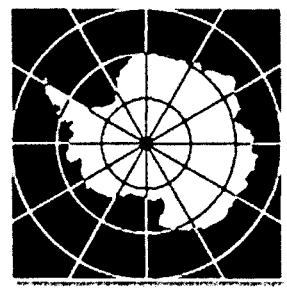
Madrid, Spain, 9/20 • June • 2003

Final Report of the XXVI Antarctic Treaty Consultative Meeting



TREATY CONSULTATIVE MEETING

Final Report of the
XXVI Antarctic
Treaty Consultative Meeting

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