilst the marine environments of both polar seas are similarly vulnerable, response to such challenge should duly take into account specific features of the legal and political regimes applicable to their respective marine spaces. |

| P-1.2 | These Guidelines for ships operating in Arctic and Antarctic ice-covered waters (hereinafter called “the Guidelines”) are intended to address those additional provisions deemed necessary for consideration beyond existing requirements of the SOLAS Convention, the Torremolinos Protocol and the MARPOL Convention, in order to take into account the climatic conditions of Arctic and Antarctic ice-covered waters and to meet appropriate standards of maritime safety and pollution prevention. |

| P-1.3 | The Guidelines are recommendatory and their wording should be interpreted as providing recommendations rather than mandatory direction. |

P-2 Principles

| P-2.1 | The Guidelines aim to promote the safety of navigation and to prevent pollution from ship operations in Arctic and Antarctic ice-covered waters. |

| P-2.2 | The Guidelines recognize that this is best achieved by an integrated approach, based on requirements in existing Conventions which cover the design, outfitting, crewing and operation of ships for the conditions which they will encounter. |

| P-2.3 | The Guidelines take into account that Arctic and Antarctic conditions may include sea and glacial ice that can represent a serious structural hazard to all ships. This is the single most significant factor in Arctic and Antarctic operations and is reflected in many of the Guidelines’ provisions. |

| P-2.4 | The Guidelines address the fact that the Arctic and Antarctic environment imposes additional demands on ship systems, including navigation, communications, life-saving, main and auxiliary machinery, etc. They emphasize the need to ensure that all ship systems are capable of functioning effectively under anticipated operating conditions and providing adequate levels of safety in accident and emergency situations. |
P-2.5 In addition, the Guidelines recognize that safe operation in such conditions requires specific attention to human factors including training and operational procedures.

P-2.6 The basic requirements for structure, stability and subdivision, machinery, life-saving appliances, fire protection, ship routing, navigation systems and equipment, radiocommunication, pollution prevention equipment, liability and safety management systems, as applicable to the different types and sizes of ships which may undertake voyages in Arctic and Antarctic ice-covered waters, are obtained from the relevant conventions. The standards expressed in these Guidelines have been developed to mitigate the additional risk imposed on shipping due to the harsh environmental and climatic conditions existing in Arctic and Antarctic ice-covered waters.

P-2.7 Not all ships which enter the Arctic and Antarctic environment will be able to navigate safely in all areas at all times of the year. A system of Polar Classes has therefore been developed to designate different levels of capability. In parallel to the development of the Guidelines, the International Association of Classification Societies (IACS) has developed a set of Unified Requirements which, in addition to general classification society rules, address all essential aspects of construction for ships of Polar Class.

P-2.8 These Guidelines are not intended to infringe on national systems of shipping control.

GUIDE

G-1 Layout of the Guidelines

G-1.1 The Guidelines include general, construction, equipment and operational parts, presented in that order and subdivided into chapters.

G-1.2 This section provides definitions for important terms that are used exclusively within the Guidelines or where any term has more than one meaning in other applicable conventions. Otherwise, terms have the meanings defined in the convention(s) relevant to each chapter.

G-1.3 All parts and chapters of the Guidelines should be applied to Polar Class ships. All parts and chapters, with the exception of those dealing with purely construction guidelines (Part A), should be applied to non-Polar Class ships. Each chapter notes any additional differentiation of Guidelines between ship classes specific to that chapter.

G-1.4 Guidance provided in Part A of the Guidelines is only intended for new Polar Class ships.

G-1.5 Commonly accepted nominal equivalencies are shown in the following table:

Nominal ship equivalencies

<table>
<thead>
<tr>
<th>Finnish/Swedish (Baltic)Class*</th>
<th>ASPPR Class</th>
<th>Russian Register Class</th>
<th>Polar Class</th>
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</thead>
<tbody>
<tr>
<td>IA Super</td>
<td>Type A</td>
<td>UL</td>
<td>PC6</td>
</tr>
<tr>
<td>IA</td>
<td>Type B</td>
<td>L1</td>
<td>PC7</td>
</tr>
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</table>
*Note: Authorized classification society equivalents to Baltic classes should also be recognized. The classification society equivalents for the Finnish/Swedish ice classes have been issued in the Finnish Maritime Administrations' Bulletin No.16/27.11.2002, which can be found in website www.fma.fi.

G-2  Key provisions

G-2.1 The combination of hull structural design, material quality, subdivision and segregation measures prescribed in the Guidelines and supporting standards should be adequate to reduce the risk of human casualties, pollution incidents or ship losses to acceptably low levels of probability during prudent operations in Arctic and Antarctic ice-covered waters.

G-2.2 No pollutants should be carried directly against the shell in areas at significant risk of ice impact. Operational pollution of the environment should be minimized by equipment selection and operational practice.

G-2.3 Key safety-related, survival and pollution control equipment should be rated for the temperatures and other conditions which may be encountered in the service intended.

G-2.4 Navigation and communications equipment should be suitable to provide adequate performance in high latitudes, areas with limited infrastructure and unique information transfer requirements.

G-2.5 Sea suction(s) should be capable of being cleared of accumulation of slush ice.

G-3  Definitions

For the purpose of these Guidelines, unless expressly provided otherwise, the terms used have the meanings defined in the following paragraphs. Additional definitions are given in the various chapters as required. Terms used, but not defined in these Guidelines, are to be interpreted as they are defined in the relevant Conventions.

G-3.1 "Administration" means the Government of the State whose flag the ship is entitled to fly.

G-3.2 “Arctic and Antarctic ice-covered waters”

G-3.2.1 Arctic Ice Covered Waters” – solely for the purposes of these Guidelines, means those waters which are both:

1 located north of a line from the southern tip of Greenland and thence by the southern shore of Greenland to Kape Hoppe and thence by a rhumb line to latitude 67°03’9 N, longitude 026°33’4 W and thence by a rhumb line to Sørkapp, Jan Mayen and by the southern shore of Jan Mayen to the Island of Bjørnøya, and thence by a great circle line from the Island of Bjørnøya to Cap Kanin Nos and thence by the northern shore of the Asian Continent eastward to the Bering Strait and thence from the Bering Strait westward to latitude 60° North as far as Il’pyrskiy and following the 60th North parallel eastward as far as and including Etolin Strait and thence by the northern shore of the North American continent as far south as latitude 60° North and thence eastward to the southern tip of Greenland (see figure 1); and
in which sea ice concentrations of 1/10 coverage or greater are present and which pose a structural risk to ships.

G-3.2.2 “Antarctic ice-covered waters” – solely for the purposes of these Guidelines, means those waters which are both:

.1 South of 60° S and
.2 in which sea ice concentrations of 1/10 coverage or greater are present and which pose a structural risk to ships.

G-3.3 "COLREG" means the International Regulations for Preventing Collisions at Sea, 1972, as amended.

G-3.4 "Company" means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the ship owner.

G-3.5 "Conning position" means the stations in which the ship’s control devices for ahead or astern operations are located.

G-3.6 "Escort" means any ship with superior ice capability in transit with another ship.

G-3.7 "Escorted operation" means any operation in which a ship’s movement is facilitated through the intervention of an escort.

G-3.8 "Guidelines" means the IMO recommendatory Guidelines for ships operating in Arctic and Antarctic ice-covered waters.

G-3.9 "IACS" means the International Association of Classification Societies.

G-3.10 "Ice Navigator" means any individual who, in addition to being qualified under the STCW Convention, is specially trained and otherwise qualified to direct the movement of a ship in ice-covered waters.

G-3.11 "Icebreaker" means any ship whose operational profile may include escort or ice management functions, whose powering and dimensions allow it to undertake aggressive operations in ice-covered waters.

G-3.12 “International voyages” means voyages in international waters, as defined in chapter I of the SOLAS Convention.

G-3.13 "ISM Code" means the International Management Code for the Safe Operation of Ships and for Pollution Prevention, as amended.


G-3.16  "Organization" means the International Maritime Organization.

G-3.17  "Polar Class" means the class assigned to a ship based upon IACS Unified Requirements.

G-3.18  "Polar Class ship" means a ship for which a Polar Class has been assigned.

G-3.19  "Pollutant" means the substances defined as oil, oily mixture and oil fuel in Annex I; noxious liquid substances in Annex II; and solids when carried in bulk, which are also identified as harmful substances in Annex III of the MARPOL Convention.

G-3.20  "Port State" means a State whose area of jurisdiction includes any destination port of a ship where such port lies within Arctic ice-covered waters.

G-3.204  "Recognized organization" means an organization recognized by an Administration in accordance with IMO resolutions A.739(18) and A.789(19).

G-3.212  "Ship" means any vessel covered by the SOLAS Convention.


G-3.245  "Unified Requirements" means the IACS Unified Requirements for Polar Class ships.

G-3.256  "WMO" means the World Meteorological Organization.

G-3.267  "Working liquid" means any oil or oily substance used for the operation of the ship’s machinery.

* Under development.
Figure 1 – Maximum extent of Arctic application (see paragraph G-3.2.1)

Figure 2 – Maximum extent of Antarctic application (see paragraph G-3.2.2)
CHAPTER 1

GENERAL

1.1 Application

1.1.1 These Guidelines provide guidance for ships while operating in Arctic and Antarctic ice-covered waters as defined in paragraph G-3.2 and while engaged in international voyages.

1.1.2 Part A of the Guidelines provides guidance for Polar Class ships as defined in paragraph G-3.18.

1.1.3 Parts B and C of these Guidelines provide guidance for Polar Class and Non-Polar Class ships.

Table 1.1 - Class descriptions

(It should be noted that the IACS Unified Requirements which these class descriptions are based on are not yet completed and are subject to change)

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<th>POLAR CLASS</th>
<th>GENERAL DESCRIPTION</th>
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<td>PC 1</td>
<td>Year-round operation in all Arctic and Antarctic ice-covered waters</td>
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<tr>
<td>PC 2</td>
<td>Year-round operation in moderate multi-year ice conditions</td>
</tr>
<tr>
<td>PC 3</td>
<td>Year-round operation in second-year ice which may include multi-year ice inclusions</td>
</tr>
<tr>
<td>PC 4</td>
<td>Year-round operation in thick first-year ice which may include old ice inclusions</td>
</tr>
<tr>
<td>PC 5</td>
<td>Year-round operation in medium first-year ice which may include old ice inclusions</td>
</tr>
<tr>
<td>PC 6</td>
<td>Summer/autumn operation in medium first-year ice which may include old ice inclusions</td>
</tr>
<tr>
<td>PC 7</td>
<td>Summer/autumn operation in thin first-year ice with which may include old ice inclusions</td>
</tr>
</tbody>
</table>

Note: Ice descriptions follow WMO Sea Ice Nomenclature.

1.1.4 All Polar Class ships and the equipment to be carried in accordance with these Guidelines should be designed, constructed and maintained in compliance with applicable national standards of the Administration or the appropriate requirements of a recognized organization which provide an equivalent level of safety* for its intended service.

* Refer to SOLAS regulation II-1/3-1 and to the proposed IACS Unified Requirements for Polar Ships.
1.1.5 The structures, equipment and arrangements essential for the safety and operation of the ship should take account of the expected air temperatures.

1.1.6 The life-saving and fire-extinguishing equipment specified in part B of the Guidelines, when stored or located in an exposed position, should be of a type that is rated to perform its design functions at a minimum air temperature of -30°C, or at any appropriate lower temperature in accordance with paragraph 1.1.5. In particular, attention is drawn to the inflation of life-saving equipment and the starting of engines in lifeboats and rescue boats.

1.1.7 Operations in Arctic and Antarctic ice-covered waters should take due account of factors such as: ship class, environmental conditions, icebreaker escort, prepared tracks, short or local routes, crew experience, support technology and services such as ice-mapping, communications, safe ports, repair facilities and other ships in convoy.

1.1.8 The provisions of these Guidelines do not apply to any warship, naval auxiliary, other vessels or aircraft owned or operated by a State and used, for the time being, only on government non-commercial service. However, each State should ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such vessels or aircraft owned or operated by it, that such vessels or aircraft act in a manner consistent, so far as is reasonable and practicable, with these Guidelines.

1.2 Ice Navigator

1.2.1 All ships operating in Arctic and Antarctic ice-covered waters should carry at least one Ice Navigator qualified in accordance with chapter 14.

1.2.2 Continuous monitoring of ice conditions by an Ice Navigator should be available at all times while the ship is underway and making way in the presence of ice.

PART A - CONSTRUCTION PROVISIONS

CHAPTER 2

STRUCTURES

2.1 General

2.1.1 All ships should have structural arrangements adequate to resist the global and local ice loads characteristic of their Polar Class*.  
2.1.2 Each area of the hull and all appendages should be strengthened to resist design structure/ice interaction scenarios applicable to each case.

2.1.3 Structural arrangements should aim to limit damage resulting from accidental overloads to local areas.

* Refer to the proposed IACS Unified Requirements for Polar Ships.
2.1.4 Polar Class ships may experience in-service structural degradation at an accelerated rate. Structural surveys should, therefore, cover areas identified as being at high risk of accelerated degradation, and areas where physical evidence such as coating breakdown indicates a potential for high wastage rates.

2.2 Materials

2.2.1 Materials used in ice-strengthened and other areas of the hull should be suitable for operation in the environment that prevails at their location.

2.2.2 Materials used in ice-strengthened areas should have adequate ductility to match the selected structural design approach.

2.2.3 Abrasion and corrosion resistant coatings and claddings used in ice-strengthened areas should be matched to the anticipated loads and structural response.

CHAPTER 3

SUBDIVISION AND STABILITY

3.1 Intact stability in ice

3.1.1 Account should be taken of the effect of icing in the stability calculations. *

3.1.2 Suitable calculations should be carried out and/or tests conducted to demonstrate the following:

.1 the ship, when operated in ice within approved limitations, during a disturbance causing roll, pitch, heave or heel due to turning or any other cause, should maintain sufficient positive stability; and

.2 ships of Polar Classes 1 to 3 and icebreakers of all classes, when riding up in ice and remaining momentarily poised at the lowest stem extremity, should maintain sufficient positive stability.

3.1.3 Sufficient positive stability in paragraphs 3.1.2.1 and 3.1.2.2 means that the ship is in a positive state of equilibrium with a positive metacentric height of at least 150 mm, and a line 150 mm below the edge of the freeboard deck as defined in the applicable LL Convention, is not submerged.

3.1.4 For performing stability calculations on ships that ride up onto the ice, the ship should be assumed to remain momentarily poised at the lowest stem extremity as follows:

* Refer to resolution A.749(18), Code on Intact Stability for All Types of Ships Covered by IMO Instruments.
.1 for a regular stem profile, at the point at which the stem contour is tangent to the keel line;
.2 for a stem fitted with a structurally defined skeg, at the point at which the stem contour meets the top of the skeg;
.3 for a stem profile where the skeg is defined by shape alone, at the point at which the stem contour tangent intersects the tangent of the skeg; or
.4 for a stem profile of novel design, the position should be specially considered.

3.2 Stability in damaged conditions

3.2.1 All Polar Class ships should be able to withstand flooding resulting from hull penetration due to ice damage of the extent set out in paragraph 3.2.2 and location set out in paragraph 3.2.3, and should remain in a satisfactory condition of equilibrium after such damage, as defined by the IMO instruments applicable to the ship.

3.2.2 The dimensions of an ice damage penetration should be taken as:

.1 longitudinal extent 0.045 of deepest ice waterline length if centred forward of the point of maximum beam on the waterline, and 0.015 of waterline length otherwise;
.2 depth 760 mm measured normal to the shell over the full extent of the damage; and
.3 vertical extent the lesser of 0.2 of deepest ice draft, or of longitudinal extent.

3.2.3 The centre of the ice damage may be located at any point between the keel and 1.2 times the deepest ice draft. The vertical extent of damage may be assumed to be confined between the keel and 1.2 times the deepest ice draft. For ships of Polar Classes 5, 6 and 7 not carrying polluting or hazardous cargoes, damage may be assumed to be confined between watertight bulkheads, except where such bulkheads are spaced at less than the damage dimension.

3.3 Subdivision

3.3.1 Subject to paragraphs 3.3.2 and 3.3.3, no Polar Class ship should carry any pollutant directly against the outer shell. Any pollutant should be separated from the outer shell of the ship by double skin construction of at least 760 mm in width.

3.3.2 All Polar Class ships should have double bottoms over the breadth and the length between forepeak and afterpeak bulkheads. Double bottom height should be in accordance with the rules of the classification societies in force. Double bottoms should not be used for the carriage of pollutants except where a double skin construction complying with paragraph 3.3.1 is provided, or where working liquids, are carried in way of main machinery spaces in tanks not exceeding 20 m³ individual volume.

3.3.3 Double bottoms in ships of Polar Classes 6 and 7 may be used for the carriage of any working liquids where the tanks are aft of midships and within the flat of bottom.
3.3.4 All Polar Class ships with icebreaking bow forms and short forepeaks may dispense with double bottoms up to the forepeak bulkhead in the area of the inclined stem, provided that the watertight compartments between the forepeak bulkhead and the bulkhead at the junction between the stem and the keel are not used to carry pollutants.

CHAPTER 4

ACCOMMODATION AND ESCAPE MEASURES

4.1 General

4.1.1 All personnel accommodations should be designed and arranged to protect the occupants from unfavourable environmental conditions and minimize risk of injury during normal (including ice transiting or icebreaking) operations and emergency conditions.

4.1.2 All personnel accommodations, public spaces and the equipment installed in them should be designed so that each person making proper use of them will not suffer injury during normal open water operations, designed ice transiting modes of operation, and emergency manoeuvring conditions.

4.1.3 Ships of Polar Classes 1 to 5 inclusive should have sufficiently available and reliable facilities to maintain a life sustaining environment in the event of an emergency and/or of extended ice entrapment.

4.2 Public address systems and other safety items

4.2.1 The public address system and the general emergency alarm system should be audible over the loudest ambient noise level occurring during ice transiting, ice breaking or ramming.

4.2.2 Ships of Polar Classes 1 to 3 inclusive, icebreakers and ships intended to be used in the ramming mode should be designed with adequate provisions to ensure the safety of personnel using shower facilities. Such facilities should include non-slip decking, three rigid sides, handholds and insulation from exposed hot water pipes.

4.2.3 Galley facilities should be provided with grab rails projecting from the front on cooking equipment for use by the crew during ice operations.

4.2.4 Equipment designed to heat oil for cooking purposes such as deep fat fryers should be located in a position suitably separated from hotplates or other hot surfaces. Such appliances should also be secured to the deck or other fixed structure and provided with an oil tight lid or closure to prevent splashing or spillage during ice operations.

4.3 Escape measures

4.3.1 All means of escape from accommodation or interior working spaces should not be rendered inoperable by ice accretion or by malfunction due to low external ambient air temperatures.
4.3.2 All escape routes should be dimensioned so as not to hinder passage for persons wearing suitable Polar clothing.

4.3.3 Escape routes should be designed to minimize the distance between their exit to an open deck and the survival equipment to which they lead.

CHAPTER 5

DIRECTIONAL CONTROL SYSTEMS

General

5.1 All Polar Class ships should be provided with directional control systems of adequate strength and suitable design to enable efficient operation in Arctic and Antarctic ice-covered waters.

5.2 For the purpose of this chapter, a directional control system includes any device or devices intended either as a primary or auxiliary means of steering the ship. The directional control system includes all associated power sources, linkages, controls and actuating systems.

5.3 Attention is drawn to the possibility of interaction between directional control systems and propulsion systems. Where such interaction occurs or where dual-purpose components are fitted, the provisions of chapters 7 and 8 should also be complied with, as applicable.

CHAPTER 6

ANCHORING AND TOWING ARRANGEMENTS

6.1 General

All Polar Class ships navigating in Arctic and Antarctic ice-covered waters should be capable of anchoring and providing limited assistance in the case of debilitating damage or breakdown, towards the prevention of a catastrophic loss or pollution incident. The capability of ships to provide assistance should be considered of prime importance, having due regard to the lack of repair facilities, the limited number of dedicated towing ships available and the response time that may be required by a dedicated towing ship to be able to provide effective assistance in Arctic and Antarctic ice-covered waters.

6.2 Anchoring arrangements

6.2.1 Ships of Polar Classes 1 to 5 inclusive and icebreakers of all classes should, as far as practicable, be designed to protect the anchor from being dislodged from its stowed position and from jamming or damaging the hull by direct impact with ice.

6.2.2 Anchoring systems should be provided with an independent means of securing the anchor so that the anchor cable can be disconnected for use as an emergency-towing bridle.

6.3 Towing arrangements
6.3.1 All Polar Class ships designed to perform dedicated towing operations and all icebreakers should be equipped with line throwing apparatus in addition to that required for life saving. This apparatus should be capable of delivering messenger lines for the transfer of towing equipment. Such line throwing apparatus should not be of the powder/rocket type, in order that it may be safely used to make a transfer to a tanker.

6.3.2 All Polar Class ships designed to perform dedicated towing operations should be provided with a quick release system, operable from the conning position.

6.3.3 Where fitted, close coupled bow to stern towing arrangements should comprise strengthened bow plating on the towed ship, appropriate towing slings, non-interfering positioning of bower anchors and disallowance of bulbous bows. In this case, arrangements should be provided for securing the anchor in the stowed position.

6.4 Emergency towing arrangements

6.4.1 All Polar Class ships should be capable of receiving emergency towing assistance.

6.4.2 Where appropriate towing arrangements should facilitate connection and release of a topline and provide bollards, fairleads, and other components suitable for the size of ship on which they are fitted.

CHAPTER 7

MAIN MACHINERY

7.1 General

7.1.1 The design, rating, installation, operation and maintainability of shipboard engineering systems should be suitable for navigation in Arctic and Antarctic ice-covered waters*.

7.1.2 In the event of damage, malfunction or failure of any machinery component, means should be provided to control and limit any resulting emission of pollutants to within the confines of the ship’s hull.

7.1.3 The layout and construction of machinery essential for the safe operation of the ship should be such that repairs which can be affected using the resources on board may be completed safely and effectively. Ventilation systems should provide sufficient air at an appropriate temperature for the operation of machinery.

7.1.4 For Polar Class ships which may be laid up in Arctic and Antarctic ice-covered waters, materials for all systems with the potential of polluting should be suitable for preventing pollution at the lowest ambient temperatures to which they may be subjected and should be suitable to avoid pollution and ensure safe operation on re-activation of the systems.

7.2 Main propulsion systems

* Refer to the proposed IACS Unified Requirements for Polar Ships.
7.2.1 The main propulsion machinery should be designed so that the effects of loads with the potential to damage the system are limited to those components which can be readily repaired, replaced or reset. The reliability and availability of the equipment and systems should be considered.

7.2.2 Main propulsion machinery and all auxiliary machinery essential to the propulsion system, should be:

.1 designed for loads and vibrations resulting from propeller/hull/rudder-ice interactions;

.2 located to provide protection from freezing spray, ice and snow; and

.3 designed to operate when the ship is inclined at any combined angle of heel or trim that may be expected during operations in ice.

7.2.3 Sterntube bearings, seals and main propulsion components located outside the hull should not leak pollutants. Non-toxic, biodegradable lubricants are not considered to be pollutants.

7.2.4 The installed propulsive power should be sufficient to ensure that the ship can navigate safely and without risk of pollution under the design ice, weather and operational conditions.

7.2.5 Piping and intake systems associated with the main propulsion plant should be designed so as not to be affected by the impact of the Arctic and Antarctic environment.

CHAPTER 8

AUXILIARY MACHINERY SYSTEMS

8.1 General

8.1.1 Equipment and systems should be designed so that personnel exposure to cold temperatures and other environmental hazards during normal operations including routine maintenance is minimized.

8.1.2 Ventilation systems should provide sufficient air for the operation of auxiliary machinery, air conditioning and heating purposes.

8.2 Materials

8.2.1 Materials used in equipment and systems should be suitable for operation in the environment which prevails at their location. In particular, equipment or systems which are essential for preventing pollution or for safe operation of the ship when:

.1 located outside and above the waterline in any ship operating condition; or

.2 in unheated locations inside;
should not be susceptible to brittle fracture within the range of operating conditions.

8.2.2 Essential equipment or systems required for the safe operation of the ship or systems required for preventing pollution, located within spaces which, upon failure of the primary heating system, could be subject to outside ambient air temperatures should be:

1. provided with an independent source of heat; and
2. fabricated from materials that will not be susceptible to brittle fracture under the anticipated loads and temperatures.

8.2.3 For Polar Class ships which may be laid up in Arctic and Antarctic ice-covered waters, materials for all systems with the potential of polluting should be suitable for preventing pollution at the lowest ambient temperatures to which they may be subjected and should be suitable to avoid pollution and ensure safe operation on re-activation of the systems.

CHAPTER 9

ELECTRICAL INSTALLATIONS

9.1 Electrical installations should be subject to the provisions listed in chapters 4, 7 and 8 regarding design for operation in Arctic and Antarctic ice-covered waters and for the provision of emergency heat and power.

9.2 Precautions should be taken to minimize risk of supplies to essential and emergency services being interrupted by the inadvertent or accidental opening of switches or circuit breakers due to vibrations or accelerations during icebreaking operations.

9.3 Emergency power for communications equipment provided by battery should be provided with a means whereby the batteries are protected from extreme low temperatures.

9.4 Emergency power batteries, including those stored in deck boxes, should be secured in a position where excessive movement is prevented during ice-transiting operations and explosive gas ventilation is not restricted by the accumulation of ice or snow.

9.5 Control systems based on computers and other electronic hardware installations necessary for the proper functioning of essential equipment should be designed for redundancy and resistance to vibration, dampness and low humidity.

PART B - EQUIPMENT

CHAPTER 10

FIRE SAFETY

10.1 Fuel and other flammable fluid tanks and systems
Refueling of ships should be carried out taking into account the special conditions imposed by low temperatures.

10.2 Ventilation

Closing apparatus for ventilation inlets and outlets should be designed and located to protect them from ice or snow accumulation that could interfere with the effective closure of such systems.

10.3 Fire detection and extinguishing systems

10.3.1 Fire-extinguishing systems should be designed or located so that they are not made inaccessible or inoperable by ice or snow accumulation or low temperature such that:

.1 equipment, appliances, systems and extinguishing agents should be protected from freezing for minimum temperature for the intended voyage, as specified in paragraph 1.1.6;

.2 precautions should be taken to prevent nozzles, piping and valves of any fire-extinguishing system from becoming clogged by impurities, corrosion or ice build up; and

.3 exhaust gas outlets and pressure vacuum arrangements should be protected from ice build up that could interfere with effective operation.

10.3.2 Water or foam extinguishers should not be located in any position that is exposed to freezing temperatures. These locations should be provided with extinguishers capable of operation under such conditions.

10.4.3 Fire pumps and associated equipment (Polar Class ships)

10.4.3.4 Where a fixed fire-extinguishing system or alternative fire-extinguishing system situated in a space separate from the compartment containing the main fire pumps utilizes its own independent sea suction, this sea suction should be capable of being cleared of accumulations of slush ice.

10.4.3.2 Fire pump(s) including emergency fire pump(s) should, wherever reasonable and practicable, be installed in heated compartment(s) and in any event should be adequately protected from freezing for minimum temperature for the intended voyage, as specified in paragraph 1.1.6.

10.4.3.3 Isolating valves should be located so that they are accessible. Any isolating valves located in exposed positions should not be subject to icing from freezing spray. The fire main should be arranged so that external sections can be isolated and draining devices should be provided.

10.4.3.4 Hydrants should be positioned or designed to remain operable under all anticipated temperatures. Ice accumulation and freezing should be taken into account.

10.5 Protection against ice build-up
Components of the fire-fighting system which may be exposed to icing which could interfere with the proper functioning of that component should be adequately protected.

10.65 Fire fighter’s outfits

10.65.1 Sufficient fire fighter’s outfits should be readily available to the accommodation area and elsewhere as appropriate. Such fireman’s outfits should be stored in positions as widely separated as practical.

10.65.2 In addition to the fire fighter’s outfits provided in accordance with paragraph 10.5.1, one spare fireman’s outfit should be provided. The spare outfit should be stored in a warm location on the ship.

CHAPTER 11

LIFE-SAVING APPLIANCES AND SURVIVAL ARRANGEMENTS

11.1 General

11.1.1 Adequate supplies of protective clothing and thermal insulating materials should be provided in all ships operating in Arctic and Antarctic ice-covered waters for all persons on board at any time.

11.1.2 Training in the use of all emergency equipment should be included as an element of the operating procedures and drills described in chapter 13. Where appropriate, dedicated training equipment should be carried to avoid compromising the performance of the emergency equipment itself.

11.2 Categories of life-saving equipment

11.2.1 Ships operating in Arctic and Antarctic ice-covered waters should carry life-saving appliances and survival equipment according to their environmental conditions of operation, as indicated in paragraph 1.1.6.

11.2.2 Personal survival kits (PSKs) as described in section 11.3 should be carried whenever a voyage is expected to encounter mean daily temperatures below 0°C.

11.2.3 Group survival kits (GSKs) as described in section 11.4 should be carried whenever a voyage is expected to encounter ice conditions which may prevent the lowering and operation of survival craft.

11.2.4 Sufficient PSKs and GSKs (as applicable) should be carried to cover at least 110% of the rated complement of the ship.

11.2.5 Personal survival kits should be stored so that they may be easily retrieved in an emergency situation. Arrangements such as storage in cabins or in dedicated lockers near the assembly stations may be considered.
11.2.6 Group survival kits should be stored so that they may be easily retrieved in an emergency situation. The containers should be located adjacent to the survival craft and life rafts and be stowed on cradles. Containers should be designed so that they may be easily moved over the ice and be floatable.

11.3 Personal survival kit (PSK)

11.3.1 A Personal survival kit should consist of the items listed in table 11.1 or appropriate alternatives.

Table 11.1 Contents of the personal survival kits

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing</td>
<td></td>
</tr>
<tr>
<td>Head protection (VP)*</td>
<td>1</td>
</tr>
<tr>
<td>Neck and face protection (VP)</td>
<td>1</td>
</tr>
<tr>
<td>Hand protection – Mitts (VP)</td>
<td>1 pair</td>
</tr>
<tr>
<td>Hand protection - Gloves (VP)</td>
<td>1 pair</td>
</tr>
<tr>
<td>Foot protection - Socks (VP)</td>
<td>1 pair</td>
</tr>
<tr>
<td>Foot protection – Boots</td>
<td>1 pair</td>
</tr>
<tr>
<td>Insulated suit (VP)</td>
<td>1</td>
</tr>
<tr>
<td>Approved immersion suit</td>
<td>1</td>
</tr>
<tr>
<td>Thermal underwear (VP)</td>
<td>1 set</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Miscellaneous</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand warmers</td>
<td>240 hours</td>
</tr>
<tr>
<td>Sunglasses</td>
<td>1 pair</td>
</tr>
<tr>
<td>Survival candle</td>
<td>1</td>
</tr>
<tr>
<td>Matches</td>
<td>2 boxes</td>
</tr>
<tr>
<td>Whistle</td>
<td>1</td>
</tr>
<tr>
<td>Drinking mug</td>
<td>1</td>
</tr>
<tr>
<td>Pen knife</td>
<td>1</td>
</tr>
<tr>
<td>Handbook (Arctic Survival)</td>
<td>1</td>
</tr>
<tr>
<td>Carrying bag</td>
<td>1</td>
</tr>
</tbody>
</table>

*VP means vacuum packed

11.3.2 The following notice should be displayed wherever personal survival kits are stored:

NOTICE
CREW MEMBERS AND PASSENGERS ARE REMINDED THAT THEIR PERSONAL SURVIVAL KIT IS FOR EMERGENCY SURVIVAL USE ONLY. NEVER REMOVE ITEMS OF SURVIVAL CLOTHING OR TOOLS FROM THE PERSONAL SURVIVAL KIT CARRYING BAG - YOUR LIFE MAY DEPEND ON IT.

11.3.3 Personal survival kits should not be opened for training purposes. Equipment for training purposes should be provided in accordance with paragraph 11.1.2.

11.4 Group survival kit (GSK)
11.4.1 The contents of the group survival kit should include those items defined in table 11.2 or appropriate alternatives.

### Table 11.2 Contents of the group survival kits (GSK)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group equipment</strong></td>
<td></td>
</tr>
<tr>
<td>Tents</td>
<td>1 per 6 persons</td>
</tr>
<tr>
<td>Air mattresses</td>
<td>1 per 2 persons</td>
</tr>
<tr>
<td>Sleeping bags (VP)*</td>
<td>1 per 2 persons</td>
</tr>
<tr>
<td>Stove</td>
<td>1 per tent</td>
</tr>
<tr>
<td>Stove fuel</td>
<td>0.5 litres per person</td>
</tr>
<tr>
<td>Fuel paste</td>
<td>2 tubes per stove</td>
</tr>
<tr>
<td>Matches</td>
<td>2 boxes per tent</td>
</tr>
<tr>
<td>Pan (with sealing lid)</td>
<td>1 per stove</td>
</tr>
<tr>
<td>Fortified health drinks</td>
<td>5 packets per person</td>
</tr>
<tr>
<td>Flashlights</td>
<td>1 per tent</td>
</tr>
<tr>
<td>Candles and holders</td>
<td>5 per tent</td>
</tr>
<tr>
<td>Snow shovel</td>
<td>1 per tent</td>
</tr>
<tr>
<td>Snow saw and snow knife</td>
<td>1 per tent</td>
</tr>
<tr>
<td>Tarpaulin</td>
<td>1 per tent</td>
</tr>
<tr>
<td>Foot protection – Booties</td>
<td>1 per person</td>
</tr>
<tr>
<td>GSK container</td>
<td>1</td>
</tr>
<tr>
<td><strong>Spare personal equipment</strong></td>
<td>(1 set per GSK container)</td>
</tr>
<tr>
<td>Head protection (VP)</td>
<td>1</td>
</tr>
<tr>
<td>Neck and face protection (VP)</td>
<td>1</td>
</tr>
<tr>
<td>Hand protection - Mitts (VP)</td>
<td>1 pair</td>
</tr>
<tr>
<td>Hand protection - Gloves (VP)</td>
<td>1 pair</td>
</tr>
<tr>
<td>Foot protection - Socks (VP)</td>
<td>1 pair</td>
</tr>
<tr>
<td>Foot protection - Boots (VP)</td>
<td>1 pair</td>
</tr>
<tr>
<td>Insulated suit (VP)</td>
<td>1</td>
</tr>
<tr>
<td>Thermal underwear</td>
<td>1 pair</td>
</tr>
<tr>
<td>Hand warmers</td>
<td>1 set</td>
</tr>
<tr>
<td>Sunglasses</td>
<td>1</td>
</tr>
<tr>
<td>Whistle</td>
<td>1</td>
</tr>
<tr>
<td>Drinking mug</td>
<td>1</td>
</tr>
</tbody>
</table>

*VP means vacuum packed

11.4.2 Where a shot gun or hunting rifle is provided to protect survivors from wildlife, it should be stored in a secure location readily available in an emergency.

11.5 Lifeboats

11.5.1 All lifeboats carried by Polar Class ships should be of the fully enclosed type to provide adequate shelter from the environment. Other ships which are equipped with open or partially enclosed boats should carry tarpaulins of sufficient size to provide complete coverage of the lifeboats, and suitable structure to support them.
11.5.2 The capacity of lifeboats should be evaluated with regard to operability, accessibility, seating capacity and overall space considering the needs of personnel wearing suitable Polar clothing.

11.5.3 Ice accretion should be regularly removed from the lifeboats and launching equipment to ensure ease of launching when required. An icing removal mallet should be available in the vicinity of the lifeboats.

11.5.4 All lifeboat engines should be equipped with a means to ensure they will start readily when required at the minimum anticipated operating temperature.

11.5.5 The lifeboat engine fuel oil should be suitable for operation in the minimum anticipated operating temperature.

11.5.6 Drinking water should be stored in containers that allow for expansion due to freezing.

11.5.7 Consideration should be given to the provision of additional emergency rations to account for high rates of energy expenditure under Arctic and Antarctic conditions.

11.6 Life rafts

11.6.1 Ice accretion should be regularly removed from the life rafts, cradles and launching equipment to ensure ease of launching and inflation when required. An icing removal mallet should be available in the vicinity of the life rafts.

11.6.2 Ships should carry in a warm space in the vicinity of the life rafts manual inflation pumps that are proven to be effective in the expected air temperatures.

11.6.3 Air or other proven cold temperature gas should be used for the inflation of lifesaving equipment according to their environmental conditions of operation, as indicated in paragraph 1.1.6.

11.6.4 Consideration should be given to the provision of additional emergency rations to account for high rates of energy expenditure under Arctic and Antarctic conditions.

CHAPTER 12

NAVIGATIONAL EQUIPMENT

12.1 Application

It should be noted that the provisions prescribed in this chapter are not to be considered in addition to the requirements of SOLAS chapter V. Rather, any equipment fitted or carried in compliance with the requirements of SOLAS chapter V may be considered as part of the recommended equipment complement detailed in this chapter. Unless specifically provided in this chapter, the performance standards and other applicable guidance for equipment and systems contained in this chapter should be applied mutatis mutandis as per SOLAS chapter V.
12.2 Compasses

12.2.1 Magnetic variations in high latitudes may lead to unreliable readings from magnetic compasses.
12.2.2 Gyro-compasses may become unstable in high latitudes and may need to be shut down.

12.2.3 Companies should ensure that their systems for providing reference headings are suitable for their intended areas and modes of operation, and that due consideration has been given to the potential effects noted in paragraphs 12.2.1 and 12.2.2. For operations in Arctic and Antarctic ice-covered waters, ships should be fitted with a total of at least two gyro-compasses.

12.3 Speed and distance measurement

12.3.1 All Polar Class ships should be fitted with a total of at least two speed and distance measuring devices*. Each device should operate on a different principle, and at least one device should be capable of being operated in both the sea and the ground stabilized mode.

12.3.2 Speed and distance measuring devices should provide each conning position with a speed indication at least once per second.

12.3.3 Speed and distance measurement device sensors should not project beyond the hull and should be installed to protect them from damage by ice.

12.4 Depth sounding device

All Polar Class ships should be fitted with a total of at least two independent echo-sounding devices which provide indication of the depth of water under the keel. Due account should be taken of the potential for ice interference or damage to any device designed to operate below the waterline.

12.5 Radar installations
12.5.1 All Polar Class ships should be fitted with a total of at least two functionally independent radar systems. One of these should operate in the 3 GHz (10 cm, S-band) frequency range.

12.5.2 Radar plotting systems that may be installed should have the capability of operating in both the sea and the ground stabilized mode.

12.6 Electronic positioning and electronic chart systems

12.6.1 All Polar Class ships should be provided with an electronic position fixing system.

12.6.2 A satellite system (GPS or GLONASS or equivalent) should be fitted on any ship intending to navigate in areas outside of reliable coverage by a terrestrial hyperbolic system.

* Refer to resolution A.824(19) on Recommendation on Performance Standards for Devices to Indicate Speed and Distance.
12.6.3 Systems described in paragraphs 12.6.1 and 12.6.2 should provide input to allow for continuous representation of the ship’s speed provided by a speed and distance measuring device according to paragraph 12.3, and the ship’s course provided by a compass according to paragraph 12.2.**

12.6.4 Where fitted, electronic charting systems should be able to use position input from systems compliant with paragraphs 12.6.1 and 12.6.2.

12.7 **Automatic identification system (AIS)**

All Polar Class ships should be provided with and automatic identification system (AIS)† for ships using the broadcast mode.

12.8 **Rudder angle indicator**

12.8.1 Separate rudder angle indicators should be provided for each rudder on ships with more than one rudder.

12.8.2 In ships without a rudder, indication should be given of the direction of steering thrust.

12.9 **Searchlights and visual signals**

12.9.1 Ships of Polar Classes 1 to 5 inclusive and all ships intended to operate in periods of prolonged darkness should be equipped with at least two suitable searchlights which should be controllable from conning positions.

12.9.2 The searchlights described in paragraph 12.9.1 should be installed to provide, as far as is practicable, all-round illumination suitable for docking, astern manoeuvres or emergency towing.

12.9.3 The searchlights described in paragraph 12.9.1 should be fitted with an adequate means of de-icing to ensure proper directional movement.

12.9.4 Ships of Polar Classes 1 to 5 inclusive, all icebreakers and all ships that may be involved in an escort of more than one ship following in an ice track should be equipped with a manually operated flashing red light visible from astern to indicate when the ship is stopped. This should be capable of use from any location from which the ship can be manoeuvred.

The flashing light should have a range of visibility of at least two (2) nautical miles. The colour and frequency of the flashing light should be according to standards given in COLREG. The horizontal and vertical arcs of visibility of the flashing light should be as specified for stern lights in COLREG.

12.10 **Vision enhancement equipment**

** Refer to the proposed Performance Standards for Course and Speed Indication for Electronic Positioning and Satellite Systems.

† Refer to guidelines on the operation of AIS on ships (to be developed).
12.10.1 All Polar Class ships should be fitted with a suitable means to de-ice sufficient conning position windows to provide unimpaired forward and astern vision from conning positions.

12.10.2 The windows described in paragraph 12.10.1 should be fitted with an efficient means of clearing melted ice, freezing rain, snow, mist and spray from outside and accumulated condensation from inside. A mechanical means to clear moisture from the outside face of a window should have operating mechanisms protected from freezing or the accumulation of ice that would impair effective operation.

12.10.3 All persons engaged in navigating the ship should be provided with adequate protection from direct and reflected glare from the sun.

12.10.4 All indicators providing information to the conning positions should be fitted with means of illumination control to ensure readability under all operating conditions.

12.11 Voyage data recorder

Ships of Polar Classes 1 to 5 inclusive should be fitted with a voyage data recorder.*

12.12 Ice routing equipment

12.12.1 All ships should be provided with equipment capable of receiving ice and weather information charts.

12.12.2 Ships of Polar Classes 1 to 3 inclusive should be fitted with equipment capable of receiving and displaying ice imagery.

PART C - OPERATIONAL

CHAPTER 13

OPERATIONAL GUIDELINES

13.1 Documentation

All ships operating in Arctic and Antarctic ice-covered waters should carry on board at all times an operating manual and training manual for all Ice Navigators on board the ship.

13.2 Ship operational control

The ship should not be operated outside the worst intended conditions and design limitations.

13.3 Operating and training manuals

* Refer to resolution A.861(20) on Recommendation on Performance Standards for Voyage Data Recorders (VDRs).
Operating manual

13.3.1 The operating manual, or supplementary manual in the case of ships not normally operating in Arctic and Antarctic ice-covered waters, should contain at least the following information on issues directly related to operations in such waters. With respect to contingency planning in the event that the ship suffers ice damage, the manual should conform to guidelines developed by the Organization**:

Normal operation

.1 principal particulars of the ship;

.2 loading procedures and limitations including any applicable recommendations against carrying pollutants in tanks and compartments against the hull envelope, maximum operational weight, position of centre of gravity and distribution of load necessary for operation in Arctic and Antarctic ice-covered waters;

.3 acknowledgment of changes in standard operating procedures for radio equipment and navigational aids applicable to Arctic and Antarctic operations;

.4 information regarding the handling of the ship as determined in accordance with chapter 16 of these Guidelines (Environmental protection and damage control);

.5 maximum towing speeds and towing loads where applicable;

Risk management

.6 procedures for checking the integrity of hull structure;

.7 description and operation of fire detection and fire-extinguishing equipment in a Arctic and Antarctic environment; and

for Polar Class ships, the operating manual should include the following supplementary information, in clearly defined chapters specified by the Administration:

.8 operating limitations for the ship and essential systems in anticipated ice conditions and temperatures;

.9 details arising from the standards of chapter 3 of these Guidelines (Subdivision and stability) likely to be of direct practical use to the crew in an emergency;

.10 passage planning procedures accounting for anticipated ice conditions;

** Refer to resolution A.852(20) on Guidelines for the Structure of an Integrated System of Contingency Planning for Shipboard Emergencies.
.11 deviations in standard operating procedures associated with operation of propulsion and auxiliary machinery systems, remote control and warning systems and electronic and electrical systems made necessary by operations in Arctic and Antarctic ice-covered waters;

.12 deviations in standard damage control procedures made necessary by operations in Arctic and Antarctic ice-covered waters; and

.13 evacuation procedures into water, onto ice, or into a combination of the two, with due regard to chapter 11 of these Guidelines.

13.3.2 Regarding information on machinery or system failures, guidance should take into account the results of any risk or failure analysis reports developed during the ship design.

TRAINING MANUAL

13.3.3 The training manual should cover all aspects of ship operation in Arctic and Antarctic ice-covered waters listed below plus other related information considered necessary by the Administration:

.1 summary of the Guidelines for ships operating in Arctic and Antarctic ice-covered waters;

.2 ice recognition;

.3 navigation in ice; and

.4 escorted operation.

Instructions for drills and emergency instructions as detailed in section 13.4 should be incorporated as annexes to the manual.

13.3.4 The Company should ensure that any additional documentation referenced in the training manual and required to provide a full understanding of its contents is on board the ship for all operations in Arctic and Antarctic ice-covered waters.

13.4 Drills and emergency instructions

13.4.1 On board instruction and operation of the ship's evacuation, fire and damage control appliances and systems should include appropriate cross training of crew members with appropriate emphasis to changes to standard procedure made necessary by operations in Arctic and Antarctic ice-covered waters.

13.4.2 Evacuation

13.4.2.1 Evacuation drill scenarios should be varied so that different emergency conditions are simulated, including abandonment into the water, onto the ice, or a combination of the two.
13.4.2.2 Each evacuation craft drill should include:

.1 exercises in passenger control in cold temperatures as appropriate;
.2 checking that all personnel are suitably dressed;
.3 donning of immersion suits or thermal protective clothing by appropriate crew members;
.4 testing of emergency lighting for assembling and abandonment; and
.5 giving instructions in the use of the ship's life-saving appliances and in survival at sea, on the ice or a combination of both.

13.4.2.3 Rescue boat drills should be conducted as follows:

.1 As far as is reasonable and practicable, rescue boats should be launched each month as part of the evacuation drill with their assigned crew aboard and manoeuvred in the water, with due consideration of the dangers of launching into Arctic and Antarctic ice-covered waters if applicable.
.2 If rescue boat launching drills are carried out with the ship making headway, such drills should be practiced in sheltered waters only and under the supervision of an officer experienced in such drills.\(^*\)

13.4.2.4 Individual instructions may cover different parts of the ship's life-saving system, but all the ship's life-saving equipment and appliances should be covered within any period of one month on passenger ship and two months on cargo ship. Each member of the crew should be given instructions which should include but not necessarily be limited to:

.1 problems of hypothermia, first-aid treatment of hypothermia and other appropriate first-aid procedures; and
.2 special instructions necessary for use of the ship's life-saving appliances in severe weather and severe sea conditions on the ice or in a combination of water and ice cover.

13.4.3 Fire drills

13.4.3.1 Fire drill scenarios should vary each week so that emergency conditions are simulated for different ship compartments, with appropriate emphasis on those changes to standard procedure made necessary by operations in Arctic and Antarctic ice-covered waters and low temperatures.

\(^*\) Refer to resolution A.624(15) on Guidelines for Training Crews for the Purpose of Launching Lifeboats and Rescue Boats from Ships Making Headway Through the Water.
13.4.3.2 Each fire drill should include elements required by the SOLAS Convention plus additional elements made necessary by operation in an Arctic and Antarctic environment.

13.4.4 Damage control

Damage control drill scenarios should vary each week so that emergency conditions are simulated for different damage conditions with appropriate emphasis to those conditions resultant from operations in Arctic and Antarctic ice-covered waters.

13.4.5 Survival kits

13.4.5.1 Where fitted, the master should ensure that sufficient PSKs and GSKs are available, in full working order, and ready for immediate use, to meet the standards set forth in paragraph 11.2.4.

13.4.5.2 The master should keep spare personal survival equipment on board for the purpose of providing replacements for missing or damaged items of equipment in those personal survival kits issued to the complement. In addition, a number of sewing kits and replacement parts (buttons, boot laces etc.) should be kept on board for the purpose of minor repair to personal survival kit items of clothing.

13.4.5.3 Group survival kit inspections should be carried out no less frequently than on an annual basis at the beginning of each operating season.

CHAPTER 14

CREWING

14.1 General

14.1.1 The crewing of all ships in Arctic and Antarctic ice-covered waters should take account of the provisions listed in this chapter, and also of the relative lack of shore and support infrastructure which may be available to assist in any operations.

14.1.2 Ice Navigators should be provided as noted in chapter 1.

14.1.3 All of the ship’s officers and crew should be made familiar with cold weather survival by training or self-study of course material or publications addressing the measures set forth in section 13.4.

14.1.4 As many as possible of the ship’s deck and engine officers should be trained in ship operations in ice-covered waters.

14.2 Ice Navigator qualifications and training

The Ice Navigator should have documentary evidence of having satisfactorily completed an approved training program in ice navigation; in the Antarctic, documentary evidence of having completed an on-the-job training programme is acceptable.
Such a training program should provide knowledge, understanding and proficiency required for operating a ship in Arctic and Antarctic ice-covered waters, including recognition of ice formation and characteristics; ice indications; ice manoeuvring; use of ice forecasts, atlases and codes; hull stress caused by ice; ice escort operations; ice-breaking operations and effect of ice accretion on vessel stability.

14.3 Supplementary provisions

14.3.1 Where firearms are carried in accordance with paragraph 11.4.2, a minimum of two crew members should be cognizant of current firearm regulations and guidelines and be trained in the use of shotguns or hunting rifles.

14.3.2 A minimum of two crew members should be trained in the use of low frequency radio equipment where fitted.

CHAPTER 15

EMERGENCY EQUIPMENT

15.1 Medical equipment

15.1.1 All ships should be provided with an adequate number of first-aid kits and equipment with contents suitable to the on board location and recognized provisions for personnel safety hazards of such locations.

15.1.2 With respect to the nature of the voyage, ship operations and the ability to communicate and obtain timely assistance of medical aid or medical evacuation, exemptions of certain medical equipment, medicaments and facilities may be considered unreasonable or unnecessary.

15.1.3 Crews operating in Arctic and Antarctic ice-covered waters should be provided with appropriate equipment and training to safely evacuate an individual in a medical emergency from the ship.

15.2 Reserve supplies

15.2.1 Special consideration should be given to the reserve supply of fuel and lubricants taking into account the effect of heavy ice on fuel consumption.

15.2.2 Single screw ships may require special consideration (redundancy) in remote areas where conditions impose a risk of damage to machinery components.

15.3 Damage control and repair equipment

15.3.1 All icebreakers should carry the following emergency equipment:
.1 portable gas welding equipment for welding and cutting with a reserve of electrodes; and

.2 portable electro-submersible pump of 100 t/h capacity with a set of hoses.

15.3.2 Where built-up propellers are used, consideration should be given to the carriage of spare blades and of equipment facilitating removal and replacement.

PART D – ENVIRONMENTAL PROTECTION AND DAMAGE CONTROL

CHAPTER 16

ENVIRONMENTAL PROTECTION AND DAMAGE CONTROL

16.1 General

16.1.1 The following provisions concerning environmental protection and damage control equipment are made with due regard to the lack of waste reception and repair facilities, communications limitations, unique navigational and environmental hazards and limited response capabilities of available assistance in Arctic and Antarctic ice-covered waters.

16.1.2 Procedures for the protection of the environment under normal operations should be included in the ship’s operating manual as described in chapter 13, and those under accident conditions into the Shipboard Oil Pollution Emergency Plan (SOPEP) according to the MARPOL Convention.

16.1.3 Training and drills covering environmental protection and damage control procedures should be provided for crew members as specified in chapter 13.

16.2 Equipment and materials

16.2.1 All ships navigating in Arctic and Antarctic ice-covered waters should be adequately equipped and their crews properly trained to provide effective damage control and minor hull repair. All ships should have the capability to contain and clean up minor deck and over side spills.

16.2.2 Damage control equipment, provided in accordance with paragraph 16.2.1, should be sufficient to enable a ship, as far as practicable, to make temporary repairs to a minor hull breach or to take precautionary measures to prevent escalation of damage or flooding, so that the ship may proceed to a location where more substantial repairs can be affected.

16.2.3 Icebreakers and ships of Polar Classes 1 to 4 inclusive should be provided with material, tools and equipment capable of effecting more substantial repairs and damage control activities, as described in chapter 15.

16.2.4 Hoses and pipelines should be manufactured out of materials retaining adequate strength and elasticity characteristics at the minimum anticipated operating temperature.
16.2.5 All hoses used to transfer pollutant cargoes from the ship to another ship or to shore should have the connection between the hose and the hose couplings made in an efficient and strong fashion to minimize the possibility of pollution due to failure of this connection. Couplings between hose sections should be capable of being securely locked together to prevent inadvertent disconnection.
ANNEX C

RESOLUTIONS
RESOLUTION 1 (2004)

ENHANCING PREVENTION OF MARINE POLLUTION BY FISHING ACTIVITIES

The Representatives,

Aware of the need to enhance the conservations and preservation of the Antarctic environment as stated in the Protocol for Environmental Protection to the Antarctic Treaty;

Taking into account the existing marine activities within the Antarctic Treaty area, including fishing activities

Aware the Annex IV of the Madrid Protocol includes provisions to be applied to the activities of vessels, including fishing vessels, in relation to the prevention of marine pollutions;

Noting the actions undertaken by other organisations such as CCAMLR in line with Article 10 of Annex IV of the Madrid Protocol, on Prevention of Marine Pollution;

Supporting the prevention of marine pollution by fishing activities;

Highly support:

The progress achieved by CCAMLR/XXII urging its Members, which are harvesting in high Antarctic latitudes¹, to license only those fishing vessels with at least an ice classification standard of ICE-1C².

¹ Waters south of 60° South and adjacent to the Antarctic continent.
² As defined in the Det Norske Veritas (DNV) Rules for Classification of Ships or an equivalent standard of certification as defined by a recognized classification authority.
RESOLUTION 2 (2004)

GUIDELINES FOR THE OPERATION OF AIRCRAFT NEAR CONCENTRATIONS OF BIRDS IN ANTARCTICA

The Representatives,
Recalling Article 3 of the Environmental Protocol which requires that activities in the Antarctic Treaty area shall be planned and conducted so as to limit adverse impacts on the Antarctic environment,

Recalling also the requirements of Annex II of the Environmental Protocol on the Conservation of Antarctic Fauna and Flora,

Aware of the potential for harmful disturbance to concentrations of birds in Antarctica by the operation of aircraft,

Noting that specific standards for aircraft operations may be contained in Antarctic Specially Protected Area (ASPA) and Antarctic Specially Managed Area (ASMA) management plans,

Recognising that some Parties may already have in place more stringent guidelines for the operation of aircraft near wildlife,

Aware that the scientific data on the impact of aircraft operations on wildlife will continue to improve and that guidance on minimum standards should remain under review,

Conscious of the need for minimum guidance on the operation of aircraft near concentrations of birds in order to minimise the impacts of such activities,

Recommend that:

The Guidelines for the Operation of Aircraft Near Concentrations of Birds in Antarctica appended to this Resolution be used by those engaged in the operation of aircraft in the Antarctic.

Parties should be encouraged to adopt higher standards for the operation of aircraft near concentrations of birds to suit their particular needs and circumstances.
GUIDELINES FOR THE OPERATION OF AIRCRAFT NEAR CONCENTRATIONS OF BIRDS IN ANTARCTICA

Fixed and rotary wing aircraft operations have the potential to cause disturbance leading to changes in the behaviour, physiology and the breeding success of wildlife. The level of impact will vary according to the intensity, duration and frequency of disturbance, the species involved and the phase in their breeding season. Most species are particularly sensitive to disturbance between late September and early May-the period when Antarctic helicopter and fixed wing operations usually occur.

There are many variables affecting noise levels received on the ground during aircraft operations, including: flight height; the type of aircraft and engine; the flight profile; the weather; and the geography of the location. Pilots have to make the final judgement regarding aircraft operations based on the aircraft type, task and safety considerations. Such judgments should also pay due consideration to potential wildlife impacts, noting that Annex II of the Protocol on Environmental Protection to the Antarctic Treaty defines that "harmful interference" means flying or landing helicopters or other aircraft in a manner that disturbs concentrations of birds and seals.

Minimum recommended separation distances for aircraft operations close to concentrations of birds are set out below. These recommended distances should be maintained to the greatest extent possible, unless greater separation distances are specified for the area of operation, for example by an ASPA or ASMA management plan or guidelines already developed by national operators to suit their own particular needs and circumstances. These distances are only a guide and if wildlife disturbance is observed at any separation distance, a greater distance should be maintained wherever practical:

- Penguin, albatross and other bird colonies are not to be over flown below 2000ft (~ 610 m) Above Ground Level, except when operationally necessary for scientific purposes.

- Landings within 1/2 nautical mile (~ 930 m) of penguin, albatross or other bird colonies should be avoided wherever possible.

- Never hover or make repeated passes over wildlife concentrations or fly lower than necessary.

- Maintain a vertical separation distance of 2000 ft (~ 610 m) AGL and a horizontal separation of 1/4 nautical mile (~ 460 m) from the coastline where possible.

- Cross the coastline at right angles and above 2000ft (~ 610 m) AGL where possible.

Location of aircraft operations (other considerations)

- Where practical, avoid overflying concentrations of birds.

- Be aware that concentrations of birds are most often found in coastal areas. Snow petrel and Antarctic petrel colonies are also frequently found inland on nunataks. Minimum vertical separation distances should be maintained in these areas.

- Where practical, landings near to concentrations of birds should be downwind and/or behind a prominent physical barrier (e.g. hill) to minimise disturbance.
- Avoid Antarctic Specially Protected Areas, unless authorised to over-fly and/or land by a permit issued by an appropriate national authority. For many ASPAs there are specific controls on aircraft operations, which are set out in the relevant Management Plans.

- Follow aircraft flight heights, preferred flight paths and approach paths contained in the Antarctic Flight Information Manual (AFIM), in station aircraft operation manuals and on relevant charts, maps and any Wild Life and Low Flying Avoidance Maps for the major airstrips in the Antarctic (e.g. Marsh, Marambio, Rothera, McMurdo).
- Particularly avoid flying toward concentrations of birds immediately after take-off and avoid steep banking turns in flight as these significantly increase the amount of noise generated.

**Timing of aircraft operations**

- Most native bird species breed at coastal locations in Antarctica between September and May each season. During the planning of aircraft operations near to concentrations of birds, consideration should be given to undertaking flying activities outside of the main breeding and/or moulting periods.

- Where aircraft operations are necessary close to concentrations of birds, then the duration of flights should be the minimum necessary.

- To minimise bird strikes, especially in coastal areas, avoid flying after dark between September and May. At this time of year, prions and petrels are active. These birds are nocturnal when breeding and are attracted by lights.

- Aircraft operations should be delayed or cancelled if weather conditions (e.g. cloud base, winds) are such that the suggested minimum vertical and horizontal separation distances given in these guidelines cannot be maintained.
RESOLUTION 3 (2004)

TOURISM AND NON-GOVERNMENTAL ACTIVITIES: ENHANCED CO-OPERATION AMONGST PARTIES

The Representatives,

Concerned about the increasing trend in Antarctic tourism and the need to ensure more rigorous monitoring and control of such activities;

Desiring to ensure that all such activities undertaken in Antarctica are strictly in accordance with the Antarctic Treaty and its Environmental Protocol;

Aware that some individuals may circumvent national legislation by seeking approval for their activities from more than one national authority;

Noting that the consultations described below would be without prejudice to any Party’s implementation of its own national legislation.

Recommend that:

1. All Parties nominate to the Secretariat a single contact point for information about tourism and non-Governmental activities in Antarctica;

2. Parties exchange information about such activities as and when they are notified, particularly where there are potential implications for other Parties;

3. Where Parties are notified, or become aware, of an activity involving a vessel or aircraft flagged or registered with another Treaty Party; or where the organisers are nationals of another Treaty Party, that they consult those relevant Parties as appropriate during the process of evaluating such activities and, where applicable, prior to any decision to authorise the activity or permit to proceed.

GUIDELINES ON CONTINGENCY PLANNING, INSURANCE AND OTHER MATTERS FOR TOURIST AND OTHER NON-GOVERNMENTAL ACTIVITIES IN THE ANTARCTIC TREATY AREA

The Representatives,

Concerned at the potential impacts, including the imposition of additional costs, that tourist or other non-governmental activities may have on national programmes, and the risks to the safety of those involved in search and rescue operations;

Desiring to ensure that tourist or other non-governmental activities undertaken in Antarctica are carried out in a safe and self-sufficient manner;

Desiring further to ensure that the risks associated with tourist or other non-governmental activities are fully identified in advance, and minimised;

Recalling the “Procedures to be Followed by Organisers and Operators”, as set out in the Attachment to Recommendation XVIII-1;

Noting Measure 4 (2004) on “Insurance and Contingency Planning for Tourism and Non-governmental Activities in the Antarctic Treaty Area”, and desiring to take certain steps before it enters into effect to promote its objectives in addition to recommending further guidelines to be followed by those organising or conducting activities without the supervision or support in the field of another operator or a national programme;

Recommend:

- That Parties should require those under their jurisdiction organising or conducting tourist or other non-governmental activities in the Antarctic Treaty Area, for which advance notification is required in accordance with Article VII (5) of the Antarctic Treaty, to follow the Guidelines annexed to this Resolution.
ANNEX 1

GUIDELINES ON CONTINGENCY PLANNING, INSURANCE AND OTHER MATTERS FOR TOURIST AND OTHER NON-GOVERNMENTAL ACTIVITIES IN THE ANTARCTIC TREATY AREA

Those organising or conducting tourist or other non-governmental activities in the Antarctic Treaty area should ensure:

1. that appropriate contingency plans and sufficient arrangements for health and safety, search and rescue (SAR), and medical care and evacuation have been drawn-up and are in place prior to the start of the activity. Such plans and arrangements should not be reliant on support from other operators or national programmes without their express written agreement; and

2. that adequate insurance or other arrangements are in place to cover any costs associated with search and rescue and medical care and evacuation.

And the following guidelines should also be observed in particular by those organising conducting activities without the supervision or support in the field of another operator or a national programme:

3. that participants have sufficient and demonstrable experience appropriate for the proposed activity operating in polar, or equivalent, environments. Such experience may include survival training in cold or remote areas, flying, sailing or operating other vehicles in conditions and over distances similar to those being proposed in the activity;

4. that all equipment, including clothing, communication, navigational, emergency and logistic equipment is in sound working order, with sufficient backup spares and suitable for effective operation under Antarctic conditions;

5. that all participants are proficient in the use of such equipment;

6. that all participants are medically, physically and psychologically fit to undertake the activity in Antarctica;

7. that adequate first-aid equipment is available during the activity and that at least one participant is proficient in advanced first-aid.
RESOLUTION 5 (2004)

ESTABLISHMENT OF AN INTERSESSIONAL CONTACT GROUP TO IMPROVE EXCHANGE OF INFORMATION

The Representatives,

Recalling Article III (1) and Article VII (5) of the Antarctic Treaty and the obligation for the Parties to exchange information;

Conscious of the various obligations under the Protocol on Environmental Protection to the Antarctic Treaty and its Annexes to submit information and annual reports;

Conscious also of Resolution 6 (2001) and other commitments that the Parties have made with respect to keeping each other informed by the regular or occasional exchanges;

Desiring to ensure that the exchange of information between the Parties is conducted in the most efficient way and that the best use is made of this information in furthering the principles of the Antarctic Treaty;

Recommend that,

1. an intersessional contact group be established, consisting of interested Parties with the assistance of the Antarctic Treaty Secretariat, with the following terms of reference:

   a) to examine how the process for the exchange of information may be improved to make this process more efficient, in particular to identify better ways to collate, analyse and circulate the information; and

   b) to prepare a report on its findings, together with recommendations, for a decision on the matter by ATCM XXVIII.
PART III

OPENING ADDRESS AND REPORTS FROM XXVII ATCM
ANNEX D

OPENING ADDRESS BY THE SOUTH AFRICAN MINISTER OF ENVIRONMENTAL AFFAIRS AND TOURISM
WELCOMING ADDRESS BY MARTHINUS VAN SCHALKWYK MP, MINISTER OF ENVIRONMENTAL AFFAIRS AND TOURISM, AT THE OPENING OF THE 27TH ANTARCTIC TREATY CONSULTATIVE MEETING HELD AT THE CAPE TOWN INTERNATIONAL CONVENTION CENTRE, ON 24 MAY 2004

South Africa:

Developing as Gateway to the Antarctic

Programme Director,
Delegates,
Members of the media,
Distinguished guests,
Ladies and gentlemen

It is the coldest, windiest, and driest landmass in the world – yet its appeal remains undeniable. There are few words that better capture the mystique and power of the Seventh Continent than those of Bulgarian, Stefan Pashov:

The white of the morning
opens it’s empty hand,
and everywhere I go,
I am just in the centre
of the world.

Strong images for a land that was only recognised as a continent in 1840. This sentiment echoes the feelings of the people of another continent, this continent - Africa.

Like Antarctica, we too were once regarded as remote, removed and lacking in relevance. Like Antarctica we were once seen as a site of resources rather than of real significance. Like Antarctica our appeal lay, for centuries, in the belief that ours was a land of strange terrain and even stranger people. Like Antarctica this has changed.

It is my great pleasure, on behalf of the Government and the people of South Africa to welcome you all to our country, and to this beautiful city, Cape Town. In the light of the many similarities and strong links between South Africa and Antarctica it is especially fitting that we meet here today during the celebrations of South Africa’s First Decade of Freedom.

We too feel that we stand at the centre of the world, despite being, in the words of our President, “a little country on the tip of a great continent”. In the tenth year of our young democracy we take special pride in hosting this 27th Annual Antarctic Treaty Consultative Meeting.

For 47 years the Antarctic Treaty has stood as a template for international co-operation and consensus. These meetings, combined with the work of the Treaty system and its operational structures, affirm the highest principles of peace and international cooperation on the world’s fifth largest continent. South Africa remains a committed and proud founder-member of the Treaty.
Our vision as a people is to build a prosperous society defined by real and lasting human dignity, in harmony with our natural resources.

It is well known that our scientists have played a leading role for years in international collaborations like the High Frequency Radar programme. The new partnership between our Department of Environmental Affairs and Tourism and our Department of Science and Technology, has brought new focus to our involvement in Antarctic science and research.

I wish today to convey to you our determination and intention to increase our participation in international scientific ventures. To give content to this undertaking, our Government has already increased direct research funding for science connected to Antarctica by 30% this year, and it is our intention to double that funding to R10 million in the near future.

The platform for this research is our state-of-the-art base at SANAE IV. I think I can say without fear of contradiction that this facility is one of the most modern and sophisticated of all Antarctic bases, setting new standards for environmental best-practice. Designed to serve us for at least 50 years, we currently have significant amounts of spare capacity. I would like to take this opportunity to offer this capacity, and to promote this base, as an international scientific platform to other member states with research objectives similar to our own. The weather may not be as pleasant as it is in Cape Town, but the hospitality will be just as warm.

For many years countries like New Zealand and Argentina have served Antarctica well as gateway nations, offering supplies, communications, transport and scientific resources to expeditions and more permanent missions. We believe that South Africa, and Cape Town specifically, is set to become the next major gateway to the Antarctic.

For those of you with bases closest to us, I trust that the warmth and hospitality you experience during this conference will entice you to make full use of this gateway in the future. The development of a second runway in the Dronning Maud Land will result in even greater prospects for reliable and regular access. As partners in the construction of the runway we look forward to the inaugural flight in January next year.

We know however that increased access to Antarctica will bring new challenges, not only for South Africa but for all of us as Parties to the Treaty. The increase in tourism to Antarctica has been a concern of this body for some time, and has no doubt already been a major point of discussion at this meeting. We will need to find sustainable answers to such challenges, and I would like to express my hope that this Cape Town meeting will advance the process of creating a liability regime for the Antarctic Treaty System.

The establishment of a permanent Secretariat for the Treaty in Buenos Aires, Argentina, has already been a positive step in the direction of addressing such challenges over the longer-term. I am also proud that the first Executive Secretary of the Treaty will be elected here in Cape Town and I wish you success with that process. South Africa pledges its full support for the work of the Secretariat and the Executive Secretary.

Ladies and Gentlemen, I want to wish you every success for the remainder of this conference and for your future endeavours. Despite your rather packed working programme I trust you will also accept our invitation to take some time off to enjoy the scenic splendour and warmth of the Cape – our developing gateway to the Antarctic.

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ANNEX E

REPORTS UNDER RECOMMENDATION XIII-2 (ATS 5a)
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 the Protocol on Environmental Protection.

There have been no new accessions to the Antarctic Treaty in the past year. There are forty-five Parties to the Treaty.

Canada deposited its instrument of ratification of the Protocol on Environmental Protection on November 13, 2003. There are now thirty-one Parties to the Protocol.

The following countries have provided notification that they have designated the persons so noted as Arbitrators in accordance with Article 2(1) of the Schedule to the Protocol on Environmental Protection:

<table>
<thead>
<tr>
<th>Country</th>
<th>Arbitrator/Authorities</th>
<th>Date</th>
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<tbody>
<tr>
<td>Australia</td>
<td>Mr. Bill Campbell</td>
<td>3 July 2000</td>
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<tr>
<td></td>
<td>Dr. Stuart Kaye</td>
<td>3 July 2000</td>
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<td>Dr. Don Rothwell</td>
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<tr>
<td>Chile</td>
<td>Amb. José Miguel Barros</td>
<td>May 1999</td>
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<td>Amb. María Teresa Infante</td>
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<tr>
<td>France</td>
<td>Mr. Jean-Marc Lavieille</td>
<td>16 November 2000</td>
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<td></td>
<td>Mr. Gérard Ployette</td>
<td>16 November 2000</td>
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<td></td>
<td>Ms. Marie-Jacqueline Lauriau</td>
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<td>Greece</td>
<td>Mr. Fransiscos Verros</td>
<td>22 May 2003</td>
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<td>Dr. Emmanuel Gounaris</td>
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<td>Dr. Vassilios Patronas</td>
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<tr>
<td>United States</td>
<td>Professor Daniel Bodansky</td>
<td>22 April 2003</td>
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<tr>
<td></td>
<td>Mr. David Colson</td>
<td>22 April 2003</td>
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</tbody>
</table>

Lists of Parties to the Treaty, to the Protocol, and of Recommendations/Measures 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

<table>
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<tr>
<th>State</th>
<th>Date of deposit of instrument of ratification</th>
<th>Date of deposit of instrument of accession</th>
<th>Date of entry into force</th>
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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 is 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 was accompanied by a Declaration.

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,

### Protocol on Environmental Protection to the Antarctic Treaty

Signed at Madrid on October 4, 1991

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* Signed at Madrid on October 4, 1991; thereafter at Washington until October 3, 1992. The Protocol will enter into force initially on the thirtieth day following the date of deposit of instruments of ratification, acceptance, approval or accession by all States which were Antarctic Treaty Consultative Parties at the date on which this Protocol was adopted. (Article 23)

** Adopted at Bonn on October 17, 1991 at XVIIth 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.

Department of State,
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

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* IV-6, IV-10, IV-12, and V-5 terminated by VIII-2

*** Accepted as interim guideline
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

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* Management Plans annexed to this Measure were deemed to have been approved 90 days after the close of the meeting at which the Measure was adopted, in accordance with Article 6(1) of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty and the Measure not specifying a different approval method.

** Management Plans annexed to Measure 2 and the revised and updated List of Historic Sites and Monuments annexed to Measure 3 were deemed to have been approved 90 days after the close of the meeting at which the Measures were adopted, in accordance with Article 6(1) and Article 8(2), respectively, of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty and the Measures not specifying a different approval method.

Office of the Assistant Legal Adviser for Treaty Affairs
Department of State
REPORT BY THE CCAMLR OBSERVER AT THE TWENTY-SEVENTH ANTARCTIC CONSULTATIVE PARTY MEETING

1. During its Twenty-Second Meeting (27 October to 7 November 2003), the Commission for the Conservation Antarctic Marine Living Resources (CCAMLR) addressed a wide range of issues, most notably:

   - Illegal, unreported and unregulated (IUU) fishing in the Convention Area;
   - Implementation of the Catch Documentation Scheme (CDS) for *Dissostichus* spp.;
   - Development of a pilot centralized vessel monitoring system (e-VMS);
   - Compilation of a list of vessels engaged in IUU fishing;
   - Further development of an electronic-based catch document system (e-CDS);
   - Further development of an integrated fisheries management framework;
   - Management of the krill fishery in the Atlantic sector of the Southern Ocean;
   - Development of ecosystem management, including decision making;
   - Elimination of seabird by-catch in longline fisheries, and
   - Co-operation with various international organizations including the FAO, ATCM and CITES.

2. These issues are relevant to several items on the agendas of ATCM-27 and CEP-VII.

Fisheries in 2002-2003

3. Fisheries in the CCAMLR Convention Area during 2002-2003 targeted Patagonian and Antarctic Toothfish (*Dissostichus eleginoides* and *D. mawsoni*), mackerel icefish (*Champsocephalus gunnari*) and krill (*Euphausia superba*).

4. The reported finfish catch was 21 936 tonnes in 2002/2003, compared to 21 113 tonnes in 2001/2002. *Dissostichus* spp. (Toothfish), predominantly from longlining, accounted for 16 808 tonnes in 2002/2003, compared to 16 019 tonnes in the previous season. It is believed that, in addition to reported catches, some 10 070 tonnes of *Dissostichus* spp were taken as a result of IUU fishing in the Convention Area during 2002/2003, compared with 10 898 tonnes in 2001/2002.
4. The reported catch of krill in 2002/2003 was 110 334 tonnes until 3 October 2003, compared to 118 705 tonnes in the previous season.

The annual krill catch has remained relatively stable since 1992/93 in the range 80 000 to 120 000 tonnes. The projected krill catch for the 2003/04 season is 30% higher than the 2002/03 season.


**IllegaL, Unregulated and Unreported (IUU) Fishing in the Convention Area**

7. IUU fishing for Patagonian Toothfish (*Dissostichus eleginoides*) in the Convention Area has been a major issue for the Commission over the past seven years (1997–2004). At its past three meetings, CCAMLR has attached high priority to eliminating IUU fishing in the Convention Area. It continues to develop and implement an integrated suite of administrative, political and enforcement-related measures aimed at eliminating the problem in the Convention Area and at ensuring that fishing in closely adjacent areas follows international best practice.

8. CCAMLR annually reviews Members’ implementation of enforcement-related measures and evaluates their performance in combating IUU fishing in the Convention Area.

9. The above initiatives have taken place against a background of vigorous action by individual CCAMLR Contracting Parties to combat IUU fishing in areas under their national jurisdiction. Key examples of such action include the arrest of the fishing vessel Viarsa by the Australian authorities after a 21-day (3000 n. mile) “hot pursuit” and extensive legal steps against illegal Toothfish operators by the United State and South Africa.

10. In addition to the Catch Documentation Scheme (CDS) for *Dissostichus* spp. (see paragraphs 15-24 below) and measures to manage specific fisheries directly (e.g. setting catch limits and other conditions affecting fishing), CCAMLR conservation and management measures include:

   - **The CCAMLR System of Inspection:**
   - **Scheme to Promote Compliance by both Contracting and Non-Contracting Party Vessels, including provisions for compiling a list of IUU vessels;**
   - **Licensing and Inspection Obligations of Contracting Parties with regard to their Flag Vessels Operating in the Convention Area;**
   - **Procedures for port inspections of vessels carrying Toothfish;**
   - **Marking of Fishing Vessels and Fishing Gear;**
• Automated Satellite-Linked Vessel Monitoring Systems (VMS); and

• Various Resolutions – (a) “Banning Driftnet Fishing in the Convention Area”, (b) “Harvesting Species Occurring Both within and Outside the Convention Area”, (c) “Implementation of the CDS by Accessing States and Non-Contracting Parties”, (d) “Use of Ports not Implementing the CDS”, (e) “Application of VMS in the CDS”, (f) “Use of VMS and Other Measures to Verify CDS Catch Data for Areas Outside the Convention Area, Especially FAO Statistical Area 51; (g) “Harvesting of D. eleginoides in Areas Outside Coastal State Jurisdiction Adjacent to the Convention Area in FAO Statistical Areas 51 and 57, and (h) “Vessels Flying Flags of Non-Compliance and Ice Strengthening Standards in High Latitude Fisheries”.

11. To facilitate exchange of relevant information amongst its Members, CCAMLR maintains a database on vessels known to have fished in contravention of CCAMLR Conservation Measures. It has also initiated a pilot program to set up a centralized, satellite-based vessel monitoring system (c-VMS) in the CCAMLR Secretariat.

12. CCAMLR has welcomed the entry into force of such international instruments as the 1995 Fish Stock Agreement and FAO Compliance Agreement. It has urged its Members to accept and ratify these Agreements and to promote implementation of the Code of Conduct for Responsible Fisheries and the International Plans of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) and For Reducing Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds). In particular, effective implementation of the former is essential for combating IUU fishing in the Convention Area.

13. CCAMLR continues to provide input into the FAO’s work on IUU fishing and encourages all its Members to participate in this work to ensure that a comprehensive and integrated international approach to the problem is developed (see also paragraphs 39 to 41 below).

14. CCAMLR continues to request international and regional fisheries organisations, especially those with responsibility for waters adjacent to the Convention Area, to participate in the exchange of information on such issues as IUU fishing and other matters relevant to CCAMLR (e.g. seabird by-catch, see paragraph 32 below).

CCAMLR Catch Documentation Scheme for Dissostichus spp.

15. Implementation of the CDS (which became binding on CCAMLR Members on 7 May 2000) has been one of the most important steps taken by CCAMLR to address IUU fishing in the Convention Area. The Scheme is designed to track Toothfish landings and trade flows from catches in the Area and, where possible, adjacent waters. It strives to identify the origin of Toothfish entering the markets of all Parties to the Scheme so as to facilitate determination of whether catches in the Convention Area have been taken in a manner consistent with CCAMLR’s Conservation Measures.

16. During 2003, development of the CDS continued, with:
- Further development of a pilot scheme to develop an electronically-based CDS, and
- Development of various other enforcement measures (see paragraph 10 above).

17. Non-Contracting Parties cooperating in the implementation, or partial implementation, of the CDS include the People’s Republic of China, Republic of Mauritius, Republic of Seychelles and the Republic of Singapore. Positive contacts continue with a number of other Non-Contracting Parties, most of which participate in Toothfish trade.

18. By January 2004, about 8600 Dissostichus Catch Documents (DCDs) and 14 000 Export and Re-Export documents have been issued by CDS Flag States. Copies of these are verified whenever a shipment of Toothfish is traded to allow all Contracting and CDS Parties (fishing or not fishing for Toothfish) to track such trade across their borders.

19. CDS information is processed and analyzed to assess the volume and location of Toothfish trade. It also gives some indication of fish taken legally and provides a barrier to fish taken illegally entering the marketplace.

20. The CCAMLR Secretariat has developed as system to process, store and access CDS information. This system takes into account the Scheme’s immediate objectives as well as its future potential for integration into a suite of related compliance and enforcement measures. The relevant information is available in close to real-time on the CCAMLR Website so allowing CDS participants to assess the veracity of reported Toothfish landings. On-going development of the e-CDS system clearly illustrates CCAMLR’s commitment to improving the CDS’ effective implementation overall.

21. Application of the CDS has prevented a number of Toothfish landings and transshipments in the absence of valid DCDs and has identified fraudulent Documents. There is evidence to indicate that introduction of the CDS has made trading in illegally-caught fish less profitable since such higher prices are generally paid for fish accompanied by valid DCDs.

22. CCAMLR promotes the on-going use of the CDS and provides information on its implementation to various intergovernmental and non-governmental fisheries, environmental and scientific organizations. These include: FAO, IOC, IWC, SCAR, SCOR, NAFO, ICCAT, FFA, CCSBT, SPIC, I-ATTC, WTO, ASOC, IUCN and UNEP.

23. Having noted the decisions and outcome of the Eighth Session of the COFI Sub-Committee on Fish Trade held in Bremen in February 2002, CCAMLR has fully endorsed the development of uniform catch documentation and reporting measures that make use of appropriate technologies (as demonstrated by CCAMLR’s development of the e-CDS noted in paragraph 20 above). CCAMLR continues to improve co-operation with the WTO and World Customs Organization (WCO), particularly the latter, in developing and implementing harmonized customs code for Toothfish products.

24. Finally, attention is again drawn to various resolutions identified in paragraph 11 which strive to improve the CDS’s broader application. Attention is also drawn to CCAMLR’s on-going
efforts to improve co-operation with CITES in respect of broadening the CDS’ implementation.

Development of an Integrated Fisheries Management Framework
25. CCAMLR continues to pursue the development of an integrated fisheries management framework. Fishery Plans have been produced for all key fisheries in the Convention Area, particularly the krill, Toothfish and icefish fisheries.

Ecosystem Management and Decision Making
26. The CCAMLR Ecosystem Monitoring Programme (CEMP) collects long-term data from various Antarctic marine ecosystem components as well as the environment. Such data are used in analyses to provide annual assessments of ecosystem status. Advice on long-term ecosystem trends and changes can then be incorporated into management advice.

27. The CCAMLR scientific community continues to explore ways in which ecosystem advice (such as described in paragraph 26 above) can be formally incorporated into management decisions. CEMP was reviewed at a workshop in 2003 and efforts to study functional relationships between krill and its dominant predators continue. The latter will be the topic of scientific workshop in mid-2004 while a workshop in February 2004 continued examining the application of small-scale management units as a means to approach and study relationships between krill, krill predators and the fishery.

Seabird By-catch in Longline and Trawl Fisheries
28. Over the past few years CCAMLR has taken a leading role in the creation and implementation of measures to reduce seabird mortality during longline fishing. Many of CCAMLR’s measures, particularly the provisions of Conservation Measure 25-03 (first adopted in 1992 as Conservation Measure 29), have been incorporated into the FAO International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds) adopted by COFI. A number of CCAMLR Members have also developed and implemented national plans of action to address the seabird by catch issue.

29. Compliance with the provisions of CCAMLR Conservation Measure 25-02 has improved to such an extent that seabird by-catch levels in regulated fisheries in the Convention Area are now extremely low. However, there is still considerable concern about the levels of such by-catch attributable to the IUU fishery. Furthermore, many of the important species breeding in the Convention Area (particularly albatrosses and petrels) remain affected by high levels of mortality associated with longline fishing on a global basis. To this extent, CCAMLR has supported, and has urged its Members to support, the entry into force of the Agreement on the Conservation of Albatrosses and Petrels (ACAP).

30. CCAMLR’s efforts to reduce seabird by-catch continue to require, or strive for:

- Compulsory placement of international and scientific observes on board all vessels licensed to fish in the Convention Area;
• Full compliance with mitigation measures set out in CCAMLR Conservation Measure 25-02, especially suitable line weighting, and
• Continuing development of underwater longline setting devices.

31. CCAMLR also monitors incidental by-catch of seabirds and marine mammals in trawl fisheries for krill and finfish. Conservation Measure 25-03 has been substantially revised to include regulations on offal disposal, cleaning of nets before shooting and minimizing the time that the net is lying on the surface. This Measure also encourages Members to develop gear configurations to minimise the chance of birds encountering the part of the net to which they are most vulnerable.

32. CCAMLR exchanges information with various international fisheries and conservation organizations on the prevention of seabird incidental mortality during fishing operations, the state of Antarctic seabird populations, incidental catches of seabirds in these fisheries, CCAMLR experience with mitigating techniques and the formulation of associated conservation action. In this respect emphasis is being given to high seas areas adjacent to the Convention Area and to species falling within CCAMLR’s management remit. In the latter regard, CCAMLR has approached a number of other RFO’s (particularly those managing tuna, such as ICCAT, IOTC and CCSBT) in an effort to secure more global information on incidental by-catch of seabird species breeding in the Convention Area. It should be noted that many of these organizations do not mandate the collection of such data.

Co-Operation with Non-CCAMLR Contracting Parties (NCPs)
33. In applying the CDS, CCAMLR has done much to encourage, and liaise with, a number of NCPs considered to have an interest in CCAMLR’s work or in the resources that it manages. Such encouragement has included inviting NCPs to attend and participate in CCAMLR meetings under Rule 30(c) of the Commission’s Rules of Procedure.

34. The above does not only promote transparency in CCAMLR’s activities, but has also enabled the Commission’s membership and work to expand. A clear example of the former was evidenced by Namibia becoming the 24th Commission Member in 2001.

35. Co-operation with NCPs assists CCAMLR to manage better the resources for which it is responsible. Not only is awareness of CCAMLR Conservation Measures enhanced, the organization’s status as a regional management body of repute is promoted in keeping with the more global responsibilities of a number of recent environmental/fisheries agreements (most notably the United Nations Fish Stock Agreement which entered into force in December 2001).

36. CCAMLR is considering ways that Developing States can be encouraged to participate in its work and be invited to the Commission’s meetings. It has noted the concerns of its Standing Committee on Administration and Finance on the financial problems encountered by Developing States invited to Commission meetings. The Commission has agreed that access to special-purpose trust funds in the UN system should be considered as a way to facilitate the attendance of such States at its meetings.
CCAMLR Rules of Data Access
37. CCAMLR has revised its rules governing access to, and use of, data held in its Database. Copies of the new rules are available from the CCAMLR Secretariat (email: ccamlr@ccamlr.org) or on the CCAMLR Website (http://www.ccamlr.org).

CCAMLR Educational Package
38. CCAMLR has embarked on the development of a web-based educational package.

Co-Operation with Other International Organizations
39. FAO is one of several international organizations explicitly referred to in Article XXIII of the Convention, as an organization with which CCAMLR should cooperate.

Both the CCAMLR Commission and Scientific Committee continue to enjoy a productive cooperative working relationship with FAO in general and with several FAO-sponsored activities such as the work of the Coordinating Working Party on Fisheries Statistics (CWP), the Sub-Committee on Fish Trade and the Meeting of the Regional Fisheries Bodies, in particular.

40. As highlighted last year, CCAMLR is continuing development of an institutional plan of action to address IUU fishing (CPOA-IUU) consistent with that produced by FAO and outlined in FAO Technical Guidelines for Responsible Fisheries No. 9.

41. Along with FAO and a number of other sponsors, CCAMLR co-sponsored the Conference on the Management and Governance of Deep-Sea Fisheries held in Queenstown, New Zealand in December 2003.

Co-Operation with the ATCM
42. CCAMLR has expressed satisfaction in the growing co-operation between CCAMLR, and the ATCM/CEP

43. The CCAMLR Secretariat continues to provide advice on development of the Antarctic Treaty Secretariat in Buenos Aires. Subject to Paragraph 8 of ATCM-XXVI Decision 2, voluntary contributions to be used in the setting up of the Treaty Secretariat are to be paid to a temporary, interest-bearing account, held by the CCAMLR Secretariat. This account was established in November 2003. It will remain open until the monies are transferred to the Treaty Secretariat under the conditions of Decision 2 above.

44. CCAMLR has expressed interest in the CEP’s current debate on Antarctic Protected Species.

45. It has also noted the participation of the CCAMLR Scientific Committee Chair in the CEP Intersessional Contact Group on the State of the Antarctic Environment Report.
CCAMLR-XXII adopted a resolution (Resolution 20/XXII) on ice-strengthening standards in high-latitude fisheries. This implies a minimum acceptable safety standard of ICE-IC (as defined in the Det Norske Veritas [DNV] Rules for Classification of Ships or an equivalent standard of certification as defined by a recognized classification authority) should be required for vessels licensed by CCAMLR Members to fish in the Convention Area.

CCAMLR has adopted terms of reference for an Advisory Subgroup on Protected Areas to advice its Scientific Committee. The Subgroup’s tasks include developing advice on draft ASPA and ASMA management plans that include marine elements and which have been forwarded to CCAMLR by the ATCM following the agreed procedures. It will also consider marine protected areas that might be established under Article IX.2(g) of the CAMLR Convention.

Finally, it should be noted that the Management Plan for ASPA No. 145 (Deception Island) has been referred by CCAMLR to its Subgroup on Protected Areas for review at this year’s meeting of the Working Group on Ecosystem Monitoring and Management’s in July 2004. Consequently, CCAMLR’s advice on this particular Management Plan is not available at ATCM-XXVII
REPORT BY THE HEAD OF THE AUSTRALIAN DELEGATION IN HIS CAPACITY AS REPRESENTATIVE OF THE DEPOSITARY GOVERNMENT FOR THE CONVENTION ON THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES TO THE TWENTY-SEVENTH ANTARCTIC TREATY CONSULTATIVE MEETING

1. Australia, as depositary Government to the Convention for the Conservation of Antarctic Marine Living Resources 1980 (the Convention) is pleased to report to the Twenty-Seventh Antarctic Treaty Consultative Meeting on the status of the Convention.

2. Australia advises the Antarctic Treaty Parties that, since the Twenty-Sixth Antarctic Treaty Consultative Meeting, no States have acceded to the Convention in accordance with Article XXVI of the Convention, nor have any States become members of the Commission for the Convention of Antarctic Marine Living Resources, in accordance with VII(2) of the Convention.

3. A copy of the status list for the Convention is available to States Parties to the Convention through Australian diplomatic missions, as well as via the internet on the Australian Treaties Database at the following internet address:

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

Submitted by the United Kingdom

This report covers events regarding the Convention for the Conservation of Antarctic Seals (CCAS) for the reporting year 1 March 2002 to 28 February 2003.

The summary at Annex A lists all capturing and killing of Antarctic seals by Contracting Parties to CCAS during the reporting period. A report of events in the 2003 – 2004 year will be submitted to ATCM XXVIII, once the June 2004 deadline for exchange of information has passed.

The United Kingdom would like to remind Contracting Parties to CCAS that the reporting period for the Exchange of Information is from 1 March to the end of February each year. The reporting period was changed to the above dates during the September 1988 Meeting to Review the Operation of the Convention. This is documented in Paragraph 19(a) of the Report of that Meeting.

The Exchange of Information, referred to in Paragraph 6(a) in the Annex to the Convention, should be submitted to other Contracting Parties and to SCAR by 30 June each year, including nil returns. Currently, not all the information required in paragraph 6(a) is being provided. Neither is it being provided on time or with any regularity. The accuracy of the CCAS figures is therefore being compromised.

Since ATCM XXIII there have been no accessions to CCAS. A list of countries which were original signatories to the Convention, and countries which have subsequently acceded is attached to this report (Annex B).
ANNEX A

CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS (CCAS)

Synopsis of reporting in accordance with Article 5 and the Annex of the Convention: Capturing and killing of seals during the period 1 March 2002 to 28 February 2003.

<table>
<thead>
<tr>
<th>Contracting Party</th>
<th>Antarctic Seals Captured</th>
<th>Antarctic Seals Killed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>166(^a)</td>
<td>Nil</td>
</tr>
<tr>
<td>Australia</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Belgium*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Brazil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Canada</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Chile</td>
<td>898(^b)</td>
<td>Nil</td>
</tr>
<tr>
<td>France*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Germany</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Italy*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Japan</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Norway*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Russia*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Poland</td>
<td>32(^c)</td>
<td>Not stated</td>
</tr>
<tr>
<td>South Africa</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>United States of America</td>
<td>Up to 1205(^d)</td>
<td>1</td>
</tr>
</tbody>
</table>

* No report returned

\(^a\) All Elephant Seal pups

\(^b\) All Antarctic Fur seals

\(^c\) This number comprised 26 living and 6 dead seals (type unspecified)

\(^d\) This number comprised up to 440 Weddell seals, up to 720 Antarctic Fur seals, up to 10 Leopard seals, up to 25 Crabeater seals and up to 10 Ross seals.

All reported capturing and killing was for scientific research.
## 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)

<table>
<thead>
<tr>
<th>State</th>
<th>Date of Signature</th>
<th>Date of deposit (Ratification or Acceptance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina¹</td>
<td>9 June 1972</td>
<td>7 March 1978</td>
</tr>
<tr>
<td>Australia</td>
<td>5 October 1972</td>
<td>1 July 1987</td>
</tr>
<tr>
<td>Belgium</td>
<td>9 June 1972</td>
<td>9 February 1978</td>
</tr>
<tr>
<td>Chile¹</td>
<td>28 December 1972</td>
<td>7 February 1980</td>
</tr>
<tr>
<td>France²</td>
<td>19 December 1972</td>
<td>19 February 1975</td>
</tr>
<tr>
<td>Japan</td>
<td>28 December 1972</td>
<td>28 August 1980</td>
</tr>
<tr>
<td>Norway</td>
<td>9 June 1972</td>
<td>10 December 1973</td>
</tr>
<tr>
<td>Russia³,⁴</td>
<td>9 June 1972</td>
<td>8 February 1978</td>
</tr>
<tr>
<td>South Africa</td>
<td>9 June 1972</td>
<td>15 August 1972</td>
</tr>
<tr>
<td>United Kingdom²</td>
<td>9 June 1972</td>
<td>10 September 1974¹</td>
</tr>
<tr>
<td>United States of America³</td>
<td>28 June 1972</td>
<td>19 January 1977</td>
</tr>
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### ACCESSIONS

<table>
<thead>
<tr>
<th>State</th>
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<tr>
<td>Brazil</td>
<td>11 February 1991</td>
</tr>
<tr>
<td>Canada</td>
<td>4 October 1990</td>
</tr>
<tr>
<td>Germany, Federal Republic of</td>
<td>30 September 1987</td>
</tr>
<tr>
<td>Italy</td>
<td>2 April 1992</td>
</tr>
<tr>
<td>Poland</td>
<td>15 August 1980</td>
</tr>
</tbody>
</table>

¹ Declaration or Reservation  
² Objection  
³ The instrument of ratification included the Channel Islands and the Isle of Man  
⁴ Former USSR

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Polar Regions Unit  
Overseas Territories Department  
Foreign and Commonwealth Office  
London SW1A 2AH  
United Kingdom
SCAR REPORT TO XXVII ATCM

Cape Town, South Africa
24 May – 4 June 2004

Report under Recommendation XIII-2

Introduction

Since XXVI ATCM in Madrid, Spain, June 2003, the SCAR Executive Committee met in Brest, France, during July 2003 in conjunction with the XV COMNAP annual meeting. At this time a joint meeting was held with the COMNAP Executive Committee. Further meetings were held in Cambridge, United Kingdom, August 2003 and in Bremerhaven, Germany, January 2004. In August 2003, interviews were held for the new post of Executive Director of SCAR and Dr Colin P Summerhayes was appointed. He took up the post part-time from 1 January 2004 by courtesy of IOC–UNESCO and from 1 April 2004 he has been employed full-time at the SCAR Secretariat in Cambridge.

With the appointment of the Executive Director, SCAR has implemented all but one of the recommendations of the ad hoc Group on SCAR Organization and Structure adopted by the SCAR Delegates at the biennial XXVII SCAR meeting in Shanghai during July 2002. The final recommendation will be implemented this year with the new structure for the biennial SCAR Meeting. The first week of the meeting will be held in Bremen, Germany, 25–31 July 2004. This will comprise the SCAR Open Science Conference under the title “Antarctica and the Southern Ocean in the Global System” during the first three days of the week with the new Scientific Standing Groups (SSGs) holding their business meetings around the Conference. The XVI COMNAP Meeting will be held in parallel providing opportunities for interaction between the scientific and logistic Antarctic communities. The SCAR and COMNAP Executive Committees will hold a joint meeting during the week. The XXVIII SCAR Delegates Meeting will be held in Bremerhaven, Germany, 3–9 October 2004.

The International Council for Science is planning a Fourth International Polar Year (IPY4) 2007–08 to commemorate the 50th anniversary of the International Geophysical Year (IGY) 1957–58 and to highlight the key role that the polar regions now play in our understanding of the Earth System. A progress report on planning for the IPY will be presented by SCAR at this meeting on behalf of ICSU.

A new programme proposal on Subglacial Antarctic Lake Exploration (SALE) will be presented, along with other new programme proposals (see later in this report), to the XXVIII SCAR Delegates Meeting in Bremerhaven, Germany. At this ATCM there will be a presentation by SCAR on subglacial lake exploration in Antarctica and this will be supported by an Information Paper.
Principal scientific activities

**GEOSCIENCES SSG**
Members of the SCAR Action Group on Permafrost (PAG) participated in a workshop on Antarctic Permafrost and periglacial processes at the Eighth International Conference on Permafrost, Zurich, Switzerland during July 2003.

The aim was to review current permafrost and periglacial science activities and to consider how Antarctic permafrost and periglacial science should be organized within the International Permafrost Association (IPA) and linked to other groups and programmes.

The Action Group on Communication and Outreach (COG) publishes a newsletter GeoReach for the SSG on Geosciences that is available on its website at [http://www.geoscience.scar.org/actiongroups/cog/index.htm](http://www.geoscience.scar.org/actiongroups/cog/index.htm). The Group has also been revising and up-dating its own communications networks.

The Expert Group on Geospatial Information is currently running 10 projects and has the following products: Antarctic Digital Database; SCAR Map Catalogue; King George Island GIS; SCAR Feature Catalogue; US Antarctic Resource Center; and the SCAR Composite Gazetteer. All these are readily available via the SSG Geosciences website [http://www.geoscience.scar.org/products.htm](http://www.geoscience.scar.org/products.htm) and may be of use to the CEP.

The Action Group on Acoustics in the Marine Environment held a workshop in Cambridge during May 2004 to consider the report of the Berlin Workshop and other matters raised since the original SCAR Workshop in 2001. An Information Paper will be tabled at this meeting and a revised edition of the original SCAR report will be published in due course.

The Scientific Programme Planning Group on Cenozoic Antarctic Climate Evolution (CACE) is developing a new, international research initiative to study the climate and glacial history of Antarctica through palaeoclimate and ice sheet modelling investigations, purposefully integrated with terrestrial and marine geological and geophysical evidence for past changes. A draft proposal for a SCAR Scientific Research Programme was favourably received at the SCAR Executive Meeting in Brest and a full programme proposal will be submitted to the SCAR Delegates Meeting in October 2004.

This fifth SCAR Antarctic Geodesy Symposium (AGS03) was held at the Polytechnic University of Lviv, Ukraine, during September 2003, hosted by the University and the Ukrainian Antarctic Centre. The programme included 36 presentations by participants from nine SCAR countries. The symposium concluded with a business meeting on Geodetic Infrastructure for Antarctica (GIANT) at which a proposal was endorsed to study and to improve the stability of the Terrestrial Reference Frame over Antarctica as the basis for precise measurement of small tectonic motions.

The 9th International Symposium on Antarctic Earth Sciences was held in Potsdam, Germany, during September 2003. More than 170 oral papers and more than 200 poster displays were presented covering all aspects of the geological sciences in Antarctica.

During the Symposium, the Action Group on Age, Growth & Evolution of Antarctica (AGEANT) held a discussion session of AGEANT’s role. Topics included:
• Developing links, and maintenance of a common geochronology
• Compilation of comparable tectonic features and geochronological regions within continental blocks
• Integrating geophysical initiatives into continental tectonics,
• Establishing the thermal evolution of the continental crust

The programme on **Antarctic Neotectonics (ANTEC)** continues to be very active and contributed a major theme to the Symposium. The future of the programme will be reviewed at the XXVIII SCAR Delegates Meeting,

**Life Sciences SSG**

The **Expert Groups on Seals, on Birds, and on Human Biology and Medicine** have continued their intersessional work, responding, *inter alia*, to requests from SCAR to provide scientific advice to the Antarctic Treaty System on specially protected species.

These groups are now all represented on the SCAR homepage or have other links directly to their web sites, and the website for the Expert Group on Seals will be accessible in the near future.

The programme on the **Ecology of the Antarctic Sea-Ice Zone (EASIZ)** has now been completed. An EASIZ Final Symposium will be held in Korâula, Croatia, 27 October – 1 October 2004. The **IX SCAR International Biology Symposium** will be held in Curitiba, Brazil, 25 –29 July 2005. Further information on both these symposia can be found at:

http://www.nioo.knaw.nl/projects/scarlsssg/

The **Scientific Programme Planning Group on Evolutionary Biology in Antarctica** held a planning meeting in The Netherlands in early 2004 to develop a full science programme proposal for presentation to the XXVIII SCAR Delegates Meeting in October 2004. A key aspect of this programme will be to integrate it closely with the proposed programme on Cenozoic Antarctic Climate Evolution (CACE).

There is a major new proposal for a **Marine Biodiversity Information Network** that will aim to contribute to the compilation, dissemination, and integration of fundamental information on the Antarctic marine biodiversity for scientific, monitoring, management and conservation purposes. The Southern Ocean biodiversity is an important and significant component of the World marine biodiversity. The Antarctic marine region covers 10% of the World Ocean area, and is the habitat of numerous and highly adapted species. A large part of the Southern Ocean biodiversity remains unknown, in particular in the deep sea. There is a widely recognized need to establish reliable and comprehensive baseline information about marine biodiversity over the world to provide a reference state against which subsequent changes may be monitored and compared. For the Antarctic marine biodiversity (vertebrates excepted), this baseline information is still largely incomplete, widely scattered and not easily available. A number of former or current international SCAR, SCAR-related as well as national programmes and projects include a strong component of biodiversity science. These efforts have generated substantial data and results in terms of Antarctic marine biodiversity survey and an understanding of biodiversity patterns and processes.
As a preliminary step and as a feasibility study, it is proposed that, in the framework of the Belgian BIANZO project, a common web site and portal for the three Belgian Antarctic biodiversity databases should be developed with cross-links to the SCAR EASIZ web site.

SCAR has been invited to provide the Antarctic regional component to the Global International Waters Assessment (GIWA) being undertaken by the United Nations Environment Programme (UNEP). A workshop is planned to be held in Germany in conjunction with the XXVIII SCAR Meeting in Bremen at which the relevant data will be collated and a text prepared for inclusion in the GIWA global report.

Physical Sciences SSG

Under the Action Group on REference Antarctic Data for Environmental Research project (READER), digitization of the surface meteorological data has been essentially finished with the monthly mean data online and the data set is updated periodically. The main emphasis now is on the digitization of the Russian upper air data which is due for completion in the near future. The data and meta data can be accessed at:

http://www.antarctica.ac.uk/met/READER/

The Action Group on Antarctic Peninsula Tropospheric-Ionospheric Coupling (APTIC) is continuing to develop the ionospheric data base, and this should eventually include hourly values and copies of ionograms from San Martin (Argentina), Vernadsky (Ukraine) and Great Wall (China) for March, June, September and December 1996 and 1999. Copies of ionograms for San Martin and hourly values for Vernadsky are now available.

At a meeting in Rome, Italy, October 2003, devoted to research in Oceanography and Atmospheric Science it was recommended that SCAR, SCOR and IOC establish a Coordinating Group on Inter-disciplinary Southern Ocean Science (ISOS). This group would facilitate coordination between the different discipline research groups currently active in the Southern Ocean; encourage an inter-disciplinary approach to Southern Ocean observational and modelling research, recognising the inter-dependence of physical, chemical and biological processes in the ocean; identify historical and reference data sets of value to researchers; and coordinate the transfer of near real-time data (or a sub-set of such data) to operational users. The work of ISOS should greatly improve the coordination of Southern Ocean research both at the national and international levels, to the benefit of the nations and research programmes presently active there.

The Action Group on Modelling and Observational Studies of Antarctic Katabatics (MOSAK) has obtained wind data from automatic weather stations along the transect Dome C to Cape Denison, and these are being quality controlled. Once completed, streamlines will be produced and a time series analysis of a number of katabatic wind events will be carried out.
The Action Group on Antarctic Tropospheric Aerosols and their Role in Climate (ATAC) held a workshop in October 2003 to discuss future development related to the joint activities on the Aerosol Optical Depth (AOD) network in the Antarctic, originally proposed by an Italian group, together with United States, German and Japanese groups.

The Expert Group on Antarctic Astronomy and Astrophysics (AAA) and the Action Group on Plateau Astronomy Site Testing in Antarctica (PASTA) held their first formal joint meeting in Sydney following the "Future Visions for Antarctic Astronomy" workshop in Sydney on 19 July 2003. This workshop coincided with the XXV General Assembly of the International Astronomical Union, bringing together as many as 2000 astronomers from around the world.

The Expert Group on Operational Meteorology in the Antarctic produced a digital version of the International Antarctic Weather Forecasting Handbook that has been widely distributed on CD-ROM. This has now been published in book form with generous financial assistance from WMO.


The VII SCAR International Symposium on Antarctic Glaciology (ISAG 7) was held in Milan, Italy, 25–29 August 2003. More than 250 abstracts were submitted for presentation covering a wide spectrum of Antarctic glaciological research. The proceedings of the symposium will be published in the Annals of Glaciology.

A detailed report of the recommendations of the Expert Group on Ice Sheet Mass Balance and Sea Level (ISMASS) has been submitted for publication in a “Global and Planetary Change” Special Issue on “Ice Sheet mass balance and Neotectonics”. More than 50 papers submitted for presentation to the Seventh SCAR International Symposium on Antarctic Glaciology (ISAG7), Milan, Italy, August 2003 were concerned with Antarctic Ice Sheet mass balance.

The Scientific Programme Planning Group on Antarctica and the Global Climate System (AGCS) is developing a new programme that will seek to answer key questions concerning extrapolar/Antarctic coupling:

- How does variability of tropical and mid-latitude atmospheric and oceanic conditions modulate the Antarctic climate?
- What are the mechanisms that transfer the tropical signals to the Antarctic?
- What are the relative roles of the ocean and atmosphere in this transfer?
- How can we relate signals in ice cores, Antarctic sea ice and the Antarctic atmospheric circulation to the varying extra-polar signals?

The Scientific Programme Planning Group on Inter-hemispheric Conjugacy on Environmental, Solar–Terrestrial and Atmospheric Research (ICESTAR) is developing a proposal for an international research programme for coordinated bi-polar research in the field of solar-terrestrial physics and polar aeronomy. The programme will focus for the first time on quantification of various mechanisms that control bi-polar regional differences (or commonalities) in the magnetosphere–ionosphere coupling and corresponding upper atmospheric phenomena over both the northern and southern polar regions. It is proposed that SCAR will lead this new programme in collaboration with the International Arctic Science Committee (IASC).
Both these programme proposals will be presented to the XXVIII SCAR Delegates Meeting for adoption.

**Antarctic data**

The Antarctic Master Directory (AMD) is hosted by the Global Change Master Directory (GCMD) on behalf of SCAR.

The AMD holds metadata (descriptions of Antarctic data sets and how to access them). The number of entries is steadily increasing as these are processed into the correct format by staff of the GCMD. The number of “hits” to the AMD is also increasing as more scientists and others make use of this valuable resource. The AMD can be accessed at:

http://gcmd.gsfc.nasa.gov/Data/portals/amd/

**International Relations**

In addition to those international organizations mentioned earlier, SCAR also has active links with the International Geosphere-Biosphere Programme (IGBP); the World Climate Research Programme (WCRP); the International Arctic Science Committee (IASC); and other ICSU bodies.

SCAR is also seeking co-sponsorship of the WCRP’s Climate and Cryosphere (CliC) programme and the IGBP-SCOR-IOC Southern Ocean – Global Ocean Ecosystems Dynamics (SO-GLOBEC) project. Such international links are expected to increase as the IPY programme develops and enters its operational phase.

**SCAR website**

In addition to those websites specified in this report, further information on all SCAR and SCAR-related activities can be reached via the SCAR website at:

http://www.scar.org
Appendix 1

MEMBERSHIP OF SCAR

<table>
<thead>
<tr>
<th>Full members:</th>
<th>Date of admission to Associate Membership</th>
<th>Date of admission to Full Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td></td>
<td>3 February 1958</td>
</tr>
<tr>
<td>Australia</td>
<td></td>
<td>3 February 1958</td>
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<tr>
<td>Belgium</td>
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<td>3 February 1958</td>
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<tr>
<td>Chile</td>
<td>3 February 1958</td>
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<tr>
<td>France</td>
<td>3 February 1958</td>
<td></td>
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<tr>
<td>Japan</td>
<td>3 February 1958</td>
<td></td>
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<tr>
<td>New Zealand</td>
<td></td>
<td>3 February 1958</td>
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<tr>
<td>Norway</td>
<td>3 February 1958</td>
<td></td>
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<tr>
<td>South Africa</td>
<td></td>
<td>3 February 1958</td>
</tr>
<tr>
<td>Russia (formerly Union of Soviet Socialist Republics)</td>
<td></td>
<td>3 February 1958</td>
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<tr>
<td>United Kingdom</td>
<td></td>
<td>3 February 1958</td>
</tr>
<tr>
<td>United States of America</td>
<td></td>
<td>3 February 1958</td>
</tr>
<tr>
<td>Germany (including former German Democratic Republic)</td>
<td></td>
<td>22 May 1978</td>
</tr>
<tr>
<td>Poland</td>
<td>22 May 1978</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>1 October 1984</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>1 October 1984</td>
<td></td>
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<tr>
<td>China</td>
<td>23 June 1986</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>(24 March 1987)</td>
<td>12 September 1988</td>
</tr>
<tr>
<td>Italy</td>
<td>(19 May 1987)</td>
<td>12 September 1988</td>
</tr>
<tr>
<td>Uruguay</td>
<td>(29 July 1987)</td>
<td>12 September 1988</td>
</tr>
<tr>
<td>Spain</td>
<td>15 January 1987</td>
<td>23 July 1990</td>
</tr>
<tr>
<td>Netherlands</td>
<td>(20 May 1987)</td>
<td>23 July 1990</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>(18 December 1987)</td>
<td>23 July 1990</td>
</tr>
<tr>
<td>Finland</td>
<td>(1 July 1988)</td>
<td>23 July 1990</td>
</tr>
<tr>
<td>Ecuador</td>
<td>(12 September 1988)</td>
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</tr>
<tr>
<td>Canada</td>
<td>(5 September 1994)</td>
<td>27 July 1999</td>
</tr>
<tr>
<td>Peru</td>
<td>(14 April 1987)</td>
<td>22 July 2002</td>
</tr>
</tbody>
</table>

Associate Members:

| Switzerland                      | 16 June 1987                               |                                     |
| Pakistan                         | 15 June 1992                               |                                     |
| Ukraine                          | 5 September 1994                           |                                     |
| Bulgaria                         | 5 March 1995                               |                                     |

ICSU Union Members

| IGU     | International Geographical Union         |
| IUBS    | International Union of Biological Sciences |
| IUGG    | International Union of Geodesy and Geophysics |
| IUGS    | International Union of Geological Sciences |
| IUPAC   | International Union of Pure and Applied Chemistry |
| IUPS    | International Union of Physiological Sciences |
| URSI    | Union Radio Scientifique Internationale  |
Appendix 2

SCAR EXECUTIVE COMMITTEE

President
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E-mail: cps32@cam.ac.uk

Executive Secretary
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Appendix 3

SCAR CHIEF OFFICERS

STANDING SCIENTIFIC GROUPS

Geosciences
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E-mail: j.turner@bas.ac.uk

STANDING COMMITTEES

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Finance
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SCAR–COMNAP Joint Committee on Antarctic Data Management
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E-mail: d.peterson@antarcticanz.govt.nz
**Appendix 4**

**LIST OF ACRONYMS AND ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>Antarctic Astronomy and Astrophysics</td>
</tr>
<tr>
<td>AGCS</td>
<td>Antarctica and the Global Climate System</td>
</tr>
<tr>
<td>AGEANT</td>
<td>Age, Growth &amp; Evolution of Antarctica</td>
</tr>
<tr>
<td>AGS03</td>
<td>Antarctic Geodesy Symposium</td>
</tr>
<tr>
<td>AMD</td>
<td>Antarctic Master Directory</td>
</tr>
<tr>
<td>ANTEC</td>
<td>Antarctic Neotectonics</td>
</tr>
<tr>
<td>AOD</td>
<td>Aerosol Optical Depth</td>
</tr>
<tr>
<td>APTIC</td>
<td>Antarctic Peninsula Tropospheric–Ionospheric Coupling</td>
</tr>
<tr>
<td>ATAC</td>
<td>Antarctic Tropospheric Aerosols and their Role in Climate</td>
</tr>
<tr>
<td>ATCM</td>
<td>Antarctic Treaty Consultative Meeting</td>
</tr>
<tr>
<td>BIANZO</td>
<td>Biodiversity of Antarctic Zoobenthos</td>
</tr>
<tr>
<td>CACE</td>
<td>Cenozoic Antarctic Climate Evolution</td>
</tr>
<tr>
<td>CEP</td>
<td>Committee for Environmental Protection</td>
</tr>
<tr>
<td>CD-ROM</td>
<td>Compact Disc – Read Only Memory</td>
</tr>
<tr>
<td>CliC</td>
<td>Climate and Cryosphere</td>
</tr>
<tr>
<td>COG</td>
<td>Communication and Outreach</td>
</tr>
<tr>
<td>COMNAP</td>
<td>Council of Managers of National Antarctic Programmes</td>
</tr>
<tr>
<td>EASIZ</td>
<td>Ecology of the Antarctic Sea-Ice Zone</td>
</tr>
<tr>
<td>EBA</td>
<td>Evolution and Biodiversity in Antarctica</td>
</tr>
<tr>
<td>GCMD</td>
<td>Global Change Master Directory</td>
</tr>
<tr>
<td>GIANT</td>
<td>Geodetic Infrastructure for Antarctica</td>
</tr>
<tr>
<td>GIWA</td>
<td>Global International Waters Assessment</td>
</tr>
<tr>
<td>IASC</td>
<td>International Arctic Science Committee</td>
</tr>
<tr>
<td>ICESTAR</td>
<td>Inter-hemispheric Conjugacy on Environmental, Solar–Terrestrial and Atmospheric Research</td>
</tr>
<tr>
<td>ICSU</td>
<td>International Council for Science</td>
</tr>
<tr>
<td>IGBP</td>
<td>International Geosphere–Biospheres Programme</td>
</tr>
<tr>
<td>IGU</td>
<td>International Geographical Union</td>
</tr>
<tr>
<td>IGY</td>
<td>International Geophysical Year</td>
</tr>
<tr>
<td>IOC</td>
<td>Intergovernmental Oceanographic Commission</td>
</tr>
<tr>
<td>IPA</td>
<td>International Permafrost Association</td>
</tr>
<tr>
<td>IPY</td>
<td>International Polar Year</td>
</tr>
<tr>
<td>ISAG</td>
<td>International Symposium on Antarctic Glaciology</td>
</tr>
<tr>
<td>ISMASS</td>
<td>Ice Sheet Mass Balance and Sea Level</td>
</tr>
<tr>
<td>ISOS</td>
<td>Inter-disciplinary Southern Ocean Science</td>
</tr>
<tr>
<td>IUBS</td>
<td>International Union of Biological Sciences</td>
</tr>
<tr>
<td>IUGG</td>
<td>International Union of Geodesy and Geophysics</td>
</tr>
<tr>
<td>IUGS</td>
<td>International Union of Geological Sciences</td>
</tr>
</tbody>
</table>
Appendix 5

SCAR PAPERS SCHEDULED TO BE PRESENTED TO XXVII ATCM

Information Papers
SCAR Report to XXVII ATCM
Antarctic Specially Protected Species
Marine Acoustic Technology and the Antarctic Environment
Progress with planning the International Polar Year 2007–2008
Subglacial Lakes of Antarctica
COMNAP REPORT TO ATCM XXVII

INTRODUCTION

1. COMNAP was established in 1988. It serves as a forum in which the directors and logistics managers of the National Antarctic Programs develop practices that improve the effectiveness of their activities pursuant to the Antarctic Treaty and the associated Environmental Protocol. COMNAP includes a permanent Standing Committee on Antarctic Logistics and Operations (SCALOP) and a number of task-oriented Working Groups and Networks. Appendix 1 provides the current terms of reference and membership of COMNAP’s groups and networks.

2. As part of COMNAP’s responsibilities to the Antarctic Treaty System (ATS), COMNAP also provides input to ATS discussions derived from its operational experience and carries out analyses in response to requests from the Treaty System.

CURRENT AND RECENT ACTIVITIES RELATED TO ATS WORK

3. The COMNAP Antarctic Environmental Officers Network (AEON) has developed a draft “Practical Guidelines for Developing and Designing Environmental Monitoring Programs”, for detailed discussion and adoption at the next COMNAP meeting. The results of this important work will be provided to ATCM XXVIII. Meanwhile, the draft guidelines can be found on the COMNAP web site at http://www.comnap.aq under the section “Environment”.

4. COMNAP participated in the March 2004 Antarctic Treaty Meeting of Experts on “Tourism and Non-Governmental Activities in Antarctica” and presented the results of a survey concerning National Program policies and interactions with tourist and NGO activity. These data will be analysed further by the COMNAP Working Group on Tourism and NGOs (TANGO) at the next meeting and our conclusions presented at ATCM XXVIII.

5. COMNAP has prepared the following papers for consideration at ATCM XXVII:
   - Working Paper ATCM XXVII / WP-010 on Guidelines for the Operation of Aircraft near Concentrations of Birds in Antarctica
   - Information Paper ATCM XXVII / IP-012 on COMNAP’s Framework and Guidelines for Emergency Response and Contingency Planning in Antarctica
   - Information Paper ATCM XXVII / IP-013 on Environmental Training in National Antarctic Programs: a Workshop between the COMNAP Networks AEON and TRAINET
   - Information Paper ATCM XXVII / IP-014 on the Interaction between National Antarctic Programs and Non-Government and Tourism Operations
   - Information Paper ATCM XXVII / IP-015 on an Analysis of Initial Environmental Evaluations (IEEs)

CONCLUSIONS from CURRENT ATS-RELATED TASKS

ATCM XXVII WP –009: Applicability to the Antarctic of the IMO “Guidelines for Ships Operating in Arctic Ice-covered Waters”

7. As requested by ATCM XXVI, COMNAP completed its ongoing work on the applicability to the Antarctic of the IMO “Guidelines for Ships Operating in Arctic Ice-Covered Waters. COMNAP has relied on its operational expertise in complying with the ATCM request to advise on modifications that would render the IMO Guidelines for Ships Operating in Arctic ice-covered waters suitable for the Antarctic. The final results of this work are presented to ATCM XXVII in Working Paper ATCM XXVII / WP-009 and appendices A and B.

- COMNAP and its Ship Operations Working Group (SHIPOPS) reaffirmed our earlier conclusions, presented in ATCM XXV / IP-040, that the IMO Arctic guidelines adequately address the shipping issues that should be addressed.
- The Working Group confirmed that a double skin around tanks carrying pollutants as required in paragraph 3.3.1 of the guidelines would provide an adequate technical standard for operations in Antarctic waters.
- The Working Group assessed that the general requirement (paragraph 3.3.2 of the Guidelines) for a full forepeak to after peak double bottom for all sizes and types of new research ships was a very stringent design requirement that should not be applied if the same standard of ship’s stability and safe floating can be ensured by other means.
- COMNAP notes that it would not be the interests of international science to increase the costs of specialised research vessels unnecessarily and wishes to draw attention to the question of whether full double bottom construction is necessary for ships operating in Antarctic waters where the same standard of safe floating and stability can be achieved by other means.

ATCM XXVII WP-010: Guidelines for the Operation of Aircraft near Concentrations of Birds in Antarctica

8. In 2002 the United Kingdom presented to CEP V Working Paper ATCM XXV / WP-026 containing proposed guidelines for the operation of aircraft near concentrations of birds in Antarctica. The Committee on Environmental Protection invited COMNAP to review the guidelines in consultation with SCAR and to report back to the CEP.

- The proposed Guidelines were discussed initially at the COMNAP annual meeting in Brest where COMNAP tasked its Air Operations Working Group (AIROPS) and Environmental Coordinating Group (ECG) with collaborating on the subsequent in-depth review. Work focused on developing practical and easy-to-use guidelines that would help aircraft operations in Antarctica to be undertaken safely with the minimal environmental impact. Pending further scientific evidence, these guidelines are considered to constitute a reasonable basis for voluntary implementation. They are based on the practical experience of researchers, including input from SCAR, and on experience derived from the national operators’ provision of logistics support to researchers.
• COMNAP recommends that aircraft operations in Antarctica should be planned and carried out in accordance with the *Guidelines for the Operation of Aircraft near Concentrations of Birds in Antarctica* presented in ATCM XXVII WP-010 to the maximum extent practicable.

**ATCM XXVII IP-012: COMNAP’s Framework and Guidelines for Emergency Response and Contingency Planning in Antarctica**

9. COMNAP’s Standing Committee on Antarctic Logistics and Operations has been working for several years to develop a Framework and Guidelines for Emergency Response Action and Contingency Planning. The document presented in IP-012 was prepared under SCALOP direction and adopted by COMNAP this past year as a methodology that should assist national programs as they prepare guidelines adapted to their particular situations.

**ATCM XXVII IP-013: Environmental Training in National Antarctic Programs**

10. The COMNAP Antarctic Environmental Officers’ Network (AEON) and Training Officers’ Network (TRAINET) held a joint workshop in July 2003 on *Environmental Education and Training in National Antarctic Programs*. The goal was to develop ways to incorporate the AEON findings into the national program’s training activities. The workshop was productive and successful, producing a *Voluntary Checklist for Environmental Training* as well as a series of recommendations and considerations that will facilitate information exchange and development of environmental training.

• The workshop outcomes are presented to ATCM XXVII in Information Paper ATCM XXVII / IP-013 on *environmental training in national Antarctic programs: a workshop between the COMNAP networks AEON and TRAINET*.

**ATCM XXVII IP-014: Interaction between National Antarctic Programs and Non-Government and Tourism Operations.**

11. ATCM XXVI Decision 5 (2003) to convene and invite COMNAP to participate in the Meeting of Experts on Tourism led us to modify the scope of our annual survey in order to provide different information on the policies and experiences of National Antarctic Programs concerning tourism activities in Antarctica. The new survey covered the five-season period from 1998/1999 to 2002/2003 and the results are summarized in IP-014.

• While COMNAP and its Tourism Working Group have not had a chance to meet and analyse the results in full detail the survey once again shows that interactions between the national operators and the portion of the tourist industry represented by IAATO function in a very satisfactory way. This is largely because COMNAP and IAATO make a great deal of effort to coordinate and exchange information with each other as they prepare and plan for their Antarctic operations.

• The survey results were compiled by the COMNAP Secretariat and discussed in detail with the Chair of the COMNAP Tourism Working Group (TANGO) and the COMNAP Chair-elect. The COMNAP chair-elect presented the findings and represented COMNAP in the discussions at the Meeting of Experts in Norway.

• As noted in paragraph 4, the Tourism Working Group will analyse the survey information in detail at the COMNAP annual meeting in Bremen this summer.
ATCM XXVII IP-015: Analysis of Initial Environmental Evaluations (IEEs)

12. Following the discussion at ATCM XXV in Warsaw of COMNAP paper IP-026, which presented some results from its Antarctic Environmental Officers Network’s (AEON) analysis of a number of Initial Environmental Evaluations, the Committee on Environmental Protection requested “that a more detailed analysis be provided which clearly identified strengths and weaknesses and gaps in the past IEEs.” AEON and the COMNAP Environmental Coordinating Group (ECG) have completed this additional task.

- Specific strengths, weaknesses and gaps requiring attention were identified in several areas. These can be found in IP-015 and its Appendix.
- While The Guidelines for Environmental Impact Assessment in Antarctica provide an excellent benchmark for best practice in Antarctic EIA, and authors should be further encouraged to consult them throughout the IEE process, establishing a methodological approach to evaluation of environmental impacts remains a challenge. Further guidance with respect to appropriate methodologies and systematic approaches to impact evaluation would be valuable.

Practical Guidelines for Developing and Designing Environmental Monitoring Programs

13. Environmental monitoring has been an important focus of the Council of Managers of National Antarctic Programs (COMNAP) work since the mid-1990s. During the 1999 COMNAP meeting in Goa, India, the Antarctic Environmental Officers Network (AEON) arranged a workshop that identified key steps in the process of developing, designing and implementing environmental monitoring programs, looked at areas where there may be gaps in the current documentation and information available to operators, and recommended that practical guidelines for developing and designing an environmental monitoring program be prepared.

14. This work, which has been advanced by AEON since then, should assist all national programs, including those with limited resources or who may not have a systematic monitoring programme in place, and will assist in minimizing human impacts on the Antarctic continent.

15. The draft “Practical Guidelines for Developing and Designing Environmental Monitoring Programs” will be tabled at COMNAP’s upcoming 2004 annual meeting for discussion and endorsement. The results will be brought to ATCM XXVIII in 2005. Meanwhile, the draft guidelines may be viewed on the COMNAP web site at http://www.comnap.aq under the section “Environment”.

Preparation of the forthcoming International Polar Year (IPY) 2007-2008


17. COMNAP officers have participated actively in planning discussions with the SCAR Executive Committee, members of the International Council of Science IPY Planning Group and with World Meteorological Organization (WMO) officials, as well as with officials of the International Arctic Science Committee (IASC) and the Forum of Arctic Research Operators (FARO).
The COMNAP focus up to now has been primarily to develop full awareness of planning efforts underway in the science community. COMNAP and the national operators are poised to begin detailed preparations for IPY operations in support of consensus scientific goals as the latter become established this summer.

18. COMNAP is planning focussed discussions at the upcoming joint meeting with SCAR in Bremen concerning ways the National Programs can work together to achieve the overarching goals now being established by the science planning groups.

OTHER COMNAP TASKS AND ACTIVITIES

COMNAP Meetings and Events

19. COMNAP’s 2003 annual meeting COMNAP XV was hosted by the French Polar Institute from 7 to 11 July 2003 in Brest, France. In conjunction with the meeting were held (1) a two-day workshop on Environmental Education and Training in Environmental Management, (2) a one-day workshop on energy management and (3) a joint SCAR-COMNAP Executive meeting.

20. Preparations are well advanced for COMNAP’s 2004 annual meeting COMNAP XVI, to be hosted in conjunction with SCAR XXVIII by the Alfred Wegener Institute from 25 to 30 July 2004 in Bremen, Germany. In conjunction with the meeting will be held (1) a half-day workshop on energy management, (2) a series of meetings to discuss preparations for the IPY, addressing both collaboration with SCAR and the IPY organising committee and collaboration between national programs to support IPY projects and (3) a joint SCAR-COMNAP Executive meeting.

21. COMNAP XVI will include a Symposium on Antarctic Logistics and Operations on the theme “towards the International Polar Year and beyond”. The main topics to be addressed in the symposium are:

- New transportation technologies and applications
- Technology to enable science
- Technology to reduce environmental impact
- Ergonomic issues related to polar work
- Latest developments in energy storage

22. COMNAP unanimously accepted Bulgaria’s offer to host the 2005 COMNAP meeting. COMNAP XVII will be held in Sofia from 12 to 15 July 2005.

COMNAP Secretariat Operation

23. Jack Sayers, the COMNAP Executive Secretary for the past six years, announced his retirement shortly after the Shanghai COMNAP meeting. Jack has long been a mainstay of COMNAP and he will be missed.

24. COMNAP initiated an international search to identify a successor Executive Secretary and Secretariat host organization. Several outstanding proposals were received and reviewed. The result was the selection of Dr. Antoine Guichard and the Office of Antarctic Affairs of the Tasmanian State Government.
25. COMNAP saluted Mr. Sayers years of outstanding service and welcomed Dr. Guichard to the COMNAP family at our annual meeting in Brest last summer.

**COMNAP Brochure**

26. A brochure outlining the goals, structure and activities of COMNAP has been produced in the four Antarctic Treaty languages and will be available for distribution to the delegates of ATCM XXVII / CEP VII. The COMNAP secretariat is providing templates for the brochure to members wishing to prepare copies in additional languages; a version in Japanese has been prepared by Japan’s National Institute for Polar Research.

**Book on National Antarctic Programs**

27. A book describing a number of organisations implementing their nation’s Antarctic programs was compiled in 2003 in conjunction with COMNAP XV with the support of the French National Program. The book, in English, was published as a special volume of the journal “Accès International”.

**Joint SCAR-COMNAP Executives’ Meeting**

28. SCAR and COMNAP continue to hold regular meetings bringing together both organisations’ Executive committees to discuss and coordinate their activities. Two such joint Executive meetings were held in the last year in conjunction with ATCM XXVI and COMNAP XV.

**Support of the Antarctic Master Directory**

29. COMNAP welcomed presentations on the goals and achievements of the Antarctic Master Directory (AMD) project from SCAR and AMD representatives at its annual meeting in Brest and concluded that continued joint support of the project with SCAR is justified. COMNAP indicated that it would welcome a detailed proposal from the AMD to this end. Operation of the AMD has been overseen by the joint SCAR-COMNAP STeering Committee for Antarctic Data Management (STADM) under SCAR’s leadership.
Appendices

Appendix 1: Terms of Reference (TORs) and Membership of COMNAP Committees, Working Groups, Coordinating Groups and Networks – as at 21 April 2004.

Council of Managers of National Antarctic Programs (COMNAP)

Terms of Reference (TORs) and Membership of COMNAP Committees, Working Groups, Coordinating Groups and Networks

as at 21 April 2004 - visit [www.comnap.aq](http://www.comnap.aq) for updates

**COMMITTEES**

<table>
<thead>
<tr>
<th>Executive Committee (EXCOM)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Karl Erb (Chair)</td>
<td>Chair to 07-2004</td>
<td>Past Chair 08-2004 to 07-2005</td>
<td>US</td>
</tr>
<tr>
<td>Jorge Berguño (Rep)</td>
<td>Rep to 07-2006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gérard Jugie (Rep)</td>
<td>Rep to 07-2004</td>
<td>Chair 08-2004 to 07-2007</td>
<td>FR</td>
</tr>
<tr>
<td>Okitsugu Watanabe (Rep)</td>
<td>Rep to 07-2004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kim Pitt (SCALOP Chair)</td>
<td>SCALOP Chair to 07-2004</td>
<td></td>
<td>AU</td>
</tr>
<tr>
<td>Antoine Guichard (Exec Sec)</td>
<td>Exec Sec to 09-2009</td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>[Magnus Augner - SE – SCALOP Chair 08-2004 to 07-2007]</td>
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</tbody>
</table>

EXCOM is responsible for COMNAP matters between Council meetings that are chaired by the Council Chairperson.

The Committee has a membership comprising
- the Council Chairperson (‘Chair’),
- three COMNAP representatives (‘Rep’),
- the SCALOP Chairperson (‘SCALOP Chair’) and
- the Executive Secretary (‘Exec Sec’).

In addition, the retiring council chairperson (‘Past Chair’) remains on the Committee for one year following his/her retirement. The term of COMNAP members on the Committee is three years.

**Standing Committee on Antarctic Logistics and Operations (SCALOP)**

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<tbody>
<tr>
<td>Kim Pitt (Chair)</td>
<td>Chair to 07-2004</td>
<td></td>
<td>AU</td>
</tr>
<tr>
<td>[Magnus Augner - SE – Chair 08-2004 to 07-2007]</td>
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</table>

TORs
- Provide COMNAP with technical advice on Antarctic logistics and operations;
- Investigate and, where necessary, arrange for research on operational problems identified by COMNAP and its working groups, and
- Address technical and operational matters of mutual interest to other national operators.

Membership of SCALOP comprises the director/manager of logistics and operations of each national program.
### Joint SCAR-COMNAP Steering Committee for Antarctic Data Management (STADM)

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
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</thead>
<tbody>
<tr>
<td>TBA (SCAR) (Chair)</td>
<td>n/a</td>
</tr>
<tr>
<td>TBA (SCAR)</td>
<td>n/a</td>
</tr>
<tr>
<td>Anders Karlqvist (COMNAP) to 07-2004</td>
<td>SE</td>
</tr>
<tr>
<td>Dean Petersen (JCADM)</td>
<td>NZ</td>
</tr>
</tbody>
</table>

**TORs**
- Oversee the work of the Joint Committee on Antarctic Data Management (JCADM) to ensure that the Antarctic Master Directory (AMD) will meet the needs of the scientific community and is progressively achieving increased utilisation.
- Evaluate reports on the development of the AMD (providing feedback to JCADM) and advise the SCAR/COMNAP executive committees on whether to make payments to the Global Change Master Directory (GCMD) according to their delivery against JCADM requirements.

### WORKING GROUPS

#### Working Group on Air Operations (AIROPS)

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
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</thead>
<tbody>
<tr>
<td>John Pye (Chair)</td>
<td>UK</td>
</tr>
<tr>
<td>Chair to 07-2004</td>
<td></td>
</tr>
<tr>
<td>Jose A Sorensen</td>
<td>AR</td>
</tr>
<tr>
<td>Kim Pitt</td>
<td>AU</td>
</tr>
<tr>
<td>Jose Fernandes Nunes</td>
<td>BR</td>
</tr>
<tr>
<td>Jose I Cardosa</td>
<td>BR</td>
</tr>
<tr>
<td>Luiz A Iozzi da Silva</td>
<td>BR</td>
</tr>
<tr>
<td>Leopoldo Moya</td>
<td>CL</td>
</tr>
<tr>
<td>Carlos S Piuo</td>
<td>CL</td>
</tr>
<tr>
<td>Jun Wu</td>
<td>CN</td>
</tr>
<tr>
<td>Hartwig Germantd</td>
<td>DE</td>
</tr>
<tr>
<td>Henrik Sandler</td>
<td>FI</td>
</tr>
<tr>
<td>Patrice Godon</td>
<td>FR</td>
</tr>
<tr>
<td>Bhaskara Rao</td>
<td>IN</td>
</tr>
<tr>
<td>Nino Cucinotta</td>
<td>IT</td>
</tr>
<tr>
<td>Kazuyuki Shiraishi</td>
<td>JP</td>
</tr>
<tr>
<td>Dong-Yup Kim</td>
<td>KR</td>
</tr>
<tr>
<td>John Guldhil</td>
<td>NO</td>
</tr>
<tr>
<td>Julian Tangaere</td>
<td>NZ</td>
</tr>
<tr>
<td>Jorge Kische</td>
<td>PE</td>
</tr>
<tr>
<td>Valery Klokov</td>
<td>RU</td>
</tr>
<tr>
<td>Magnus Augner</td>
<td>SE</td>
</tr>
<tr>
<td>Erick Chiang</td>
<td>US</td>
</tr>
<tr>
<td>Bernabe Gadea</td>
<td>UY</td>
</tr>
<tr>
<td>Richard Skinner</td>
<td>ZA</td>
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</tbody>
</table>

**TORs**
- Continue implementation of ATCM Recommendation XV-20 of 1989.
- Maintain the AFIM with timely distribution of amendments.
- Share and discuss operational experience and information on new technology related to Antarctic air operations and associated communication, navigation, the avoidance of mutual interference, and contingency response.
- Review the air transport aspects of international cooperation in Antarctic science and support.
- Continue to review developments in the use of existing or additional air links, and the use of blue ice or compacted snow landing sites.
<table>
<thead>
<tr>
<th><strong>Working Group to Monitor the Liability Annex (MOLIBA)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>John Dudeney (Chair)</td>
<td>UK</td>
</tr>
<tr>
<td><strong>Chair to 07-2005</strong></td>
<td></td>
</tr>
<tr>
<td>Jose Iran Cardosa</td>
<td>BR</td>
</tr>
<tr>
<td>Shijie Xu</td>
<td>CN</td>
</tr>
<tr>
<td>Hartwig Gernandt</td>
<td>DE</td>
</tr>
<tr>
<td>Hannu Gronvall</td>
<td>FI</td>
</tr>
<tr>
<td>Prem Pandey</td>
<td>IN</td>
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<tr>
<td>Okitsugu Watanabe</td>
<td>JP</td>
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<tr>
<td>Valery Lukin</td>
<td>RU</td>
</tr>
<tr>
<td>Erick Chiang</td>
<td>US</td>
</tr>
</tbody>
</table>

**TORs**
- Respond to questions from the ATCM relating to liability that lie within COMNAP’s competence
- Provide comments to the ATCM on issues relating to liability where COMNAP has expertise.

<table>
<thead>
<tr>
<th><strong>Working Group on Ship Operations (SHIPOPS)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hartwig Gernandt (Chair)</td>
<td>DE</td>
</tr>
<tr>
<td><strong>Chair to 07-2004</strong></td>
<td></td>
</tr>
<tr>
<td>Eugenio Fachin</td>
<td>AR</td>
</tr>
<tr>
<td>Kim Pitt</td>
<td>AU</td>
</tr>
<tr>
<td>Jose Iran Cardosa</td>
<td>BR</td>
</tr>
<tr>
<td>Jorge Berguño</td>
<td>CL</td>
</tr>
<tr>
<td>Jun Wu</td>
<td>CN</td>
</tr>
<tr>
<td>Juan Carlos Proaño Vega</td>
<td>EC</td>
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<tr>
<td>Jose Diaz</td>
<td>ES</td>
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<tr>
<td>Henrick Sandler</td>
<td>FI</td>
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<tr>
<td>Patrice Godon</td>
<td>FR</td>
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<tr>
<td>Nino Cucinotta</td>
<td>IT</td>
</tr>
<tr>
<td>John Guldahl</td>
<td>NO</td>
</tr>
<tr>
<td>John Pye</td>
<td>UK</td>
</tr>
<tr>
<td>Erick Chiang</td>
<td>US</td>
</tr>
<tr>
<td>Carlos Tenaglia</td>
<td>UY</td>
</tr>
<tr>
<td>Richard Skinner</td>
<td>ZA</td>
</tr>
</tbody>
</table>

**TORs**
- Monitor the implementation and operation of the trial of an Antarctic Ship Position Monitoring System on the Internet.
- Give consideration to, and make recommendations on, further developments as well as promote the introduction of appropriate information on shipping in Antarctic waters.

<table>
<thead>
<tr>
<th><strong>Symposium Working Group (SYMP)</strong></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Hartwig Gernandt (Chair)</td>
<td>DE</td>
</tr>
<tr>
<td><strong>Chair to 07-2004</strong></td>
<td></td>
</tr>
<tr>
<td>Patricio Eberhard</td>
<td>CL</td>
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<tr>
<td>Patrice Godon</td>
<td>FR</td>
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<tr>
<td>P C Pandey</td>
<td>IN</td>
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<tr>
<td>Kazuyuki Shiraishi</td>
<td>JP</td>
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<tr>
<td>Jan Stel</td>
<td>NL</td>
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<tr>
<td>Julian Tangaere</td>
<td>NZ</td>
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<tr>
<td>Valery Klokov</td>
<td>RU</td>
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<tr>
<td>John Pye</td>
<td>UK</td>
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<tr>
<td>Erick Chiang</td>
<td>US</td>
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</tbody>
</table>

**TORs**
- Review the previous Symposium on Antarctic Logistics and Operations and develop plans for the next event.
### Working Group on Tourism and NGOs (TANGO)

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>TORs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olav Orheim (Chair)</td>
<td>NO</td>
<td>• Review activities of common concern to national operators including non-IAATO operations and adventure tourism activities.</td>
</tr>
<tr>
<td>Tony Press</td>
<td>AU</td>
<td></td>
</tr>
<tr>
<td>Patricio Eberhard</td>
<td>CL</td>
<td></td>
</tr>
<tr>
<td>Genzheng Jia</td>
<td>CN</td>
<td></td>
</tr>
<tr>
<td>Heinz Miller</td>
<td>DE</td>
<td></td>
</tr>
<tr>
<td>Manuel Catalan</td>
<td>ES</td>
<td></td>
</tr>
<tr>
<td>Prem Pandey</td>
<td>IN</td>
<td></td>
</tr>
<tr>
<td>TBA</td>
<td>IT</td>
<td></td>
</tr>
<tr>
<td>Okitsugu Watanabe</td>
<td>JP</td>
<td></td>
</tr>
<tr>
<td>Jan Stel</td>
<td>NL</td>
<td></td>
</tr>
<tr>
<td>Lou Sanson</td>
<td>NZ</td>
<td></td>
</tr>
<tr>
<td>Valery Lukin</td>
<td>RU</td>
<td></td>
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<tr>
<td>Anders Karljvist</td>
<td>SE</td>
<td></td>
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<tr>
<td>John Pye</td>
<td>UK</td>
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</tr>
</tbody>
</table>

### COORDINATING GROUPS

#### Coordinating Group on Education and Training (CEDAT)

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>TORs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnus Augner (Chair)</td>
<td>SE</td>
<td>• Monitor the progress of the Information and Training networks and report to COMNAP on the activities of the networks at its annual meeting, and inter-sessionally should the need arise.</td>
</tr>
<tr>
<td>Jan Stel</td>
<td>NL</td>
<td></td>
</tr>
<tr>
<td>Okitsugu Watanabe</td>
<td>JP</td>
<td></td>
</tr>
<tr>
<td>Lou Sanson</td>
<td>NZ</td>
<td></td>
</tr>
<tr>
<td>Richard Mulligan (TRAINET)</td>
<td>AU</td>
<td>• Guide and support, as needed, the development of the network and review the terms of reference each year.</td>
</tr>
</tbody>
</table>

#### Coordinating Group on Energy Management (CENMAN)

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>TORs</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Blake (Chair)</td>
<td>UK</td>
<td>• Develop goals and provide guidance on the development of energy management practices with a view to reducing environmental impacts and reliance on fossil fuels.</td>
</tr>
<tr>
<td>Patrice Godon</td>
<td>FR</td>
<td>• Monitor the progress of the Energy Management Network (ENMANET) and report to COMNAP on the activities of the network at its annual meeting, and inter-sessionally should the need arise; and</td>
</tr>
<tr>
<td>Julian Tangare</td>
<td>NZ</td>
<td>• Review the terms of reference and tasks each year.</td>
</tr>
<tr>
<td>Chris Paterson (ENMANET)</td>
<td>NZ</td>
<td></td>
</tr>
</tbody>
</table>
**Medical Coordinating Group (COMED)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>TORs</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Dudeney (Chair)</td>
<td>UK</td>
<td>• Task and oversee the work of Medical Network (MEDINET)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Report to COMNAP on the activities of the network at its annual meeting.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Review the terms of reference and tasks each year.</td>
</tr>
<tr>
<td>Kim Pitt</td>
<td>AU</td>
<td></td>
</tr>
<tr>
<td>Okitsugu Watanabe</td>
<td>JP</td>
<td></td>
</tr>
<tr>
<td>Erick Chiang</td>
<td>US</td>
<td></td>
</tr>
<tr>
<td>Claude Bachelard (MEDINET)</td>
<td>FR</td>
<td></td>
</tr>
<tr>
<td>MEDINET Coordinator to 07-2006</td>
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</tbody>
</table>

**Environmental Coordinating Group (ECG)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>TORs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lou Sanson (Chair)</td>
<td>NZ</td>
<td>• Provide liaison between COMNAP/SCALOP and the Antarctic Environmental Officers Network (AEON).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Direct the development and preparation of responses to COMNAP requests with copies of all charges to AEON to be sent electronically to all MNAPs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Report to COMNAP on the activities of the network at the annual meeting, and inter-sessionally, as issues arise.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Develop methods for coordination of monitoring activities to avoid wasteful duplication and ensure effective use of resources.</td>
</tr>
<tr>
<td>Tony Press</td>
<td>AU</td>
<td></td>
</tr>
<tr>
<td>Heinz Miller</td>
<td>DE</td>
<td></td>
</tr>
<tr>
<td>Henry Valentine</td>
<td>ZA</td>
<td></td>
</tr>
<tr>
<td>Shaun Walsh (AEON)</td>
<td>AU</td>
<td></td>
</tr>
<tr>
<td>AEON Coordinator to 07-2006</td>
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</table>

**NETWORKS**

**Antarctic Environment Officers Network (AEON)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>TORs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shaun Walsh (Coordinator)</td>
<td>AU</td>
<td>• Exchange information and ideas about practical and technical environmental issues on Antarctica.</td>
</tr>
<tr>
<td>Coordinator to 07-2006</td>
<td></td>
<td>• Promote mutual understanding among Network members on the practical application of the Environmental Protocol to national programs.</td>
</tr>
<tr>
<td>Jose Acero</td>
<td>AR</td>
<td>• Respond to requests from COMNAP for advice on environmental issues.</td>
</tr>
<tr>
<td>Nesho Chipew</td>
<td>BG</td>
<td></td>
</tr>
<tr>
<td>Maaike Vancauwenberghe</td>
<td>BE</td>
<td></td>
</tr>
<tr>
<td>Tania Brito</td>
<td>BR</td>
<td></td>
</tr>
<tr>
<td>Olav Loken</td>
<td>CA</td>
<td></td>
</tr>
<tr>
<td>Patricio Eberhard</td>
<td>CL</td>
<td></td>
</tr>
<tr>
<td>Wang Yong</td>
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<tr>
<td>Joachim Ploetz</td>
<td>DE</td>
<td></td>
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<tr>
<td>Jose Moran</td>
<td>EC</td>
<td></td>
</tr>
<tr>
<td>Javier Martinez Aranzaba</td>
<td>ES</td>
<td></td>
</tr>
<tr>
<td>Mika Kalakoski</td>
<td>FI</td>
<td></td>
</tr>
<tr>
<td>Yves Frenot</td>
<td>FR</td>
<td></td>
</tr>
<tr>
<td>Prem Pandey</td>
<td>IN</td>
<td></td>
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<tr>
<td>Sandro Torcini</td>
<td>IT</td>
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<tr>
<td>Kenji Ishizawa</td>
<td>JP</td>
<td></td>
</tr>
<tr>
<td>In-Young Ahn</td>
<td>KR</td>
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<tr>
<td>Karen Kooi-de Bruyne</td>
<td>NL</td>
<td></td>
</tr>
<tr>
<td>Birgit Njaastad</td>
<td>NO</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Country</td>
<td>Status</td>
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</tr>
<tr>
<td>Stanislaw Rakusa-Susczewski</td>
<td>PL</td>
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</tr>
<tr>
<td>Victor Pomelow</td>
<td>RU</td>
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<td>Johan Sidenmark</td>
<td>SE</td>
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<tr>
<td>Sveta Kovalyonok</td>
<td>UA</td>
<td></td>
</tr>
<tr>
<td>Rod Downie</td>
<td>UK</td>
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**Energy Management Network (ENMANET)**

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<th>Name</th>
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<th>Coordinator to 07-2006</th>
<th>TORs</th>
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<tr>
<td>Chris Paterson</td>
<td>AU</td>
<td>Coordinate</td>
<td>Determine the extent to which national Antarctic programs effectively utilise energy management and conservation processes. This includes the employment of both conventional and alternative energy technologies. Specifically the working group shall examine: the type of systems employed; the maximum and average power output of the systems; the capital and operating costs; and problems encountered in operation, if any. Facilitate the exchange of operating experience and encourage cooperative projects in energy management; identify other technical areas meriting attention.</td>
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<td>Marcelo Lombardo</td>
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<td>Jorge Oyarzun</td>
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<td>Saad El Naggar</td>
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<td>Daniel Ressia</td>
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**Antarctic Information Officers Network (INFONET)**

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<td>Jose Iran Cardosa</td>
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<td>Bonni Hrycyk</td>
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<td>Katarzyna Salwicka</td>
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<td>Valery Lukin</td>
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<td>Magnus Augner</td>
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<td>Henry Valentine</td>
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**MEDINET**

| Claude Bachelard (Coordinator) | FR |
| Coordinator to 07-2006 |
| Mariano Arnaldo Memolli | AR |
| Jeff Ayton | AU |
| Nestor Miranda | BR |
| Francisco Junior | BR |
| Peng Xie | CN |
| TBA | CL |
| Antonio Bendala Ayuso | ES |
| Veikko Kujala | FI |
| Eberhard Kohlberg | DE |
| Fabio Catalano | IT |
| Yusei Ikeda | JP |
| Daison Kim | KR |
| Jonathan Pascoe | NZ |
| John Guldhall | NO |
| Alexandro Venero Mortola | PE |
| Lui Clouque Pacheco | PE |
| Gennady Gorbunov | RU |
| Krister Eklad | SE |
| Moisejenko Yevgen | UA |
| Ian Grant | UK |
| TBA | US |
| Roberto Lagomar-Sino | UY |
| L J Smith | ZA |

**TORs**

- Prepare and disseminate a common format for the presentation of medical standards and medical information (This will include the categorisation of medical standards, for example by location, type of activity undertaken, duration, age of personnel) with the overall aim of establishing common standards for medical screening for the interchange of personnel between national operators.
- Establish a database of current medical facilities and capabilities.
- Consider baseline medical facilities and equipment.
- Consider baseline staffing, level of skills and medical fitness requirements for medical personnel.
- Prepare standardised formats for medical information for use in medivacs.
- Establish an anonymised database of medical events.
- Share medical aspects of “Major Incident Plans”.

**Training Network (TRAINET)**

| Richard Mulligan (Coordinator) | AU |
| Coordinator to 07-2004 |
| Patricio Eberhard | CL |
| Coordinator from 08-2004 |
| Victor Figueroa | AR |
| Jose Iran Cardoso | BR |
| Bonni Hrycyk | CA |
| Wang Yong | CN |
| Hartwig Gernandt | DE |
| Manuel Catalan | ES |
| Mika Kalakoski | FI |
| Prem Pandey | IN |
| Costanza Pagni | IT |
| Jan Stel | NL |
| Julian Tangaere | NZ |

**TORs**

- Exchange information and experience on training programs including manuals, techniques, procedures and training aids; and
- Promote initiatives between national programs in order to develop and facilitate closer cooperation.
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<td>John Guldahl</td>
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ANNEX F

REPORTS UNDER RECOMMENDATION XIII-2 (ATS 5b)
REPORT OF THE ANTARCTIC AND SOUTHERN OCEAN COALITION (ASOC)

ASOC is delighted to be in Cape Town for this ATCM. We extend our formal thanks to the Government of South Africa for hosting what we fully expect to be an historic ATCM.

We trust that this meeting will see a conclusion and adoption of the outstanding formal commitments in the 11th ATSCM Final Act and Protocol—namely rules and procedures for liability for damage to the Antarctic environment and dependent and associated ecosystems. In addition, we look forward to the election of an Executive Secretary and the full funding of an effective Secretariat.

ASOC calls upon all Parties, Observers and Experts at XXVII ATCM to rededicate themselves to ensuring full and faithful implementation of the Protocol, and concerted efforts to ensure the comprehensive protection of the Antarctic environment as the common heritage of all humankind.

ASOC Worldwide

- ASOC member groups and individuals are present in most ATCPs.
- ASOC Regional Staff are located in: Asia (Seoul, South Korea), Europe (Amsterdam, The Netherlands and Madrid, Spain), Latin America (Santiago, Chile), and Southern Africa (Cape Town, South Africa).
- ASOC National Offices are located in: Australia (Canberra)

ASOC Information Papers for XXVII ATCM:

1. Are More Antarctic Stations Justified? (IP 94)
2. An Update on Some Issues Surrounding Noise Pollution (IP 56)
4. Tourism Accreditation and Inspection under the Antarctic Treaty (IP 108)

KEY ISSUES FOR XXVII ATCM

1) Antarctic Tourism:

ASOC was pleased to participate in the Antarctic Treaty Meeting of Experts (ATME) on Antarctic Tourism (Norway, 22-25 March 2004), and extend our appreciation to Norway for a fine meeting. We have tabled a paper examining the state of play post-ATME.

Like many Parties, ASOC believes an accreditation scheme may be a useful mechanism amongst the raft of measures necessary to regulate Commercial Tourism. We will make some suggestions on linking accreditation to the inspections capacity that Parties have under both the 1959 Antarctic Treaty and the Protocol.

The ATME specifically did not address legal and institutional issues of tourism regulation. ASOC believes that these remain critical for effective regulation of commercial tourism and hopes to see some discussion here in Cape Town
2) **Liability:**

Agreement on the substantive form of a first Annex on Liability for damage to the Antarctic environment is essential this ATCM, so that this annex may be adopted at XXVIII ATCM in 2005.

Given the restricted nature of the annex presently under consideration – Liability Arising from Environmental Emergencies – a key objective in Cape Town is reaching agreement on language in this annex which enables a subsequent annex or annexes on other aspects of liability to be discussed. This is an essential bridge between the positions of Parties (and ASOC) which recognise a need for more comprehensive coverage in order to meet the obligations of the Protocol, and those for whom the priority has been only an annex addressing emergencies.

3) **Secretariat:**

ASOC looks forward to the final selection of the first Executive Secretary for the Secretariat, and to the Secretariat beginning to function at the earliest possible date. Considering the significant workload for this ATCM, ASOC hopes that the election of the Executive Secretary will be conducted in an efficient and expedited manner so as not to compromise the other work of the ATCM.

4) **Consistent Protocol Implementation:**

One of the more disappointing developments since the Protocol entered into force has been the significant gap that developed between those Parties appropriately implementing many Protocol obligations, and those lagging significantly behind. ASOC hopes that with the encouragement of the various components of the Antarctic Treaty System – particularly the Committee for Environmental Protection and, once it begins to function, the Antarctic Treaty Secretariat – this gap will begin to close and there will be a more consistent implementation of the Protocol across all Antarctic operators.

ASOC is concerned that the Protocol is being revised by stealth. A number of the internationally progressive initiatives of the Protocol are being ignored or weakened. Whatever has happened to obligations in relation to ‘dependent and associated’ ecosystems? One simply sees no evidence of this innovative and environmentally sane concept in the practical operation of the Protocol. Obligations to address cumulative impact are still poorly met, and seem to be conceived as either a research project for some future age or a pro forma undertaking with no possible significance for the outcome of the project being considered. The capacity to designate ‘marine areas’ as protected areas under Annex V has, so far, been made contingent upon CCAMLR agreement. With CCAMLR now solely a regional fisheries agreement, there is not the slightest chance of it ever agreeing to deny any appreciable marine area to Members’ fishing fleets. Ergo, marine protected areas larger than handkerchiefs are hardly more likely now than they were under the Agreed Measures. The capacity to designate ‘specially protected species’ under Annex II and commitments regarding ‘comprehensive’ protection of the Antarctic environment now also founders on CCAMLR hegemony.
In a region where every bird and mammal (and much of the terrestrial flora and fauna) is dependent upon the marine environment, the repeated denial of adequate competence in Protocol on the grounds that this particular facet is within the sole purview of one of the other instruments of the Antarctic Treaty System is the kiss of death to its effective operation.

In ASOC’s view comprehensive protection as stated in Art. 2 of the Protocol is absolutely impossible without effective integration of the various activities conducted in the Antarctic region, and where else can this be done but under the Protocol?

5) Review of Protocol Annexes:

As part of the rolling review of the Annexes to the Madrid Protocol, ASOC participated in the Intersessional Contact Group (ICG) on Annex II review lead by Argentina. ASOC congratulates Argentina and the other participants for the valuable effort they have made during this second intersessional period.

ASOC supports the Report on the ICG to be tabled at CEP VII and looks forward to discussions of the amended draft text of Annex II submitted by the ICG for the consideration of the CEP.

6) Annex V:

ASOC encourages the development of practical mechanisms to give effect to the formal capacity to designate marine areas as ASPAs or ASMAs under the Antarctic Protected Areas system. This requires the establishment of effective cross-institution mechanisms between the Protocol and CCAMLR.

ASOC has participated in the Deception Island ASMA process, and is encouraged by the use of Annex V of the Protocol as a tool to prevent conflict of interests between environmental conservation and human activities, and between science and tourism or other activities. However, questions remain about whether or not ongoing Commercial Tourism activities at the largest penguin rookery in the island (Baily Head) are compatible with the objectives of the management plan and of the Protocol, and also whether they are in compliance with the “information sufficient” requirements of the Protocol. ASOC would like to express its appreciation to the Coordination of the Deception Island Group for the work carried out over the past three years, which lead to the completion of the Deception Island “Management Package”, and thanks other participants for their contribution. We look forward to a comprehensive discussion of this package at this meeting.

We are pleased to see several new and revised management plans are up for review at this meeting and we expect that the Parties will give them the attention that they deserve.

7) Antarctic Subglacial Lake Exploration and Research:

ASOC encourages all Parties involved in subglacial lake exploration and research to adhere to the guiding principles of subglacial lake exploration enunciated in the SCAR/COMNAP Cambridge 1999 workshop and subsequently adopted by SCAR. These principles include that research should be internationally coordinated, multi- and interdisciplinary in scope, and that the design and execution of the program has non-contaminating techniques and minimum disturbance as fundamental considerations throughout the process.
In the particular case of Lake Vostok, consideration should also be given to designation of appropriate protected area status under Annex V of the Protocol.

8) Promotion of Ukraine to Consultative Party Status:

ASOC welcomes the application of Ukraine to become a Consultative Party, and looks forward to the swift approval of this application.

9) Biological Prospecting:

ASOC applauds Parties’ decision to place Biological Prospecting on the Agenda of the meeting and assign it to the Legal & Institutional Working Group, in addition to the continuing examination of this item in the CEP. We are sorry to see that, as of this writing, there have been no papers submitted on this topic. We urge the Parties to employ the Precautionary Principle on this issue and establish a formal mechanism for dealing with potential commercial bioprospecting issues before conflict arises, not after the fact. The ATCM should not accept bioprospecting as a fait accompli and abrogate its oversight responsibility on this growing issue.

BROADER ANTARCTIC ENVIRONMENTAL ISSUES

1) Southern Ocean Fishing:

The high level of Illegal, Unregulated and Unreported (IUU) fishing for toothfish, and associated seabird and other bycatch, continues at unsustainable levels. During the past year the arrest of two Uruguayan flagged vessels, Viarsa 1 and Maya V, after alleged illegal fishing for Patagonian toothfish inside the Australian EEZ, are just two clear examples. Some information published in the press recently even mentioned that during poaching operations of the Maya V, seabirds and marine mammals, including whales and fur seals, where killed by shooting or dynamite explosions caused by the officers of that vessel. Those press reports confirm the negative practices carried out by IUU fishing vessels in the Southern Ocean.

These and other events continue to highlight the inability of CCAMLR to seriously and effectively combat IUU fishing. Everyone involved seems to acknowledge the failure of the current system (indeed the evidence is overwhelming) and yet CCAMLR continues to approve new permits, and CCAMLR Parties continue to allow the importation of suspicious toothfish.

The notion that this issue can somehow be safely left to CCAMLR and that largely the same people, from the same states, meeting at an ATCM need not trouble themselves with an unrelenting assault on the integrity of the Antarctic environment, has no credibility. The greatest threat presently facing the Antarctic environment – which the Protocol seeks to secure – is the debacle surrounding Antarctic fishing. It is therefore both appropriate and necessary for the ATCM to seriously address this threat, and mechanisms of response by ATCPs.

While ASOC applauds those few Parties that are taking aggressive enforcement actions, ATCPs as a whole are failing to utilise their individual and collective capacity to address IUU fishing. Available mechanisms include cooperative use of satellite imagery, enforcement vessels, and various port-state enforcement options.
ASOC encourage all states – whether members of CCAMLR or not – to take the steps urgently needed to halt this illegal activity and to effectively implement the toothfish Catch Documentation Scheme (CDS). ASOC has developed several trade and management solutions that would assist in the elimination of IUU fishing and thereby assist in the conservation of Southern Ocean marine living resources. These are not radical solutions. They have, in fact, been adopted by other international organizations faced with similar problems.

These include (1) centralized monitoring and compliance, (2) increased enforcement and inspection powers including the adoption of an enforcement protocol, and (3) strengthening the CDS, including actions to be taken when Port States are presented with toothfish without a verifiable DCD or from unregulated waters.

The CDS will only be able to track the trade in toothfish and assist states in closing markets to illegally caught toothfish if implemented by all states involved in the toothfish trade.

ASOC has created an IUU vessel ‘Red List’, available at www.asoc.org to assist governments in identifying and scrutinizing vessels that may be involved in IUU fishing in the Southern Ocean. Also the Coalition of Legal Toothfish Operators (COLTO) has created a list of suspected IUU vessels and offers a reward for the apprehension of pirate fishers.

2) Agreement on the Conservation of Albatrosses and Petrels:

ASOC applauds the Ratification of the Agreement on the Conservation of Albatrosses and Petrels (ACAP) by five Parties - Australia, New Zealand, Ecuador, Spain and the Republic of South Africa – which allowed it to come into force on 1 February 2004. Since its entry into force the UK has also ratified the agreement. ASOC encourages all ACAP Range States, particularly those who are also Parties to ATS treaties that have not yet ratified this agreement, to do so as soon as possible. At the same time ASOC also recommends that the ATS considers mechanisms of co-operation with the ACAP Secretariat, when this is constituted, in order to protect those magnificent seabirds.

3) Marine Acoustic Technology:

At ATCM XXVI, ASOC raised the issue of the use of acoustic pollution in the Antarctic Treaty Area, and the potential impacts this technology has on the marine environment at all levels of the ecosystem. We have submitted an Information Paper to provide Delegates information on recent developments scientifically, legally and politically, as well as a short commentary on where we see progress on the Recommendations we made last year and remaining opportunities. We look forward to a continuing dialogue at this ATCM, and in particular to agreement on concrete steps to address various aspects of acoustic pollution.
REPORT OF THE INTERNATIONAL ASSOCIATION OF ANARCTICA TOUR OPERATORS 2003-2004 UNDER ARTICLE III (2) OF THE ANTARCTIC TREATY

The International Association of Antarctica Tour Operators (IAATO) is pleased to present a report of its activities to ATCM XXVII, Cape Town, South Africa, 24 May to 04 June 2004, in relation to Article III (2) of the Antarctic Treaty.

IAATO is a member organization founded by seven companies in 1991 to advocate, promote and practice safe and environmentally responsible private-sector travel to the Antarctic. During the 2003-2004 season IAATO had 57 Members, and as of May 1, 2004, the Association grew to 70 Members. The 2003-2004 season was estimated to be the most active yet since tourism began in the 1960’s. Whereas tourism numbers reached nearly 28,000, including seaborne, air- and land-based tourism, the season went smoothly with no ship or aircraft incidents.

Despite the increase in tourism numbers, operations went smoothly and IAATO Members implemented established practices that have proved to be effective and practical. Members are competitors of one another yet they are willing to work closely together to develop, agree to and impose best practices upon themselves. This process is rare and for the most part unprecedented anywhere in the tourism world.

As an Association, IAATO seeks to raise the operational standards of Members and the industry as a whole. To do so requires an infrastructure, a forum and a time and economic commitment by each company.

IAATO has continued to focus its activities in several key areas including:

- Providing a forum for Members to be able to successfully resource information needed to effectively manage Antarctic Tourism,
- Improving vessel scheduling in the Antarctic Peninsula,
- Improving vessel communication methods via the GMDSS and INM-C system for safety and itinerary planning purposes,
- Updating the Emergency Medical Evacuation Response (EMER) Plan,
- Trial-testing the IAATO Site Specific Guidelines (ATCM XXVI IP72) and the nine Site Specific Guidelines prepared by the United Kingdom (three of which were submitted to ATCM XXVI/WP26) to evaluate their effectiveness to address impacts and concern towards growth in the tourism industry,
- Stressing the concern towards the potential spreading of Antarctic diseases and prevention methods and encouraging stricter boot washing and clothing checks,
- Enhancing IAATO standard operating procedures,
- Participating in several Intersessional Working Groups (ICG’s) and the ATME in Norway,
- Participating in international meetings and liaising with National Antarctic Programs, government agencies of the sub-Antarctic island groups, and scientific and environmental organizations,
- Improving data collection and exchange of information procedures among Members,
- Closely coordinating with Provisional Members in their start-up operations,
- Furthering work on the new IAATO database and the IAATO web site (anticipated to be operational by mid-August, 2004).
1 IAATO Membership and Activities

1.1 Founded by seven private tour operators in 1991, the International Association of Antarctica Tour Operators has 70 Members from Argentina, Australia, Belgium, Canada, Chile, France, Germany, Italy, Netherlands, New Zealand, Norway, United Kingdom, United States and the Overseas Territory-Falkland Islands (Islas Malvinas). A Membership Directory can be found on the IAATO web site at www.iaato.org.

1.2 Members during 2003-2004 were:


Full Members included one land-based operator, ship operators, companies that charter ships and/or organize groups to Antarctica and companies that reserve space from other ship operators.

12 Provisional Members: Antarp ply, Antarctic Horizons, Antarctica 21, Elegant Cruises and Tours, Fathom Expeditions, Inc., Princess Cruises, ResidenSea, Saga Shipping Company Ltd., Thika Travel, Tooluka Ltd., Travel Dynamics International and plantours and Partner GmbH.

Provisional Members included a land/sea-based operator, ship operators, small vessel/yacht operators, a company that charters vessels from existing Members and a fly/cruise operator.


Associate Members are travel companies, government offices and ship agencies that reserve space on Full and Provisional Member vessels and/or aircraft or offer support services to the tour operators.
*Note: For the 2004-2005 season IAATO Membership will include the following additional 13 Members (effective July 1, 2004):

**Provisional:** Compagnie des Iles Du Ponant, Antarctic Shipping

**Associate:** Waterline Yachts, Patagonia World, Grand Nord, Westpoint Island, Ship to Shore (shopAntarctica.com), Falklands Conservancy, and Falkland Islands Tourism.

### 1.3 Membership Categories

During the 2003-2004 season, IAATO had Members in each of the following Membership categories:

1. Organizers of expedition ships that carry less than 200 passengers or small sailing vessels that carry less than 12 passengers. The limit of 100 passengers ashore at one site at one time applies. **(23 Members)**

2. Organizers of vessels carrying 200-500 passengers who are making passenger landings. Stringent restrictions on landing activities of time and place apply. The limit of 100 passengers on shore at one site at one time also applies. **(4 Members)**

3. Organizers of cruise ships making no landings (cruise only). Cruise ships carrying more than 500 passengers are not permitted to make any landings. **(3 Members)**

4. Organizers of land-based operations. **(2 Members)**

5. Organizers of air operations with over-flights only. **(1 Member)**

6. Organizers of air/cruise operations. **(1 Member)**

7. Companies in support of Antarctic tourism. **(23 Members)**

*Note: Full, Provisional, and Probational status occurs within categories 1-7.

### 1.4 Bylaws Changes: There were several Bylaws Changes since inclusion in ATCM XXV/IP74. IAATO Bylaws and Objectives can be found online at [www.iaato.org](http://www.iaato.org). However at the 15th General Meeting, April 27-30, 2004, Members agreed to include in our Bylaws the following addition:

**Article II: Objectives, Section E:**
Members of IAATO subscribe to the principle that their planned activities will have no more than a minor or transitory impact on the Antarctic environment.

Bylaws and Objectives are only a small part of the detailed operating strategies IAATO has developed over the last 13 years in order to effectively manage Members’ activities.

### 2 2003-2004 Statistics

#### 2.1 Member Activities
From November 2003 to March 2004, a total of 14,902 passengers landed in the Antarctic by privately organized Member companies, including passengers aboard 28 commercially organized small expedition vessels plus 517 land-based visitors. In addition, 4,747 tourists travelled on two Member large cruise vessels (on 3 departures) that did not land tourists and spent approximately 72 hours each trip south of 60°S in Antarctica.

Of note, is that one group of 37 tourists (included above) participated in the first air-cruise program. Over-flights carried 679 tourists on Member aircraft departing from Chile.

A complete overview of the tourism industry can be found in the IAATO Overview of Antarctic Tourism (ATCM XXVII-IP)

2.2 Tourism numbers increased during the 2003-2004 season and reached their highest levels to date. Data on tourism activities and actual numbers of non-IAATO operators has become more readily available over the years and, therefore, overall numbers are higher this year not only because of better statistical data being available, but also because of an increase in the Antarctic tourism industry as a whole.

3 Participation in Organized Meetings during 2003-2004

3.1 IAATO held its 15th General Meeting, April 27-30, 2004 in Christchurch, New Zealand. A total of 89 people attended which included 59 from 36 Member companies including some new Provisional and Associate Member applicants, one non-IAATO operator plus 29 invited representatives from government, universities, and conservation and private organizations. The complete agenda can be found on IAATO’s web site at www.iaato.org. Several Members once again sponsored the attendance of their expedition leaders, which proved useful for better field communication and understanding of the industry as a whole. Included in this year’s agenda was a discussion on IAATO business, marine-related topics, liaison with representatives from the International Hydrographic Organisation (IHO), accreditation and observer schemes, environmental and cumulative impacts, operational issues, land-based tourism and an examination of site guidelines.

Attending were representatives from Antarctica New Zealand, New Zealand Ministry of Foreign Affairs and Trade, Department of Conservation-New Zealand, New Zealand Antarctic Heritage Trust, British Antarctic Survey/UK Antarctic Heritage Trust, Office of Polar Programs US National Science Foundation, Raytheon Polar Services, Umweltbundesamt (Federal Environmental Agency-Germany), International Hydrographic Organisation/International Hydrographic Bureau (IHO/IHB), Netherlands Institute for the Law of the Sea, Australian Antarctic Division, the government of South Georgia and the Falkland Islands (Islas Malvinas), Antarctic Killer Whale Inventory Catalogue, Oceanites, University of Canterbury, Lincoln University, and the University of Tasmania.

IAATO will hold its 16th General Meeting in Amsterdam, Netherlands, in 2005 (dates will most likely be May 2-5, 2005). Interested parties that would like to attend or participate should contact the IAATO Secretariat at iaato@iaato.org.
3.2 IAATO was very pleased to send two participants to the IHO/IHB Meeting in Monaco in September 2003. IAATO supports and encourages the work the IHO is doing on improving charting and navigational aids in Antarctica and other parts of the world. Safety and navigation are extremely important concerns to vessel operators who feel that improved charting will greatly reduce the risk of accidents and potential environmental damage. IAATO looks forward to attending the next IHO/IHB meeting in Greece, 2004.

3.3 IAATO sent three representatives to Norway to attend the Antarctic Treaty Meeting of Experts in March 2004. The meeting proved to be an excellent forum for discussing various tourism-related issues. IAATO is grateful to Norway for organizing this meeting.

3.4 Several IAATO Members met with their various governments during the last year to discuss tourism issues in the Antarctic and Arctic. Members felt that these meetings proved extremely useful. IAATO encourages Parties to interact with their resident tour operators whenever possible so that both stakeholders can gain a better understanding of each other’s concerns.

3.5 Several IAATO Members met in October 2003 and formed the Arctic Expeditions Cruise Operator’s Organization (AECO) in order to better address Arctic (particularly Svalbard) concerns.

4 Field Coordination

4.1 IAATO compiles information, including vessel call data, ship schedules, emergency contact information, expedition leader schedules, etc., in IAATO’s annual tourism reports and yearly exchange of information for Members and non-IAATO operators (if received). IAATO is committed to compiling the most up-to-date information to capture statistics on the tourism industry.

4.2 IAATO’s comprehensive directory of vessel call data, ship schedules are shared with COMNAP and governments to encourage improved communication and operational coordination. COMNAP’s MINIATOM is an extremely useful tool for tour operators trying to contact stations or government vessels. As IAATO vessels transport numerous scientists and support personnel to Antarctica each year in addition to requesting tourist visits to stations, it is helpful when station contact information is up-to-date for communication, planning and emergency purposes. IAATO also encourages COMNAP to have an emergency call list of commercial operators to contact in case of emergencies. One such emergency occurred during the 2003-2004 season and required such coordination.

4.3 Preliminary detailed cruise itineraries are compiled by the IAATO Secretariat and distributed to Antarctic vessel operators, National Antarctic Programs, where appropriate, COMNAP, SCAR, In.Fue.Tur and others in advance of the season.

4.4.1 Expedition leaders and ship's officers circulate advance day-to-day itineraries and maintain regular contact throughout the season to coordinate site visits and exchange general information such as ice conditions, weather, landing recommendations, concern about potential environmental impacts, etc.
A key factor in managing Antarctic tourism and mitigating potential environmental impact is to ensure that no two ships land passengers at the same place at the same time. An example of the annual instructions to ships’ captains, radio officers and expedition leaders is included as Appendix A.

IAATO changed its way of organizing ship schedules this past season and found a more effective way to communicate with one another. Members submit their day-to-day itineraries for the upcoming season to IAATO by June 30.

The IAATO Secretariat compiles a master list, returns it by August 1 and Members then work out any ship conflicts and resubmit their final schedule back to the IAATO Secretariat for distribution to Members and various government agencies in order to ensure an effective management of vessels. Once in the field expedition leaders and ship officers communicate as noted in Appendix A. This system turned out to be a much more effective way to communicate than in years past. Non-IAATO operators are encouraged to participate in this system. This system provides information on the general area where tour vessels are on a day-to-day basis in Antarctica. Any last-minute changes are worked out between the expedition leaders once in Antarctica.

4.5 Details on IAATO’s Emergency Medical Evacuation Response plan (EMER) have been presented at previous ATCMs. IAATO Member Aerovias DAP offered this service for Members during the 2003-2004 season. Aerovias DAP performed a total of five medical evacuations from King George Island, two on behalf of Members.

5 Environmental Impact Assessment

5.1 Argentina, Australia, Chile, Germany, The Netherlands, New Zealand, Norway, United Kingdom and United States received Environmental Impact Assessments (EIA’s) from Members operating vessels or land-based programs. IAATO is aware that over 20 non-IAATO operated sailing vessels/yachts carrying approximately 185 persons did not submit Advance Notification, EIA’s or file Post Visit Site Reports. IAATO feels that these numbers are high enough to cause concern.

5.2 As IAATO is concerned about non-IAATO operator activities, the Association urges Contracting Parties to ensure that obligations of the Environmental Protocol are being met and that Environmental Impact Assessments are being submitted and that detailed mitigation measures are included.

5.3.1 IAATO would also request that when non-IAATO operators submit EIA’s that governments be wary of reference statements such as “We follow all IAATO Guidelines.” It is not possible for non-IAATO operators to have the breadth or understanding of the numerous operating strategies IAATO has developed over the years. This statement appeared in at least two non-IAATO operator IEE’s prior to the 2003-2004 season. Non-IAATO operators do not receive regular updates and briefings from IAATO. Some non-IAATO operators are copied in on Vessel Call Data, exchange of itineraries, and other impromptu matters. Governments permitting and/or assessing non-IAATO operators may need to provide additional information on suggested operating procedures or consider placing an observer on board to monitor environmental concerns.
6 Procedures to Prevent the Introduction of Alien Organisms

6.1 For the past five seasons, IAATO’s Boot and Clothing Decontamination Recommended Guidelines and Translocation of Diseases Protocol have proven to be effective. These guidelines unofficially have been operative for the last ten years by most Members.

6.2 For the past four seasons, IAATO has used a standard protocol to report any high mortality incidents and to avoid the introduction and translocation of alien diseases. Both the above-mentioned guidelines have been tabled previously as attachments at ATCM XXIV, ATCM XXV, and in IAATO’s Annual Reports. See Appendix F and G.

7 Reporting of Tourism and Non-governmental Activities and Data Base

7.1 Antarctic tour operators made use of the standard Post Visit Site Report form that was updated and adopted by ATCPs at ATCM XXI and then was revised at ATCM XXIV. Prior to moving ahead on the IAATO data base Members wanted to see how this form worked and if the data would be easily transferred into a database. This worked reasonably well for the 2003-2004 season; however IAATO will probably need to propose modifications to the Post Visit Site Report at ATCM XXVIII to reflect the increased number of activities and in order to “code” activities properly. IAATO encourages the use of the revised form adopted at ATCM XXIV and discontinue the use of outdated reporting forms. The ATCM-approved form can be found on the IAATO web site. New landing sites will be added each year to the drop down menus prior to November 2004.

7.2 IAATO continues to support the continued use of this single form, which reduces the burden of paperwork and facilitates the study of the scope, frequency and intensity of tourist activities. IAATO would like to encourage Parties to send IAATO and the US National Science Foundation a copy of any forms received from non-IAATO operators in order for the data to be incorporated into IAATO’s “Overview of Tourism” and the new IAATO data base. This will provide for greater transparency of all tourist activities and will further the ability to address cumulative impact issues. IAATO’s data base will be able to access information from these forms and analyze, if necessary, statistics on site visitation.

7.3 IAATO supports the development of a relevant and effective ATCP-developed tourism data base; however, IAATO would like to note that verifying the information that is put into the data base is extremely important. Regardless of the ATCP data base, IAATO will maintain its own and continue to verify tourism information as has been done the last 13 years. IAATO provided the ATCP Database ICG with a comprehensive list of fields for the programmers to work with, however, additional thought really needs to be considered since maintaining a database is a significant amount of work. At present IAATO will maintain its own database separate to the ATCM’s version.

8 Implementation of Recommendation XVIII-1 (Guidance for Those Organising and Conducting Tourism and non-Governmental Activities in the Antarctic and Guidance for Visitors to the Antarctic) and Other Guidelines
8.1 IAATO’s standard operating procedures for implementing Recommendation XVIII-1 include the following:

- Mandatory briefings on each tour ship prior to arrival in the Antarctic. This presentation consists of the IAATO slide or PowerPoint presentation. This presentation can be viewed on line at www.iaato.org under “Guidance for Visitors” on the home page. Most expedition leaders will however enhance the presentation with additional slides.
- Passengers, ships’ command, crew and expedition staff receive paper copies of Recommendation XVIII-1 “Guidance for Visitors to the Antarctic.”

Some companies distribute this document in pre-season materials in advance of departure, some on board the ship. In addition to receiving copies of the Recommendation, all passengers and ship’s personnel are required to attend the briefing.

- Guidelines are available to Members from IAATO in English, Chinese (Mandarin), French, German, Italian, Japanese, Russian and Spanish. Parties might have translated this document into languages not listed above. If so, they are encouraged to submit copies to the IAATO Secretariat for distribution.
- Recommendation XVIII-1 does not apply in its entire content to the situation with large ships that conduct a cruise-only operation in Antarctic waters and make no shore landings. In those few instances of large ships, passengers and crew do not receive briefings, although copies of Recommendation XVIII-1 are part of the documents available on board for referral by staff and bridge officers, in particular.

8.2 Recommendation XVIII-1, “Guidance for Those Organising and Conducting Tourism and non-Governmental Activities in the Antarctic” is provided to inform Members of key obligations and procedures to be followed.

IAATO is concerned about tourists travelling on non-IAATO operated sailing vessel/yacht operations visiting the Antarctic for the first time who may not be aware of the Environmental Protocol and its obligations. Many of these vessels visit stations throughout the Antarctic Peninsula and it would be practical if station leaders were able to raise these issues with sailing vessel/yacht operators.

8.3 In addition, IAATO Members continue to use IAATO and/or company adopted guidelines which include: marine wildlife watching, site specific, kayak, mountain climbing, camping, scuba, helicopter, Zodiac, Remote Operated Vehicle (ROV) boot and clothing decontamination and disease protocols.

9 Emergency Response Action and Contingency Planning

9.1 At IAATO’s 14th General Meeting the IAATO-Wide Emergency Contingency Plan was agreed upon. This plan was submitted as a separate paper to ATCM XXVI/IP69. The plan was trial-tested during the 2003-2004 season and found to be effective. The plan will be updated prior to the 2004-2005 season. The information on vessels shared amongst Members in the plan is essential for effective response action.
9.2 IAATO has compiled data on tour vessels’ specifications and other information that would contribute to risk assessment of Antarctic tourism activities. This information was presented at the ATME on Antarctic Shipping Guidelines/Polar Shipping Code held in London in 2000. This list is updated yearly and can be used in coordination with COMNAP if needed.

9.3 Members have Shipboard Oil Pollution Emergency Plans (SOPEP) in place on their vessels that satisfy Regulation 26 of Annex I of MARPOL. A “Special Antarctic Addendum” to the SOPEP was developed by IAATO and distributed to Members for implementation and comment in 1998 (ATCM XXII/IP104). 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.

9.4 The IAATO-wide EMER plan has been in place for at least the past six seasons in order to reduce the need to impact scientific stations in the Antarctic Peninsula with tourism-related medical problems. A standard medical information checklist is available for new Members in order to ensure adequate medical supplies are available on board vessels.

10 Scientific and Information Support

Members continue to provide logistic and scientific support to National Antarctic Programs and to the sub-Antarctic Islands, providing a cost-effective resource for the scientific community. During the 2003-2004 season some 152 scientist, support personnel and gear from various National Antarctic Programs were provided transport to and from stations, field sites and gateway ports. In addition a Member assisted Palmer Station in transporting one of their personnel to South America due to a medical condition. A partial list of scientific support is included as Appendix D. Further descriptions are noted below.

10.1 Aurora Expeditions (Australia) continued its contract with Polish Academy of Sciences, resupplying Arctowski Station and transporting four scientists in November 2003 aboard Polar Pioneer.

10.2 Quark Expeditions (United States) operating the icebreaker vessel Kapitan Khlebnikov provided the following support:

- Two scientists were transported to Casey Station from Port Elizabeth,
- 17 scientists were transported to Macquarie Island plus gear,
- Nine scientists were transported for New Zealand’s Department of Conservation from Campbell and Enderby Islands to Hobart.

10.3 Golden Fleece Expeditions (Falkland Islands/Islas Malvinas-based) worked for four weeks with British Antarctic Survey on an Antarctic krill survey, proving the suitability of small well-equipped sailing vessels for this purpose. In addition, a group of nine passengers sailed on board Golden Fleece to visit South Georgia, South Orkney Islands and the Antarctic Peninsula with two Members from Vernadskiy to evaluate the feasibility of an Israeli presence in the Antarctic.

10.4 Hapag Lloyd (Germany) transported 30 scientists and support personnel on either Bremen or Hanseatic for the following institutions:

- Alfred Wegener Institute (AWI) to/from Jubany,
- University of Jena - Institute of Ecology to/from Bellingshausen,
- Deutsches Zentrum für Luft - und Raumfahrt (DLR) from/to O'Higgins,
- University of Cambridge,
- St. Andrews University,
- Scott Polar Research Institute.

10.5 Heritage Expeditions (New Zealand) operated the vessel Akademik Shokalskiy to assist in the following scientific projects:

- Deployed four weather buoys for the New Zealand Meteorological Service and transported two meteorological staff to Auckland and Campbell Islands for annual servicing of automatic weather stations,
- Transported field staff to and from Macquarie Island, Auckland Islands to Bluff and three scientists from Snares Islands to Bluff.

10.6 Peregrine Adventures (Australia) assisted in the following:

- Search and rescue operation for eight Korean scientists at Maxwell Bay, King George Island. Akademik Sergey Vavilov remained at the King Sejong Station for 48 hours in difficult conditions. Inflatable boats were utilized for on-going SAR operations,
- Delivery of approximately 50 metric tons of equipment to Bellingshausen Station,
- Carrying an international group of 40 scientists from Europe to Antarctica and back to Ushuaia on a dedicated science program. Science and data collecting was done on ocean currents, geology and seabed mapping,
- Transporting eight scientists working on the above-mentioned international science program from South America back to Europe.
- Transporting eight Bulgarian scientists and government representatives to St. Kliment Ochridiski Station, six Bulgarians were transported back to Ushuaia, and 2000 litres of diesel fuel were delivered for station generators.

10.7 Lindblad Expeditions (United States) continued its support of the Oceanites Antarctic Site Inventory Project whose personnel were again provided with accommodations, transport and access to visitor sites aboard Endeavour. In addition, Lindblad provided the United Kingdom Hydrographic Office with numerous “mudmaps” for future incorporation into marine charts.

10.8 Pelagic Expeditions (United Kingdom) sponsored a “Breaking the Ice” voyage for the historic union of Israelis and Palestinians in the Antarctic on board two of their vessels, Pelagic and Pelagic Australis. Most likely for the first time since 1903, Pelagic carried a Swedish team to visit the three historic sites of the 1903 Nordenskjöld Expedition.

10.9 Society Expeditions (United States) carried three scientists aboard World Discoverer from Jubany to Ushuaia, three Oceanites personnel from Petermann Island to Ushuaia and delivered supplies between the Falkland Islands (Isla Malvinas) to South Georgia.

10.10 Antarpplay (Argentina) had an agreement with the National Council of Scientific and Technical Research (CONCIET) to assist their scientists when possible aboard Ushuaia.

10.11 Two IAATO Members advised appropriate Parties of the situations at Brown Bluff and Almirante Brown with regard to oil leaking from their respective stations. IAATO is pleased to report that immediate action was taken to rectify the situation at Almirante Brown at least.
10.12 Specific requests for logistic or other support should be made to Members or the IAATO Secretariat. For a complete Membership directory, please refer to the IAATO web site at [www.iaato.org](http://www.iaato.org).

10.13 Numerous Members update the IHO/IHB yearly with chart information, including chart updates and corrections. IAATO attended the IHO meeting in September 2003. An IHB representative attended the IAATO’s 14th General Meeting (2003).

11 Conservation Research, Academic and Scientific Support

Members and their passengers continued the tradition of direct financial contributions to many organizations active in Antarctica. Appendix C provides a partial list of donations.

12 Place Names Update

In the Antarctic Peninsula region a new discovery was made by the officers on the *Bremen* on February 2, 2003. Omega Island (64°20’S, 62°56’W) in the Melchior Islands group, was thought to be one island but is actually two islands split by a channel of water. The IHO has been sent updated charting information. Member Hapag Lloyd’s personnel provided this information to appropriate authorities and, as of May 2, 2004, the island is now named Bremen Island and belongs to the group of Melchior Islands, Palmer Archipelago, on the western side of the Antarctic Peninsula.

13 Observers On Board Member Vessels

IAATO requires Provisional and Probational Members to carry an observer before they are eligible to apply for Full Membership. During the 2003-2004 season, IAATO appointed nine observers to sail on Provisional Member vessels. IAATO prefers to use a qualified National Program observer from the country in which the company is registered. When not available, IAATO will appoint an appropriate person with broad experience in Antarctic matters. IAATO has a checklist for observers, which has been tabled at ATCM XXIV/IP-XX and ATCM XXV/IP74. In addition, ATCM XIX Resolution 5 (1995) Antarctic Treaty Inspection Checklists is also provided to the appointed observer. A modified checklist is being developed for use by observers on large ships that make no landings in Antarctica. IAATO is aware that any observers appointed by National Programs would not be acting in an official capacity according to Article VII of the Antarctic Treaty, rather National Program representatives. IAATO vessels have been carrying observers since 1991.

14 Awards and Work Efforts

Expeditions Inc. was awarded the Condé Nast Traveler Magazine Top Specialist Award for 2003 for Antarctica.
ExpeditionTrips Inc. was voted 'Best of the Web' by Forbes Magazine

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Students On Ice was awarded the 2003 Michael J. Smith Award for Science Promotion in Canada. This is an annual award presented by the Canadian Government for groups that have made outstanding contributions to the promotion of science through activities encouraging popular interest in science or developing science abilities.

Zegrahm Expeditions was recently named by Forbes magazine the "Best Educational Cruise." Canadian companies Students on Ice and Fathom Expeditions had worked closely with the Canadian Government to encourage the ratification of the Environmental Protocol. IAATO is extremely pleased that Canada has taken this important step.

15 With Thanks -- Cooperation with National Programs

The following provided assistance and operational guidelines to IAATO during the 2003-2004 season for which Members are grateful:

- To ALL Antarctic and sub-Antarctic station and island personnel who have welcomed our groups and provided a friendly, educational and rewarding experiences for tourists,
- Argentina: In.Fue.Tur for acting as an information source for IAATO vessels during the Antarctic season,
- Chile: For the use of the runway at Marsh/Frei for medical emergencies in conjunction with Member Aerovias DAP,
- United Kingdom: UKFCO, BAS, Port Lockroy, and UK Antarctic Heritage Trust and South Georgia Museum staff and officers for making visits an extremely educational and enjoyable experience and for providing Members with comprehensive guidelines for visits to BAS stations. IAATO is grateful for the UK’s support in limiting visits to stations to Members,
- United States: Nadene Kennedy of the National Science Foundation for compiling tourism data for the last 15 years, participating in IAATO meetings and coordinating US station visits,
- Others we might have missed.

Appendices
A. Expedition Leader and Ship’s Officers Seasonal Instructions
B. IAATO Pre-Season Antarctic Checklist 2003-2004 Season
C. 2002-2003 Donations
D. Partial List of Science Support and Transport by IAATO Vessels in 2003-2004
E. IAATO’s Objectives
F. Boot and Clothing Decontamination: IAATO’s Recommended Guidelines
G. Introduction and Detection of Diseases in Antarctic Wildlife: IAATO’s Perspective
Appendix A

Expedition Leader and Ship’s Officers Seasonal Instructions

TO: All IAATO Office Representatives, Antarctic Captains, Expedition Leaders and Radio Officers
FROM: IAATO
RE: 2003-2004 Season

The following information is included in order to further guide the exchange of information among vessels, and to assist with co-ordination of itineraries and to facilitate the end of season reporting.

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 schedule to determine which vessels will be in your cruising area. Specific landing sites noted on the schedule are given landing priority as agreed to at the IAATO Annual 14th General Meeting, 2003.

Expedition Leaders were asked to input day to day itineraries prior to the season. The final IAATO schedule that will be issued in October, 2003 will have landing priorities. Any other changes or updates after this need to be done directly between the vessels.
- Itineraries must be communicated between vessels directly and not rely on outside offices once the season begins.
- Be sure to also exchange environmental information and management recommendations for individual landing sites or other notices with your colleagues as the season progresses.
- A decision was made at the IAATO Annual 14th Meeting, 2003 to not rely on or use the In.Fue.Tur schedule and use only the IAATO schedule as the primary schedule. This was agreed by the Members and by the Expedition Leaders present at the meeting.

Itinerary Changes

- If your final itinerary changes, circulate by GMDSS, Telex by broadcast mode or radio or fax. Confirm during Radio Chat time at 1930. (Please note that few tour vessels have regular real-time exchange of e-mail.) Since all ships are supposed to be equipped with a GMDSS radio station, they should be able to scan a frequency in the 6310 KZ band (24 hrs). By using broadcast mode (one way) ships can send itineraries, ice information and other information as needed. These transmissions will be picked up by all vessels and should be able to printout the incoming message immediately.
- To avoid conflicts, notify vessels in the region of any changes in planned itinerary as soon as practicable.
- Notification should be by GMDSS radio telex first then INM-C, fax, telex, VHF or HF (see below).
- Notify any vessel of intention to cancel a landing. Due to itinerary changes, weather, ice etc another vessel would appreciate having an additional landing option.

Landing Priority
• In general, priority is given to what is listed on the official IAATO schedule. Landing sites were pre agreed prior to the season and resolved by all companies accordingly.
• In the event of conflict, expedition leaders should co-ordinate 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 72 hour-notice to station leaders of any planned station visit.
• Follow individual procedures determined by national programs/station leaders.
• Provide timely notice of cancellation, generally 48 hours in advance.
• Please include any additional station contact information, standard procedures or incidents involving stations, ships or government personnel in your voyage report to the home office.
• Visits to Palmer Station are not allowed on Sundays and preferably not on Saturdays. All Palmer visits have been prearranged. Any changes, please advise Palmer as soon as possible. There is an official Palmer Station schedule issued each season. Provide Palmer Station with 72 hours notice even though you have a prearranged visit.
• Visits to British Stations need to be pre-arranged as per instructions by British Antarctic Survey.
• Port Lockroy: Base A has new site specific Guidelines provided by British Antarctic Survey for visits. Please read these guidelines carefully.

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, which is 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 once daily radio schedule at 1930.
• Suggested HF hailing frequencies are: 4146 (1°), 6224 (2°)-SSB, 8294 (3°), to be finalized by radio officers during the season based on experience. Use 6224 whenever possible.
• Expedition leaders should make use of this schedule whenever VHF communication is impossible for exchange information. This will reduce communication costs.
• Switch to another frequency for any extended conversation when talking on the above-mentioned HF (4146°, 6224°).
• Avoid long conversations over the radio if possible.
• Protocol for the 1930 chat time: All parties wanting to sort out schedules should make themselves known. Sort all itineraries business first and reschedule any other discussions for a later time. Anyone who simply wants to “chat” should find another time and frequency. ELs not available to talk at this time should appoint another individual to monitor in case a ship is trying to reach you.
It is extremely important to not chatter on HF. In years past many EL’s or staff simply did not listen to the chat channel because there were too many lengthy conversations. This channel must be open at 1930 for vessel scheduling and for communication of emergency situations. Again, if you need or want to chat longer, establish a different time and frequency.

**Radio Log On, GMDSS Communication**

- Each vessel should report the noon position (Ushuaia local time for the Peninsula Region) to each other via GMDSS radio telex or INM-C. Each radio officer should record this information.
- IAATO Radio Log On: At the beginning of the season, ships should use the Radio Log Form and sign off when they have established contact with a specific ship. At the end of the season, the Log should be sent to IAATO together with all the Post Visit Site Reports for evaluation.
- GMDSS (Global Maritime Distress Safety System) is the only reliable means of communication and it should be used daily by all ships.
- Since not all ships are equipped with GMDSS for all coverage, A1, A2, A3 and A4, ships without full coverage can only reliably communicate via INMARSAT-C. Therefore it is important for each ship to pre-establish by what means they will be communicating with each other. The INM-C and the pre-established GMDSS radio telex frequency will allow ships to share information daily. In an emergency, it is the only reliable means of communication.
- For additional information reference the agreed IAATO Wide Emergency Contingency Planning Agreement, 14th General Meeting, 2003 and ATCM XXVI Information Paper 69 on Contingency Planning.

**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**

**The Process**

- Following Antarctic Treaty recommendations, complete Part 1 and Part 2 of the standard Post-Visit Site Report for every expedition. The 2003-2004 version of the form should be the ONLY form completed for Antarctica. At the end of each voyage return the form and a computer disc to the home office.

It is preferable that the form is emailed to IAATO and US NSF after each trip; however some companies prefer to review the forms first. It is therefore the company’s responsibility to forward the form as soon as possible to IAATO and NSF and not wait until the end of the season. Email to iaato@iaato.org and to nkennedy@nsf.gov.

- Always submit a computer version and hard copy of each form. Information gleaned from this form is tabulated and circulated internationally by the National Science Foundation, USA and by IAATO in the form of statistics and input into the tourism database. IAATO recommends that the Ship, individual EL’s and each home office keep copies of each Post Visit Site Report. In.Fue.Tur in Ushuaia also requests a copy of this form in order for them to compile their tourism information.
• EL’s, please note that this information is used for tourism statistics that are
tabled worldwide. Please do not hastily fill this out. If you have questions, consult your
home office.
• We can not accept hand written forms. All forms must be on typed and on
the official EXCEL format. If the form is not compatible with the computers on board
ship notify your company representative immediately.
• Do not wait until the end of the season to send forms to IAATO and NSF and
to your national authority. Due to the increased number of vessels during the season we
need the reports periodically throughout the season.

The Standard Post Visit Site Report Form
• The form is in EXCEL Format. Drop down menus have been created to make
it easier for all concerned. Spend some time learning how to fill the form out on the
computer. The form does not need an original signature. EL’s can type their name
directly on the form.
• Do not include South Georgia landing site information on this form. There is
a separate form for South Georgia.
• Please note guests of the company, guest lecturers, and other “non-revenue
passengers” should be reported as passengers for the purposes of this report unless they
have specific staff roles ashore. In general, those responsible for supervising passenger
operations ashore that report to the expedition leader are considered staff. Your office
will provide additional guidance. Hotel staff, catering, chefs and deckhands are included
as crew Members, not staff, unless they are guiding tourists ashore and in Zodiacs.
• The standard list of “Antarctic Peninsula Region Landing Sites” and any new
sites visited during from the 2002-2003 season for Part 2 has been incorporated into the
drop down menus. If those sites are not included then please note them as new sites and
we’ll add them to the list next year. Please correct duplications or inconsistencies. In
general, the most specific place name is used. Most all the landing sites are in the drop
down menus.
For new sites, type in the name of the site, latitude and longitude at the bottom. It may
mean that your list of landing sites will not be in chronological date order. Make
additions to the list of landing sites as necessary.
• Record one line item per each activity. For example, if at one site you are
conducting multiple activities (boat landing, scuba driving, kayaking etc, makes sure each
activity is recorded separately).
• The 2003-2004 form will be completed prior to the start of the season and
there will be additional instructions provided by our computer advisor at that time.

End of Season Reports
• At the end of the season each company is responsible for providing IAATO with a
final report.
• Assure that both an electronic copy and hard copy of the Post Visit Site Report Forms
are correct and have been sent to IAATO and NSF and your national authority.
• Science Assist and Transport: Provide information on the number, nationality of each
scientist or group and the destination to where the transport occurred.
• List any donations or funds raised on board for environmental or cultural causes (i.e. Save the Albatross, Bird Life International, Orca Project, Antarctic Heritage Trust, Scott Polar Research Institute, Allied Whale Campaign etc.) List to whom it was sent and the dollar, Euro etc amount sent. All this information is incorporated into IAATO’s annual report. For detailed information see ATCM XXVI IP 78, IAATO Annual Report.

• Report any significant environmental impacts or changes that the officers, expedition staff noticed during the season

• Report any type of problem with any Non-IAATO Member or Scientific Vessel or their passengers. If digital pictures are available please include.

• Submit the required incident report form to IAATO if there had been a problem.

• Suggest ways of improving operational logistics and additional methods for minimizing environmental and potential cumulative impacts.

Have a safe and successful Antarctic season.

Appendix B

IAATO Pre-Season Antarctic Checklist 2003-2004 Season

Season Documents

- Expedition Leader and Ship’s Officers Season Instructions: Memorandum to Antarctic Captains, Expedition Leaders and Radio Officers and IAATO Office Personnel
- Antarctic Communications Directory (COMNAP MINI-ATOM-Available October 2003)
- IAATO Vessel Call Data, 2003-2004 (available October 2003)
- IAATO Ship Schedules (available October 2003)
- Approved 2003-2004 Palmer Station Cruise Ship Visits
- Copy of Organizer’s Environmental Impact Assessment (varies by organizer)
- Expedition Leader’s/Staff Resource Notebook

General

- Post-Visit Report, Part 1 (Expedition Record) and Part 2 (Site Visit Record) 2003-2004 version Antarctic Peninsula Region Landing Sites (with Longitude and Latitude)
- IAATO Emergency and Medical Response Contingency Plan
- ATCM Recommendation XVIII-1 (English, Spanish, French, Russian, German, Japanese, Italian, Chinese)
- IAATO Slide Presentation, Safety and Conservation Briefing
- CCAMLR Marine Debris in Antarctic Waters (placard)
- Help Stop Toothfish Poaching
- Introduction and Detection of Diseases in Antarctic Wildlife
- IAATO Boot and Clothing Decontamination Guidelines
- IAATO Wildlife Watching Guidelines
- Camping Guidelines, Kayak Guidelines, ROV Guidelines, Helicopter Guidelines for companies operating these activities Antarctic Tourism statistics, graphs and charts compiled by NSF
- Annual reports to the ATCM, and other relevant papers
- Compendium of Antarctic Peninsula Visitor Sites (Can be obtained from Oceanites)
Handbook of the Antarctic Treaty System 2002  (http://www.state.gov/g/oes/rls/rpts/ant/)
Updated List of Protected Areas (2003)
Relevant Management Plans for specific Antarctic tourist landing sites, Appropriate and Relevant Domestic Legislation, per company, per country. For example, for US Companies, the US Antarctic Conservation Act 1978, public law 95-541 as Amended by the Antarctic Science, Tourism and Conservation Act of 1996 (Public Law 104-227) necessary for vessels carrying US Citizens. See ATCMXXV IP85 Regulatory Mechanisms That Address Antarctic Tourism for a list of domestic legislation for a complete list of domestic legislations. Other countries such as Argentina, Australia, Germany, Japan, New Zealand, United Kingdom etc all have domestic legislation.
Convention on the Conservation of Antarctic Seals (1972)
Copy of all relevant permits
Copy of all relevant management plans for individual landing sites if required
Copy of most recent South Georgia, Macquarie and New Zealand Sub Antarctic Management plans and other Sub Antarctic information.
Albatross and Long Line Fisheries Lecture and Fund Raising information
Pendulum Cove boundary information for landings and visit to historic site
General Medical Information, Parts I, II and III (IAATO Website)
COMNAP Incident Reporting Form (IAATO Website)
Whale Collision Reporting Form (IAATO website)
Resolution 5, Antarctic Treaty Inspection Checklist for Tourist Ships
IAATO Observers Checklist
Procedures for Tourist or Non-Governmental Expeditions Requesting a Visit to BAS Research Stations or Historic Sites  (IAATO website)
Site Guidelines for Base A, Port Lockroy, Historic Site and Monument No 61 (IAATO website)

The following ATCM XXVI papers should be Available for Reference

IAATO submitted 8 papers and was part of a joint submission on a 9th paper to ATCM XXVI, Madrid, 2003. Relevant papers are listed here.

- ATCM XXVI IP 71 IAATO Overview of Tourism
- ATCM XXVI IP 72 Site Specific Guidelines 2003 in the Antarctic Peninsula
- ATCM XXVI IP 69 IAATO Wide Emergency Contingency Planning 2003-2004

Non-IAATO Papers (Can be found on the IAATO web site, Members Only section)
- WP 26 UK Paper Proposed Amendment to Recommendation XVIII-1/Site Specific Guidelines
- WP 24 Whalers Bay Historic Site No 71 by Norway, UK, Chile

Below are a few relevant papers IAATO submitted to ATCM XXV, Warsaw, 2002 that can be found on the IAATO website.

- ATCM XXV IP 85 Regulatory Mechanisms That Address Antarctic Tourism
- ATCM XXV IP 72 Guidelines For Tourist Operations In Antarctica
Tourism statistics can be found on the IAATO web site under “Tourism Statistics”

- Continental Sites, Ranking In The Top 5 Most Visited Sites For The Last 11 Seasons (1992-2003)
- Summary Of Continental Sites Visited By Tour Ships, 2002-2003
- Fourteen Season Overview Of Sites Visited In The Antarctic Peninsula (1989-2002)
- 2002-2003 Summary Of Peninsula Sites Visited By Tour Ships,
- Peninsula Sites Ranking In The Top 5 Most Visited Sites For The Last 14 Seasons (1989-2003)
- 2002-2003 Tourists By Nationality
- Nationalities Of Seaborne And Land-Based Antarctic Tourists
- Comparison Of Nationalities 1994-2003
- Projected Trends In Antarctic Tourism
- Antarctic Tourist Trends
- Summary Of Seaborne And Land-Based Antarctic Tourism By Departures 2002–2003
Appendix C

2002-2003 Donations

The following chart is a partial list of donations that were given by members or raised by expedition staff and passengers on board vessels during the season. It is known that passengers make individual contributions to various organizations independent of organized campaigns. Not all IAATO members provided a list prior to this report being submitted.

<table>
<thead>
<tr>
<th>Member</th>
<th>Birdlife International-Albatross</th>
<th>Save the Albatross-Australia</th>
<th>Antarctic Heritage Trust and Donation to Ross Sea Huts</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zegrahm Expeditions</td>
<td>36,515 usd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quark Expeditions</td>
<td>8,283 usd</td>
<td>22,140 usd</td>
<td>4,287 usd for Antarctic Killer Whale Inventory Catalogue (AKWIC)</td>
<td></td>
</tr>
<tr>
<td>Hapag Lloyd</td>
<td>123 usd</td>
<td>1,495.70 €</td>
<td>2,821 €</td>
<td>700 usd to the South Georgia Museum</td>
</tr>
<tr>
<td>Peregrine Adventures</td>
<td></td>
<td></td>
<td></td>
<td>Over 75,000 usd was raised and will be appropriated to various projects</td>
</tr>
<tr>
<td>Polar Star Expeditions</td>
<td>2,165 usd</td>
<td></td>
<td></td>
<td>1,028 usd for Antarctic Killer Whale Inventory Catalogue</td>
</tr>
<tr>
<td>Cheesemans’ Ecology Safaris</td>
<td>3,610 usd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lindblad Expeditions</td>
<td></td>
<td></td>
<td></td>
<td>66,027 usd to the Oceanites Site Inventory Project</td>
</tr>
<tr>
<td>Heritage Expeditions</td>
<td></td>
<td>Approximately 3150 usd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elegant Cruises</td>
<td></td>
<td></td>
<td></td>
<td>1,677 usd and 40 bps to the Grytviken Museum CIRCE-Conservation and Research on Cetaceans 1,630 usd and 60 €</td>
</tr>
<tr>
<td>ResidenSea</td>
<td>~6,000 usd</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total

Albatross           Approximately $58,000 usd
Antarctic Heritage Trust Approximately $29,048 usd
South Georgia Museum Approximately $2,400 usd
Oceanites           $66,027 usd
AKWIC               $5,315 usd
CIRCE               $1,630 usd
Unknown             Approximately $75,000 usd
Total               Approximately $234,000 usd

*Note this does not include all vessels or private donations that tourists have made once at home. Many ships provide their passengers with a list of organizations of whom to donate to. In addition other organizations benefit indirectly from passengers donations.
Appendix D

Partial list of Science Support and Transport by IAATO Vessels in 2003-2004

<table>
<thead>
<tr>
<th>Member</th>
<th>Country or Program Assisted</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antarpplly</td>
<td>Bulgaria</td>
<td>Transport of five scientists from Antarctica to Ushuaia</td>
</tr>
<tr>
<td>Aurora Expeditions</td>
<td>Poland</td>
<td>Re-supply of Arctowski Station and transport of four scientists</td>
</tr>
<tr>
<td>Elegant Cruises</td>
<td>Australia and United Kingdom</td>
<td>Graham Robertson and Sally Poncet for Albatross and Site Surveys at South Georgia</td>
</tr>
<tr>
<td>Clipper Cruise Lines</td>
<td>United Kingdom</td>
<td>Transport of three British Antarctic Survey scientists from South Georgia to the Falkland Islands (Islas Malvinas)</td>
</tr>
<tr>
<td>Hapag Lloyd</td>
<td>Various</td>
<td>Transported 30 Scientists and or personnel to or from Antarctica</td>
</tr>
<tr>
<td>Heritage Expeditions</td>
<td>New Zealand</td>
<td>Transport of 11 scientists to/from the NZ sub-Antarctic Islands (Campbell, Snares, and Auckland Islands)</td>
</tr>
<tr>
<td>Oceanwide Expeditions</td>
<td>Russia</td>
<td>Transport of equipment for the clean up project at Bellingshausen in conjunction with Mission Antarctica</td>
</tr>
<tr>
<td>Peregrine Shipping</td>
<td>Various and Bulgaria</td>
<td>48 international scientists were transported to/from South America while the ship was en route to Antarctica 14 Scientists were transported to/from Ochridiski</td>
</tr>
<tr>
<td>Plantours and Partner</td>
<td>Sweden</td>
<td>One Swedish scientist was transported to Jubany</td>
</tr>
<tr>
<td>Quark Expeditions</td>
<td>Australia and New Zealand</td>
<td>20 Science Personnel were transported to and from Casey and/or Macquarie Island Nine Science Personnel were transported from Hobart to/from the NZ sub-Antarctic islands (Campbell and Enderby Islands)</td>
</tr>
<tr>
<td>Society Expeditions</td>
<td>Germany</td>
<td>Three Scientists were transported from Jubany to Ushuaia Three Field Staff from Oceanites were transported from Petermann to Ushuaia</td>
</tr>
</tbody>
</table>

Total Number of Science Personnel Transported: at least 152

Appendix E

IAATO’s Objectives (as agreed to in 1991)
• To represent Antarctic tour operators and others organizing and conducting travel to the Antarctic to the Antarctic Treaty Parties, the international conservation community and the public at large.

• To advocate, promote and practice safe and environmentally responsible travel to the Antarctic.

• To circulate, promote and follow the Guidance for Visitors to the Antarctic and Guidance for Those Organizing and Conducting Tourism and non-Governmental Activities in the Antarctic, as adopted by the Antarctic Treaty System (Recommendation XVIII-1).

• To operate within the parameters of the Antarctic Treaty System, including the Antarctic Treaty and the Environmental Protocol and Annexes, along with MARPOL, SOLAS and similar international and national laws and agreements.

• To foster continued cooperation among its Members and to monitor IAATO programs, including the pattern and frequency of visits to specific sites within the Antarctic, and to coordinate itineraries so that no more than 100 passengers are ashore at any one time in any one place.

• To provide a forum for the international, private-sector travel industry to share expertise and opinions and to uphold the highest standards among Members.

• To enhance public awareness and concern for the conservation of the Antarctic environment and its associated ecosystems and to better inform the media, governments and environmental organizations about private-sector travel to these regions.

• To create a corps of ambassadors for the continued protection of Antarctica by offering the opportunity to experience the continent first-hand.

• To support science in Antarctica through cooperation with National Antarctic Programs, including logistical support and research.

• To foster cooperation between private-sector travel and the international scientific community in the Antarctic.

• To ensure that the best qualified staff and field personnel are employed by IAATO Members through continued training and education. And to encourage and develop international acceptance of evaluation, certification and accreditation programs for Antarctic personnel.
Appendix F

Boot and Clothing Decontamination: IAATO’s Recommended Guidelines

Introduction

While there is at present no conclusive evidence that tourists have introduced or transmitted diseases within Antarctica, there is indirect and circumstantial evidence that raises concern. There is the potential for visitors to be vectors of disease, both into and within the Antarctic ecosystem. To minimize this potential IAATO recommends decontamination practices similar to those of the quarantine authorities of most countries who protect themselves from the introduction of external diseases.

Recommendations

1. In pre-voyage information:

1.1 Passengers are advised that Antarctica is an isolated continent and as far as we know is free of introduced diseases. We must ensure it remains so.

1.2 Passengers are advised that all boots and clothing must be clean before joining the ship. Those who go trekking, tramping, backpacking, farm visiting prior to the voyage must clean their boots and clothing thoroughly to remove all material from them. Tripod feet can also collect mud and seeds and should be checked regularly.

2. Pre-landing briefing:

2.1 Passengers are reminded that they must have clean boots and clothing to go ashore. Facilities will be available on deck for those who need them (the boot washing station).

3. Landings:

3.1 As far as possible, avoid walking in concentrations of organic material such as guano, seal placenta, seal faeces, in order to avoid moving this material around the landing site.

3.2 A simple brush scrubber at the landing site helps to clean boots before entering the Zodiac. The device at the landing site is simply a three-quarter-inch-thick plywood sheet about 2-3 feet square with a couple of stiff-bristle scrub brushes attached, placed so that boots can be placed between them and vigorous brushing cleans the sides of the boot, while a brush on the bottom cleans the sole. The scrubbers are then thoroughly rinsed at the end of the landing period, and put into the Zodiaks for return to the ship.

3.3 Before boarding the Zodiac or helicopter, wash as much material off boots and clothing as possible before boarding the Zodiac. Ensure that whatever touched the ground ashore (backpacks in particular), boot cuffs, exposed velcro be inspected, brushed off, etc., before leaving the beach. Seeds and other vegetation in the Sub-Antarctic islands could easily be transported if not cleaned thoroughly.
3.4 On returning to the ship, boots and clothing must be cleaned thoroughly at the boot washing station.

4. The boot washing station:

4.1 This is a facility on deck at the head of the gangway (or in close proximity to the point of return of passengers where Zodiaks or helicopters are used). It requires:

- Running water and a hose,
- Drainage of water off the ship,
- Scrubbing brush and or coarse mat and shallow tray by which all debris can be scrubbed from boots and clothing,
- A member of staff or crew to assist passengers to inspect their boots and clothing for complete decontamination.

5. Between landings:

5.1 Every effort must be made to ensure that boots and clothing dry out completely between landings. (Desiccation is an important mode of controlling some micro-organisms).

6. At the next pre-landing briefing:

6.1 Ask passengers to check that boots and clothing are clean before leaving the ship.

Appendix G

Introduction and Detection of Diseases in Antarctic Wildlife: IAATO’s 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 the Environmental Protocol and Recommendation XVIII-1, have used 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, October 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.

* Zodiaks 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.
REPORT OF THE WORLD CONSERVATION UNION\textsuperscript{4} (IUCN) UNDER ARTICLE III (2) OF THE ANTARCTIC TREATY XXVII ANTARCTIC TREATY CONSULTATIVE MEETING

The Fifth IUCN World Parks Congress (Durban, South Africa, 8-17 September 2003) highlighted recent evidence showing the value of marine protected areas as powerful tools for biodiversity conservation and sustainable fisheries. Congress participants accordingly called on the international community to devote urgent attention to creating and expanding marine protected area networks beyond national jurisdiction, including Antarctica, by 2012. A practical first step identified at the World Parks Congress, and elaborated in an agreed Ten Year High Seas Marine Protected Areas Strategy, is to identify marine areas for priority attention and develop criteria and guidelines for a representative system of marine protected areas.

A further issue spotlighted by marine experts at the World Parks Congress was the wealth of unique species inhabiting deep sea features such as seamounts and cold-water corals and their particular vulnerability to disturbance from seabed bottom trawling. The ATCM, through its Environmental Committee, has an opportunity to protect these “biodiversity hotspots” by establishing on a priority basis, management mechanisms, including ASPA and ASMA, to ensure that no bottom trawling occurs over such features until specific measures are in place to protect them.

Antarctic Marine Protected Areas

At the XXIIst Meeting of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) (Hobart Tasmania, Australia 2003), IUCN put forward recommendations regarding Marine Protected Areas (MPAs) in Antarctica. Noting that MPAs may enhance both fisheries productivity and conservation of marine biodiversity, IUCN encouraged CCAMLR Members to consider developing guiding principles to assist with the selection and designation of a network of Antarctic marine protected areas.

IUCN further noted that Articles IX.1 (f) and IX.2 (g) of the Convention on Conservation of Antarctic Living Marine Resources in conjunction with Annex V of the Madrid Protocol on Environmental Protection provide a framework for CCAMLR and the Antarctic Treaty Consultative Parties, particularly their Committee for Environmental Protection, to develop a system of marine protected areas that can protect ecosystem services, biodiversity and productivity in the Antarctic marine environment. CCAMLR further has the opportunity to extend such a system to cover the much larger area of the Southern Ocean under its remit than is covered by the Antarctic Environmental Protocol.

\textsuperscript{4} Created in 1948, IUCN - The World Conservation Union brings together 75 States, 108 government agencies, over 750 NGOs, and some 10,000 scientists and experts from 181 countries in a unique worldwide partnership. IUCN'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 is the world's largest environmental knowledge network and has helped over 75 countries to prepare and implement national conservation and biodiversity strategies. IUCN is a multicultural, multilingual organization with 1000 staff located in 62 countries. Its headquarters are in Gland, Switzerland. More information on IUCN's work is available from www.iucn.org
IUCN further urged CCAMLR to consider developing criteria for review of proposed Antarctic Specially Protected Areas (ASPAs) and Specially Managed Areas (SMAs) that reflect how they will contribute to CCAMLR’s goals of conservation, ecosystem-based management and precautionary decision-making.

The Scientific Committee agreed to refer IUCN's recommendations on marine protected areas to its Working Group on Ecosystem Management and Monitoring for further consideration.

In the past year, IUCN has further explored and developed the concept of high seas marine protected areas (HSMPAs). It organized a session at the 5th World Parks Congress (Durban, South Africa, 8-17 September 2003) on Protecting Marine Biodiversity beyond National Jurisdiction. This meeting was hosted in conjunction with IUCN’s World Commission on Protected Areas and WWF International’s Endangered Seas Program. At the World Parks Congress, IUCN additionally convened a special side session on Antarctic MPAs together with members of the IUCN Antarctic Advisory Committee and the Whale and Dolphin Conservation Society.

Based on these events, we have prepared the attached Ten-Year High Seas Marine Protected Areas Strategy to promote the development of a global representative system of high seas marine protected area networks. It incorporates World Parks Congress Recommendation 5.23 on “Protecting Marine Biodiversity and Ecosystem Processes through Marine Protected Areas beyond National Jurisdiction. It further indicates key strategic steps to develop a global representative system using existing knowledge while recognizing that further research is necessary. The strategy builds on the results of the international Workshop on High Seas Marine Protected Areas (15-17 January 2003, Malaga, Spain) that emphasize the need to establish demonstration MPAs beyond national jurisdiction by utilizing existing instruments such as those set forth in the Antarctic Treaty System. This is essential to build experience with the practicalities of design, implementation and enforcement of HSMPAs while a representative system of networks is under development.

The Vth World Parks Congress highlighted recent evidence showing the value of marine protected areas as powerful tools for biodiversity conservation and sustainable fisheries. Congress participants accordingly called on the international community to devote urgent attention to creating and expanding marine protected area networks beyond national jurisdiction, including Antarctica, by 2012. Collaboration between and among regional fishery management organizations and other relevant regional and global bodies is recognized as key element of this process. Participants at the World Parks Congress event on Antarctic MPAs specifically urged the Antarctic Treaty Parties to ensure the establishment of a representative system of marine protected areas for the Southern Ocean south of 60 degrees S. Noting the so far largely intact nature of the Ross Sea area, the participants further urged that the Ross Seas receive priority for protection.

The World Parks Congress Recommendation 5.23 provides the international community with a challenge of establishing five new HSMPAs by 2008. IUCN believes that in light of the purposes of this Convention, the standing and diversity of its 24 Members, the size of the CCAMLR Area, its ecological significance, and the leadership that the Antarctic Treaty System has previously shown in the development of the international protected areas system, at least one of these HSMPAs should be established within the CCAMLR Area.

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5 Documents agreed at the World Parks Congress are available at www.iucn.org/wcpa/wpc2003.
A practical first step, as highlighted in that Recommendation, is to identify marine ecosystems, habitats, areas, processes and biodiversity hotspots for priority attention and develop criteria and guidelines for individual sites and for a representative system of HSMPA networks using current information while determining future research needs and priorities.

At the World Parks Congress, IUCN and WCPA were identified as potentially key organizations for supporting the development of mechanisms to initiate action for Antarctic MPAs.

It was hoped that this might include bringing together relevant stakeholders, researchers and data holders to synthesize and evaluate relevant scientific information for the purposes of defining an appropriate network of marine protected areas and associated conservation measures in Antarctica. IUCN accordingly offers its assistance to CCAMLR and its members for these purposes.

**Seamounts and Cold Water Coral Reefs**

Scientists are increasingly concerned about the threats that bottom trawling pose to vulnerable deep-sea biodiversity hotspots, such as seamounts and cold-water corals.

The biological characteristics of these deep-sea features, which typically support slow-growing, long-lived species, make them particularly sensitive to disturbance. The CCAMLR Area includes a great many seamounts. The flanks of seamounts are known to be preferred areas for longlining for Patagonia toothfish.

The 2002 UN General Assembly adopted a resolution calling on the UN system to "consider urgently" the "risks to the biodiversity of seamounts" and other areas. In June 2003, the UN Informal Consultations on Oceans and the Law of the Sea (UNICPOLOS) reiterated this call and expanded upon it. The issue was discussed again at the July meeting of the States Parties to the UN Fish Stocks Agreement. It is the subject of current discussions regarding the two 2003 UNGA resolutions on i) fisheries and ii) Oceans and the Law of the Sea.

At the Tenth Deep-Sea Biology Symposium in Coos Bay, Oregon in August 2003, and the Second International Symposium on Deep Sea Corals in Erlangen, Germany in September 2003, approximately one hundred and fifty scientists signed a Statement of Concern to the United Nations General Assembly underlining the risks of bottom trawling to seamounts, cold-water corals and other vulnerable ecosystems of the deep sea. Among other recommendations, the scientists urged the UN General Assembly to adopt an immediate moratorium on bottom trawl fishing on the high seas and in other areas beyond national jurisdiction.

Initial assessments indicate that bottom trawling on the high seas appears relatively limited in relation to other high seas fisheries in terms of the number of vessels, the countries involved, and the amount and value of the catch. However, of significant concern is the fact that bottom trawling on the high seas is largely unregulated. Only a handful of Regional Fisheries Management Organizations (e.g., CCAMLR, NAFO, NEAFC, SEAFO) have the authority to regulate bottom fishing. Few if any of these organizations have restricted bottom trawling to protect sensitive bottom ecosystems.
The need to address this issue has been formally recognized by the UN General Assembly (UNGA Resolution A/57/171 paragraph 56), the 2002 and 2003 meetings of the UN Informal Consultative Process on Oceans and the Law of the Sea and the 2003 Ministerial Meeting of the OSPAR Commission. At the IUCN World Parks Congress, the urgency of this issue was highlighted to delegates in several presentations stressing the vulnerability of these areas to bottom trawling. As a result, World Parks Congress marine participants called “on the United Nations General Assembly to consider an immediate moratorium on deep sea trawling in high seas areas with seamounts, cold water coral reefs communities until legally binding international conservation measures to protect the areas are in place.”


**Part II. Relevant IUCN Activities**

IUCN has been concerned with Antarctic conservation issues for many years and has been participating in ATCMs and CCAMLR since the opportunity first became available in the 1980s. Some of our most recent activities relevant to Antarctic conservation are listed below.

**High Seas**

As reported last year, IUCN, its World Commission on Protected Areas (WCPA) and WWF International have commenced a High Seas Marine Protected Areas Project, as part of a major initiative to conserve marine living resources and biodiversity in areas beyond national jurisdiction.

IUCN and partners have developed a long-term strategy and action plan to map and highlight areas of high biological diversity and productivity or rare or endangered species, bring together experts to build support for an initial demonstration HSMPA and create opportunities for expansion of the global representative network into the high seas, publicize imminent threats, engage with key industry sectors, and highlight the need for urgent action.

IUCN is currently working with a variety of regional partners to develop a diverse set of pilot HSMPA projects in different areas of the world's oceans.

**World Commission on Protected Areas**

Established in 1959, the World Commission on Protected Areas (WCPA) is the world’s leading body of parks and protected areas experts. Current programmes of high relevance to protected areas in the Antarctic include the demonstration of MPAs as a tool for sustainable fisheries management as well as for the protection and restoration of marine biodiversity.

A WCPA High Seas Working Group has been established to bring together organizations and individuals committed to high seas biodiversity and productivity conservation. The Executive Committee includes non-governmental organizations such as IUCN, WWF, Conservation International, Birdlife International and the National Geographic Society, and facets of IUCN including the Antarctic Advisory Group, the Environmental Law Center, and WCPA Mediterranean. Dr. Alex Rogers, of the British Antarctic Survey, is the scientific advisor.
**The World Parks Congress: Benefits Beyond Boundaries, 8 – 17 September 2003, Durban, South Africa**

The World Parks Congress, convened by IUCN every ten years, is the premier global event where the big issues for the protected area profession are drawn out and debated. It provides the major forum for setting the global agenda and charting the course for Protected Areas for the next decade and beyond. The Vth World Parks Congress responds to the challenge to show how Protected Areas are relevant to the broader economic, social and environmental agenda for humankind in the 21st Century, and the importance of such areas in adapting to global change, with the theme "Benefits Beyond Boundaries".

At the Vth World Parks Congress a special season on high seas governance issues served to inform and carry forward action by the international community. Marine experts adopted a set of recommendations for global action to conserve and maintain high seas biodiversity and productivity both within and beyond protected areas. These recommendations served as the foundation for the Ten-Year High Seas MPA Strategy annexed below.

IUCN and partners recommended the establishment of expert working groups to 1) assess rare and vulnerable species in seamounts, and 2) develop criteria and guidelines for HSMPAs. A substantial portion of this session was used to explore opportunities for development of a HSMPA network under the auspices of existing mechanisms such as the Antarctic Treaty System, with particular reference to Annex V of the Environmental Protocol. More information about the World Parks Congress is available at [www.wcpa.iucn.org](http://www.wcpa.iucn.org).

**Concluding Remarks**

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.

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ANNEX 1

TEN-YEAR HIGH SEAS MARINE PROTECTED AREA STRATEGY: A ten-year strategy to promote the development of a global representative system of high seas marine protected area networks

Summary Version

As agreed by Marine Theme Participants at the Vth IUCN World Parks Congress, Durban, South Africa (8-17 September 2003)

Background

The past thirty years of ocean exploration have revealed an incredible diversity of life inhabiting our oceans, including deep ocean ecosystems and communities with a wealth of unique species; however, much of the oceans remain poorly explored or understood.

Despite our lack of knowledge, we do know that the biodiversity and productivity of the high seas—the deep seabed and water column beyond national jurisdiction—are under imminent threat primarily from fishing activities (deep sea trawling, long-lining, etc.). The common assumption that living marine resources are inexhaustible has often been proven incorrect.

Sector-based, single stock and short-term management efforts have failed to protect target species, bycatch species and fragile seabed habitats. Achieving precautionary, integrated and ecosystem-based management is an essential goal.

This Ten-Year High Seas Marine Protected Area Strategy (Ten-Year HSMPA Strategy) provides a framework for achieving a vital step towards that goal.

It provides a strategy for coordinated action over a ten-year period to develop, establish and effectively manage a representative system of marine protected area networks for the high seas (HSMPAs).

Marine protected areas covering the full range of IUCN protected area management categories can help to ensure biodiversity conservation, species protection, equitable resource use and sustainable exploitation through integrated area-based management.

A representative system of MPAs is essential to protect habitats or ecosystems that are unique, special, fragile or representative on a regional biogeographic basis, including benthic habitats such as shelf edges, cold-water coral reefs, canyons, seamounts, hydrothermal vents, cold seeps and abyssal plains and open ocean features such as eddies, fronts and zones of upwelling.

Similarly, networks of MPAs are essential to link marine ecosystems and better protect species and habitats that depend on processes outside a protected area. An ecologically coherent network of MPAs is crucial for sustaining populations of many animals and plants and particularly for highly mobile seabirds, mammals, turtles, and fish, safeguarding the habitats necessary to critical stages of their life cycle and migratory routes. Most importantly, perhaps, networks can ensure that management failures and natural catastrophes inside and outside these areas do not result in irreversible biodiversity loss.
While more is required to create a sustainable framework covering the world’s oceans, a system of HSMPA networks is thus a key mechanism for 1) securing protection from immediate threats; 2) enabling coordinated decision-making involving a range of stakeholders (e.g., fishing, maritime navigation and commercial shipping, marine conservation, seabed mining, etc.); and 3) developing comprehensive, integrated and ecosystem-based oceans management.

The Ten-Year HSMPA Strategy identifies seven core components to focus action over the next ten years and elaborates strategic steps necessary to implement these components. A series of “Tool Boxes” indicate key international and regional fora for promoting HSMPAs, mechanisms for HSMPA establishment, and priorities for research. It was introduced for discussion at the 5th World Parks Congress, Durban, South Africa (8-17 September 2003). This Summary Version contains the seven core components endorsed by Marine Theme Participants in World Parks Congress Recommendation 5.23, and as an “Emerging Issue”, supplemented by key strategy steps identified by marine experts at the World Parks Congress.

**Definition of Terms Used in Strategy**

The Strategy applies the following definitions:

- **Biodiversity**: “The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and ecosystems” (as adopted in the Convention on Biological Diversity).

- **The High Seas**: The term “high seas” is used to refer generally to areas beyond the 200-nautical mile exclusive economic zone (EEZ) or territorial sea where no EEZ or its equivalent has been declared (e.g. the Mediterranean). It includes the deep seabed “Area” as defined in UNCLOS and the water column. It is recognized that continental shelf areas beyond 200 nautical miles may be subject to national jurisdiction in accordance with the UNCLOS, but the water column above them is high seas.

- **Marine Protected Area (MPA)**: “Any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment”. Such protection can range from areas managed mainly for science or wilderness values to areas managed mainly for the sustainable use of natural ecosystems and resources (as reflected in the six IUCN Protected Area Management Categories).

- **High Seas Marine Protected Areas (HSMPAs)**: In the context of the high seas, MPAs represent an opportunity for the global community to cooperate to provide a higher level of protection than prevailing levels, a structure for coordinated decision-making amongst a range of stakeholders (i.e. governments, international and regional organizations, fishing, shipping, marine conservation, etc) and a basis for integrated and ecosystem-based oceans management. They should not be construed as an opportunity to assert national sovereignty or jurisdiction.
Core components and key strategic steps

I. ENDORSE AND PROMOTE the World Summit on Sustainable Development (WSSD) Joint Plan of Implementation together with the goal of establishing a global system of effectively managed, representative networks of marine protected areas by 2012 that includes within its scope the world’s oceans and seas beyond national jurisdiction, consistent with international law; including through:

- Identifying and dedicating financial and human resources to raise awareness, educate, conduct research and build capacity;
- Establishing cost-effective mechanisms and providing venues to educate and raise awareness among stakeholders;
- Establishing a coalition among like-minded governments, international and regional organizations, non-governmental organizations, scientists, business and industry leaders, fishers and other ocean users, and the media to promote coordinated action and monitor and report on progress; and
- Promoting the conservation of biological diversity, productivity and species on the high seas and the value of a global representative system of HSMPA networks as tools for this purpose at relevant international organizations and meetings.

II. CALL on the United Nations General Assembly (UNGA) to consider an immediate moratorium on deep sea trawling in high seas areas with seamounts and cold-water coral reef communities until legally binding international conservation measures are in place; including through:

- Developing global campaigns to inform decision makers and the general public about the value and importance of seamounts and cold water coral reefs;
- Encouraging scientists and fisheries managers to synthesize current information on seamounts and cold water corals and the impacts of associated fisheries in a way meaningful to decision makers and the general public; and
- Promoting immediate dialogue with the fishing and seafood industries on mechanisms for, and benefits of, protection of these systems, communities and habitats.

III. UTILIZE available mechanisms and authorities to establish and effectively manage by 2008 at least five scientifically significant and globally representative HSMPAs consistent with international law and based on sound science to enhance the conservation of marine biodiversity, species, productivity and ecosystems, including through:

- Developing explicit proposals for pilot HSMPAs while plans for a representative system of HSMPA networks are under development.
- Using known opportunities under regional and global agreements to establish HSMPAs through binding and non-binding agreements; and
Encouraging broad-based support and endorsement of HSMPAs by any states not party to such agreement and regional and global bodies.

IV ESTABLISH a global system of effectively managed, representative networks of marine protected areas; including through:

1) Taking immediate and urgent action to protect the biodiversity and productivity of seamounts, cold-water coral communities and other vulnerable high seas features and ecosystems and especially to safeguard species and habitats at immediate risk of irrevocable damage or loss; including through:

- Producing an expedited report on seamount and cold water coral habitats, their biological diversity and associated fisheries as well as options for international action;
- Identifying within two years priority candidate sites for protection through MPAs;
- Encouraging full and effective application of the principles and provisions of the UN Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Stocks Agreement) to all high seas (including deep ocean) fishing activities, together with development of tools such as networks of strictly protected/managed areas to ensure long-term protection, conservation and sustainable use of marine biodiversity; and
- Promoting, developing and implementing mechanisms to protect vulnerable high seas (including deep ocean) features, ecosystems, habitats and species from human activities at sea, such as fisheries, shipping, dumping of hazardous substances, harmful prospecting, military operations and deep-sea mining.

2) Taking immediate and urgent action to protect the biodiversity and productivity dependent on large-scale, persistent oceanographic features, such as currents and frontal systems, known to support marine life and contain critical habitat for species such as those listed in the IUCN Red List and the appendices of the Convention on International Trade in Endangered Species (CITES), the Convention on Migratory Species (CMS) and related Agreements; including through:

- Producing a review of such oceanographic features and related biodiversity hotspots to identify priority candidate sites for protection through MPA’s; and
- Promoting, developing and implementing mechanisms to enable urgent action to protect threatened marine species, especially highly migratory species, and their habitats from human activities at sea, such as fisheries, shipping, transportation, dumping of hazardous substances, harmful prospecting, and military operations.

3) Developing mechanisms to enable urgent and long-lasting protection of non-target species and habitats threatened by high seas fishing activities, particularly by ensuring that measures to mitigate by-catch, incidental catch and habitat/ecosystem damage are developed for and implemented in all relevant fisheries; including through:

- Supporting and promoting all national and international activities to eliminate Illegal, Unregulated and Unreported (IUU) fishing, inter alia, by outlawing flags of convenience;
- Assisting in identifying those fisheries whose interactions with non-target species of invertebrates, fish, sharks, turtles, marine mammals and seabirds are causing, or have potential to cause, unnecessary and/or unsustainable levels of mortality, especially of threatened species;

- Promoting the development and use of new measures, equipment and techniques to mitigate and/or eliminate the by-catch of invertebrates, fish, sharks, turtles, marine mammals and seabirds, especially through dialogue and cooperation with fisher- and industry-based approaches and solutions; and

- Promoting the mandatory and regulated use of best practice measures, equipment and techniques applied on a fishery-specific basis, to mitigate and/or eliminate the by-catch of invertebrates, fish, sharks, turtles, marine mammals and seabirds, especially through dialogue and cooperation with fisher- and industry-based approaches and solutions.

V. INITIATE action to identify marine ecosystems, habitats, areas, processes and biodiversity hotspots for priority attention, develop agreed criteria and guidelines for the identification, establishment, management and enforcement of HSMPAs, develop guidance for a representative system of HSMPA networks, establish sustainable financing strategies and determine future research needs and priorities; including through:

- Convening international, regional and national meetings of key stakeholders, researchers and data holders to identify marine ecosystems, habitats, areas, processes and biodiversity hotspots for priority attention and develop criteria and guidelines for the identification, establishment, management and enforcement of HSMPAs;

- Convening multidisciplinary expert workshops and/or groups to analyse available information to assess potential HSMPAs, to develop a provisional representative system of MPA networks, including appropriate criteria and guidelines, and determine future research needs and priorities within a three year time frame;

- Promoting adoption of the criteria and guidelines at relevant meetings;

- Developing and making available scientific, legal, socio-economic and policy research relevant to the development of a global representative system of MPA networks and the protection and sustainable use of biodiversity, species and ecosystem processes within the high seas; and

- Convening meetings of groups of key stakeholders including donors, finance institutions and the private sector to discuss options and develop mechanisms for facilitating sustainable financing.
VI. COOPERATE to develop and promote a global framework or approach, building on the United Nations Convention on the Law of the Sea (UNCLOS), the Convention on Biological Diversity (CBD), the UN Fish Stocks Agreement, CMS and other relevant agreements, to facilitate the creation of a global representative system of high seas MPA networks consistent with international law, to ensure its effective management and enforcement, and coordinate and harmonize applicable international agreements, mechanisms and authorities in accordance with modern principles of precautionary, ecosystem-based and integrated management and sound governance as defined in the UN principles; including through:

- Requesting those countries which have yet to sign or ratify UNCLOS, and other relevant international agreements (e.g. Kyoto Protocol, Convention on Biological Diversity, UN Fish Stocks Agreement) to immediately ratify and implement these agreements;

- Promoting work pursuant to the CBD, CMS, and UNCLOS, in cooperation with relevant international and regional bodies, to identify appropriate mechanisms for the establishment and effective management of a representative system of HSMPA networks, consistent with international law and based on scientific information;

- Promoting work relating to regional fisheries management and the UN Fish Stocks Agreement to ensure ecosystem based management that recognizes the value of and incorporates the use of HSMPA networks;

- Promoting legally binding commitments for all Regional Fisheries Management Organisations (RFMOs) in respect of implementing sound governance, comprehensive data acquisition and dissemination and best practice management operations including all appropriate elements of current and relevant United Nations Food and Agriculture Organisation (FAO) Plans of Action, as key contributions towards the implementation of appropriate conservation and management measures within potential MPAs;

- Promoting cooperation within and between regional seas conventions and other regional bodies (including RFMOs) to address threats at the level appropriate to conserve regional ecosystems and biodiversity (watersheds to open ocean);

- Promoting further work within the United Nations system to improve intergovernmental coordination and cooperation; and

- Supporting high-level consideration of the need for additional mechanisms, including UNCLOS implementing agreements, to facilitate the effective management of a global representative system of HSMPA networks and an effective governance system.

VII. JOIN TOGETHER through formal or informal networks to promote the development of a global representative system of high seas MPA networks within their own governments and organizations and in broader international forums to achieve protection of the biological diversity, productivity and sustainable use of the high seas, with the global representative system of MPA networks being a principal tool, reporting back on progress at the International Marine Protected Area Congress (IMPAC1) in Geelong, Australia in 2005 as well as at other relevant forums.
These core components and key strategy steps are complemented by a general call for action throughout the life of the Strategy for capacity building, education and awareness raising, stakeholder engagement, and scientific, socio-economic and legal research to further understanding, awareness and the ability to protect high seas biodiversity, species, productivity and ecological processes.

**Invitation**

Those interested in learning more about high seas biodiversity and coordinating efforts to achieve its protection and sustainable use are invited to contact Kristina Gjerde, IUCN High Seas Policy Advisor at kgjerde@it.com.pl. Additional information is available at iucn.org/themes/marine.

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**Opportunities to support high seas biodiversity conservation through MPAs using international and regional forums and agreements**

**GLOBAL**

- The **UN Informal Consultative Process on Oceans and the Law of the Sea** (UN ICP) is a particularly useful forum to advance international action/agreement on the need for a unified policy framework for HSMPAs, to facilitate co-ordination at inter-agency and intergovernmental levels, and to promote worldwide information exchange and access. The UN ICP has identified MPAs as a possible topic for future discussion.

- The **2004 Conference of Parties** to the Convention on Biological Diversity (CBD) will develop and adopt the Convention’s Global Programme of Work on protected areas, including provisions on marine protected areas, as well as its Global Programme of Work on marine issues. The CBD Programmes of Work specify the objectives and priorities for action by the 189 Parties to the Convention.
- The **International Seabed Authority** (ISA) has adopted a mining code relating to the exploration for polymetallic nodules and is currently developing rules to regulate mining for polymetallic sulphides and cobalt crusts that occur mainly at hydrothermal vents and seamounts. However, the ISA’s mandate regarding the resources of the deep seabed extends well beyond mineral exploitation, and the Authority is being encouraged to more fully exercise its powers and responsibilities with regard to living resources of the seabed and to ensure that marine ecosystems are properly protected and considered in all ISA licensing decisions and activities.

- The **Convention on Migratory Species** (CMS) offers the opportunity to address ecosystem conservation on a regional level through the creation of “CMS-agreements” (both binding agreements and MoUs) among countries that are “range states” of particular important species or groups of species. In addition to the possibility of initiating negotiation of new agreements, the CMS process may be utilised as a tool for multi-lateral species management. Several CMS Agreements already exist relating to marine species (cetaceans and turtles and seabirds). The process of creating, implementing and reviewing the management plans and other work under these agreements may be an important tool for high-seas conservation.

- Widespread implementation of the **UN Agreement on Highly Migratory Fish Stocks and Straddling Fish Stocks** (UNFSA) would improve management of straddling and highly migratory fish stocks, as well as species belonging to the same ecosystem or associated with or dependent upon the target stocks. Fisheries subject to this agreement must be managed to protect marine biodiversity and to apply the precautionary approach, which requires the proponents of resource exploitation to prove the sustainability of their actions. Intended to be implemented primarily through Regional Fishery Management Organizations (RFMOs), the UNFSA is only slowly being incorporated into RFMO management. The development of incentives, best management standards, public accountability and consumer awareness might help to speed this process.

- Several instruments relevant to high seas biodiversity conservation have been developed under the auspices of the **UN Food and Agriculture Organization** (FAO), including, i) International Plan of Action (IPOA) on Seabird By-catch in Long –line Fisheries, ii) IPOA on Conservation and Management of Sharks, iii) IPOA on Fishing Overcapacity, and iv) IPOA on Illegal, Unreported and Unregulated (IUU) Fishing. In addition, FAO plays an important role in convening and facilitating information exchange among Regional Fisheries Management Organizations on scientific and legal aspects of implementation of international treaty requirements and provides technical support. Another FAO forum, biennial meetings of the Committee on Fisheries (COFI) are increasingly addressing “deep seas fisheries” issues such as seamount fisheries. Deep sea fisheries will be the topic of a conference organized by New Zealand and Australia with the technical assistance of FAO from 1-5 December 2003 (Queenstown, New Zealand). These meetings provide an opportunity to encourage FAO, states and RFMOs to utilize MPAs as part of the overall objective of ecosystem-based management.
- Under the International Convention for the Prevention of Pollution from Ships (MARPOL), members of the International Maritime Organization (IMO) may apply for the designation of Special Areas where particularly strict standards are applied to discharges from ships. Special Areas may include high seas areas (e.g. the entire Mediterranean is a special area)2. Other IMO measures may also be approved to regulate shipping activities in high seas areas. For example, under the Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas, IMO members may petition IMO for global recognition of the special significance of a defined sea area and approval of other IMO measures to address risks and threats posed by shipping.

- Under the Convention for the Regulation of Whaling the International Whaling Commission (IWC) may adopt regulations with respect to “open and closed waters, including the designation of sanctuary areas”. Sanctuaries where commercial whaling is prohibited have been established in the Indian Ocean (1979) and the Southern Ocean (1994), comprising extremely large extents of high seas waters where commercial whaling is prohibited.

- The Convention on International Trade in Endangered Species (CITES) has recently entered the field of high-seas biodiversity conservation – providing, through its mandate to control trade that impacts the status of listed species, a strong impetus for bringing governments “to the table” to discuss the tools for species management on the high seas (including HSMPAs and other ecosystem protection).

- The World Heritage Convention (WHC) provides a basis for identification and global cooperation to conserve areas of “outstanding universal value”. Though it does not extend beyond the territory of member states, the Convention’s principles and procedures may provide a useful model for identification of and agreements to protect areas of “outstanding universal value” on the high seas. Some have suggested that its territorial ambit be expanded to enable designation of areas of outstanding universal value beyond national jurisdiction.

- Through the 2001 UNESCO International Convention for Protection of Underwater Cultural Heritage underwater sites of cultural importance maybe protected. This may provide some incidental benefits to high seas biodiversity in and around the area.

REGIONAL

- In the Antarctic and Southern Ocean, the 1991 Antarctic Environment Protocol contains an Annex V on Area Protection and Management that envisages the development of a systematic approach to the identification and establishment of protected areas, including marine areas. Protected areas in the marine environment must be approved by the Commission on the Conservation of Antarctic Marine Living Resources (CCAMLR), which is empowered to designate special areas for protection and scientific study. Meetings of the Committee for Environmental Protection (CEP) under the Antarctic Treaty Protocol and CCAMLR provide an opportunity to discuss development of marine protected areas in Antarctica.
• The Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR Convention) has a wide mandate to protect the marine environment and its biodiversity from all sources and activities. Over half of the “OSPAR Maritime Area” is beyond national jurisdiction. The Parties have already adopted the goal of developing a representative network of MPAs by 2010, and have specifically agreed to include areas that lie beyond national jurisdiction as “components of the OSPAR MPA Network”.

• The Mediterranean Protocol on Specially Protected Areas and Biodiversity provides a framework to adopt, by consensus, areas beyond national jurisdiction as Special Areas of Mediterranean Importance (SPAMIs). Non-Mediterranean States may also support these areas by acceding to the agreement. The first twelve SPAMIs have been approved in 2001. One of them, the Pelagos Sanctuary for marine mammals in the Ligurian Sea, established by France, Italy and Monaco, covers also areas of high seas. Parties to the Mediterranean Protocol are obligated to follow the management guidelines, and to apply pressure to recalcitrant third parties.

• Other regional seas arrangements, some of which cover high seas areas, are beginning to explore how to meet the WSSD target of representative MPA networks by 2012. These forums can be used identify and protect important and vulnerable ecosystems and habitat for marine fisheries, associated species and other biological resources within their mandate, in cooperation with the regional fisheries management organizations.

• Regional Fisheries Management Organizations generally have a mandate to close areas to fisheries. Members of these organizations and non-governmental observers can promote use of this authority to establish MPAs to protect important and vulnerable biodiversity conservation areas as well as fish spawning or aggregating sites, and as a means to provide insurance against management failures elsewhere.


Informal mechanisms for designating HSMPAs

• Collective action by like-minded states, e.g. through an agreement to enact special management measures or to voluntarily refrain from certain activities in order to protect an area of common concern. (Such an agreement could be binding among the likeminded states but would not have binding effect on non-participating states.),

• Non-binding soft law instruments including best efforts agreements, voluntary codes of conduct, and certification, such as

  o A non-binding Memorandum of Understanding (MOU) amongst “range states” for certain migratory species pursuant to the Convention on Migratory Species (as opposed to a binding CMS Agreement - see Tool Box 1),

  o Establishment of a Biosphere Reserve pursuant to the UNESCO Man and the Biosphere Programme (MAB),
Voluntary Code of Conduct amongst different professional or industry groups to assist in identifying and protecting the values of important and vulnerable biodiversity areas of the high seas and seabed beyond national jurisdiction:

- Scientists, including within identified sites maintained as “reference” or preservation sites,
- Bio-prospectors,
- Submarine cables industry,
- Oil and gas industry, covering also the laying of submarine pipelines,
- Open-ocean mariculture operators,
- Open-ocean renewable energy,
- Marine archaeologists, including the development of management plans for archaeological sites that promote biodiversity conservation.

- Innovative approaches including
  - Public/priv ate partnerships (e.g. contractual agreements),
  - Declarations and mandates from Conferences of the Parties (e.g. the Jakarta Mandate to the CBD),
  - Programmes for coordination and sustainable use (such as those developed at the regional level for regional seas),
  - Joint work plans or programmes (e.g. between the CBD and Convention on Migratory Species or between global and regional agreements),
  - Intergovernmental coordinating groups (may be formal or informal),
  - Environmental impact assessment procedures and/or standards by international and regional bodies that call for identification and protection of critical and vulnerable areas/habitat (may be binding or non-binding).


Possible Preliminary Criteria for HSMPAs

1) Areas that would benefit from site specific management, such as locations which are:

- [List of criteria]
a. Representative of the range of habitats/ecosystems in a region  
b. Functionally critical (e.g. nursery grounds, spawning sites)  
c. Support rare species/habitats/ecosystems  
d. Support unique species or areas exhibiting high endemism  
e. Support a high diversity of species/habitats

2) Practical considerations:

a. Site integrity  
b. Degree and nature of threat(s) to species/habitats/ecosystems in the area  
c. Geo-political circumstances  
d. Feasibility of management, compliance and enforcement


Research relevant to development and management of a global representative system of high sea marine protected area networks

Ecological research relevant to development of a global system could include:

- **Representativeness** – identification of the main ecosystems and habitats (benthic and pelagic), decisions about scale on which MPAs are needed, biogeographic zones and habitat classifications

- **Functionally critical** – identification of areas such as nursery grounds, migration routes and spawning sites for species; sources (habitats that generate larvae that are transmitted to other habitats) and sinks (habitats that receive larvae form other habitats) of larvae; and areas where functionally critical ocean processes operate such as upwellings, frontal systems etc.

- **Rarity** – which habitats, species or ecosystems of the High Seas are truly rare as opposed to being an artefact of the extent and location of sampling programmes.

- **Unique/high levels of endemism** – locations where there are concentrations of endemic species or unique habitats, distinguished from areas highlighted as such because of an artefact of sampling programmes.

- **Site Integrity** – the size and make up of potential MPAs and particularly the processes that drive marine systems and therefore which need to be understood if sites are to be kept in favourable condition

- **Level of threat** – current and future activities that are likely to pose a threat to High Seas species, habitats and ecosystems.

Ecological research relevant to management of a global system could include:

- **Sensitivity** – the sensitivity of high sea species, habitats and ecosystems to the range of likely human activities both at a generic level and in and around particular MPA locations
- Vulnerability -- the vulnerability of high sea species, habitats and ecosystems to the range of activities at present taking place in and around proposed MPAs

- Resilience -- the resilience of particular species, habitats and ecosystems to disturbance and damage, including recovery times

- Natural variability -- natural variability in the status of species, habitats and ecosystems of the High Seas

- Quality objectives -- ecological and environmental quality objectives for MPAs and their applicability in particular circumstances.


Explanatory Notes

1 Endorsed by Marine Theme Participants at the World Parks Congress as being of significant importance meriting recognition as an emerging issue.


3 See, e.g. The Regional Role in Developing Marine Protected Area Networks, IUCN, 2003, paper prepared for Governance Session on Protecting Marine Biodiversity Beyond National Jurisdiction, World Parks Congress, 11 September 2003, Durban, South Africa.

Glossary of Acronyms

CBD Convention on Biological Diversity
CCAMLR Commission for the Conservation of Antarctic Marine Living Resources
CITES Convention on International Trade in Endangered Species
CMS Convention on Migratory Species
COLREGs International Collision Regulations
EEZs Exclusive Economic Zone
FAO Food and Agriculture Organisation
GBRMPA Great Barrier Reef Marine Park Authority
HSMPAs High Seas Marine Protected Areas
ICP United Nations Informal Consultative Process (on Oceans and Law of the Sea
ICRI International Coral Reef Initiative
IGOs International Governmental Organisations
IMO International Maritime Organisation
IPOA International Plan of Action
ISA International Seabed Authority
IUU Fishing Illegal, unreported and unregulated fishing activities
IWC International Whaling Commission
MAB Man and Biosphere Programme
MARPOL International Convention for the Prevention of Marine Pollution from Shipping
MPAs Marine Protected Areas
NGOs Non governmental organisations
PSSAs Particularly Sensitive Sea Areas
RFMOs Regional Fisheries Management Organizations
SBSTTA Subsidiary Body on Scientific, Technical and Technological Advice of the CBD
SOLOS International Convention for the Safety of Life at Sea
SPAMIs Specially Protected Areas of Mediterranean Importance
UN United Nations
UNDOALAS United Nations Division of Ocean Affairs and Law of the Sea
UNEP United Nations Environment Programme
UNFSA United Nations Agreement on Highly Migratory Fish Stocks and Straddling Fish Stocks (UN
Fish Stock Agreement)
UNGA United Nations General Assembly
UNICPOLOS (ICP) The United Nations Informative Consultative Process on the Law of the Sea
WCMC World Conservation Monitoring Centre
WCPA World Commission on Protected Areas
WHC World Heritage Convention
WPC World Parks Congress (Durban, South Africa, 8-17 September 2003)
WSSD World Summit on Sustainable Development (Johannesburg, South Africa, September 2002)
REPORT BY THE INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO) ON “COOPERATION IN HYDROGRAPHIC SURVEYING AND CHARTING OF ANTARCTIC WATERS”

Introduction

On behalf of the International Hydrographic Organization (IHO) I would like to take this opportunity to thank the authorities of the Antarctic Treaty System (ATS) for having invited the IHO to this XXVIth Antarctic Treaty Consultative Meeting (ATCM) to report on the Cooperation in Hydrographic Surveying and Charting of Antarctic Waters since the XXVIth ATCM.

The IHO is strongly committed to improving safety of life at sea, safety of navigation and the protection of the marine environment in the Antarctic, through coordination between National Hydrographic Services in providing updated and reliable hydro-cartographic products.

The recommendations included in Resolution 3 (2003) adopted at the last ATCM in Madrid, have been interpreted not only as a recognition of the efforts made so far by the Organization, but also a clear expression of support to the initiatives underway, entrusted to the IHO Hydrographic Committee on Antarctica, the body established by the IHO to give special attention to this very important and unique area.

The IHO Hydrographic Committee on Antarctica

The Hydrographic Committee on Antarctica (HCA) met in September 2003 and amongst other technical topics, discussed the progress made in the INT Chart Scheme production; the S-55 initiative and the need to strengthen cooperation with other organizations.

Out of 90 INT charts covering the Antarctic waters, 29 have already been published. Moreover, some of them are already available as electronic charts (ENC). The updating of the IHO S-55 Publication “Worldwide Status of Hydrographic Surveying and Nautical Charting” was considered vital to properly assess the actual situation regarding these two aspects, “surveying” and “charting”, and to monitor its progress thereafter. The publication will consist essentially of a standardized data base which will be kept updated and, therefore, at any time it will be possible to know what progress has been made and to identify any shortcomings. This information will serve as a useful resource for strategic planning, decision-making and the international coordination of a work program, and will assist in properly prioritising the work to be done.

The need to improve cooperation with other organizations was highlighted, and concrete actions were agreed in relation to the Antarctic Treaty System (ATS), the International Association of Antarctic Tour Operators (IAATO), the Intergovernmental Oceanographic Commission (IOC), and the Scientific Committee on Antarctic Research (SCAR), amongst others.

The HCA gave special attention to and carefully examined Resolution 3 (2003) mentioned earlier, and agreed that ATCM should be briefed on the risks (loss of human life, environmental risks, etc.) associated with navigating in poorly-charted/surveyed areas. The HCA considered it important to make all the necessary efforts to raise the level of priority given to national hydrographic programs, to complete the INT chart scheme, which is the only way to ensure safe navigation in Antarctica.
Concern was expressed regarding new ship operators entering Antarctica, with no previous experience of the navigational conditions, and sometimes with inadequate equipment. In order to facilitate access to useful information for planning and navigating in Antarctica, the establishment of an open dedicated section of the IHO web page was agreed.

However, bathymetric data is one of the most important elements needed to produce nautical charts. Improving cooperation and collaboration between ocean mapping projects, such as the joint IOC/IHO General Bathymetric Chart of the Ocean project (GEBCO) and the International Bathymetric Chart of the Southern Ocean Project (IBCSO), ready to be launched next July, was highlighted. Moreover, a proposal to be submitted to the IOC Executive Council (June 2004) and to IHO Member States to improve the existing global ocean mapping programs was considered to be vital.

Regarding bathymetric data gathering, there were discussions regarding the serious limitations in the use of Multibeam Echo Sounders (MBES), due to their potentially adverse impact on marine mammals. Without denying that this issue is a sensitive one, it was felt that these restrictions might place a serious constraint on the progress in surveying, delaying the production of reliable nautical charts.

It was recognized that multibeam data is of great importance to nautical charting and the continuous collection of data would result in a real improvement of present bathymetric knowledge. It was identified as extremely useful to perform an objective cost benefit analysis between the risk of exposing marine mammals to a sonar pulse and the risk of a maritime accident, with its impact in human and mammal life due to inadequate charting in Antarctica.

The progress so far achieved with the actions agreed at the September meeting, can be summarized as follows:

a) with the cooperation of IAATO we are seeking: views of ship operators on priorities for terrestrial aids to navigation; establishment of a mechanism that would allow hydrographic surveyors to make use of IAATO ships of opportunity to conduct hydrographic activities in Antarctica; comments on how to best prioritise INT chart and ENC production for the region. We are awaiting the IAATO meeting that will take place (end April) midpoint between the date of preparation of this report and the date of the ATCM.

b) IHB in liaison with the IOC Secretariat have prepared, for consideration by IHO and IOC Member States, a draft proposal to improve the structure of the existing global ocean mapping programs/projects, identifying the need to have a centralized directing board to improve effectiveness and efficiency of the global program, by better coordinating the work and available resources.

c) The number of INT charts produced has increased by 6. At present 32% of the scheme has been produced.

d) The IHB is finalizing the development of a prototype data base of the new S-55, based on a chart background with layers for hydrographic surveys, INT charts, ENC$s and RNC$s. This database will be made available on the HCA page of the IHO Website, for consultation and comments.

e) The IHB, acknowledging the importance of the constraints that restrictions in the use of multibeam could impose, sent a Circular Letter to Member States advising them of this matter.
New initiatives and challenging issues

- Launching of the Southern Ocean IBC Project

Today, 7 International Bathymetric Chart projects are in progress, but the Antarctic region does not have such a project which could facilitate the coordination and improvement of the bathymetric knowledge of the Antarctic.

During the SCAR XXVIII Conference, the International Bathymetric Chart of the Southern Ocean project (IBCSO) kick-off meeting will be held. The project will be realized under the auspices of the IHO, the IOC and (SCAR). It is anticipated that this project together with the efforts conducted by the HCA would in the short term provide a vehicle for further coordination to gather, process and make bathymetric information on the Antarctic available.

Survey activities of modern ice-breaking research vessels during the last decade using multibeam systems have increased the data-base, which may result in compilations of new bathymetric charts around Antarctica that could reveal the seafloor morphology of large “white spots”. However, most of the collected single beam and multibeam sonar data are not archived or inventoried and only limited metadata information about expeditions or surveys is available.

We believe that the most complete bathymetric database of the Southern Ocean can only be created through an international project with focus on gathering all the available bathymetric data including the important metadata with participants from all nations which carry out research around Antarctica.

Bathymetric data play an important role in climate, environmental and solid earth research, especially for geo-referencing and interpreting of bio-geo-marine observations; studying marine glacial and sedimentation processes; modelling ocean circulation; studying of physiography and tectonics, and they are indispensable for preparing reliable Nautical Charts for the safety of navigation in Antarctic waters.

- Concern on safety to navigation in Remote Areas.

There is increasing concern about safety to navigation in Remote Areas, the Antarctic being one of them. This situation has generated joint work between the IHO and the International Maritime Organization (IMO).

The IHO has consulted various organizations to get a wider view on the subject. Substantive contributions were received from IAATO, the Australian Antarctic Division (AAD), New Zealand Antarctic Institute (NZAI) and the Scott Polar Research Institute (SPRI).

The issues raised in the responses are summarized below with comments as appropriate:

a. ‘Surveys and charting in areas of national interest, i.e. Antarctic bases are generally satisfactory. Away from the immediate vicinity of these areas the situation is generally unsatisfactory, in many areas there are only a few isolated track lines.’
The cost of conducting surveys to modern standards, as set out in IHO Publication S-44, is high particularly in ‘Remote Areas’. National Hydrographic Offices have to prioritise their activities. The IHO will continue to promote the need to conduct surveys in these remote areas.

b. ‘Charting discrepancies and other relevant information provided by Tour Ships sometimes take up to 5 years to appear as corrections to charts.’

This was a generalized comment and the IHO has asked for more definitive information in order that the cause of such delays can be investigated and hopefully rectified. The possibility of a single focal point to which information should be sent has been suggested. The focal point would then ensure that all information is sent to all relevant charting agencies as a matter of priority. This subject will be raised at the 4th meeting of the HCA, which will be held in Greece in September 2004.

c. ‘The information shown on charts from different countries can be inconsistent.’

The IHO believes that such occurrences will be reduced as more International (INT) Charts become available. Indeed this will not provide a short-term answer however, in the interim the IHO will continue to promote the exchange of chart information.

d. IAATO indicated that, where space permits, their members’ vessels could be used as platforms for gathering data.

The IHO is grateful for this offer. IHO and IAATO have developed a procedure to enable the hydrographic offices to identify appropriate opportunities and make contact with the operators of the vessels. The IHO and IAATO will continue to promote this facility amongst Member States.

Hydrographic Surveys are expensive and resources are finite. There is no simple action that will, in the short term, provide high quality hydrographic data for remote areas, except the raising of priority to conduct hydrographic surveys in the Antarctic. The ATS should strongly consider inviting Members States to move resources in this direction. In the meantime, the IHO, through the HCA will continue defining priorities and coordinating the present level of activity.

UN Resolutions 2003

On 23 December 2003, the United Nations General Assembly adopted Resolution A/RES/58/240 on oceans and law of the sea that dealt, in large part, with safety of navigation. In brief, this resolution:

(a) Welcomes the work of the International Hydrographic Organization (IHO) and its 14 regional hydrographic commissions. (NB: One of which is the HCA)
(b) Invites the IHO and the International Maritime Organization (IMO) to continue efforts and to jointly adopt measures with a view to encouraging greater international cooperation and coordination for the transition to electronic nautical charts; and to increase the coverage of hydrographic information on a global basis, especially in areas of international navigation and ports and where there are vulnerable or protected marine areas. (NB: the Antarctic is par excellence a vulnerable area)

(c) Encourages intensified efforts to build capacity for developing countries, to improve hydrographic services and the production of nautical charts. (NB: this is one of the highest priorities of the IHO)

As it can be understood, United Nations is clearly recognizing the importance of hydrography as well as it was recognized by ATCM Resolution 3 (2003). As regards the Antarctic, the IHO gives high priority to the work of the HCA and supports its activities. Nevertheless, progress can only be achieved by augmenting resources towards the execution of hydrographic surveys in the Antarctic, this being the responsibility of Member States.

Conclusions

1.- Improvement of the coordination between the IHO and other organization interested in the Antarctic is in progress and the implementation of several initiatives is greatly facilitated through the positive support and understanding of the importance of hydrographic surveys and availability of reliable nautical charts.

2.- The application of certain restrictions in force, on continuous multibeam surveys, create enormous concern regarding the substantial constraints imposed on the gathering of bathymetric data, affecting the progress of INT Chart production of Antarctic waters, under IHO responsibility.

3.- Progress achieved so far by the IHO in the production of INT Charts is according to the priorities and resources allocated by Member States to survey the Antarctic waters. In order to advance more quickly, so as to be in line with ATCM and UN Resolutions, enhancing national priorities and augmenting the mobilization of resources are necessary.

Proposal

It is recommended that the XXVIIth ATCM:

1.- Accepts the IHO Report.
2.- Acknowledges the progress made to date by the HCA and encourage continuation of its commitments.
3.- Expresses support of the launching of the IBCSO projects.
4.- Expresses support for the use of continuous multibeam surveys to foster bathymetric data gathering and the production of INT nautical charts.
5.- Considers inviting Members States to augment the hydrographic survey activity in Antarctic.

Monaco, April 2004
PART IV

ADDITIONAL DOCUMENTS FROM XXVII ATCM
ANNEX G

ADDRESS BY THE HEAD OF THE UKRAINIAN DELEGATION AT XXVII ATCM
ADDRESS BY THE HEAD OF THE UKRAINIAN DELEGATION AT XXVII ATCM

Mr. Chairman,
Dear Heads of the Delegations and Participants of the Meeting,

On behalf of Ukraine, I would like to thank the Government of the South African Republic for its hospitality and excellent organization of the Meeting.

We greatly appreciate the fact that ‘Ukraine’s Request to Become Consultative Party’ was included in the agenda and would like to thank the U.S. Department of State for the significant work which they have done as the Antarctic Treaty Depositary Government.

The Ukrainian Government believes that the status of Consultative Party under the 1959 Antarctic Treaty would enable it to play a constructive role in the resolution of Antarctic-related issues and thus to contribute to the strengthening of the Antarctic Treaty System.

Ukraine approves recommendations under the Antarctic Treaty adopted by the Parties at the preceding Consultative Meetings pursuant to ATCM XXI Decision 2 (1997).

Subsequent to the United Kingdom-Ukraine Agreement of June 1995, the UK transferred the Faraday Antarctic Station (presently Academician Vernadsky) to Ukraine. I was lucky to be present at the signature of the Agreement. We are very grateful to the UK for the transfer of the station, with its valuable scientific history, which provides for an exceptional outlook for future.

In 2001, Ukraine enforced the Law on Ukraine’s Accession to the Madrid Protocol signed by the Ukrainian President. Implementation of the Protocol under the Ukrainian national legislation is now completed. The 2003 Government Resolution approved the procedure to issue permits for activities to be conducted by individuals and legal entities in the Antarctic Treaty Area; and the Ministry of Education and Science was designated as a competent authority on matters relating to compliance with the Protocol.

Ukraine has been an Associate Member of SCAR since September 1994. The National Antarctic Research Program for 2002-2010 was approved by the Ukrainian Government in 2001. The Program takes into account global development trends and progress in Antarctic research, and provides for Ukraine’s integration into the global scientific community.

The key objective of the Program is to conduct fundamental and applied scientific research in the Antarctic region, a unique scientific test site of worldwide significance where global issues facing mankind can be addressed.

The Ukrainian Antarctic Center, under the Ministry of Education and Science, organizes and coordinates Antarctic studies conducted in collaboration with Ukraine’s leading institutes and entities.

As for scientific cooperation, the Center collaborates with: National Antarctic Programs from Poland, Bulgaria, and the UK; institutes from Norway, the Czech Republic, Slovakia, Slovenia, and Russia; and scientists from Argentina, Germany, the U.S.A., Chile, Japan, and China. There are plans to develop cooperation with the National Antarctic Programs from India, Peru, the South African Republic, etc.
We are also engaged in logistic cooperation with the National Antarctic Programs. Further, I would like to use this opportunity to express my sincerest gratitude to the U.S. National Science Foundation for its recent emergency logistic assistance to the Ukrainian Antarctic Expedition.

Ukrainian scientists based at the Vernadsky Station conduct continuous monitoring studies on atmosphere, ionosphere, and magnetosphere physics, as well as the ozone layer, geophysics, meteorology and climate, biology, glaciology, medicine, and ecology.

Marine Antarctic expeditions carry out oceanographic research and studies on biological resources.

Since 1996, the Ukrainian Antarctic Center has organized and conducted nine Antarctic expeditions, and it is now preparing a tenth one. The research program has expanded significantly over these years. New state-of-the-art equipment for geophysical, seismic and medico-biological studies has been installed at the Vernadsky Station.

Meteorological, total ozone, and magnetic field observation data are regularly submitted to respective World Data Centers, and to the British Antarctic Survey as provided by the UK-Ukraine Memorandum of Understanding whereby the Faraday Station was transferred to Ukraine.

Since 1994, Ukraine has been a Member of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) and meets all Conservation Measures currently in force. At the same time, Ukraine would like to express its deepest regret and apologize in view of the concern raised by a number of Consultative Parties over the position of the Ukrainian delegate at CCAMLR-XXII with respect to some Ukrainian flag vessels engaged in toothfish fishing in the Convention Area. Ukraine assures the ATCM that the case will be thoroughly investigated. In fact, the investigation has already started, and preliminary data indicate that the vessels in question may be delicensed. The Ukrainian Government will take all necessary actions to prevent any violations in the future. A representative of the Ukrainian Ministry of Foreign Affairs will submit an official report on the investigation findings and response actions at CCAMLR-XXIII.

Mr. Chairman,

I would like to strongly emphasize the importance and relevance of the Antarctic Treaty System as an example of international cooperation based on the exchange of scientific knowledge that promotes the study, protection and management of the sixth continent. Let me assure you that Ukraine will continue to meet the provisions of all ATS elements and promote a comprehensive protection of the Antarctic environment.

In conclusion, I would like to inform you that Ukraine is prepared to host one of the forthcoming ATCMs and sincerely invite all Participants to Kiev.
ANNEX H

LETTER OF APPOINTMENT OF THE EXECUTIVE SECRETARY AND NOTIFICATION TO THE ARGENTINIAN GOVERNMENT
LETTER OF APPOINTMENT OF THE EXECUTIVE SECRETARY AND NOTIFICATION TO THE ARGENTINIAN GOVERNMENT

Mr Johannes Huber
Chairman
Netherlands Polar Affairs Committee

Dear Mr Huber

POSITION OF EXECUTIVE SECRETARY

As Chair of the XXVII Antarctic Treaty Consultative Meeting (ATCM) and in accordance with Decision 3 (2004) of the XXXVII ATCM, I am pleased to offer you the position of Executive Secretary of the Secretariat of the Antarctic Treaty (the Secretariat).

The terms and conditions for your appointment are set out below. If you accept this offer, kindly sign your acceptance on the attached copy of this letter and return it to me.

Terms and Conditions of Appointment

(a) By your acceptance of the appointment you shall pledge yourself to discharge your duties faithfully and to conduct yourself solely with the interests of the ATCM in mind. Your acceptance of the position of Executive Secretary includes a written statement of your familiarity with and acceptance of the conditions set out in the attached Staff Regulations as well as any changes which may be made to the Staff Regulations from time to time.

(b) The duties of the Executive Secretary are to appoint, direct and supervise other staff members and to ensure that the Secretariat fulfils the functions identified in Article 2 of Measure 1 (2003), provisionally applied by Decision 2 (2003) until that Measure becomes effective.

(c) In accordance with Decision 3 (2004) your appointment shall commence on 1 September 2004.

(d) Your term of office shall be for four years and you shall be eligible for reappointment for no more than one further four-year term, subject to the agreement of the ATCM.

(e) The appointment is to the executive staff category. Your salary on commencement shall be at Level 1B, Step 1, as detailed in Schedule A to the Staff Regulations annexed to Decision 3 (2003). Annual increments shall be available to you up to the maximum salary attainable at the Level 1A.

(f) The above salary includes the base salary (Level 1A, Step I, Schedule A) with an additional 25% for salary on-costs (retirement fund and insurance premiums, installation and repatriation grants, education allowances, etc) and is the total salary entitlement in accordance with Regulation 5.1 of the Staff Regulations. In addition, you will be entitled to travel allowances and relocation expenses in accordance with Regulation 9 of the Staff Regulations.
(g) The ATCM may terminate this appointment by prior written notice at least three months in advance in accordance with Regulation 10.3 of the Staff Regulations. You may resign at any time upon giving three months written notice or such lesser period as may be approved by the ATCM.

Yours sincerely

HORST KLEINSCHMIDT
CHAIRMAN: XXVII ANTARCTIC TREATY CONSULTATIVE MEETING

To: The Chairman
XXVII Antarctic Treaty Consultative Meeting

I hereby accept the appointment described in this letter subject to the conditions therein specified and state that I am familiar with and accept the conditions set out in the Staff Regulations and any changes which may be made to the Staff Regulations from time to time.

Date

Johannes Huber
Dr Rafael Bielsa  
Minister of Foreign Affairs  
Esmeralda 1212  
1007 Buenos Aires

ARGENTINE REPUBLIC

Dear Dr Bielsa

I address you in my capacity as Chair of the XXVII Antarctic Treaty Consultative Meeting (ATCM) with reference to Article 21 of the Headquarters Agreement for the Secretariat of the Antarctic Treaty, attached to Measure 1 (2003), and to Decision 2 (2003), the letter of the Argentine Republic to the Chairman of ATCM XXVI of 16 June 2003 and the notification of the Argentine Republic to the Depositary Government of 19 May 2004. 

In accordance with the requirements of Article 21 as provisionally applied, I hereby notify the Government of the Argentine Republic of the appointment by the XXVII ATCM of Mr Johannes Huber to the position of Executive Secretary, effective on 1 September 2004.

I avail myself of this opportunity to express the assurances of my highest consideration.

Yours sincerely

HORST KLEINSCHMIDT  
CHAIRMAN: XXVII ANTARCTIC TREATY CONSULTATIVE MEETING
ANNEX I

REPORT OF THE COMMITTEE FOR ENVIRONMENTAL PROTECTION (CEP VII)
REPORT OF THE COMMITTEE FOR ENVIRONMENTAL PROTECTION

(CEP VII)

CAPE TOWN, 24 - 28 MAY 2004

Item 1: Opening of the Meeting

(1) The CEP chair, Dr Tony Press (Australia) opened the meeting on Monday, 24 May 2004.

(2) The Chair expressed his appreciation to the host country for the excellent facilities and arrangements. The CEP welcomed Canada to the table following their ratification of the Protocol on 13 November, 2003.

Item 2: Adoption of the Agenda

(3) The provisional agenda, as agreed at CEP VI and circulated by the Chair in CEP Circular 2/2004, was adopted. The CEP considered 26 Working Papers and 62 Information Papers under the various agenda items (Annex 1).

Item 3: Operation of the CEP


(5) The Czech Republic presented ATCMXXVII/IP89 reporting that the Czech Parliament had passed the Antarctic Act during 2003 implementing the Madrid Protocol, which came into effect through ratification on 7 April 2004. This has been signed by the President and will soon be published.

(6) Sweden made the observation that the work of the CEP has evolved from its initial formative phase and the Committee now finds itself at a new stage with possibilities for further substantial developments. These possibilities include finding ways of:
   – using the CEP for strategic consideration to meet the environmental challenges in the Antarctic; and
   – synthesizing our knowledge from environmental research in Antarctica and similar areas for best possible Antarctic environmental management.

(7) Sweden offered to take this work forward by producing an informal paper for distribution to Members prior to the next meeting. This initiative was supported by several Members.
(8) The Chair indicated that the password for the CEP website had not been changed since the establishment of the CEP 6 years ago. This password was now known to many outside the CEP, so a new password would be issued after the meeting.

(9) The list of CEP contact points was updated (Annex 2).

**Item 4: Compliance with the Protocol on Environmental Protection**

4a) General matters

(10) The UK introduced ATCM XXVII/WP32 *CEP Consideration of Draft Protected Area Management Plans*, suggesting that a more structured approach to the assessment of management plans would produce greater consistency and make it easier for a wider range of members to be involved in the intersessional process.

(11) The Committee noted that a centrally coordinated approach may provide the benefits suggested by the UK paper, provided that clear terms of reference were established, that participation was open-ended, and the system was easy to use and manage.

(12) The Terms of Reference for the ICG to consider protected area management plans is at Annex 4.

(13) The Chair drew the Committee’s attention to ATCM XXVII/WP004 *Chairman’s Report from Antarctic Meeting of experts on tourism and non-governmental activities in Antarctica*, noting that the report specifically referred some issues to the CEP, and contained other material of general interest to its work.

(14) A number of Parties provide annual reports electronically. Annex 3 provides a list of websites where annual reports may be found. The following information papers containing annual reports were also submitted to the Committee in accordance of with Article 17 of the Protocol:

- South Africa (ATCM XXVII/ IP002)
- France (ATCM XXVII/ IP017)
- New Zealand (ATCM XXVII/IP019)
- Spain (ATCM XXVII/IP020)
- Italy (ATCM XXVII/IP032)
- China (ATCM XXVII/IP055)
- Netherlands (ATCM XXVII/IP058)
- Belgium (ATCM XXVII/IP075)
- Chile (ATCM XXVII/IP081)
- United Kingdom (ATCMXXVII/IP084)
- Czech Republic (ATXMXXVII/IP90)
- Uruguay (ATCMXXVII/IP91)
- Republic of Korea (ATCMXXVII/IP95)
- Poland (ATCMXXVII/IP101)
- Ukraine (ATCMXXVII/IP102)
(15) The following information papers were submitted as general matters:

- ATCM XXVII/IP013 Environmental Training in National Antarctic Programs: A Workshop between COMNAP networks AION and TRAINET (COMNAP). COMNAP noted that this work, commenced by AEON, has resulted in a checklist to ensure that environmental issues are included in the training of national operators’ staff. Argentina stated that they were involved in organizing a workshop on environmental training and, thanks to COMNAP, this process was instrumental in improving the quality of their own training programs.

- ATCM XXVII/IP028 Construction of a new permanent Antarctic station to replace Neumayer Station at Ekstrom Ice Shelf (Germany). Germany advised the Committee that it intends to submit to CEP VIII a draft CEE for renewal of Neumayer Base and the removal of most of the existing base. In discussion the UK noted that they will also produce a draft CEE for the rebuilding of Halley Station

- ATCM XXVII/IP033 India’s Antarctic Science Program 2003-04 (India). This paper contains a summary of the annual activities undertaken by the Indian program in Antarctic.

- ATCM XXVII/IP048 Inspection of Russian Antarctic Stations and Bases (Russian Federation). Recommendations arising from the inspection in 2003/04 were made by the inspectors to ensure the priority of scientific research, improvement of infrastructure and research equipment, and the safety of Russian Antarctic Expedition personnel. The commission paid special attention to compliance with the Protocol on Environmental Protection. It was recommended that environmental protection activities in Antarctica be intensified, including the allocation of additional funds for such works.

- ATCM XXVII/IP053 on the Activity of the Russian Permission System (Russian Federation). The national permit issue system is based on regulations approved by the Government. Permits shall be issued by Roshydromet, as agreed by the Ministries of Natural Resources and Foreign Affairs, and shall be based on applications, EIAs, and the resolutions of a special committee. From 1999 Roshydromet issued 21 permits. Monitoring compliance with the Protocol on Environmental Protection in the activity areas of the Russian Antarctic Expedition is the responsibility of observers and authorized representatives designated by Roshydromet.

- ATCM XXVII/IP060 Concordia: A new permanent, international research support facility, high on the Antarctic ice cap (France and Italy). France updated the Committee on the joint French / Italian plans to establish permanent research support facilities at Concordia Station at Dome C on the Eastern Antarctic plateau.

- ATCM XXVII/IP067 A report on the Great Wall Station in recent two years (China). China provided the Committee with a brief report of its science and operational activities at Great Wall Station activities over the recent two years.

- ATCM XXVII/IP077 Environmental management during the construction of a new base facility at sub-Antarctic Marion Island, phase one, 2003 (South Africa).

(16) The attention of Parties was drawn to the inspection report by Finland (ATCM XXVI/IP031 Report of the 2004 Finnish Antarctic Inspection under Article VII of the Antarctic Treaty and Article 14 of the Protocol on Environmental Protection to the Antarctic Treaty) regarding station operations and environmental protection. Among several useful recommendations were:

- increasing use of alternative energy systems as additional energy sources;
- increasing energy efficiency to lessen consumption of oil;
– collaboration to develop ways of improving the functioning of biological grey water filtering systems in cold climates;
– routine examination of fuel storage facilities and the condition of drums.

(17) The Report further exhorted scientists, decision makers and funding agencies to make use of the opportunities for scientific cooperation afforded by surplus accommodation at some stations.

(18) Sweden presented ATCM XXVII/IP021 Renewable Power Generation for the Swedish Antarctic Station Wasa.

4b) Consideration of Draft CEEs forwarded to the CEP in accordance with paragraph 4 of Article 3 of Annex I of the Protocol

(19) The Committee considered four draft CEEs and provided advice to the ATCM.

i) Upgrading of the Summer Station at Troll

(20) Norway introduced their draft CEE ATCM XXVII/WP025 The concept of upgrading the Norwegian summer station Troll in Dronning Maud Land to a permanent station. Norway circulated the draft CEE to Parties in January 2004.

(21) Norway delivered an audio-visual presentation on the project, recalling Norway’s long history of Antarctic activity, and noting that the main focus of its current terrestrial research is on glaciology, geology and bird biology.

(22) Norway advised that the main reason for upgrading Troll is to enable support for year round science projects which will be based on a Scientific Strategic Plan 2005-2009 currently under development.

(23) The draft CEE concludes that the expanded operations at Troll will have some effect on the environment but that the impacts will be of no more than a minor or transitory nature.

(24) Comments received during the circulation period and at the meeting, and Norway’s response to them included:

– The relationship between the Troll runway and the station.
  o Norway noted that the Troll runway is not a part of the station upgrading project, but an international project with eleven partners and had already been subject to an IEE prepared two years ago.
  o Planning for fuel storage at the Troll runway has not been completed, but the present planning aims at little aircraft re-fueling at Troll, and that therefore the need for significant aircraft fuel storage would be avoided.
  o The upgraded station would still be small and would have little impact on flights. Most of the passengers flown are expected to be summer personnel related to the activities of all the eleven nations sharing the Troll runway.
– The scientific rationale behind the plans;
This will be given in the new 2005-2009 Science Plan.

- Energy consumption;
- Not all the information is yet available on energy consumption, but this will be dealt with in the final CEE.
- The limited baseline data on vegetation and biota;
- Further information about micro-organisms will be included to the greatest extent possible in the final CEE. The environmental impact on micro-organisms is likely to be very limited.
- Norway’s decision to start constructing the winter station before the CEE process had run its course;
- Norway explained that station construction had not yet begun, but would start in the 2004/05 season. Norway had taken a decision in principle to establish the winter station, and the CEE contributed to developing the “how and where” of the project.
- The question of fuel handling, particularly in winter, when there may be a greater risk of spilling;
- Norway advised that it is working on procedures for improved fuel storage and handling.
- The dispersal of waste, particularly liquid waste, onto ice-free areas;
- Referring also to the discussion at CEP IV, Norway noted that liquid waste disposal is a challenge at inland bases. So far there has been no ice build-up noted from the disposal of liquid wastes at Troll. All liquid wastes at Troll pass through purification facilities before release.

(25) The UK congratulated Norway on the draft CEE, noting that Norway has an exceptional capability in air monitoring within its Arctic program at Ny-Alesund, and that similar research at Troll would be likely to have significant scientific value. The UK suggested that the issue of waste water management be referred to COMNAP for recommendations of best practice.

(26) COMNAP recalled that it had been tasked to investigate a related issue on a previous occasion, and had reached the conclusion that the proper treatment of waste water depended on the specific situation and that therefore there was no single “best” practice. COMNAP suggested that the issue was perhaps best addressed in the environmental impact assessment process according to the specific circumstances of a project.

(27) The Committee noted that the issue of liquid waste from inland bases may usefully be discussed further in the context of any future review of Annex III.

(28) Argentina congratulated Norway on its draft CEE, noting that the document followed the EIA guidelines agreed to by CEP II. Furthermore Argentina noted that Norway’s compliance with the guidelines makes it easier to understand the text of the evaluation and aids comparison between different CEEs.

(29) Norway thanked the Committee for its comments and suggestions and undertook to address them in the final CEE.

(30) The Chair encouraged members to take note of the CEP Guidelines in preparing environmental impact assessments, and commended Norway’s draft CEE as an excellent example of methodology and structure that could serve as a model for other CEEs.
(31) Appendix 1 contains the advice of the CEP to the ATCM on the Troll station draft CEE.

ii) Project IceCube

(32) The United States opened discussion on its draft CEE entitled “Project IceCube”, concerning the installation of a neutrino telescope at the South Pole station.

(33) The US advised that Project IceCube will entail a large commitment of resources and that it had been determined through the EIA process to be likely to have more than a minor or transitory environmental impact. The US noted that the Antarctic ice sheet is the ideal location for this research, and believes that the environmental impacts are warranted given scientific benefits from the project.

(34) The US noted that the draft CEE was circulated for comment, and presented a summary of the comments received.

(35) Argentina congratulated the US on the CEE and enquired about the methodology used to weight the criteria used to assess the impact of the project, noting that the question did not only relate only to the Project IceCube document, but to any environmental impact assessment.

(36) The US advised that a combination of criteria was used, and that although it would be difficult to quantify the weightings, each criterion was carefully considered.

(37) New Zealand noted that the draft CEE states that the types and quantities of pollutants will be identified later, and suggested these be incorporated in the final CEE. They also encouraged the US to address in greater detail the removal of equipment at the end of the project.

(38) The US advised that the phrase ‘leaving project in place’ referred only to the detectors buried deep within the ice, and does not refer to the surface equipment which will be removed unless required for a subsequent project.

(39) Germany suggested that some energy budget costing be done to indicate the relative advantage of advanced waste water treatment. The US undertook to discuss this matter with their experts.

(40) The Chair noted the general agreement amongst members that the draft CEE is well structured, provides a balanced evaluation of the environmental impact of the project, and is consistent with the requirements of Annex I of the Madrid Protocol.

(41) Appendix 2 contains the advice of the CEP to the ATCM on the Project IceCube draft CEE.

iii) Surface Traverse

(42) The United States introduced a draft CEE entitled “Development and Implementation of Surface Traverse Capabilities in Antarctica”, circulated to Parties and the CEP in accordance with the requirements of Article 4 of Annex I to the Protocol.
(43) France noted that it was unfortunate that the draft CEE, circulated in English, had not been translated into the other official languages, but to make progress it was prepared to participate in the upcoming discussions.

(44) The US noted that surface traverses are a very common means of transportation to support Antarctic activities. It suggested that the proposed traverse route and associated activities will enhance the logistical support of South Pole station, bringing a significant reduction of the flights needed to deliver cargo, and an overall reduction in fuel emissions for the program.

(45) The US advised that it had received a number of comments to the circulated document, including issues of format, the lack of a commencement date, and the view that the project focused more on scientific needs than environmental concerns.

(46) The US further advised that the start date would be contingent upon the progress of the, currently under way, “proof of concept” activity for the traverse (for which an IEE had been prepared), and that it has given equal emphasis to scientific benefits and environmental concerns.

(47) The US informed the Committee that there would be no adverse environmental effects on protected areas, ice free areas or marine areas with wildlife, as the traverse route avoids such areas. Human liquid waste will not be disposed of along the route.

(48) Responding to a concern about the potential for the use of the route by NGOs or tourists, the US advised that it will not condone the use of the traverse route by NGOs. The US believed that any such proposal by NGOs would require an environmental impact assessment submitted to the appropriate Party.

(49) Australia and other Parties complimented the US for the draft CEE, noting the value of matrices to the CEP in analyzing the aspects of an activity, evaluating its likely impacts, and providing advice to the ATCM.

(50) Responding to ASOC’s suggestion that use of the traverse would make available additional aircraft capacity, leading to an overall expansion of the program, the US advised that the number of flights to the South Pole would decrease.

(51) New Zealand welcomed the fact that the US plans to further expand the consideration of cumulative and indirect impacts in the final CEE. New Zealand noted that the draft CEE considered both the specific South Pole traverse but also Antarctic traverses in general. They asked the US to explain the reasoning behind this approach to the draft CEE as and noted that Annex I of the Protocol required environmental impact assessment for specific activities.

(52) The US assured that it does not view this as a “one size fits all” CEE for traverses, and that an appropriate environmental review would be conducted for any potentially significant variation to the proposal.

(53) The US noted that the activity would have some impact upon wilderness and aesthetic values, however, the level of impact is acceptable given the value of the activity being undertaken. It advised that, relative to the size of Antarctica, the footprint of the South Pole traverse is miniscule.
The United Kingdom welcomed the reduction in the number of flights expected to result from the traverse operation, and requested information on the reduction of overall fuel consumption. The UK also noted that the EIA procedures would not in all cases prevent the use of the traverse by NGOs.

The US advised that it does not have figures on fuel consumption but that it expects to reduce the flights to the South Pole by 80 to 90 per year, and it is continuing to assess the fuel consumption of its planned traverse and other operations.

The Committee agreed that the draft CEE meets the requirements of Annex I to the Protocol. Its advice to the ATCM is contained in Appendix 3.

iv) Czech scientific station

The Czech Republic presented a draft CEE as ATCM XXVII/IP003 Czech Scientific Station in Antarctica: Construction and Operation, based on the draft CEE discussed at CEP VI, and updated to incorporate comments made during that meeting. The Czech Republic expressed its appreciation to Argentina for the support it provided during the preparation of the draft CEE.

The Czech Republic acknowledged that there had been a concern with the previous CEE that it was based on a desk study without any field work. It advised that the field work had taken place in February and March 2004 to collect biological and ecological data, enabling a more detailed environmental evaluation, as noted in ATCM XXVII/IP087.

The proposed site for the station is on the northern coast of James Ross Island on a de-glaciated raised beach with little vegetation in the vicinity apart from some mosses and lichen approximately 800 metres distant. There were no colonies of mammals observed in the study area, and only two small nesting colonies of Antarctic terns found, 500m distant from the proposed site.

The UK advised that its recent experience indicates that pack ice can significantly obstruct access to James Ross Island. The UK asked if it was really possible to use tourist ships to service the station as suggested in the draft CEE. The UK also noted that the CEE required that the construction of the station must take place on a coarse-grained gravel foundation without fine particles and little permafrost. However, the field work earlier this year indicated that the site of the proposed station consisted of well-sorted beach sands to fine-grained gravels. The UK asked whether, therefore the Czech Republic was confident that it could proceed as envisaged in the CEE, given the possible logistic difficulties.

The Czech Republic advised the Committee that it had visited James Ross Island by helicopter this year, and that Argentina had informed them that the site is at times accessible by sea. The idea of using tourist ships to support the station is still an open question.

New Zealand suggested that, with respect to wilderness values, there are alternatives to building a base on an island where there is no base. New Zealand and the Netherlands suggested that an alternative may be to seek to undertake research projects in collaboration with another Party active in the region, such as Argentina.

New Zealand also noted that the draft CEE suggests that there may be financial risks that could lead to the abandonment of the project through lack of funds. It also requested clarification
of the issue of sedimentation in the near-shore environment that might result from the construction and operation of the station.

(64) In response to these comments, the Czech Republic advised as follows:

- That they are fully prepared to invite collaboration by other Parties in the research activities of their proposed station and that it is more economic for them to establish a research base for 20 to 30 years, than to rent space during this period.
- That they acknowledge the impacts that the base would likely have on wilderness values, but in following the Madrid Protocol they focused on the impact on measurable factors, and contend that on this basis the likely environmental effects of the project are acceptable. They noted that the concept of wilderness values is very philosophical and difficult to quantify objectively, and possibly of greater relevance to the consideration of tourism activities.
- The proposed station would be constructed from pre-assembled components and then constructed at the site, requiring a limited amount of sand and gravel which would be extracted from the river bed – this would involve a minor disturbance which would be limited in time because of natural replenishment.

(65) Germany thanked the Czech Republic for clarifying the impact assessment on fauna and flora. Germany requested information as to why this site was chosen and whether there was a direct link with the Czech Republic’s scientific research plans.

(66) The Czech Republic responded that the site was chosen to minimize the impact on the environment and because it provides a base for their research activities.

(67) Argentina noted that some Parties had previously discouraged the Czech Republic from building elsewhere, when the proposed station was first suggested at CEP V, and that as a result the Czech Republic has chosen the currently proposed site.

(68) ASOC noted that as described in the draft CEE, the proposed station appears to be quite substantial, with a capacity to accommodate 15 people for five months of the year. ASOC also noted that an incinerator would be installed. It further noted that the impact of the use of vehicles at the site is not clear in the document, as the ground is soft and muddy during some of the year.

(69) The Czech Republic responded that waste incineration will employ certified environment-friendly Norwegian technology and that the use of vehicles will be controlled to minimize the impacts on the station environs.

(70) The Czech Republic thanked the meeting for the comments and questions raised, and undertook to address them fully in the preparation of the final CEE.

(71) Appendix 4 contains the advice of the CEP to the ATCM on the Czech Scientific Station CEE.

(72) New Zealand submitted ATCMXXVII/IP037 Progress Report on the ANDRILL Draft CEE and an Outline of the Process and Timeline for the Completion of the Final CEE.

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4c) Other matters covered by Annex I (Environmental Impact Assessment)

(73) Argentina introduced ATCM XXVII/WP028 *The Application of Existing EIA Procedures to Tourist Activities in Antarctica*.

(74) Argentina noted that existing procedures for environmental impact assessment are not sufficient to predict cumulative environmental impacts arising from the activities of many operators at a site, or of one operator over many sites. Several Parties supported Argentina’s concern.

(75) Argentina noted that Annex I and the existing EIA guidelines were developed more with the activities of National Programs in mind, and that the guidelines work well in that context.

(76) Both those proposing an activity and those authorising the activity have a need to be aware of other planned activities in order to take account of possible cumulative impacts. There is therefore a need to ensure that there is timely exchange of information. The imminent establishment of the Antarctic Treaty Secretariat should assist in this exchange. The CEP therefore wishes to bring this to the attention of the ATCM.

(77) The Committee agreed to establish an ICG convened by Mr Tom Maggs of Australia (tom.maggs@aad.gov.au), operating under Terms of Reference contained in Annex 5 to this report, and reporting back to CEP VIII.

(78) The Committee welcomed COMNAP’s presentation of ATCM/IP015 *An analysis of Initial Environmental Evaluations (IEEs)*.

(79) Australia proposed that the comprehensive analysis of IEEs represented in IP-15 be extended to the consideration of tourism EIAs.

(80) COMNAP noted that AEON’s work program for the coming year is currently under discussion, and Australia’s proposal would need to be considered in the light of other priority activities. COMNAP also noted that its members might need guidance from ATCM before embarking on reviews of NGO activities.

(81) ASOC supported the work of COMNAP / AEON, noting that the analysis did not extend to the application of the provisions of the IEEs.

(82) IAATO thanked COMNAP and AEON for this paper and found the methodology was useful in analyzing the EIAs of its members. IAATO noted that when reviewing tourism EIAs one needs to do so in conjunction with domestic legislation.

(83) Norway presented ATCM XXVII/IP035 *Initial environmental evaluation of Troll runway*.

(84) The UK announced to the Committee that it would be preparing a draft CEE for the rebuild of the British Antarctic Survey Halley Station. The UK looked forward to presenting the draft CEE at CEP VIII.

(85) SCAR presented ATCM XXVII/IP078 *Marine acoustic technology and the Antarctic environment*. A recent workshop had examined the latest research on acoustic equipment and marine mammals. SCAR concluded that, with proper mitigation measures, existing scientific
acoustic equipment could be used safely in the Antarctic. The paper provided a risk evaluation of a range of equipment and outlined how this could be applied in estimating environmental impact before any cruise. SCAR undertook to provide a further update on this field in 2006, and invited Parties to comment on the present paper.

(86) Germany noted the report and indicated it would raise a number of technical questions about its contents. Spain welcomed the report but considered there was still considerable uncertainty about the mechanisms involved in these interactions and their possible impacts. The importance of this topic means further research is urgently required.

(87) The following Information Papers were also submitted under 4c:
- ATCMXXVII/IP006 Continuation of the European Project for Ice Coring in Antarctica ((EPICA) (Germany)
- ATCMXXVII/IP007 Annual List of any Initial Environmental Evaluations prepared in accordance with Annex I, Article 2, of the Protocol (Annex I, Article 6, LIT. B, of the Protocol) and also ATCM Resolution 6 (1995) 2003/2004 Season (Germany)
- ATCMXXVII/IP023 Tourism and Non-Governmental Activities in Antarctica: Monitoring Compliance and Environmental Impact (New Zealand)
- ATCMXXVII/IP064 Annual List of Initial Environmental Evaluations (IEE) and Comprehensive Environmental Evaluations (CEE) Calendar Year 2003 (Australia)
- ATCMXXVII/086 Talos Dome Ice Core Project (TDICE): Information Note for Environmental Evaluation (Italy)

4d) Matters covered by Annex II (Conservation of Antarctic Fauna and Flora)

Review of Annex II

(88) The ICG convenor (Jose Maria Acero, Argentina) introduced ATCM XXVII/WP017 Final Report of the Intersessional Contact Group on Annex II Review, also expressing gratitude and congratulations to all Parties involved in the ICG work.

(89) The United Kingdom introduced a parallel Working Paper, ATCM XXVII/WP022 Annex II to the Environmental Protocol to the Antarctic Treaty, noting its concerns with regard to the ICG’s suggested change of the title and scope of the Annex.

(90) The convenor stated that the ICG considered that the requirements set by Article 3 for the issuing of permits defines the scope of the Annex, and that the ICG had not suggested changing those requirements.

(91) The convenor added that the ICG had included a definition for marine species, but that this only applied to Article 3, and that the ICG had addressed the issue of Specially Protected Species, in order to address issues arising from the ICG report on Specially Protected Species, submitted to CEP V.

(92) The UK made it clear that the review of Annex II by the CEP should not address legal issues and that to change the title of the Annex would be to change its scope, which was beyond the remit of the CEP.
(93) The convenor noted that the UK had restricted its participation in the ICG to a watching brief, but had received all ICG correspondence. Several Parties supported the convenor’s view that earlier participation by the UK may have assisted the ICG, and the Committee, to reach agreement on a revised text.

(94) The US noted that the ICG had been charged with the review of only the scientific and technical aspects of Annex II, and that some changes suggested by the ICG should perhaps be addressed in ATCM rather than the CEP.

(95) Australia reminded the meeting that Article 3 of the Protocol commits Parties to the comprehensive protection of the Antarctic environment as well as a continuing review of the Protocol’s provisions.

(96) Some Parties noted that changes to Annex II may require changes to their implementing legislation which could take several years to process.

(97) Several Parties appealed to all Parties to work with the paper proposed by the ICG, noting that changes to national legislations were implied in the review process right from the start.

(98) Argentina suggested that the rolling review of Annexes could be undertaken so that a full package of amended annexes would be submitted to the ATCM in several years’ time, resulting in a single comprehensive change, rather than year-by-year.

(99) The Committee comprehensively discussed the two revised texts before it, paragraph by paragraph, and prepared the suggested revised text at Appendix 9 for consideration by the ATCM, enclosing in square brackets those components of the revised text on which there was no agreement about the technical or legal nature of the text.

(100) The Committee discussed the possible implications of changing the title to “Conservation of Antarctic Living Organisms”, including whether such a change would affect the scope of the Annex, or cause confusion with the scope of the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR).

(101) Argentina noted that the ICG had concluded that the scope of Annex II was not changed by its title, but by the Article 3 provisions relating to the issuing of permits, which would not change at all. Australia agreed with Argentina, basing its view on modern developments in biological taxonomy. Some overlap with the concerns of CCAMLR should be expected and welcomed if it enhanced environmental protection, and any jurisdictional issues that might arise could be worked through by agreement.

(102) The UK stated that in its view changing the title to Conservation of Living Organisms would extend the scope of the Annex to cover micro-organisms. The UK considered that general protection of such species through Annex II would be impossible to implement and monitor. Whilst the UK agrees with the protection of rare assemblages of micro-organisms and their habitats, the UK believed that it would be more sensible and workable for protection to be afforded through the Antarctic specially protected area provisions of Annex V.

(103) The Committee square-bracketed the words “Living Organisms” and “Fauna and Flora” throughout the text, and referred the issue to the ATCM for resolution.
(104) The Chair noted that the CEP’s work included by nature issues with legal aspects and that it had to advise the ATCM on environmental and technical issues to the best of its competence, aware that its advice might have legal implications for consideration by the ATCM.

(105) ASOC noted that the Protocol gives a clear mandate to the Committee to protect the environment.

(106) Some Parties recalled that the mechanism established for interaction with CCAMLR to deal with marine aspects of protected area proposals provided a model for marine issues related to Specially Protected Species. Other Parties expressed the view that there was an alternative model.

(107) The Committee noted the need to reintroduce the results of its earlier work on designating Specially Protected Species in regard to procedures and criteria to be agreed for the listing and delisting of Specially Protected Species.

(108) The Committee agreed to delete Appendixes B and C and to incorporate their substance into the body of the Annex.

(109) The Committee agreed to amend the dates set out in Article 6 for the exchange of information to 1 April – 31 March to reflect Resolution 6 (2001).

(110) The Committee noted the hard work and commitment of the ICG to its task and thanked the convener, Jose Maria Acero, and the other ICG members for their efforts.

**Other Annex II Issues**

(111) COMNAP presented ATCM XXVII/WP10 *Guidelines for the Operation of Aircraft near Concentrations of Birds in Antarctica*. The potential for harmful disturbances to concentration of birds makes it important to provide pilots with guidelines that would prevent or minimize the damaging impact. COMNAP noted a lack of definitive scientific data on which to base such guidelines.

(112) The Committee endorsed the Guidelines contained in ATCM XXVII/WP010 and agreed to submit draft Resolution AA contained in Appendix 5 to ATCM XXVII.

(113) ASOC presented ATCM XXVII/IP056 *An update on some issues surrounding noise pollution*.

(114) SCAR introduced ATCM XXVII/IP73 *Specially Protected Species* on the development of a scientific basis for assessing the conservation status of Antarctic species. The conclusion of the assessment by Birdlife international on behalf of IUCN was that concern was limited to five species, but that most of the Antarctic species are not under immediate threat. SCAR offered to bring to CEP VIII a prototype process for the designation of Specially Protected Species.

(115) UNEP introduced ATCM XXVII/IP88 *A review of the Conservation Status of Antarctic Mammals and Birds*, as complementary to ATCM XXVII/IP073. UNEP’s report reviewed the conservation status of mammals and birds species occurring in the Antarctic Treaty area with a view to assisting Parties to develop a process for designating Specially Protected Species.
(116) Several members welcomed the SCAR and UNEP papers noting that they greatly assisted the Committee’s work on Annex II issues.

(117) The Committee noted that the issue of designating Specially Protected Species has become very urgent and should be a major item for consideration at CEP VIII.

(118) Australia introduced ATCM XXVII/IP071 Australia’s Antarctic Quarantine practices, particularly noting that the key to Australia’s quarantine practices lies in preventative measures, including comprehensive pre-departure inspection and education of expeditioners. Australia offered to provide further information to interested Members outside the meeting.

(119) France noted the interesting work conducted by Australia, and drew the Committee’s attention also to the risk of translocation of species between locations within sites in Antarctica.

4e) Matters covered by Annex III (Waste Disposal and Waste Management)

(120) Australia introduced ATCM XXVII/IP054 Thala Valley Cleanup, which highlighted the complexity of clean up operations, and noted that Australia had undertaken comprehensive monitoring prior to, during, and following the clean up activities.

(121) The United States introduced ATCM XXVII/IP041 Practicing environmental stewardship in Antarctica particularly noting the two case studies contained within that may be of interest to Members.

(122) The United Kingdom drew the Committee’s attention to ATCM XXVII/IP085 Waste disposal and waste management – the removal and clean-up of abandoned British bases and waste dumps in Antarctica and informed the Committee that a further two abandoned bases and associated waste dumps had been removed. Helpfully, this work had been overseen by an independent observer from New Zealand.

(123) The Committee noted with satisfaction that the presentation of several papers over the last few years addressing remediation of the sites of previous activities in Antarctica indicates substantial progress in implementing the provisions of Annex III.

4f) Matters covered by Annex IV (Prevention of Marine Pollution)

(124) Uruguay submitted ATCMXXVII/IP092 Activities oriented to the implementation of Resolutions related to operations in Antarctica, indicating that in accordance with Resolution 1 (2003) it has issued the complete text of Annex IV of the Protocol, including this text in the Marine Notices (Pamphlet No. 3/2004, Part V Nautical Information) and making it available to vessel operators.

(125) Spain submitted ATCM XXVII/WP042 Fishing Activities: Prevention of Marine Pollution and a draft Resolution on the discharge of ash into the sea and international minimum ice-strengthening standards for fishing vessels. After some previous exchanges of view it was concluded that the issue will be raised in the ATCM.
(126) COMNAP introduced ATCM XXVII/WP09/Rev A Applicability to the Antarctic of the IMO “Guidelines for ships Operating in Arctic Ice-Covered Waters”, pointing out editorial changes that would make the Arctic Guidelines more suitable to the Antarctic. COMNAP strongly supported requiring double skins around tanks carrying pollutants.

(127) COMNAP drew attention to the requirement that ships operating in ice-covered waters, other than passenger ships, have fore-peak to after-peak double-bottoms. While not recommending a change, COMNAP suggested that experts review this requirement, noting that it did not have the expertise in naval architecture to do so.

(128) Norway suggested that Parties consider a prohibition on the use of heavy fuels in Antarctica, and that the environmental issues related to ballast water management may be of concern to the Committee, especially with respect to the potential to introduce non-native species of marine life. Germany noted that the comments on heavy fuel were convincing, as it is not just a problem of viscosity but also of emissions, similarly ballast water issues.

(129) Several members congratulated COMNAP on the paper. Some noted a concern with attempting to adapt and adopt the Arctic shipping guidelines without augmenting the environmental advice in relation to the Antarctic, along the lines of that suggested by the Meeting of Experts on Antarctic Shipping Guidelines, hosted by the UK in 2000.

(130) UK noted that a proposal at the ATME held in London in 2000 was to have produced a comprehensive handbook for Antarctic shipping, of which environmental protection guidelines would be a part. The UK suggested that an attempt to effect such a major change to the IMO Arctic guidelines may delay their adaptation and adoption by several years.

(131) It was noted that many of these items would be further discussed in the ATCM under Item 14 – Operational Issues.

4g) Matters covered by Annex V (Area Protection and Management)

i) Draft Management Plans and proposals contained which have been considered by intersessional contact groups, or to which minor amendments were proposed.

(132) New Zealand presented ATCM XXVII/WP01 Review of draft McMurdo Dry Valleys Antarctic Specially Managed Area Management Plan: Report of the Intersessional Working Group and noted that the development of the Plan was a joint initiative with the United States.

(133) New Zealand noted the considerable scientific and wilderness values of the Dry Valleys region and that the aim of the ASMA is to manage and coordinate human activities in the area to protect these values.

(134) New Zealand noted that the draft Plan includes restrictions on the collection of items other than flora and fauna, and contains both hortatory and mandatory language where appropriate.

(135) The Committee congratulated New Zealand and the United States on the draft Management Plan, and in particular noted the value of the environmental and scientific codes of conduct.
(136) The US presented ATCM XXVII/WP05 Final Revised Management Plans for ASPA 113, Litchfield Island, Arthur Harbour, Anvers Island; ASPA No. 122, Arrival Heights, Hut Point Peninsula; and ASPA No. 139, Biscoe Point, Anvers Island. It summarized the comments it had received in the intersessional consultation process.

(137) Australia introduced ATCM XXVII/WP014 (Rev1) Antarctic Protected Areas System: proposed management plans for Cape Denison, Commonwealth Bay, George V Land, East Antarctica: HSM, ASMA and ASPA.

(138) Australia reminded the Committee of the significance of the Cape Denison site as one of the principle relics of the “heroic age” of Antarctic exploration, and drew its attention to the inclusion in WP014 of proposals for historic sites and monuments listing, an Antarctic Specially Protected Area, and an Antarctic Specially Managed Area.

(139) Australia also made available a supporting interpretative booklet on the Cape Denison site and offered to distribute a CD-ROM version to Parties on request.

(140) The UK commended the approach taken in the draft Management Plan, in particular the nesting of ASPA, HSM, and ASMA for the site. A minor amendment to the plan is incorporated in ATCM XXVII/WP014/Rev 1.

(141) Norway introduced ATCM XXVII/WP024 (Rev1) Review of ASPA 142, Svanemaren, noting the area’s significance for its seabird colonies, especially Antarctic petrels, and summarizing the improvements made to the plan in the review process.

(142) The Committee agreed to refer these draft plans to the ATCM for approval, and drafted:
- Measure XX (ASMA) (Appendix 6);
- Measure YY (ASPA) (Appendix 7); and
- Measure ZZ (Historic Sites and Monuments) (Appendix 8).

**ii) draft Management Plans which had not yet been considered by ICG.**

(143) Italy introduced ATCM XXII/WP 07 (Rev1) Proposal for a new protected area at Edmonson Point, Wood Bay, Ross Sea. Italy advised its intention to submit the draft plan to CCAMLR for its consideration and advice on the marine component. It noted that ATCM XXVII/IP042 is also relevant to this proposal.

(144) The Committee agreed to refer the plan to the ICG considering draft Management Plans, reporting back to CEP VIII.

(145) The UK introduced ATCM XXVII/WP013 Deception Island Antarctic Specially Managed Area Management Package. It noted that the management package was a culmination of five years’ collaborative work by the UK, Argentina, Chile, USA, Norway and Spain, ASOC and IAATO.

(146) Argentina stated that, regarding WP013, in view of the fact that there was no agreement on the revisions that were introduced at this meeting by the Argentine Delegation, which does not agree with certain historic and political contents of this document that are not related to Antarctica, Argentina would like to state that it does not wish to be included among the sponsors of this document. Nevertheless, Argentina agrees with all the technical aspects of this proposal, having
taken active part in its development. Additionally Argentina would like to make it clear that they will continue to participate as a co-sponsor of the proposed designation of the Deception Island ASMA.

(147) Spain expressed its hope that a consensus between the present co-sponsors of the draft Management Plan will be re-established before its final approval at CEP VIII.

(148) The UK noted the scientific, ecological, historical, aesthetic and educational values of Deception Island.

(149) The Committee took note of the major workshop hosted by Chile in March 2001, and the international research expedition hosted by Argentina in February 2002.

(150) The purpose of the management package is to preserve and protect the island’s values, manage the competing demands of science and tourism, and address the issues of safety at this volcanically active site.

(151) The UK further noted that the Management Plan, if adopted, will allow for a Management Group to coordinate activities at Deception Island.

(152) Several members congratulated the UK and its partners on the detailed structure and content of the draft Management Package and its significant contribution to the management of sensitive multi-user sites such as Deception Island.

(153) The US noted that the marine ASPA #145 Port Foster, Deception Island, is already under consideration by CCAMLR.

(154) ASOC noted that Annex V of the Protocol can be used to prevent conflicts of interest between environmental protection and human activities, and also noted that the Deception Island ASMA had many innovative aspects. However, ASOC expressed concern about ongoing commercial tourism activities at the largest penguin rookery in the island.

(155) The Committee agreed to refer the draft Deception Island Management Plan to the ICG considering draft Management Plans, reporting back to CEP VIII.

(156) Argentina introduced ATCM XXVII/WP015 Revision of ASPA 133 and ATCMXXVII/WP016 Revision del Plan de Manejo de la ZEAP 132(Punta Armonia). The revision of the management plans was based on recent field work carried out by Argentina and Chile, incorporated changes to the values of the areas and included data on wildlife populations and trends.

(157) The revision also provided management criteria such as the location of shelters and procedures for waste management, maps to assist in interpreting the management measures, diagrams, and small editorial changes.

(158) Argentina proposed that a revised version incorporating new maps, should be referred to the ICG considering draft Management Plans, reporting back to CEP VIII.
(159) The US introduced ATCM XXVII /WP019 (Rev1) Draft Revised Management Plans for ASPA 149 Cape Shirreff and San Telmo Island, Livingston Island, South Shetland Islands (Chile and the US), noting the minor nature of the amendments that had been made to bring the plan up to the standard required by Annex V. The US advised that the marine component of the plan is under review by CCAMLR.

(160) The Committee agreed to refer the plan to the ICG considering draft Management Plans, reporting back to CEP VIII.

(161) Australia presented ATCM XXVII/WP027 (Rev1) Protected Areas: Proposed Management Plan for Scullin and Murray Monoliths, Mac. Robertson Land, East Antarctica, Antarctic Specially Protected Area, noting the size and variety of the assemblages of breeding sea-birds that occupy the sites.

(162) The Committee agreed to refer the draft Scullin Monolith Management Plan to the ICG considering draft Management Plans, reporting back to CEP VIII.

(163) India introduced ATCM XXVII/WP033 Draft Revised Management Plan for ASPA XXX: Dakshin Gangtori Glacier Snout, Dronning Maud Land, and ATCM XXVII/WP035 Intersessional Contact Group to consider Antarctic Specially Protected Area at Dakshin Gangtori Glacier, Dronning Maud Land – Convener’s Report.

(164) The UK stated that it had not been notified of the creation of an intersessional group, and noted its concern that the draft Management Plan appeared to suggest that permits to enter the site could only be obtained from India, and that Annex V of the Protocol specifically allows for such permits to be issued by the relevant national authority. It was also agreed that the quality of the maps should be improved. India incorporated the suggested changes and issued ATCM XXVII/WP033/Rev 1.

(165) The Committee agreed to refer the draft Dakshin Gangtori Management Plan to the ICG considering draft Management Plans, reporting back to CEP VIII.

(166) India presented ATCM XXVII/WP036 (Rev1) Site recommended for inclusion in the list of Historical Sites and Monuments in Antarctica, proposing a plaque and monument at India Point, Humboldt Mountains, Wohlthat Massif, central Dronning Maud Land.

(167) The Committee noted the management guidelines provided in the paper, and agreed that the plaque and monument should be designated as a Historic Site and Monument. This proposal is included in draft Measure ZZ (Appendix 8).

iii) Other matters related to Area Protection and Management.

(168) The UK introduced ATCM XXVII/WP045 Salvage of the De Havilland Single Otter from Whalers Bay, Deception Island by British Antarctic Survey (UK).

(169) The UK sought the view of the CEP and clarification from the ATCM that:
– The designation of Historic Sites and Monuments extends to all relevant structures, remains and artefacts within such sites;
– Whether, if that is the case, the requirements of Article 8 (4) of Annex V to the Protocol which states “Listed Historic Sites and Monuments shall not be damaged, removed or destroyed” should include all relevant structures, remains and artefacts within such sites;
– Not withstanding the above, there should be a derogation to allow for the removal of such structures, remains and artefacts from a designated site for bona fide reasons such as preservation or safety.

(170) The UK noted that the ATCM had in fact already endorsed the principle of the removal of historic artefacts from some Historic Sites for conservation purposes.

(171) The Committee discussed the need to ensure protection of remains, artefacts and structures within designated Historic Sites from those who would seek to remove them without permission.

(172) The Committee noted that there are legal issues connected with the UK’s question, and agreed to refer ATCMXXVII/WP045 to ATCMXXVII’s Legal and Institutional Working Group. Some Parties considered that it would be beneficial to have more elaborate descriptions of proposals for Historic Sites and Monuments to be listed.

(173) The UK introduced ATCM XXVII/WP026, setting out a proposed amendment to Recommendation XVIII-1 (1994), for the Committee’s consideration and the approval of the ATCM. The draft Recommendation is attached at Annex 8.

(174) The CEP considered the four site guidelines included in ATCM XXVII/WP026. The CEP agreed that the principle of site guidelines was a useful tool to support the management of tourist visits to Antarctic sites.

(175) A number of Parties expressed concern about the proposed restrictions on the number of hours tourists may visit the sites during each 24 hours. It was noted that no scientific advice is currently available to inform these restrictions, but that the approach taken in the guidelines is necessarily of a precautionary nature.

(176) It was agreed to modify the restrictions at issue in the amended guidelines (Annex 8 to the CEP Final Report).

(177) The CEP also agreed that these site guidelines be reviewed when additional scientific information becomes available. The Committee noted that issue may be further discussed under ATCM 11.


(179) New Zealand introduced ATCMXXVII/IP024 Systematic Environmental Protection in Antarctica – First Progress Report on a trial environmental classification for a possible systematic environmental-geographic framework. While a further report will be presented at CEP VIII, New Zealand noted that further funding will need to be obtained to extend the work to the whole of Antarctica. New Zealand gratefully acknowledged the support of United States scientists for providing scientific data being used in the classification.
(180) Germany introduced ATCM XXVII/IP005 Research Project "Risk assessment for the Fildes Peninsula and Ardley Island and the development of management plans for designation as Antarctic Specially Protected or Managed Areas, which summarised progress with a three year project to provide data to fully evaluate the role and structure of a possible broad-scale management system on Fildes Peninsula and Ardley Island.

(181) Several Members expressed their support for proposal, and indicated that they would willingly assist Germany in the project.

(182) Italy presented ATCM XXVII/ IP042 Preliminary consideration of strategic environmental assessment: the case of Edmonson Point, Ross Sea, Antarctica.

(183) Estonia introduced ATCM XXVII/IP105 Estonia’s response to Information Paper IP042 submitted by Italy. Estonia expressed its concern about the option of extending the proposed new ASPA at Edmonson Point to the ice free area South of Edmonson Point as this site has been selected by Estonia for establishing a small summer only research station.

(184) Estonia recalled its Information Paper ATCM XXVI/IP081 which described the planned activity. Estonia will continue to work on this issue in the ICG established to consider draft Management Plans.

(185) In response, Italy noted that the problem of establishing a station in the Southern area of Edmonson Point is not just related to the size of the station, but that access to the proposed station site requires passage through the penguin routes identified in Figure 1 of ATCMXXVII/IP042. It was agreed that these issues would be discussed during intersessional consideration of the proposed ASPA management plan.

(186) Russia presented ATCM XXVII/ IP044 On the need of environmental monitoring of Antarctic Specially Protected Areas, noting that Parties submitting applications for Antarctic Specially Managed Areas and Antarctic Specially Protected Areas should monitor the environmental values that the areas were designated to protect, report on the monitoring to the CEP, and incorporate the results in subsequent revisions to management plans.

(187) Russia presented ATCM XXVII/ IP45 Orthodox temple in the Antarctic. Russia informed the Meeting that the orthodox Holy Trinity Church was opened at Bellingshausen Station, and that it is planning to propose that the Church be included on the List of Antarctic Historic Monuments.

(188) India submitted ATCM XXVI/IP040 Review of the Historic Site and Monument HSM-44 (A Plaque Erected at “Dakshin Gangtari” Station. India will present a Working Paper on this historic monument at CEP VIII.

**Item 5: Environmental Monitoring**

(189) The United States introduced ATCM XXVII/WP011 Monitoring and Assessment of activities: approaches taken by the Antarctic Site Inventory, which describes monitoring and assessment of visitor sites in the Antarctic Peninsula, and ATCM XXVII/IP010 Antarctic Site Inventory: 1994-2004, which updates the ATCM on key results from the Inventory’s most recent field season. The Antarctic Site Inventory, operated and managed by Oceanites, Inc., has collected biological data and site-descriptive information in the Antarctic Peninsula since 1994. The recently
published, 2d edition of Oceanites’ *Compendium Of Antarctic Peninsula Visitor Sites* was distributed to all Delegations, to accompany ATCM XXVII/IP011.

(190) XXVII ATCM/ WP011 takes up from the final report of the Antarctic Treaty Meeting of Experts (ATME), which convened in March 2004 in Norway (WP4). The ATME agreed that CEP should address the issue of monitoring and provide the ATCM with recommendations for the coordinated monitoring of activities in Antarctica including the establishment of a consistent methodology and central data collection process. The ATME noted the monitoring requirements of Article 3 of the 1991 Protocol on Environmental Protection to the Antarctic Treaty and specifically referenced the data collection efforts of Oceanites and the Antarctic Site Inventory. 

(191) XXVII ATCM/ WP011 describes the methodology of the Antarctic Site Inventory, including selected indicator species, data sets collected in regard to these indicator species (particularly, population size and breeding success), and site selection criteria.

(192) Many Delegations thanked the United States for these papers, made valuable comments and suggestions, and supported the establishment of an ICG.

(193) The Committee agreed to establish an open-ended ICG to further address this issue, convened by Dr Yves Frenot of France (yfrenot@iftrp.ifremer.fr), and operating under the terms of reference at Annex 6.

(194) The following Information Papers were submitted under Item 5:  
- ATXM XXVII/IP030 *Environmental Monitoring of the Indian Permanent Station –Maitri in Pursuant to the Protocol on Environmental Protection to the Antarctic Treaty* (India), and  
- ATCM XXVII/IP038 *Information Paper on the Ross Sea Region Tourism Site Inventory Project Workshop* (New Zealand)

**Item 6: State of the Antarctic environmental report**

(195) Australia introduced ATCM XXVII/ WP20 *Towards a CEP State of the Antarctic Environment Reporting System: Report of the Intersessional Contact Group* developed jointly with New Zealand, and reported on the intersessional work commissioned by CEP VI.

(196) Australia described the work undertaken to develop the interactive electronic reporting framework, including:
- the population of the reporting system with temperature data provided by SCAR;
- the restriction of change privileges to Custodians and Administrators;
- the adaptability and flexibility of the system to accommodate other developments in the Antarctic Treaty system, such as monitoring, cumulative impacts and some issues related to tourism management.
- the contribution by Parties and organizations including as Chile, China, Norway, Italy, Sweden, UK, UNEP, SCAR, CCAMLR, ASOC, IAATO and WMO.
- the essential continuing involvement by SCAR, CCAMLR in the future development of the system,
- the further development of criteria for selecting and categorizing indicators.
(197) The Committee thanked Australia and New Zealand for coordinating this valuable work. It endorsed the continuation of intersessional work, coordinated by Australia and New Zealand, according to the modified terms of reference and purpose statement contained in Annex 7, and reporting back to CEP VIII.

(198) Contact points for the work are tom.maggs@aad.gov.au and n.gilbert@antarctic.govt.nz. A link to the pilot SAER site is available from the CEP website Members’ area.

**Item 7: Biological Prospecting**

(199) UNEP introduced ATCM XXVII/IP106 *Industry Involvement in Antarctic Bioprospecting*, noting the level of commercial use is limited, that no commercial product had been developed so far, but nevertheless that a significant amount of the research is of commercial interest. Germany noted that the issue was important and that the CEP needed to address the issue in a more detailed manner than it has so far.

**Item 8: Emergency Response and Contingency Planning**

(200) COMNAP introduced ATCM XXVII/IP012 *COMNAP’s Framework and Guidelines for Emergency Response and Contingency Planning in Antarctica* noting that further work is required to address specific issues of emergency response and contingency planning.

**Item 9: Data and Exchange of Information**

(201) No papers were submitted or introduced under this Agenda item.

**Item 10: Cooperation with other organization**

(202) Spain introduced ATCM XXVII/IP098 *Conservation of Seabirds: Improvements and New Steps Forward* related to an action promoted by the non-Government organisation SEO-Birdlife in co-operation with fishers. Its purpose was to further new, more effective, solutions to promote seabird-friendly fishing.

(203) Australia introduced ATCM XXVII/IP103 *Entry into Force of the Agreement on the Conservation of Albatrosses and Petrels*.

(204) The following papers were also submitted under Item 10:
- ATCM XXVII/IP025 *Report of the World Conservation Union (IUCN)*
- ATCM XXVII/IP66 *Report of the Antarctic and Southern Ocean Coalition (ASOC)*

(205) The Chair introduced the *Report of the CEP Observer to the SC-CCAMLR XXII’*, ATCM XXVII/IP049, highlighting the following:

- The Scientific Committee had noted the increase of applications to commercially fish for krill. The projected krill catch for 2003/04 is 30% greater than the catch in 2002/03.
– Conservation measures introduced by CCAMLR to protect seabirds (albatross and petrels) during long line fishing are working well, as the number of birds killed has been dramatically reduced. Nevertheless, illegal fishing activities still kill very large numbers of birds each year.
– The Scientific Committee estimated that there was a lower catch in the IUU toothfish fishery, but that IUU fishing was still at an unsustainable level.
– The Scientific Committee has developed a mechanism for considering proposals from the CEP for protected areas with a marine component.
– The CCAMLR eco-system monitoring program has international recognition and produces information relevant to the CEP. The CEP will work closely with CCAMLR to monitor the Antarctic marine environment.

**Item 11: Election of Officers**

(206) Dr Tony Press (Australia) was re-elected as the Chair of the CEP.

**Item 12: Preparation for CEP VIII**

(207) The Committee adopted the agenda from CEP VII as the draft agenda for CEP VIII.

(208) The Committee agreed that some consideration should be given to the work of the CEP, and that this subject could be discussed at CEP VIII (Appendix 10).

**Item 13: Adoption of the Report**

(209) The draft Report was adopted by the Members.

**Item 14: Closing of the Meeting**

(210) The Chair, Dr Tony Press, closed the Meeting, thanking the Members and Observers for their efforts during the year and at the meeting, and also thanking the interpreters, translators, secretariat and rapporteurs.
Annex 1

CEP VII

Agenda and Final List of Documents

Item 1: Opening of the Meeting

Item 2: Adoption of Agenda

Item 3: Operation of the CEP

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<tr>
<td>IP 089</td>
<td>Report on the Implementation of the Protocol on Environmental Protection in the Czech Republic</td>
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Item 4: Compliance with the Protocol on Environmental Protection

4a) General Matters

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<td>WP 04</td>
<td>Chairman’s report from Antarctic Treaty Meeting of experts on tourism and non-governmental activities in Antarctica</td>
<td>Norway</td>
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<td>WP 032</td>
<td>CEP Consideration of Draft Protected Area Management Plans</td>
<td>United Kingdom</td>
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<tr>
<td>IP 002</td>
<td>Annual report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty</td>
<td>South Africa</td>
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<td>IP 013</td>
<td>Environmental Training in National Antarctic Programs: A Workshop between the COMNAP networks AEON and TRAINET</td>
<td>COMNAP</td>
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<tr>
<td>IP 017</td>
<td>Annual report of France pursuant to Article 17 of the Protocol on Environmental Protection to the Antarctic Treaty</td>
<td>France</td>
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<td>IP 019</td>
<td>Annual report of New Zealand pursuant to Article 17 of the Protocol on Environmental Protection to the Antarctic Treaty</td>
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<td>IP 020</td>
<td>Annual report of Spain pursuant to Article 17 of the Protocol on Environmental Protection to the Antarctic Treaty</td>
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<tr>
<td>IP 021</td>
<td>Renewable Power Generation for the Swedish Antarctic Station Wasa</td>
<td>Sweden</td>
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<td>IP 028</td>
<td>Construction of a new permanent Antarctic station replacing Neumayer Station at Ekstrom Ice Shelf</td>
<td>Germany</td>
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<td>IP 031</td>
<td>Report of the 2004 Finnish Antarctic inspection under article VII of the Antarctic Treaty and article 14 of the Protocol on Environmental Protection to the Antarctic Treaty</td>
<td>Finland</td>
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<td>IP 032</td>
<td>Annual report pursuant to Article 17 of the Protocol on Environmental Protection to the Antarctic Treaty</td>
<td>Italy</td>
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<td>IP 033</td>
<td>India’s Antarctic Science Program 2003-04</td>
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<td>IP 048</td>
<td>Inspection of Russian Antarctic Stations and Bases</td>
<td>Russian Federation</td>
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<td>IP 053</td>
<td>On the Activity of the Russian Permission System</td>
<td>Russian Federation</td>
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<td>IP 055</td>
<td>Annual report of China pursuant to Article 17 of the Protocol on Environmental Protection to the Antarctic Treaty</td>
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<td>IP 060</td>
<td>Concordia: A new permanent, international research support facility, high on the Antarctic ice cap</td>
<td>France and Italy</td>
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<td>IP 067</td>
<td>A report on the environment of Great Wall Station in recent two years</td>
<td>China</td>
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<td>IP 075</td>
<td>Annual report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty</td>
<td>Belgium</td>
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<td>IP 077</td>
<td>Environmental management during the construction of a new base facility at sub-Antarctic Marion Island, phase one, 2003</td>
<td>South Africa</td>
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<td>IP 081</td>
<td>Annual report pursuant to Article 17 of the Protocol on Environmental Protection to the Antarctic Treaty</td>
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<td>IP 084</td>
<td>Report on the implementation of the Protocol on Environmental Protection as required by Article 17 of the Protocol</td>
<td>United Kingdom</td>
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<tr>
<td>IP 090</td>
<td>Report on research activities of the Czech Republic in the Antarctic – Season 2003/04</td>
<td>Czech Republic</td>
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<td>IP 091</td>
<td>Annual report pursuant to Article 17 of the Protocol on Environmental Protection to the Antarctic Treaty</td>
<td>Uruguay</td>
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<td>IP 095</td>
<td>Annual report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty</td>
<td>Republic of Korea</td>
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<td>IP 101</td>
<td>27th Polish Antarctic Expedition of Arctowski Station (King George Island, Antarctica), 2002/2003</td>
<td>Poland</td>
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<td>IP 102</td>
<td>Annual report pursuant to Article 17 of the Protocol on Environmental Protection to the Antarctic Treaty</td>
<td>Ukraine</td>
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4b) Consideration of Draft CEEs forwarded to the CEP in accordance with paragraph 4 of article 3 of Annex I of the Protocol

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<tr>
<td>WP 025</td>
<td>Draft Comprehensive Environmental Evaluation (CEE) for the Concept of Upgrading the Norwegian Summer Station Troll in Dronning Maud Land, Antarctica, to Permanent Station</td>
<td>Norway</td>
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<tr>
<td>IP 003</td>
<td>Draft CEE for the Czech Station in Antarctica</td>
<td>Czech Republic</td>
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<tr>
<td>IP 037</td>
<td>Progress Report on the ANDRILL Draft CEE and an Outline of the Process and Timeline for the Completion of the Final CEE</td>
<td>New Zealand</td>
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<tr>
<td>IP 087</td>
<td>Complementary Information to the Draft CEE for Czech Scientific Station in Antarctica (Response to comments of Australia and Germany to the Draft CEE for the Construction and Operation of Czech Scientific Station in Antarctica)</td>
<td>Czech Republic</td>
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4c) Other Matters covered by Annex I (Environmental Impact Assessment)

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<tr>
<td>WP 028</td>
<td>The Application of existing EIA procedures to Tourist Activities in Antarctica</td>
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<tr>
<td>IP 006</td>
<td>Continuation of the European Project for Ice Coring in Antarctica (EPICA)</td>
<td>Germany</td>
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<tr>
<td>IP 007</td>
<td>Annual List of any Initial Environmental Evaluations prepared in accordance with Annex I, Article 2, of the Protocol (Annex I, Article 6, LIT. B, of the Protocol) and also ATCM Resolution 6 (1995) 2003/2004 Season</td>
<td>Germany</td>
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<tr>
<td>IP 015</td>
<td>An Analysis of Initial Environmental Evaluations (IEEs)</td>
<td>COMNAP</td>
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<tr>
<td>IP 023</td>
<td>Tourism and Non-Governmental Activities in Antarctica: Monitoring Compliance and Environmental Impact</td>
<td>New Zealand</td>
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<td>IP 035</td>
<td>Initial Environmental Evaluation for Troll Runway</td>
<td>Norway</td>
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<td>IP 064</td>
<td>Annual List of Initial Environmental Evaluations (IEE) and Comprehensive Environmental Evaluations (CEE) Calendar Year 2003</td>
<td>Chair (Australia)</td>
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<td>IP 086</td>
<td>Talos Dome Ice Core Project (TDICE): Information Note for Environmental Evaluation</td>
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### 4d) Matters covered by Annex II (Conservation of Antarctic Fauna and Flora)

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<tr>
<td>WP 010</td>
<td>Working Paper on Guidelines for the Operation of Aircraft near Concentrations of Birds in Antarctica</td>
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<td>WP 017</td>
<td>Final Report of the Intersessional Contact Group on Annex II Review</td>
<td>Argentina</td>
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<td>WP 022</td>
<td>Annex II to the Protocol on Environmental Protection to the Antarctic Treaty</td>
<td>UK</td>
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<tr>
<td>IP 056</td>
<td>An Update on some Issues Surrounding Noise Pollution</td>
<td>ASOC</td>
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<td>IP 071</td>
<td>Australia’s Antarctic Quarantine Practices</td>
<td>Australia</td>
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<td>IP 073</td>
<td>Antarctic Specially Protected Species</td>
<td>SCAP</td>
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<td>IP 088</td>
<td>A Review of the Conservation Status of Antarctic Mammals and Birds</td>
<td>UNEP</td>
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### 4e) Matters covered by Annex III (Waste Disposal and Waste Management)

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<tr>
<td>IP 041</td>
<td>Practicing Environmental Stewardship in Antarctica</td>
<td>United States</td>
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<td>IP 054</td>
<td>Thala Valley Clean-Up</td>
<td>Australia</td>
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<tr>
<td>IP 085</td>
<td>Waste Disposal and Waste Management – The Removal and Clean-up of Abandoned British Bases and Waste Dumps in Antarctica</td>
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### 4f) Matters covered by Annex IV (Prevention of Marine Pollution)

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<td>WP 009 (Rev1)</td>
<td>Working Paper on the Applicability of the Antarctic of the IMO “Guidelines for Ships Operating in Arctic Ice-Covered Waters”</td>
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<td>WP 042 (Rev1)</td>
<td>Fishing Activities: Prevention of Marine Pollution</td>
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<td>IP 092</td>
<td>Activities oriented to the implementation of Resolutions related to operations in Antarctica</td>
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### 4g) Matters Covered by Annex V (Area Protection and Management)

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<tr>
<td>WP 005</td>
<td>Final Revised Management Plans for ASPA 113, Litchfield Island, Arthur Harbour, Anvers Island ASPA No. 122, Arrival Heights, Hut Point Peninsula ASPA No. 139, Biscoe Point, Anvers Island</td>
<td>United States</td>
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<tr>
<td>WP 007 (Rev1)</td>
<td>Antarctic Protected Areas System: Proposal for a New Protected Area at Edmonson Point, Wood Bay, Ross Sea</td>
<td>Italy</td>
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<tr>
<td>WP 013</td>
<td>Deception Island Antarctic Specially Managed Area (ASMA) Management Package</td>
<td>Argentina, Chile, Norway, Spain, United Kingdom and United States</td>
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<tr>
<td>WP 014 (Rev1)</td>
<td>Review of Draft Protected Area Management Plans for Cape Denison, Commonwealth Bay, George V Land, East Antarctica: Antarctic Treaty Historic Site and Monument XX; Antarctic Specially Managed Area No. XX; and Antarctic Specially Protected Area No. XX</td>
<td>Australia</td>
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<tr>
<td>WP 015</td>
<td>Revision del Plan de Manejo de la ZEAP 133 (Punta Armonia)</td>
<td>Argentina and Chili</td>
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<td>WP 016</td>
<td>Revision del Plan de Manojo de la ZEAP 132 (Peninsula Poter)</td>
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<tr>
<td>WP 019 (Rev 1)</td>
<td>Draft Revised Management Plans for ASPA 149 Cape Shireff, Livingston Island, South Shetland Islands</td>
<td>Chile and the United States</td>
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<td>WP 024 (Rev1)</td>
<td>Review of Antarctic Specially Protected Area (ASPA) No. 142 – Svarthamaren</td>
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<tr>
<td>WP 027 (Rev1)</td>
<td>Protected Areas: Proposed Management Plan for Scullin and Murray Monoliths, Mac. Robertson Land, East Antarctica, Antarctic Specially Protected Area</td>
<td>Australia</td>
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<td>WP 033</td>
<td>Antarctic Protected Areas System – Proposed Management Plan for Dakshin Gangtouri Glacier, Dronning Maud Land, Antarctic Specially Protected Area (ASPA) No XX</td>
<td>India</td>
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<td>WP 035</td>
<td>Intersessional Contact Group to Consider Antarctic Specially Protected Area at Dakshin Gangtouri Glacier, Dronning Maud Land – Convenor’s Report</td>
<td>India</td>
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<tr>
<td>WP 036 (Rev1)</td>
<td>Site Recommended for Inclusion in the List of Historical Sites and Monuments in Antarctica</td>
<td>India</td>
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<td>WP 045</td>
<td>Historic Site No. 71 – Whalers Bay, Deception Island – Salvage of the de Havilland single otter from Whalers bay, Deception Island by the British Antarctic Survey.</td>
<td>United Kingdom</td>
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<tr>
<td>IP 005</td>
<td>Research Project “Risk Assessment for the Fildes Peninsula and Ardley Island and the Development of Management Plans for Designation as Antarctic Specially Protected or Managed Areas</td>
<td>Germany</td>
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<tr>
<td>IP 040</td>
<td>Review of the Historic Site and Monument HSM-44 (A Plaque Erected at “Dakshin Gangtouri” Station)</td>
<td>India</td>
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<td>IP 042</td>
<td>Preliminary Consideration on “Strategic Environmental Assessment”, the Case of Edmonson Point Area, Ross Sea, Antarctica</td>
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<td>IP 044</td>
<td>On the Need of Environmental Monitoring of Antarctic Specially Protected Area</td>
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<td>IP 045</td>
<td>Orthodox Temple in the Antarctic</td>
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<td>IP 105</td>
<td>Estonia’s Response to Information Paper 042 Submitted by Italy</td>
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**Item 5: Environmental Monitoring**

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<td>Monitoring and Assessment of activities: approaches taken by the Antarctic Site Inventory</td>
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<tr>
<td>IP 010</td>
<td>Antarctic Site Inventory: 1994-2004</td>
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<td>IP 030</td>
<td>Environmental Monitoring of the Indian Permanent Station-Maitri in Pursuant to the Protocol on Environmental Protection to the Antarctic Treaty</td>
<td>India</td>
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<td>IP 038</td>
<td>Information paper on the Ross Sea Region tourism site inventory project workshop</td>
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**Item 6: State of the Antarctic Environment Report**

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**Item 7: Biological Prospecting**

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**Item 9: Data and Exchange of Information**

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Item 11: Election of Officers

Item 12: Preparation for CEP VII

Item 13: Adoption of the Report

Item 14: Closing of the Meeting

Annex 2

CEP National Contact Points

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<tr>
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<tr>
<td>Chair</td>
<td>Tony Press</td>
<td><a href="mailto:tony.press@aad.gov.au">tony.press@aad.gov.au</a></td>
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<tr>
<td>Argentina</td>
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<td><a href="mailto:jmacero@dna.gov.ar">jmacero@dna.gov.ar</a></td>
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<td><a href="mailto:hgorziglia@ihb.imc">hgorziglia@ihb.imc</a></td>
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### Annex 3

**Internet addresses (URL) where Annual Report information is published in accordance with Article 17 of the Protocol**

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**NOTE** The CEP website ([www.cep.aq](http://www.cep.aq)) will maintain an updated version of this list in the members area.
Annex 4

Terms of Reference for an Intersessional Contact Group to consider draft Management Plans

The Committee agreed to establish an intersessional open-ended contact group to consider those Management Plans which require intersessional review, taking into account the Guidelines for CEP Consideration of New and Revised Draft ASPA and ASMA Management Plans (revised and reproduced as Annex 4 to the CEP VI Final Report).

The group should operate in accordance with the guidelines for intersessional open-ended informal contact groups of the CEP, as set out in the Final Report of CEP I (paragraph 9), and utilize the internet to facilitate discussions.

The Committee endorsed the following terms of reference for the ICG:

1. To ensure that Management Plans adhere to the provisions set out in Annex V of the Environmental Protocol, particularly Articles 3 and 5, and are consistent with the Guide for the Preparation of Management Plans for Antarctic Specially Protected Areas (Resolution 2 (1998));

2. To examine the content, clarity, consistency and likely effectiveness of each draft Management Plan;

3. To ensure consistency of approach between Management Plans, including the maps attached to those plans.

The outcomes of the group’s deliberations, including any recommendations and any comments provided by SCAR and CCAMLR shall be reported annually to the CEP.

Australia will establish and manage a discussion forum on the CEP website through which the ICG will be convened. Australia will also establish an email address to which management plan ICG correspondence should be sent (plans@cep.aq). The proponent of each Management Plan shall be responsible for monitoring the discussion forum, responding to comments received, and revising their draft plans as appropriate for subsequent presentation to the CEP.
Annex 5

Terms of Reference for supplementing the “Guidelines for Environmental Impact Assessment in Antarctica” (1999)

The Committee agreed to establishing an ICG for the updating of the “Guidelines for Environmental Impact Assessment in Antarctica” (produced at Appendix 2 to CEP II Final Report).

The Intersessional group will operate in accordance with the Guidelines for such open-ended informal contact groups set out in CEP I Final Report Paragraph 9.

The Committee endorsed the following terms of Reference for the contact group:

1) To consider whether the “Guidelines for Environmental Impact Assessment in Antarctica” should be supplemented to take into account the assessment of possible cumulative impacts arising from multiple activities at multiple locations undertaken by one or more national or private operators.

2) To bring forward any suggestions for updating the “Guidelines,” in accord with TOR 1, for consideration at CEP VIII.

Convener: Tom Maggs (tom.maggs@aad.gov.au)
Annex 6

Terms of Reference for ICG – “Environmental Monitoring”

The Committee agreed to establish an ICG to examine the issue of environmental monitoring in Antarctica, noting the final Report of ATME held in Norway, March 22nd to 25th, 2004. It will operate in accordance with the Guidelines for such open-ended informal contact groups as set out in CEPI Final Report paragraph 9.

The Committee endorsed the establishment of an ICG including experts from Parties, SCAR, CCAMLR, IAATO and ASOC with expertise in environmental monitoring. In carrying out its work, the ICG should take into account previous work by CEP/ATCM and COMNAP on environmental monitoring in Antarctica. It will address the following Terms of Reference:

1. consider which environmental variables are the best indicators of the assessment of the impacts of human activities in Antarctica, in particular on populations, habitats and other sensitive areas directly, indirectly or cumulatively impacted
2. identify appropriate methodologies for monitoring these indicators
3. identify existing data sets relevant to the indicators
4. develop guidelines on appropriate environmental monitoring that are simple and effective, and can be undertaken by national programs and/or NGOs
5. consider data management including availability through the pilot SAER system, or the Secretariat, and
6. provide a report to CEP VIII

Convener: Dr Yves Frenot (yfrenot@ifrtp.ifremer.fr)
Annex 7

Terms of Reference for the intersessional contact group on State of the Antarctic Environment Reporting

The ICG will:

1. Continue to develop the pilot SAER system ahead of CEP VIII, based on the recommendations contained in ATCM XXVII/WP20 and discussions at CEP VII;
2. Liaise with the Antarctic Treaty Secretariat where relevant and appropriate;
3. Liaise as appropriate with other intersessional contact groups;
4. Report on its work to CEP VIII, including a prototype report against the indicators developed at that stage.
Annex 8

Guidance for Visitors to the Antarctic

Activities in the Antarctic are governed by the Antarctic Treaty of 1959 and associated agreements, referred to collectively as the Antarctic Treaty system. The Treaty established Antarctica as a zone of peace and science.

In 1991, the Antarctic Treaty Consultative Parties adopted the Protocol on Environmental Protection to the Antarctic Treaty, which designates the Antarctic as a natural reserve. The Protocol, which entered into force in 1998, sets out environmental principles, procedures and obligations for the comprehensive protection of the Antarctic environment, and its dependent and associated ecosystems.

The Environmental Protocol applies to tourism and non-governmental activities as well as governmental activities in the Antarctic Treaty Area. It is intended to ensure that these activities do not have adverse impacts on the Antarctic environment, or on its scientific and aesthetic values.

This Guidance for Visitors to the Antarctic is intended to ensure that all visitors are aware of, and are therefore able to comply with, the Treaty and the Protocol. Visitors are, of course, bound by national laws and regulations applicable to activities in the Antarctic.

A) PROTECT AN ANTARCTIC WILDLIFE

Taking or harmful interference with Antarctic wildlife is prohibited except in accordance with a permit issued by a national authority.

1) Do not use aircraft, vessels, small boats, or other means of transport in ways that disturb wildlife, either at sea or on land.

2) Do not feed, touch, or handle birds or seals, or approach or photograph them in ways that cause them to alter their behaviour. Special care is needed when animals are breeding or moulting.

3) Do not damage plants, for example by walking, driving, or landing on extensive moss beds or lichen-covered scree slopes.

4) Do not use guns or explosives. Keep noise to the minimum to avoid frightening wildlife.

5) Do not bring non-native plants or animals into the Antarctic (e.g. live poultry, pet dogs and cats, house plants).

B) RESPECT PROTECTED AREAS

A variety of areas in the Antarctic have been afforded special protection because of their particular ecological, scientific, historic or other values. Entry into certain areas may be prohibited except in accordance with a permit issued by an appropriate national authority. Activities in and near designated Historic Sites and Monuments and certain other areas may be subject to special restrictions.

1) Know the locations of areas that have been afforded special protection and any restrictions regarding entry and activities that can be carried out in and near them.

2) Observe applicable restrictions.
3) Do not damage, remove or destroy Historic Sites or Monuments, or any artefacts associated with them.

C) RESPECT SCIENTIFIC RESEARCH
Do not interfere with scientific research, facilities or equipment.

1) Obtain permission before visiting Antarctic science and logistic support facilities; reconfirm arrangements 24-72 hours before arriving; and comply strictly with the rules regarding such visits.

2) Do not interfere with, or remove, scientific equipment or marker posts, and do not disturb experimental study sites, field camps, or supplies.

D) BE SAFE
Be prepared for severe and changeable weather. Ensure that your equipment and clothing meet Antarctic standards. Remember that the Antarctic environment is inhospitable, unpredictable and potentially dangerous.

1) Know your capabilities, the dangers posed by the Antarctic, environment, and act accordingly. Plan activities with safety in mind at all times.

2) Keep a safe distance from all wildlife, both on land and at sea.

3) Take note of, and act on, the advice and instructions from your leaders; do not stray from your group.

4) Do not walk onto glaciers, or large snow fields without proper equipment and experience; there is a real danger of falling into hidden crevasses;

5) Do not expect a rescue service; self-sufficiency is increased and risks reduced by sound planning, quality equipment, and trained personnel.

6) Do not enter emergency refuges (except in emergencies). If you use equipment or food from a refuge, inform the nearest research station or national authority once the emergency is over.

7) Respect any smoking restrictions, particularly around buildings, and take great care to safeguard against the danger of fire. This is a real hazard in the dry environment of Antarctica.

E) KEEP ANTARCTICA PRISTINE
Antarctica remains relatively pristine, and has not yet been subjected to large scale human perturbations. It is the largest wilderness area on earth. Please keep it that way.

1) Do not dispose of litter or garbage on land. Open burning is prohibited.

2) Do not disturb or pollute lakes or streams. Any materials discarded at sea must be disposed of properly.

3) Do not paint or engrave names or graffiti on rocks or buildings.

4) Do not collect or take away biological or geological specimens or man-made artefacts as a souvenir, including rocks, bones, eggs, fossils, and parts or contents of buildings.
5) Do not deface or vandalise buildings, whether abandoned, or unoccupied, or emergency refuges.

**Guidance for those Organising and Conducting Tourism and Non-Governmental Activities in the Antarctic**

Antarctica is the largest wilderness area on earth, unaffected by large scale human activities. Accordingly, this unique and pristine environment has been afforded special protection. Furthermore, it is physically remote, inhospitable, unpredictable and potentially dangerous. All activities in the Antarctic Treaty Area, therefore, should be planned and conducted with both environmental protection and safety in mind.

Activities in the Antarctic are subject to the Antarctic Treaty of 1959 and associated legal instruments, referred to collectively as the Antarctic Treaty system. These include the Convention for the Conservation of Antarctic Seals (CCAS' 1972), the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR' 1980) and the Recommendations and other measures adopted by the Antarctic Treaty Consultative Parties under the Antarctic Treaty.

In 1991, the Consultative Parties to the Antarctic Treaty adopted the Protocol on Environmental Protection to the Antarctic Treaty. The Protocol, which entered into force in 1998, sets out environmental principles, procedures and obligations for the comprehensive protection of the Antarctic environment, and its dependent and associated ecosystems.

The Environmental Protocol designates Antarctica as a natural reserve devoted to peace and science, and applies to both governmental and non-governmental activities in the Antarctic Treaty Area. The Protocol seeks to ensure that human activities, including tourism, do not have adverse impacts on the Antarctic environment, nor on its scientific and aesthetic values.

The Protocol states, as a matter of principle, that all activities are to be planned and conducted on the basis of information sufficient to evaluate their possible impact on the Antarctic environment and its associated ecosystems, and on the value of Antarctica for the conduct of scientific research. Organisers should be aware that the Environmental Protocol requires that "activities shall be modified, suspended or cancelled if they result in or threaten to result in impacts upon the Antarctic environment or dependent or associated ecosystems."

Those responsible for organising and conducting tourism and non-governmental activities must comply fully with national laws and regulations which implement the Antarctic Treaty system, as well as other national laws and regulations implementing international agreements on environmental protection, pollution and safety that relate to the Antarctic Treaty Area. They should also abide by the requirements imposed on organisers and operators under the Protocol on Environmental Protection and its Annexes, in so far as they have not yet been implemented in national law.

**KEY OBLIGATIONS ON ORGANISERS AND OPERATORS**

1) Provide prior notification of, and reports on, their activities to the competent authorities of the appropriate Party or Parties.

2) Conduct an assessment of the potential environmental impacts of their planned activities.

3) Provide for effective response to environmental emergencies, especially with regard to marine pollution.

4) Ensure self-sufficiency and safe operations.
5) Respect scientific research and the Antarctic environment, including restrictions regarding protected areas, and the protection of flora and fauna.

6) Prevent the disposal and discharge of prohibited waste.

PROCEDURES TO BE FOLLOWED BY ORGANISERS AND OPERATORS

A) When planning to go to the Antarctic

Organisers and operators should:

1) Notify the competent national authorities of the appropriate Party or Parties of details of their planned activities with sufficient time to enable the Party (ies) to comply with their information exchange obligations under Article VII(5) of the Antarctic Treaty. The information to be provided is listed in Attachment A.

2) Conduct an environmental assessment in accordance with such procedures as may have been established in national law to give effect to Annex I of the Protocol, including, if appropriate, how potential impacts will be monitored.

3) Obtain timely permission from the national authorities responsible for any stations they propose to visit.

4) Provide information to assist in the preparation of contingency response plans in accordance with Article 15 of the Protocol; waste management plans in accordance with Annex III of the Protocol; and marine pollution contingency plans in accordance with Annex IV of the Protocol.

5) Ensure that expedition leaders and passengers are aware of the location and special regimes which apply to Specially Protected Areas and Sites of Special Scientific Interest (and on entry into force of the Protocol, Antarctic Specially Protected Areas and Antarctic Specially Managed Areas) and of Historic Sites and Monuments and, in particular, relevant management plans.

6) Obtain a permit, where required by national law, from the competent national authority of the appropriate Party or Parties, should they have a reason to enter such areas, or a monitoring site (CEMP Site) designated under CCAMLR.

7) Ensure that activities are fully self-sufficient and do not require assistance from Parties unless arrangements for it have been agreed in advance.

8) Ensure that they employ experienced and trained personnel, including a sufficient number of guides.

9) Arrange to use equipment, vehicles, vessels, and aircraft appropriate to Antarctic operations.

10) Be fully conversant with applicable communications, navigation, air traffic control and emergency procedures.

11) Obtain the best available maps and hydrographic charts, recognising that many areas are not fully or accurately surveyed.

12) Consider the question of insurance (subject to requirements of national law).
13) Design and conduct information and education programmes to ensure that all personnel and visitors are aware of relevant provisions of the Antarctic Treaty system.
14) Provide visitors with a copy of the Guidance for Visitors to the Antarctic.

B) When in the Antarctic Treaty Area

Organisers and operators should:

1) Comply with all requirements of the Antarctic Treaty system and relevant national laws, and ensure that visitors are aware of requirements that are relevant to them.
2) Comply with the Site Guidelines at Attachment B.
3) Reconfirm arrangements to visit stations 24-72 hours before their arrival and ensure that visitors are aware of any conditions or restrictions established by the station.
4) Ensure that visitors are supervised by a sufficient number of guides who have adequate experience and training in Antarctic conditions and knowledge of the Antarctic Treaty system requirements.
5) Monitor environmental impacts of their activities, if appropriate, and advise the competent national authorities of the appropriate Party or Parties of any adverse or cumulative impacts resulting from an activity, but which were not foreseen by their environmental impact assessment.
6) Operate ships, yachts, small boats, aircraft, hovercraft, and all other means of transport safely and according to appropriate procedures, including those set out in the Antarctic Flight Information Manual (AFIM).
7) Dispose of waste materials in accordance with Annex III and IV of the Protocol. These annexes prohibit, among other things, the discharge of plastics, oil and noxious substances into the Antarctic Treaty Area; regulate the discharge of sewage and food waste; and, require the removal of most wastes from the area.
8) Co-operate fully with observers designated by Consultative Parties to conduct inspections of stations, ships, aircraft and equipment under Article VII of the Antarctic Treaty, and those to be designated under Article 14 of the Environmental Protocol.
9) Co-operate in monitoring programmes undertaken in accordance with Article 3(2)(d) of the Protocol.
10) Maintain a careful and complete record of their activities conducted.

C) On completion of the activities

Within three months of the end of the activity, organisers and operators should report on the conduct of it to the appropriate national authority in accordance with national laws and procedures. Reports should include the name, details and state of registration of each vessel or aircraft used and the name of their captain or commander; actual itinerary; the number of visitors engaged in the activity; places, dates and purposes of landings and the number of visitors landed on each occasion; any meteorological observations made, including those made as part of the World Meteorological Organization (WMO) Voluntary Observing Ships Scheme; any significant changes in activities and their impacts from those predicted before the visit was conducted; and action taken in case of emergency.
D) Antarctic Treaty System Documents and Information

Most Antarctic Treaty Parties can provide, through their national contact points, copies of relevant provisions of the Antarctic Treaty system and information about national laws and procedures, including:

The Antarctic Treaty (1959)
Convention for the Conservation of Antarctic Seals (1972)
Protocol on Environmental Protection to the Antarctic Treaty (1991)
Recommendations and other measures adopted under the Antarctic Treaty
Final Reports of Consultative Meetings
Handbook of the Antarctic Treaty System (2002) [http://www.state.gov/g/oes/rls/rpts/ant/]

ATTACHMENT A

INFORMATION TO BE PROVIDED IN ADVANCE NOTICE

Organisers should provide the following information to the appropriate national authorities in the format requested.

1. name, nationality, and contact details of the organiser;
2. where relevant, registered name and national registration and type of any vessel or aircraft to be used (including name of the captain or commander, call-sign, radio frequency, INMARSAT number);
3. intended itinerary including the date of departure and places to be visited in the Antarctic Treaty Area;
4. activities to be undertaken and purpose;
5. number and qualifications of crew and accompanying guides and expedition staff;
6. estimated number of visitors to be carried;
7. carrying capacity of vessel;
8. intended use of vessel;
9. intended use and type of aircraft;
10. number and type of other vessels, including small boats, to be used in the Antarctic Treaty Area;
11. information about insurance coverage;
12. details of equipment to be used, including for safety purposes, and arrangements for self-sufficiency;
13. and other matters required by national laws.

ATTACHMENT B

Site Guidelines for Visitors and for Those Organising and Conducting Tourism and Non-governmental Activities in the Antarctic Peninsula

1. Penguin Island 62°06’S 57°54’W
2. Aitcho Islands 62°24’S 59°47’W
3. Cuverville Island 64°41’S 62°38’W
4. Jouglar Point, Wiencke Island 64°49’S 63°30’W
**Penguin Island (South Shetland Islands)**

62°06’S, 57°54’W
Located at the southeastern end of King George Island

**Sensitivity.** High.

**Key features.** The dormant, volcanic caldera of Deacon Peak. Large assemblage of breeding southern giant petrels.

**Description.** This species diverse, 1.6 kilometre-long island lies south of Turret Point on the southeastern coast of King George Island, on the eastern side of the entrance to King George Bay. The island was first sighted in 1820 by a British expedition under Bransfield, who named it after the many penguins he observed on shore. The site’s prominent geological feature is the 170 metre-high caldera of Deacon Peak. A crater lake on the northeastern end of the island, in the vicinity of a large chinstrap penguin colony, is filled with ice or water and snow melt, depending on the season.

**Wildlife.** Chinstrap penguin (*Pygoscelis antarctica*), Adélie penguin (*Pygoscelis adeliae*), southern giant petrel (*Macronectes giganteus*), Antarctic tern (*Sterna vittata*), skuas (*Catharacta* spp.), and kelp gull (*Larus dominicanus*) are confirmed breeders. Snowy sheathbill (*Chionis alba*) and Wilson’s storm petrel (*Oceanites oceanicus*) are likely breeders, and blue-eyed shags (*Phalacrocorax atriceps*) often roost on offshore rocks. Southern elephant seals (*Mirounga leonina*) and Weddell seals (*Leptonychotes weddellii*) regularly haul-out on the landing beach, as do Antarctic fur seals (*Arctocephalus gazella*), from late-December onward and often in large numbers. The plants *Deschampsia antarctica*, *Colobanthus quitensis*, *Xanthoria elegans*, *Caloplaca* and other crustose lichen species, and large swarms of the fruticose lichen *Usnea antarctica* and moss species are present.

The colony of >7,500 breeding pairs of chinstrap penguins is typical of the South Shetland Islands, where many large colonies of this species are found. There are >1,900 breeding pairs of Adélie penguins, a species which nests more extensively in the western Weddell Sea. The >500 breeding pairs of southern giant petrels represent one of the largest and most easily accessed assemblages of this species in the Antarctic Peninsula.

**Visitor pressure.** Penguin Island is visited relatively infrequently. Over thirteen years, 1989-02, this site experienced the 15th highest number of zodiac landings from ship-visits in the Antarctic Peninsula and the 17th highest number of visitors in such landings, averaging 12 zodiac landings and 971 visitors per season. Peak visits occurred in the 1994-95 season, with 24 zodiac landings and 1,692 visitors.

Visitor sensitivity varies during the season according to different stages of wildlife reproductive cycles. Known visitor impacts include trampling of moss and lichen swarms in the interior part of the island and the creation of footpaths en route to Deacon Peak. Preferred walking routes, noted below, should help minimize, if not avoid, these particular impacts.

This site is highly sensitive to potential environmental disruptions because its diverse wildlife is easily accessed, particularly the southern giant petrels, which nest on the elevated terrain above and close to the landing beach. To minimize potential disruptions, there should be seasonal limitations on visit time, ship capacities, and numbers of visitors ashore. Restricted zones, distance and other limitations for approaching wildlife and flora, and the use of guided groups should assist visitors in avoiding disruptions.
Because this is one of the most easily accessible areas to see breeding southern giant petrels in the Antarctic Peninsula, it is especially important not to enter restricted zones and to observe a precautionary distance from this species.

The southern giant petrels are easily approached and disturbed; in November and early December adults will be incubating eggs; thereafter, adults will be guarding and feeding chicks at the nest. Adults are wary and extraordinarily restless. They may leave the nest when approached — even from a considerable distance, which risks eggs (perhaps, small chicks) being predated by skuas, kelp gulls, and snowy sheathbills. The petrels nest along the northern and northwestern shorelines of the island, along the rim of the small crater lake on the northeastern end of the island, and on knolls to the south. Many unoccupied nests are evident, suggesting a population decline prior to 1994, when the giant petrels were censused for the first time.

Chinstrap and Adélie penguins are easily approached and disturbed, especially in November and early December when adults will be incubating eggs; thereafter, adults will be guarding and feeding chicks at the nest, then in crèche. The monitoring sites for chinstrap and Adélie penguin colonies at the southern end of the island should be avoided.

Between the northern shoreline and the summit of Deacon Peak to the south, there are wide and extensive swards of lichens (particularly Usnea antarctica) and mosses, which may be easily trampled.

Skuas nesting on widely scattered territories are easily approached and disturbed, particularly, later in the season (from mid-January) when adults are fiercely protecting young.

Antarctic terns nesting opportunistically to the west and inland on available, open ground are defensive and very easily disturbed, even from a distance.

Antarctic fur seals may be found on the cobbled beach, among the penguins and giant petrels, and inland, often in large numbers. They may be aggressive and should be avoided. The higher slopes en route to Deacon Peak are eroding and any storm petrel nests in this high scree may be easily trampled.

Visitor code of conduct. Preferred landing area. The broad cobbled beach along the northern coast. This may be packed with ice depending on wind and swell. This site is difficult to negotiate when snow-covered or wet, and especially if Antarctic fur seals are present. Because southern giant petrels nest on elevated terrain above and to the west of the landing beach, visitors should proceed east along the beach to avoid any disruptions.

Restricted zones.

A  Biodiverse and fragile area including elevated terrain above and along the northern coast shoreline and the northwestern end of the island, where southern giant petrels and Antarctic terns nest (the zone does not include the landing beach).

B  Vicinity of “balancing rock” at the northeastern end of the island, where southern giant petrels nest.

C  Rim of “crater lake” and knolls to the south, where southern giant petrels nest.

D  Monitoring control sites for penguins at the southern end of the island.
Ship limitations. Confined to vessels with a capacity of 200 or fewer visitors.

Preferred numbers of visitors ashore. No more than 100 visitors at any time, exclusive of expedition guides and leaders.

Preferred walking routes. Visitors should proceed east along the cobble shoreline toward the northeastern end of the island, walking inland and uphill without disrupting the concentrations of nesting southern giant petrels. At all times, visitors should maintain a precautionary distance of at least 20 metres from nesting southern giant petrels, and 5 metres from nesting penguins.

Visits to Deacon Peak should be strictly controlled by using organised, guided groups, with everyone following the same path. Guides should ensure that trampling of interior moss and lichen swards is avoided. In the early austral spring, this area may be covered by snow; however, after the snow melts and swards of mosses and lichens are exposed, visitors should only use rock/soil pathways.

Distance and other limitations for approaching wildlife and flora, and avoiding potential hazards. Walk slowly and carefully, and maintain a precautionary distance of at least 20 metres from nesting southern giant petrels, increasing this distance if necessary and as appropriate, to avoid changing the birds’ behaviour.

Maintain a precautionary distance of 5 metres from nesting penguins, increasing this distance if necessary and as appropriate, to avoid changing the birds’ behaviour. At all times, walk slowly and carefully when near nesting, crêching, or molting penguins, and give penguins the right-of-way. Monitoring control sites for chinstrap and Adélie penguin colonies at the southern end of the island should be avoided.

Avoid and stay clear of south polar skua territories. If subjected to any aerial attacks by skuas, retreat by retracting steps that have been taken.

Avoid and stay clear of any nesting terns.

Avoid and stay clear of Antarctic fur seals; these may be aggressive, and should be given a wide berth and not approached.
Aitcho Islands (South Shetland Islands)
62°24’S, 59°47’W
Located at the northern entrance to English Strait, South Shetland Islands

Sensitivity. High.


Description. These small islands, often windswept and shrouded in fog and mist, lie at the northern entrance to English Strait between Robert Island and Greenwich Island. They were charted and named in 1936 by the British Discovery Investigations (1925-39) after the U.K. Admiralty Hydrographic Office (the “H.O.”). Visitor activity concentrates on the unnamed island northwest of Cecilia Island, which has a protected cobble and sand landing beach on its northeastern side, but does not afford a convenient leeward anchorage.

Annual snowfall covers moss swarms west and northwest of the landing beach, and may linger through January. South of the landing beach is a favored haul-out area for seals. Southern elephant seals may be found wallowing at the far western end of the island. Southern giant petrels nest along the northern ridge and inland, and may be observed on visits to the western end of the island. Chinstrap penguin monitoring sites are located above and southeast of the landing beach.

Wildlife. Gentoo penguins (Pygoscelis papua), chinstrap penguins (Pygoscelis antarctica), southern giant petrel (Macronectes giganteus), kelp gull (Larus dominicanus), and skuas (Catharacta spp.) are confirmed breeders. Blue-eyed shags (Phalacrocorax atriceps) and Wilson’s storm-petrel (Oceanites oceanicus) have been observed, and breeding is strongly suspected. Weddell seals (Leptonychotes weddellii) and southern elephant seals (Mirounga leonina) regularly haul-out, as do Antarctic fur seals (Arctocephalus gazella) from late-December onward. Snow algae may be found in the early season snow cover. The lichens Xanthoria spp., Caloplaca spp. other crustose lichen species, and large swarms of moss species are present. The green alga Prasiola crispa is widespread.

There is a medium-sized colony of >4,600 breeding pairs of chinstrap penguins, a species typically found in the South Shetland Islands. The medium-sized colony of >1,200 gentoo penguins is one of the largest for this species in the South Shetland Islands. The ≤100 breeding pairs of southern giant petrels represent one of the most easily accessed assemblages of this species in the Antarctic Peninsula.

Visitor pressure. The Aitcho Islands site is frequently visited. Over thirteen years, 1989-02, this site experienced the 11th highest number of zodiac landings from ship-visits in the Antarctic Peninsula and the 12th highest number of visitors in such landings, averaging 20 zodiac landings and 1,567 visitors per season. Peak visits occurred in the 1999-2000 season, with 42 zodiac landings and 3,454 visitors.

Visitor sensitivity varies during the season according to different stages of wildlife reproductive cycles. Visitor impacts to date include some trampling of moss and lichen swarms in the interior part of the island and the creation of multiple footpaths en route to the western end of the island. Preferred walking routes, noted below, should help visitors avoid these particular impacts.

This site is highly sensitive to potential environmental disruptions because its diverse wildlife is easily accessed. To minimize potential disruptions, there should be seasonal limitations on visit time per 24 hours, ship capacities, and numbers of visitors ashore.
On the eastern end of the island, there is adequate visitor space and distance limitations for approaching wildlife should assist visitors in avoiding disruptions; the restricted zone on this end of the island rises steeply in elevation and can be easily avoided. Visits to the western end of the island may cross areas with wide and extensive swaths of lichens and mosses, and using organised, guided groups should assist visitors in avoiding disruptions.

Because southern giant petrels nest on ridges along the northern coast and inland and on elevated rocks at the far western tip of the island, it is especially important not to enter restricted zones and to observe a precautionary distance from this species. The southern giant petrels are easily approached and disturbed; in November and early December adults will be incubating eggs; thereafter, adults will be guarding and feeding chicks at the nest. Adults are wary and extraordinarily restless. They may leave the nest when approached — even from a considerable distance, which risks eggs (perhaps, small chicks) being predated by skuas. Many unoccupied nests are evident, suggesting a population decline prior to 1999, when the giant petrels were censused for the first time.

Gentoo and chinstrap penguins nesting in widely spaced colonies are easily approached and disturbed, especially in November and early December when adults will be incubating eggs; thereafter, adults will be guarding and feeding chicks at the nest, then in crèche. The monitoring sites for chinstrap penguins above and southeast of the landing beach should not be visited.

Hauled-out seals south of the landing beach and wallowing southern elephant seals at the western end of the island are easily approached and disturbed.

Skuas nesting on widely scattered territories are easily approached and disturbed, particularly, later in the season (from mid-January) when adults are fiercely protecting young.

Kelp gulls nesting at widely scattered, elevated locations along the northern coast are easily approached and disturbed; in November and early December adults will be incubating eggs and, thereafter, guarding and feeding chicks.

Between the landing beach and the western end of the island, there are wide and extensive swaths of lichens and mosses, which may be easily trampled.

Visitor code of conduct. Preferred landing area. The cobble and sand beach on the northeastern end of the island. However, this may be difficult to negotiate on a low tide and, especially, if Antarctic fur seals, which may be aggressive, are present.

Restricted zones.

**A** Monitoring sites for chinstrap penguins above and southeast of the landing beach.

**B** Ridges along the northern coast, where southern giant petrels are nesting.

**C** Southern giant petrel nesting area at the far southwestern tip of the island.

Ship limitations. Confined to vessels with visitor capacities of 200 or fewer.

Preferred numbers of visitors ashore. No more than 100 at any time, exclusive of expedition guides and leaders.

Preferred walking routes. Visitors should proceed south and east from the landing beach past the nesting penguins toward the seal haul-out beach.
Visits to the southern elephant seal wallow at the western end of the island should be strictly controlled by using organised, guided groups, with everyone following the same path. Wandering unsupervised should not be allowed. Guides should ensure that trampling of interior moss and lichen swards, and disturbing nesting giant petrels is avoided. At all times, visitors should maintain a precautionary distance of at least 20 metres from nesting southern giant petrels. In the early austral spring, snow may still be present; however, after the snow melts and swards of mosses and lichens are exposed, visitors should only use rock/soil pathways. Visitors should avoid and stay clear of the southern giant petrel nesting area at the far western tip of the island, which is easily disturbed.

*Distance and other limitations for approaching wildlife and flora, and avoiding potential hazards.* Walk slowly and carefully, and maintain a precautionary distance of at least 20 metres from nesting southern giant petrels, increasing this distance if necessary and as appropriate, to avoid changing the birds’ behaviour.

Maintain a precautionary distance of 5 metres from nesting penguins, increasing this distance if necessary and as appropriate, to avoid changing the birds’ behaviour. At all times, walk slowly and carefully when near nesting, crèching, or molting penguins, and give penguins the right-of-way. Monitoring sites for chinstrap penguins, above and southeast of the landing beach, should not be visited. Do not impede penguins’ access to and from the water.

Avoid and stay clear of skua territories. If subjected to any aerial attacks by skuas, retreat by retracing steps that have been taken.

Avoid and stay clear of kelp gull territories.

Stay clear of hauled-out seals and wallowing southern elephant seals, and retreat immediately, if necessary, to avoid changing the seals’ behaviour.

Avoid and stay clear of Antarctic fur seals; these may be aggressive, and should be given a wide berth and not approached.

Visits to the western end of the island should be strictly controlled by organizing guided and well-spaced groups, with everyone following the same path. Wandering unsupervised should not be allowed.
Visitor Site in the AITCHO ISLANDS
(Eastern end)

- Germain penguins
- Chinstrap penguins
- Restricted zones
- Preferred walking route
- Antarctic site inventory stake
- Contour intervals ~ 5 metres

To western end and restricted areas

LANDING BEACH

Seal haul-out beach
Cuverville Island
64°41’S, 62°38’W
Located in the northern Errera Channel

Sensitivity. Low to moderate, depending on conditions.

Key features. The largest gentoo penguin colony in the Antarctic Peninsula.

Description. This rocky island lies in the northern Errera Channel between Rongé Island and Arctowski Peninsula. It was discovered by Gerlache’s Belgian Antarctic Expedition (1897-99) and named by Charcot after a Vice-Admiral in the French Navy. Nearly vertical cliffs surround the island except on its northern coast, which has a narrow cobble beach. South and southwest of the beach is a gently sloping apron of bedrock extending to the base of the island’s cliffs. Barren, rocky areas on the apron and at higher elevations provide nesting sites for gentoo penguins. The apron’s snow cover may be extensive (perhaps extending into January).

Wildlife. Gentoo penguin (Pygoscelis papua), southern giant petrel (Macronectes giganteus), kelp gull (Larus dominicanus), Antarctic tern (Sterna vittata), snowy sheathbill (Chionis alba), blue-eyed shag (Phalacrocorax atriceps), Wilson’s storm-petrel (Oceanites oceanicus), skuas (Catharacta spp.), snow petrel (Pagodroma nivea), and pintado petrel (Daption capense) are confirmed breeders. Weddell seals (Leptonychotes weddellii) and Antarctic fur seals (Arctocephalus gazella) may haul out on the beach, and leopard seals (Hydrurga leptonyx) often hunt inshore. The plants Deschampsia antarctica, Xanthoria spp., Buellia spp., Caloplaca spp., other crustose lichen species, Usnea spp., and swards of moss species are present.

The gentoo penguin colony of >4,400 breeding pairs is the largest for this species in the Antarctic Peninsula.

Visitor pressure. Cuverville Island is frequently visited. Over thirteen years, 1989-02, this site experienced the 3rd highest number of zodiac landings from ship-visits in the Antarctic Peninsula and the 3rd highest number of visitors in such landings, averaging 41 zodiac landings and 3,265 visitors per season. Peak visits occurred in the 1999-2000 season, with 63 zodiac landings and 4,908 visitors.

Visitor sensitivity varies during the season according to different stages of wildlife reproductive cycles. On a low or falling tide, this site has low sensitivity to potential environmental disruptions. Adequate visitor space, restricted zones, seasonal limitations on visit time and numbers of visitors ashore, and distance and other limitations for approaching wildlife and flora should assist visitors in avoiding disruptions. However, with a high tide, heavy snow cover, or when the shoreline is packed with ice, which crowd penguins, visitor space is more restricted and guided, well-spaced groups should be used to avoid disruptions.

Gentoo penguins nesting on the bedrock apron adjacent to the landing beach and at higher elevations are easily approached and disturbed, especially in November and early December when adults will be incubating eggs; thereafter, adults will be guarding and feeding chicks at the nest, then in crèche.

Patches of the grass Deschampsia antarctica are readily accessed and may be easily trampled.

If snow has melted, the extensive swards of moss on ridges and slopes above the main beach, especially on top of the island, are readily accessed and may be easily trampled.
Skuas nesting on ridges and slopes above and west of the main beach are easily accessed and disturbed, particularly, later in the season (from mid-January) when adults are fiercely protecting young.

Steep, uphill slopes and ridges may be snow or ice covered, crevassed, wet, and slippery.

Snow cornices on the shoreline and at higher elevations are unstable and treacherous, and should not be approached.

**Visitor code of conduct.** *Preferred landing area.* The cobble beach on the northern end of the island. There is another, very small beach to the east that provides a major access route to the sea for penguins. However, this is too small to accommodate both penguins and visitors, and should be avoided.

**Restricted zones.**

| A | Small beach where gentoo penguins access the sea. |
| B | Cliff edges and high ridges. |

**Ship limitations.** Confined to vessels with visitor capacities of 500 or fewer.

**Preferred numbers of visitors ashore.** No more than 100 at any time, exclusive of expedition guides and leaders.

**Preferred walking routes.** Visitors should proceed along the coastline, south, southwest, and northeast from the landing beach. When high tide, ice, snow cover, or concentrations of penguins restrict visitor space, visits should be strictly controlled by organizing guided and well-spaced groups, with everyone following the same path.

**Distance and other limitations for approaching wildlife and flora, and avoiding potential hazards.** Maintain a precautionary distance of 5 metres from nesting gentoo penguins, increasing this distance if necessary and as appropriate, to avoid changing the birds’ behaviour. At all times, walk slowly and carefully when near nesting, creching, or molting penguins, and give penguins the right-of-way. Do not impede penguins’ access to and from the water. If there is extensive snow cover, avoid — and do not walk in or block — trails that penguins have made through the snow.

Avoid and stay clear of skua territories. If subjected to any aerial attacks by skuas, retreat by retracing steps that have been taken.

Avoid and stay clear of any nesting terns.

Avoid and stay clear of Antarctic fur seals; these may be aggressive, and should be given a wide berth and not approached.

Visits to higher ground inland should be controlled by using organised, guided groups, with everyone following the same path. Guides should ensure that trampling of moss and lichen swards is avoided. Stay clear of — and do not walk on — high cliff edges, inland ridges, and snow cornices. Wandering unsupervised should not be allowed.
Jouglia Point, Wiencke Island

64°49'S, 63°30'W
Located in Port Lockroy at the southwestern end of Wiencke Island

**Sensitivity.** Low.

**Key features.** Nesting gentoo penguins and blue-eyed shags. Glacier scenery.

**Description.** Jouglia Point lies at the southwestern end of Wiencke Island and juts into the small harbour of Port Lockroy, a protected anchorage entered between Flag Point and Lécyuer Point. It was discovered and named by the French Antarctic expedition of 1903-05 under Charcot. Goudier Island, with a restored British base, is located in the harbour immediately north of Jouglia Point, and has been designated as Antarctic Historic Site and Monument No. 61. Several large glaciers flow into the harbour, which in November and December may be covered with fast ice. Visitor landings occur on boulders and rocks at the northwestern end of Jouglia Point, or slightly east-southeast toward a part of the inner harbour called Alice Creek. Gentoo penguins nest on the flat area just above these landing rocks, on adjacent, exposed rocks and boulders, and on ridges at higher elevations, 100 metres above sea level. Extensive snow cover may last into January. When the snow melts and mixes with the penguins’ guano, the site becomes exceedingly wet, muddy, and slippery. Snow cornices rimming the harbour are unstable and treacherous, as are the glaciers and the extensive, steep, and potentially crevassed snowfields above the harbour.

**Wildlife.** Gentoo penguin (*Pygoscelis antarctica*), blue-eyed shag (*Phalacrocorax atriceps*), kelp gull (*Larus dominicanus*), and skuas (*Catharacta* spp.) are confirmed breeders. Antarctic terns (*Sterna vittata*) are observed regularly and breeding is strongly suspected. Weddell seals (*Leptonychotes weddellii*) regularly haul-out along the Alice Creek shoreline. *Xanthoria* spp., *Caloplaca* spp., *Buellia* spp., other crustose lichen species, and the green alga *Prasiola crispa* are present.

The medium-sized colony of >1,500 gentoo penguins is one of the largest colonies of this species in the Antarctic Peninsula. The small colony of blue eyd shags declined to as few as 20 breeding pairs in 1997, but has now increased slightly and stabilized at ≤29 nests.

**Visitor pressure.** Jouglia Point is frequently visited. Over thirteen years, 1989-02, this site experienced the 2nd highest number of zodiac landings from ship-visits in the Antarctic Peninsula and the 2nd highest number of visitors in such landings, averaging 45 zodiac landings and 4,340 visitors per season. Peak visits occurred in the 2000-01 season, with 94 zodiac landings and 8,675 visitors.

Visitor sensitivity varies during the season according to different stages of wildlife reproductive cycles. This site has low sensitivity to potential environmental disruptions, except for the northwestern tip of Jouglia Point (see Restricted Zone A on the map); however, this zone is easily avoided by proceeding south from the landing rocks and boulders. Otherwise, adequate visitor space, restricted zones, seasonal limitations on visit time and numbers of visitors ashore, and distance and other limitations for approaching wildlife and flora should assist visitors in avoiding disruptions.

The gentoo penguins nesting at the northwestern tip of Jouglia Point are easily approached and disturbed, especially in November and early December when adults will be incubating eggs; subsequently, adults will be guarding and feeding chicks at the nest, then in crèche.
Gentoo penguins also nest on adjacent, exposed rocks and boulders, and on ridges at higher elevations; in these areas, there is greater space for visitors, but still, the penguins are easily approached and disturbed.

Blue-eyed shags nesting on the northwestern tip of Jougla Point cannot be approached easily; they are wary, restless, and easily disturbed; in November and early December adults will be incubating eggs and, thereafter, guarding and feeding chicks.

Kelp gulls nesting on cliffs at higher elevations are not easily approached, but may be disturbed by visits to nearby, gentoo penguin nesting areas; in November and early December adult gulls will be incubating eggs and, thereafter, guarding and feeding chicks.

Skuas nesting on widely scattered territories are easily approached and disturbed, particularly, later in the season (from mid-January) when adults are fiercely protecting young.

Snow cornices rimming the harbour are unstable and treacherous, as are the glaciers and the extensive, steep, and potentially crevassed snowfields above the harbour. These areas should not be ventured on.

**Visitor code of conduct. Preferred landing area.** On boulders and rocks at the northwestern end of Jougla Point, or slightly east-southeast, toward a part of the inner harbour called Alice Creek.

**Restricted zones.**

**A**  
Gentoo penguin and blue-eyed shag nesting area at the northwestern tip of Jougla Point.

**B**  
Glaciers and snowfields at higher elevations.

**Ship limitations.** Confined to vessels with visitor capacities of 500 or fewer.

**Preferred numbers of visitors ashore.** No more than 100 at any time, exclusive of expedition guides and leaders.

**Preferred walking routes.** Visitors should proceed to the flat area above the landing rocks and boulders, and proceed south.

**Distance and other limitations for approaching wildlife and flora, and avoiding potential hazards.** Maintain a precautionary distance of 5 metres from nesting penguins, increasing this distance if necessary and as appropriate, to avoid changing the birds’ behaviour. At all times, walk slowly and carefully when near nesting, crèching, or molting penguins, and give penguins the right-of-way. Do not impede penguins’ access to and from the water. If there is extensive snow cover, avoid — and do not walk in or block — trails penguins have made through the snow.

Avoid blue-eyed shags nesting at the northwestern tip of Jougla Point (see Restricted Zone A on the map).

Avoid and stay clear of skua territories. If subjected to any aerial attacks by skuas, retreat by retracing steps that have been taken.

Avoid and stay clear of kelp gull territories.

Visits uphill and to higher ground inland should be strictly controlled by using organised, guided groups, with everyone following the same path. Wandering unsupervised should not be allowed.

Stay clear of — and do not venture on — snowfields, glaciers, or snow cornices.
Appendix 1

CEP ADVICE TO ATCM XXVII ON THE DRAFT CEE CONTAINED IN ATCM XXVII/WP25 (NORWAY)

The Committee for Environmental Protection,

With regard to the draft Comprehensive Environmental Evaluation for “The concept of upgrading the Norwegian summer station Troll in Dronning Maud land, to a permanent station”,

Having fully considered the draft CEE circulated by Norway on 25 January 2004, as reported in paragraphs 20 to 31 of the CEP VII Final Report, and

Having noted the comments provided by the Parties to Norway, and Norway’s response to those comments,

Provides the following advice to the ATCM:

In general, the draft CEE was well structured, comprehensive, and provided an appropriate assessment of the impacts of the proposed project.

The draft CEE follows the approach suggested by the CEP Environmental Impact Assessment guidelines, and appropriately assesses the impacts of the proposed project.

Ice-free areas such as the area on which the station is located are relatively rare and therefore merit special attention, but notes that although the area of buildings would increase significantly the upgrading would be kept within the general area of the existing station.

Where possible, fuller information and clarification be provided in the final CEE on the following:

1. A fuller description of waste water disposal procedures would be useful to demonstrate that there is a low risk of the escape of bioactive substances into the environment;

2. Further details on biodiversity of the area be provided;

3. The final CEE include further consideration of possible cumulative impacts, in particular in relation to the Troll runway;

Noting the conclusion reached by Norway in the draft CEE that the proposed activity will have no more than a minor or transitory impact on the environment,

Considered that the draft CEE was consistent with the requirements of Annex I of the Protocol and therefore recommends that the ATCM endorse these views.
Appendix 2

CEP ADVICE TO ATCM XXVII ON THE DRAFT CEE PROJECT ICECUBE (UNITED STATES OF AMERICA)

With regard to the draft Comprehensive Environmental Evaluation for Project IceCube, the Committee for Environmental Protection,

Having fully considered the draft CEE circulated by the United States, as reported in paragraphs 32 – 41 of the report of CEP VII, and

Having noted the comments provided by the Parties to the USA and the USA’s response to those comments,

Provides the following advice to the ATCM:

In general, the draft CEE was well structured, comprehensive, and provided an appropriate assessment of the impacts of the proposed project;

Where possible, fuller information and clarification be provided in the final CEE on the following:

1. The possibility of using advanced waste-water treatment technology on waste-water to be left in the ice;

2. The efforts to be made to remove as much material as possible from the site after completion of the project;

3. The quantity and type of pollutants that would be generated by the project.

Considered that the draft CEE was consistent with the requirements of Annex I of the Protocol, and therefore recommends that the ATCM endorse these views.
Appendix 3

CEP ADVICE TO ATCM XXVII ON THE DRAFT CEE: DEVELOPMENT AND IMPLEMENTATION OF SURFACE TRAVERSE CAPABILITIES IN ANTARCTICA (UNITED STATES OF AMERICA)

With regard to the draft Comprehensive Environmental Evaluation for Development and Implementation of Surface Traverse Capabilities in Antarctica, the Committee for Environmental Protection,

Having fully considered the draft CEE circulated by the United States, as reported in paragraphs 42 – 56 of the report of CEP VII, and

Having noted the comments provided by the Parties to the USA and the USA’s response to these comments,

Provides the following advice to the ATCM:

In general, the draft CEE was well structured, comprehensive, and provided an appropriate assessment of the impacts of the proposed project.

Where possible, fuller information and clarification be provided in the final CEE on the following:

1. An indication of the overall reduction of fuel use expected to result from the move to support South Pole station by surface traverse;

2. Fuller information on the potential indirect impacts of the proposed activity, including:
   – impacts associated with consequential availability of aircraft;
   – the potential impacts of traverse operations on other national programs;

3. Text clarifying the scope of document, by elaborating on the application of the final CEE to surface traverse activities generally.

Finally the CEP noted the US statement that US policy prohibits US assistance for tourism and NGO activities and suggested that this statement be included in the final CEE.

Considered that the draft CEE was consistent with the requirements of Annex I of the Protocol and therefore recommends that the ATCM endorse these views.
Appendix 4

CEP ADVICE TO ATCM XXVII ON THE DRAFT CEE CZECH SCIENTIFIC STATION IN ANTARCTICA: CONSTRUCTION AND OPERATION (CZECH REPUBLIC)

With regard to the draft Comprehensive Environmental Evaluation for Czech Scientific Station in Antarctica: Construction and Operation, the Committee for Environmental Protection,

Having fully considered the draft CEE circulated by Czech Republic and complementary information provided in ATCM XXVII IP087, as reported in paragraphs 57 – 71 of the report of CEP VII. In particular, recalling paragraph 42 of the report of CEP VI and further commending the Czech Republic on its preparation and revision of the CEE therefore acting “as if” it had ratified the Protocol, and

Having provided comments at the meeting to the Czech Republic on specific elements of the draft CEE,

Provides the following advice to the ATCM:

In general, the draft CEE was well structured, comprehensive, and provided an appropriate assessment of the impacts of the proposed project;

Where possible, fuller information and clarification be provided in the final CEE on the following:

1. A description of plans for transportation of personnel and supplies to the station in the light of potential difficulties with access arising from sea ice conditions;

2. Consideration of impacts due to possible increased discharge of sediment-laden water into the marine environment when extracting sand and gravels from the riverbed for construction purposes;

3. Documentation of why the proposed site satisfies the scientific needs of the Czech research program;

4. Further elaboration of the alternative of collaborating with other Parties with stations in the area instead of building a new station;

5. Further description and evaluation of impacts associated with the proposed station operation, including for example the consequences of incinerating the waste produced at the station.

Considered that the draft CEE was consistent with the requirements of Annex I of the Protocol, and therefore recommends that the ATCM endorse these views.
Appendix 5

(DRAFT) RESOLUTION AA (2004)

Guidelines for the Operation of Aircraft Near Concentrations of Birds in Antarctica

The Representatives,

Recalling Article 3 of the Environmental Protocol which requires that activities in the Antarctic Treaty area shall be planned and conducted so as to limit adverse impacts on the Antarctic environment,

Recalling also the requirements of Annex II of the Environmental Protocol on the Conservation of Antarctic Fauna and Flora,

Aware of the potential for harmful disturbance to concentrations of birds in Antarctica by the operation of aircraft,

Noting that specific standards for aircraft operations may be contained in Antarctic Specially Protected Area (ASPA) and Antarctic Specially Managed Area (ASMA) management plans,

Recognising that some Parties may already have in place more stringent guidelines for the operation of aircraft near wildlife,

Aware that the scientific data on the impact of aircraft operations on wildlife will continue to improve and that guidance on minimum standards should remain under review,

Conscious of the need for minimum guidance on the operation of aircraft near concentrations of birds in order to minimise the impacts of such activities,

Recommend that:

The Guidelines for the Operation of Aircraft Near Concentrations of Birds in Antarctica appended to this Resolution be used by those engaged in the operation of aircraft in the Antarctic.

Parties should be encouraged to adopt higher standards for the operation of aircraft near concentrations of birds to suit their particular needs and circumstances.
GUIDELINES FOR THE OPERATION OF AIRCRAFT NEAR CONCENTRATIONS OF BIRDS IN ANTARCTICA

Fixed and rotary wing aircraft operations have the potential to cause disturbance leading to changes in the behaviour, physiology and the breeding success of wildlife. The level of impact will vary according to the intensity, duration and frequency of disturbance, the species involved and the phase in their breeding season. Most species are particularly sensitive to disturbance between late September and early May—the period when Antarctic helicopter and fixed wing operations usually occur.

There are many variables affecting noise levels received on the ground during aircraft operations, including: flight height; the type of aircraft and engine; the flight profile; the weather; and the geography of the location. Pilots have to make the final judgement regarding aircraft operations based on the aircraft type, task and safety considerations. Such judgments should also pay due consideration to potential wildlife impacts, noting that Annex II of the Protocol on Environmental Protection to the Antarctic Treaty defines that “harmful interference” means flying or landing helicopters or other aircraft in a manner that disturbs concentrations of birds and seals.

Minimum recommended separation distances for aircraft operations close to concentrations of birds are set out below. These recommended distances should be maintained to the greatest extent possible, unless greater separation distances are specified for the area of operation, for example by an ASPA or ASMA management plan or guidelines already developed by national operators to suit their own particular needs and circumstances. These distances are only a guide and if wildlife disturbance is observed at any separation distance, a greater distance should be maintained wherever practical:

- Penguin, albatross and other bird colonies are not to be over flown below 2000 ft (~ 610 m) Above Ground Level, except when operationally necessary for scientific purposes.

- Landings within ½ nautical mile (~ 930 m) of penguin, albatross or other bird colonies should be avoided wherever possible.

- Never hover or make repeated passes over wildlife concentrations or fly lower than necessary.

- Maintain a vertical separation distance of 2000 ft (~ 610 m) AGL and a horizontal separation of 1/4 nautical mile (~ 460 m) from the coastline where possible.

- Cross the coastline at right angles and above 2000 ft (~ 610 m) AGL where possible.

Location of aircraft operations (other considerations)

- Where practical, avoid overflying concentrations of birds.

- Be aware that concentrations of birds are most often found in coastal areas. Snow petrel and Antarctic petrel colonies are also frequently found inland on nunataks. Minimum vertical separation distances should be maintained in these areas.
Where practical, landings near to concentrations of birds should be downwind and/or behind a prominent physical barrier (e.g. hill) to minimise disturbance.

Avoid Antarctic Specially Protected Areas, unless authorised to over-fly and/or land by a permit issued by an appropriate national authority. For many ASPAs there are specific controls on aircraft operations, which are set out in the relevant Management Plans.

Follow aircraft flight heights, preferred flight paths and approach paths contained in the Antarctic Flight Information Manual (AFIM), in station aircraft operation manuals and on relevant charts, maps and any Wild Life and Low Flying Avoidance Maps for the major airstrips in the Antarctic (e.g. Marsh, Marambio, Rothera, McMurdo).

Particularly avoid flying toward concentrations of birds immediately after take-off and avoid steep banking turns in flight as these significantly increase the amount of noise generated.

**Timing of aircraft operations**

Most native bird species breed at coastal locations in Antarctica between September and May each season. During the planning of aircraft operations near to concentrations of birds, consideration should be given to undertaking flying activities outside of the main breeding and/or moulting periods.

Where aircraft operations are necessary close to concentrations of birds, then the duration of flights should be the minimum necessary.

To minimise bird strikes, especially in coastal areas, avoid flying after dark between September and May. At this time of year, prions and petrels are active. These birds are nocturnal when breeding and are attracted by lights.

Aircraft operations should be delayed or cancelled if weather conditions (e.g. cloud base, winds) are such that the suggested minimum vertical and horizontal separation distances given in these guidelines cannot be maintained.
Appendix 6

(DRAFT) MEASURE XX (2004)

Antarctic Protected Area System: Management Plans for Antarctic Specially Managed Areas

The Representatives,

Recalling Article 4 of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty, providing for the designation of Antarctic Specially Managed Areas;

Noting that the draft Management Plans appended to this Measure have been endorsed by the Committee for Environmental Protection;

Recognising that these Areas support significant scientific, wilderness, ecological, heritage and aesthetic values and would benefit from improved coordination between Parties active there;

Recommend to their Governments the following Measure for approval in accordance with paragraph 1 of Article 6 of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty:

That the Management Plans for:

- Antarctic Specially Managed Area No. 2, McMurdo Dry Valleys, Southern Victoria Land; and
- Antarctic Specially Managed Area No. 3, Cape Denison, Commonwealth Bay, George V Land,

which are annexed to this Measure, be adopted.
Appendix 7

(Draft) Measure YY (2004)

Antarctic Protected Area System: Management Plans for Antarctic Specially Protected Areas

The Representatives,

Recalling Articles 3 and 5 of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty, providing for the designation of Antarctic Specially Protected Areas;

Noting that the draft Management Plans for the following Antarctic Specially Protected Areas have been endorsed by the Committee for Environmental Protection;

Recognising that these areas support significant scientific, wilderness, ecological, heritage and aesthetic values, and would benefit from special protection;

Recommend that their Governments, in accordance with paragraph 1 of Article 6 of Annex V to the Protocol, approve the following Measure:

That the Management Plans for the following sites, and which are annexed to this Measure, be adopted:

- Antarctic Specially Protected Area No. 113 Litchfield Island, Arthur Harbour, Anvers Island, Palmer Archipelago, Antarctic Peninsula
- Antarctic Specially Protected Area No. 122 Arrival heights, Hut Point Peninsula, Ross island
- Antarctic Specially Protected Area No. 139 Biscoe Point, Anvers Island, Palmer Archipelago, Antarctic Peninsula
- Antarctic Specially Protected Area No. 142: Svarthamaren, Muhlig-Hofmannfjella, Dronning Maud Land
- Antarctic Specially Protected Area No. 160: Mawson’s Huts, Commonwealth Bay, George V Land, East Antarctica.
Appendix 8

(DRAFT) MEASURE ZZ (2004)

Antarctic Protected Area System Historic Sites and Monuments: Cape Denison, Commonwealth Bay, George V Land and plaque and monument at India Point and, Humboldt Mountains, central Dronning Maud Land.

The Representatives,

Recalling Recommendations I – IX, VI-14 and Measure 3 (2003);

Noting the requirements of Article 8 of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty to maintain a list of current Historic Sites and Monuments and that such sites shall not be damaged, removed or destroyed;

Recommend to their Governments the following Measure for approval in accordance with paragraph 2 of Article 8 of Annex V and paragraph 4 of Article IX of the Antarctic Treaty:

1. That Historic Site and Monument numbers 12 and 13 be removed from the Antarctic Treaty list of Historic Sites and Monuments and be subsumed into the following new Historic Site and Monument to be added to the “List of Historic Sites and Monuments approved by the Antarctic Treaty Consultative Meeting” annexed to Measure 3 (2003):

No. 77: Cape Denison, Commonwealth Bay, George V Land, including Boat Harbour and the historic artefacts contained within its waters.
Site incorporated within ASMA No. XXX. Part of this site is also designated as ASPA No. 160.

Location: 67°00’30”S, 142°39’40”
Original proposing Party: Australia
Party undertaking management: Australia

2. That the following site be added to the List of Historic Sites and Monuments approved by the Antarctic Treaty Consultative Meeting” annexed to Measure 3 (2003):

No. 78: Memorial plaque at India Point, Humboldt Mountains, Wohlthat Massif, central Dronning Maud Land erected in memory of three scientists of the Geological Survey of India (GSI) and a communication technician from the Indian Navy – all members of the ninth Indian Expedition to Antarctica, who sacrificed their lives in this mountain camp in an accident on 8th January 1990.

Location: 71°45’08”S, 11°12’30”E
Original proposing Party: India
Party undertaking management: India
Appendix 9

Annex II to the Protocol on Environmental Protection to the Antarctic Treaty

Conservation of Antarctic [Fauna and Flora][Living Organisms]

[Article 1

 Definitions

 For the purposes of this Annex:

(a) “Antarctic living organism” means any species of living organism indigenous to the Antarctic Treaty area or occurring there naturally through migrations;

(b alt1) "Antarctic mammal" means any Antarctic living organism belonging to the Class Mammalia;

(b alt2) "native mammal" means any member of any species belonging to the Class Mammalia, indigenous to the Antarctic Treaty area or occurring there naturally through migrations;

(c alt1) "Antarctic bird" means any Antarctic living organism belonging to the Class Aves, at any stage of its life cycle (including eggs);

(c alt2) "native bird" means any member of any species belonging to the Class Aves, at any stage of its life cycle (including eggs), indigenous to the Antarctic Treaty area or occurring there naturally through migrations;

(d alt1) "Antarctic plant" means any terrestrial or freshwater vegetation, including bryophytes, lichens, fungi and algae, at any stage of its life cycle (including seeds, and other propagules), indigenous to the Antarctic Treaty area;

(d alt 2) "native plant" means any terrestrial or freshwater vegetation, including bryophytes, lichens, fungi and algae, at any stage of its life cycle (including seeds, and other propagules), indigenous to the Antarctic Treaty area;

(e alt1) "Antarctic invertebrate" means any terrestrial or freshwater invertebrate, at any stage of its life cycle, indigenous to the Antarctic Treaty area;

(e alt2) "native invertebrate" means any terrestrial or freshwater invertebrate, at any stage of its life cycle, indigenous to the Antarctic Treaty area;

(f alt1) “marine species” means any invertebrate, plant or any species of vertebrate, other than Antarctic mammals or birds, at any stage of its life cycle, occurring naturally in the Antarctic marine waters;

(f alt2) “marine species” means any invertebrate, plant or any species of vertebrate, other than native mammals or native birds, at any stage of its life cycle, occurring naturally in the marine waters of the Antarctic Treaty Area;
(g) "appropriate authority" means any person or agency authorised by a Party to issue permits under this Annex;
(h) "permit" means a formal permission in writing issued by an appropriate authority;

(i) "take" or "taking" means to kill, injure, capture, handle or molest, a native mammal or bird, or to remove or damage such quantities of native plants that their local distribution or abundance would be significantly affected;

(j alt1) "take" or "taking" means to kill, injure, capture, handle or molest, an Antarctic mammal or bird, or an Antarctic Specially Protected Species, or to remove or damage such quantities of Antarctic plants or such number of Antarctic invertebrates that their local distribution or abundance would be significantly affected;

(j alt2) "take" or "taking" means to kill, injure, capture, handle or molest, a native mammal or bird, or to remove or damage such quantities of native plants or such numbers of native invertebrates that their local distribution or abundance would be significantly affected;

(k) "harmful interference" means:

(i alt1) flying or landing helicopters or other aircraft in a manner that disturbs concentrations of Antarctic birds and/or mammals;

(i alt2) flying or landing helicopters or other aircraft in a manner that disturbs concentrations of native birds or mammals;

(ii alt1) using vehicles or vessels, including hovercraft and small boats, in a manner that disturbs concentrations of Antarctic birds and/or mammals;

(ii alt2) using vehicles or vessels, including hovercraft and small boats, in a manner that disturbs concentrations of native birds or mammals;

(iii alt1) using explosives or firearms in a manner that disturbs concentrations of Antarctic birds and/or mammals;

(iii alt2) using explosives or firearms in a manner that disturbs concentrations of native birds or mammals;

(iv alt1) wilfully disturbing breeding or moulting birds or concentrations of Antarctic birds and/or mammals by persons on foot;

(iv alt2) wilfully disturbing breeding or moulting birds or concentrations of native birds or seals by persons on foot;

(v alt1) significantly damaging concentrations of Antarctic plants by landing aircraft, driving vehicles, or walking on them, or by other means; and

(v alt2) significantly damaging concentrations of native terrestrial plants by landing aircraft, driving vehicles, or walking on them, or by other means; and
(vi alt1) any activity that results in the significant adverse modification of habitats of any species or population of Antarctic living organisms.

(vi alt2) any activity that results in the significant adverse modification of habitats of any species or population of native mammal, bird, plant or invertebrate.

(l) "International Convention for the Regulation of Whaling" means the Convention done at Washington on 2 December 1946.


Article 2

Cases of Emergency

1. This Annex shall not apply in cases of emergency relating to the safety of human life or of ships, aircraft, or equipment and facilities of high value, or the protection of the environment.

2. Notice of activities undertaken in cases of emergency that result in the taking or harmful interference of any [Antarctic] [native] mammal, bird, plant or invertebrate, or marine species afforded special protection under Article 3 of this Annex, shall be circulated immediately to all Parties and to the Committee.

Article 3

Protection of [Native Fauna and Flora][Antarctic Living Organisms]

1 Taking or harmful interference shall be prohibited, except in accordance with a permit.

2 Such permits shall specify the authorised activity, including when, where and by whom it is to be conducted and shall be issued only in the following circumstances:

(a) to provide specimens for scientific study or scientific information;

(b) to provide specimens for museums, herbaria and botanical gardens, or other educational institutions or uses;

(c) to provide specimens for zoological gardens, but in respect of native mammals or birds, only if such specimens cannot be obtained from existing captive collections elsewhere, or, if there is a compelling recognised conservation requirement, such as a captive breeding programme endorsed by the Committee; and

(d) to provide for unavoidable consequences of scientific activities not otherwise authorized under sub-paragraphs (a), (b) or (c) above, or for the construction and operation of scientific support facilities.
3 The issue of such permits shall be limited so as to ensure that:

(a) no more [native] [Antarctic] mammals, birds, plants or invertebrates are taken than are strictly necessary to meet the purposes set forth in paragraph 2 above;

(b) only small numbers of [native] [Antarctic] mammals, birds or invertebrates are killed and in no case more are killed from local populations than can, in combination with other permitted takings, normally be replaced by natural reproduction in the following season; and

(c) the diversity of species, as well as the habitats essential to their existence, and the balance of the ecological systems existing within the Antarctic Treaty are maintained.

4. Species designated as “Specially Protected Species”, as listed in Appendix A, shall be accorded special protection by the Parties.

5. Designation of a species as a “Specially Protected Species” will be undertaken according to agreed procedures and criteria.

6. The Committee shall provide advice on the [procedures and] criteria for proposing [Antarctic living organisms] [native mammals, birds, plants or invertebrates] for designation as a Specially Protected Species and shall review these criteria as necessary.

7. Any Party, the Committee, the Scientific Committee on Antarctic Research, or the Commission for the Conservation of Antarctic Marine Living Resources may propose a species for designation as a Specially Protected Species by submitting a proposal, with justification, to the ATCM.

8. A permit shall not be issued to take a Specially Protected Species unless the taking:

(a) is for a compelling scientific purpose; and

(b) will not jeopardise the survival or recovery of that species or local population.

9. The use of lethal techniques on Specially Protected Species shall only be permitted for compelling scientific reasons.

[10 alt1. Having regard to the provisions of Articles 4 and 5 of the Protocol, and Article 7 of this Annex, no Antarctic marine species shall be designated as a Specially Protected Species without consultation and cooperation, in order to reach agreement, with the Commission for the Conservation of Antarctic Marine Living Resources, or the Convention for the Conservation of Antarctic Seals in the case of seals, or other organisations where appropriate.]

[10 alt2. Having regard to the provisions of Articles 4 and 5 of the Protocol, no native marine species shall be designated as a Specially Protected Species without the prior approval of the Commission for the Conservation of Antarctic Marine Living Resources.]

[11. The Committee shall provide advice on appropriate protection and management measures for any species designated as a Specially Protected Species.]
12. All taking of [native] [Antarctic] mammals and birds shall be done in the manner that involves the least degree of pain and suffering practicable. Any use of native mammals or birds for scientific purposes shall be undertaken in accordance with high protective standards, which shall, as a minimum, comply with the Scientific Committee on Antarctic Research’s Code of Conduct for the Use of Animals for Scientific Purposes in Antarctica.

Article 4

Introduction of [Living Organisms] [Non- native Species, Including Micro-organisms]

1. No species of animal or plant not native to the Antarctic Treaty area shall be intentionally introduced onto land or ice shelves, or into water in the Antarctic Treaty area except in accordance with a permit.

2. Permits under paragraph 1 above shall be issued to allow the importation only of:

   - cultivated plants and their reproductive propagules intended for subsistence food production or ornamental purposes; and
   - species for experimental use in laboratories.

3. Permits under paragraph 1 and 2 above shall specify the species, numbers and, if appropriate, age and sex of the species to be introduced, along with a rationale, justifying the introduction and precautions to be taken to prevent escape or contact with [native fauna and flora] [Antarctic living organisms].

4. Any [plant or animal] [living organism] for which a permit has been issued in accordance with paragraphs 1 and 2 above, shall, prior to expiration of the permit, be removed from the Antarctic Treaty area or be disposed of by incineration or equally effective means that eliminates risk to [Antarctic living organisms] [native fauna or flora]. The permit shall specify this obligation.

5. Any other plant or animal introduced into the Antarctic Treaty area not native to that area, including any progeny, shall be removed or disposed of, whenever feasible, unless the removal or disposal would result in a greater adverse environmental impact. Such removal or disposal may include by incineration or by equally effective means, so as to be rendered sterile. Where unintended introductions occur, all reasonable steps will be taken to control the consequences of the introduction to avoid harm to [Antarctic living organisms] [native fauna or flora].

6. Nothing in this Article shall apply to the importation of food into the Antarctic Treaty area provided that no live animals are imported for this purpose and all plants and animal parts and products are kept under carefully controlled conditions and disposed of in accordance with Annex III to the Protocol.

7. Each Party shall require that precautions are taken to prevent the accidental introduction of micro-organisms (e.g., viruses, bacteria, yeasts, fungi) not present naturally in the Antarctic Treaty area.

8. No live poultry or other living birds shall be brought into the Antarctic Treaty area. All appropriate efforts shall be made to ensure that poultry or avian products imported into Antarctica are free from contamination by diseases which might be harmful to [native flora and fauna] [Antarctic living organisms]. Any poultry or avian products not consumed shall be removed from the Antarctic Treaty
area or disposed of by incineration or equivalent means that eliminates the risks of introduction of micro-organisms (e.g. viruses, bacteria, yeasts, fungi) to [native flora and fauna] [Antarctic living organisms].

9. The deliberate importation of non-sterile soil into the Antarctic Treaty area is prohibited. Parties should, to the maximum extent practicable, ensure that non-sterile soil is not unintentionally imported into the Antarctic Treaty area.

Article 5

Information

Each Party shall make publicly available information on prohibited activities and Specially Protected Species to all those persons present in or intending to enter the Antarctic Treaty area with a view to ensuring that such persons understand and observe the provisions of this Annex.

Article 6

Exchange of Information

1. The Parties shall:

   (a) collect and exchange records and statistics concerning the number or quantity of each species of [Antarctic] [native] mammal, bird, plant, invertebrate [or Antarctic Specially Protected Species] [or marine species afforded special protection under Article 3 of this Annex] taken in the Antarctic Treaty area;

   (b) obtain and exchange information on the status of [native] [Antarctic] mammals, birds, plants, invertebrates and [marine species] [Antarctic Specially Protected Species] in the Antarctic Treaty area, and the extent to which any species or population needs protection;

2. As early as possible, after the end of each austral summer season, but in all cases before October 1st of each year, the Parties shall inform the [other Parties as well as the Committee and the Antarctic Treaty Secretariat] of any step taken pursuant to [paragraph 1] [(a) and (b)] above, and of the number and nature of permits issued under this Annex in the preceding period of 01 April – 31 March.

Article 7

Relationship with other Agreements outside the Antarctic Treaty System

Nothing in this Annex shall derogate from the rights and obligations of Parties under the International Convention for the Regulation of Whaling[, the Convention on Biological Diversity and the Agreement on the Conservation of Albatross and Petrels].

Article 8

Review

The Parties shall keep under continuing review measures for the conservation of Antarctic [fauna and flora] [living organisms], taking into account any recommendations from the Committee.
**Article 9**

*Amendment or Modification*

1 This Annex may be amended or modified by a measure adopted in accordance with Article IX (I) of the Antarctic Treaty.

Unless the measure specifies otherwise, the amendment or modification shall be deemed to have been approved, and shall become effective, one year after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Antarctic Treaty Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or that it is unable to approve the measure.

2. Any amendment or modification of this Annex which becomes effective in accordance with paragraph 1 above shall thereafter become effective as to any other Party when notice of approval by it has been received by the Depositary.

**Appendices to the Annex**

**Appendix A**

*Specially Protected Species*

All species of the genus Arctocephalus, Fur Seals. Ommatophoca rossii, Ross Seal.
Appendix 10

CEP VIII PROVISIONAL AGENDA

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
  4c) Other Matters covered by Annex I (Environmental Impact Assessment)
  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: Biological Prospecting
Item 8: Emergency Response and Contingency Planning
Item 9: Data and Exchange of Information
Item 10: Co-operation with other organizations
Item 11: Election of Officers
Item 12: Preparation for CEP IX
Item 13: Adoption of the Report
Item 14: Close of the Meeting
ANNEX J

LIABILITY WORKING GROUP:
REVISED CHAIRMAN’S DRAFT OF
ANNEX VI
LIABILITY WORKING GROUP: REVISED CHAIRMAN’S DRAFT OF ANNEX VI

Dear Colleagues

As promised at the conclusion of the Liability Working Group last week, I am now circulating a revised Chairman’s draft of Annex VI, which takes into account those recent discussions. This revised draft will be issued as a document of ATCM XXVII in the official languages.

As has been the practice, changes to the Working Paper discussed last week (WP 006) are identified in bold typescript to facilitate your consideration.

I should also like to highlight the following points for your consideration:

Preamble
This has not yet been discussed, but I have included in it a definition of the Parties as was suggested.

Article 1
I have replaced the Optional additional sentence with a formula which found broader support. A decision will still need to be taken whether to include this. As has been pointed out, not to include such a sentence will considerably narrow the scope of the Annex, and will create a gap with respect to those activities which do not need to be notified under Article VII(5) (the application of which varies in practice anyway).

Article 2
I have incorporated the concept of non-retroactivity into the definition of “Environmental emergency”, although you will appreciate that there are several ways that this could be done. I have attempted a new definition of “operator” to take account of our discussion, and hope that this approach may work, even though some further fine tuning will doubtless be required. I have also redefined “reasonable” to reflect the approach taken in the Chilean non paper.

Article 2
There seemed to be broad support for the idea of including a general “savings” or “non-derogation” article, which might help resolve some of the concerns elsewhere. I have accordingly included a possible provision for colleagues to consider, although as I indicated in my concluding remarks this will require further discussion.

Articles 3 and 4
We did not discuss these articles at this meeting, but they have been extensively discussed in the past and should not cause difficulties. I suggest that the appropriate linkage between “Parties” and “operators” in these articles is that found in the new definition of “operator” in Article 2, and have accordingly made minor changes to both of these articles to reflect this.

Article 5
I would remind you that paragraph 1 is under consideration by a Contact Group, convened by Italy, which will communicate intersessionally.
Article 6
This article was not discussed, but it has been extensively discussed in the past, with the exception of the proposed deletion of paragraph 3 which is closely connected with the need elsewhere to make provision for a further step towards a more comprehensive regime.

Article 7
This has been revised so as to make clear that only a Party may bring an action against a non-State operator pursuant to Article 6(1). Time limits for bringing action have also been incorporated in paragraph 1. There is a question whether these time limits should not also be applicable to paragraphs 3, 4 and 5.

Unfortunately there may be a lacuna if under paragraphs 1 and 3 action can only be pursued in that State Party where the non-State operator is incorporated or has as its principal place of business or his or her habitual place of residence. What happens if the non-State operator is incorporated or resident in a State which is not a Party, even though it has organised its activities in a State Party? While this situation does not exist at present, I believe, it is not entirely implausible. I would suggest that in such a situation, action under paragraphs 1 and 3 should be able to be brought in the State Party where the activities have been organised (i.e. in accordance with the definition of Operator in Article 2). Possible language would be as follows:

Insert a new sentence after the first sentence of Article 7(1): “However, should the operator not be incorporated in a Party or have its principal place of business or his or her habitual place of residence in a Party, the action may be brought in the courts of the Party of the operator within the meaning of Article 2(c).”

Insert a new sentence after the first sentence of Article 7(3): “Each Party shall also ensure that there is such a mechanism in place with respect to any of its non-State operators within the meaning of Article 2(c) which is not incorporated in a Party or does not have its principal place of business or his or her habitual place of residence in a Party.”

I would ask you to consider this approach and possible language and, if you do not think it is suitable, come up with other suggestions.

In paragraphs 4 and 5 there is clearly a quite fundamental difference of view as to whether Article 20 of the Protocol should be applicable to disputes under the Annex. This will require further reflection on the part of colleagues. You will recall that there were also suggestions that an enquiry type procedure might also be utilised.

Article 8
This was not discussed, but there has been considerable discussion of the subject in the past, and I do not expect it to be problematic.

Article 9
I have maintained subparagraph (a) in square brackets, to maintain the concept with which I think there is pretty general agreement, but it seems almost certain that the language will have to change. You will recall that this subparagraph (and also the question of appropriate limits for yachts) is under consideration by a Contact Group, convened by the United States, which will communicate intersessionally.
There were differences of view as to whether the monetary limits set out in subparagraphs (b) and (c) were sufficiently high. You will recall that I asked those Delegations with concerns about the adequacy of these limits, to discuss with COMNAP the basis on which its worst-case scenarios were calculated. I would suggest that there should be a technical basis for whatever figures we end up with, and colleagues who have concerns should address that aspect, and communicate with all other participants intersessionally regarding any proposals they may have.

I have amended Article 13(1) to make clear that the fast-track amendment process applies to increasing these limits, otherwise they will always be out of date by the time they are ratified.

Article 10
This was not discussed at this meeting, but has been well discussed in the past.

Article 11
I should reiterate that the concept of “self-insurance” means that a Government bears its own risk.

Article 12
In accordance with our discussion, I have expanded the situations in which the fund may provide reimbursement. In subparagraph 3, I have also attempt to provide the “bridge” to further work for the protection of the Antarctic Environment, which was suggested by some.

Article 13
See last comment under Article 9.

As also indicated at the conclusion of our discussion last week, I believe that the excellent progress we made should enable us to conclude our negotiations at the next ATCM in Stockholm. I would ask colleagues to approach the outstanding issues with that objective very much in mind.

Thank you once again for your excellent participation.
ANNEX K

PRELIMINARY AGENDA FOR XXVIII ATCM
PRELIMINARY AGENDA FOR ATCM XXVIII

1. Opening of the meeting
2. Election of Officers and creation of Working Groups
3. Adoption of the Agenda and allocation of items
4. Operation of the Antarctic Treaty System: Reports by Parties, Observers and Experts
5. Operation of the Antarctic Treaty System
   b) a) General matters
   a) Review of the Secretariat’s situation
7. Report of the Committee for Environmental Protection
8. The Question of Liability as referred to in Article 16 of the Protocol
9. Safety and Operations in Antarctica
10. Relevance of Developments in the Arctic and in the Antarctic and the International Polar Year 2007/2008
11. Tourism and Non-Governmental Activities in the Antarctic Treaty Area
12. Inspections under the Antarctic Treaty/Protocol
13. Science Issues, particularly scientific co-operation and facilitation
14. Operational issues
15. Education issues
16. Exchange of Information
17. Biological Prospecting in Antarctica
18. Preparation of the XXXV Meeting
19. Other Business
20. Adoption of the Final Report
21. Closing of the Meeting
ANNEX L

MESSAGE FROM XXVII ATCM TO STATIONS IN ANTARCTICA
MESSAGE FROM THE XXVII ANTARCTIC TREATY CONSULTATIVE MEETING TO STATIONS IN THE ANTARCTIC

The twenty-seventh Antarctic Treaty Consultative Meeting (XXVII ATCM) was hosted by the South African Government in Cape Town from 24 May to 4 June 2004.

The inaugural speech, delivered by the South African Minister of Environmental Affairs and Tourism, Mr. Marthinus van Schalkwyk emphasized South Africa’s commitment to Antarctic research. The Minister announced that the government had increased direct funding for science, related to Antarctica, by thirty percent and intended to double that funding in the near future. The Minister referred to the development of a second runway in Droning Maud Land and said it would result in greater prospects for reliable and regular access.

We are pleased to report that the XXVII ATCM elected Mr. Jan Huber of the Netherlands as the first Executive Secretary of the Antarctic Treaty Secretariat. Discussions on the establishment of the Antarctic Treaty Secretariat were concluded in Cape Town and the Secretariat will be operationalized by the Executive Secretary when he takes up his duties at the Secretariat’s Headquarters in Buenos Aires, Argentina in the very near future.

The ATCM admitted Ukraine as the twenty-eighth Consultative Party of the Antarctic Treaty. Ukraine was warmly welcomed by the ATCM Chair on behalf of the Consultative Parties. The Meeting also welcomed the ratification of the Environmental Protocol by Canada.

The Committee for Environmental Protection (CEP) VII considered 26 Working Papers and 64 Information Papers included 4 draft Comprehensive Environmental Evaluations (CEE), 2 Management Plans for Antarctic Specially Managed Areas, 5 Management Plans for Antarctic Specially Protected Areas and Draft Measures for 2 Historic Sites and Monuments. The meeting welcomed the election of Dr Tony Press (Australia) for a second term as Chairman of the CEP.

The Working Group on Liability made progress on the question of liability as referred to in Article 16 of the Environmental Protocol. The Chair of the Working Group on Liability, Ambassador Don MacKay (New Zealand), indicated that it was his aim to conclude negotiations on the Annex at the XXVIII ATCM in 2005 in Sweden.

As the winter solstice approaches, and the Antarctic night closes in, the Delegations participating in the XXVII Consultative Meeting send greetings to all over-wintering personnel in the Antarctic and convey their appreciation for the sacrifice that all the men and women are making in keeping the spirit of the Antarctic Treaty alive on the vast and unique continent to which the Treaty applies.
ANNEX M

LETTER TO THE SECRETARY-GENERAL OF THE IMO FROM XXVII ATCM
SECURITY-GENERAL
INTERNATIONAL MARITIME ORGANIZATION
4 ALBERT EMBANKMENT
LONDON SE1 7SR

Dear Sir/Madam

SHIPPING GUIDELINES: ANTARCTICA

At the XXVIIth Antarctic Treaty Consultative Meeting (ATCM) in Cape Town, South Africa, the Antarctic Treaty Consultative Parties adopted a Decision on Shipping Guidelines for vessels operating in ice-covered waters of the Antarctic Treaty area. A copy of Decision 4 (2004) and the Guidelines annexed to it are attached. The proposed Guidelines track in large part the IMO Guidelines for Ships Operating in Arctic Ice-covered Waters, with some relatively minor modifications.

The Antarctic Treaty Parties are conscious of the unique qualities of the Antarctic environment and the fact that their Decision will go only part way towards addressing standards to be adopted by vessels operating in Antarctic ice-covered waters, in so far as vessels flagged with non-Treaty Parties are also present in the area. In this respect the Antarctic Treaty Consultative Parties recognize that a comprehensive approach towards setting standards for all vessels in such waters can only be achieved through the IMO.

The Antarctic Treaty Consultative Parties wish to draw the IMO’s attention to whether full double bottom construction is necessary for all classes of ships operating in Antarctic ice-covered waters, or if there are other ways of ensuring the same standards of ship stability and safe floating (see Section 3.3.2 of the IMO Guidelines).

Given the increasing level of shipping, particularly in the tourist sector, in the Antarctic Treaty area, the Treaty Parties believe that the introduction of Guidelines is of great importance. Accordingly, they would be grateful if the draft Guidelines, endorsed by means of Decision 4 (2004), are placed before the relevant committees of the IMO at the earliest opportunity for their consideration.

Yours sincerely

H. KLEINSCHMIDT
CHAIRMAN: ATCM XXVII
ANNEX N

LIST OF DOCUMENTS FROM XXVII ATCM
## LIST OF DOCUMENTS FROM ATCM XXVII

### WORKING PAPERS

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ANNEX O

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ANNEX P

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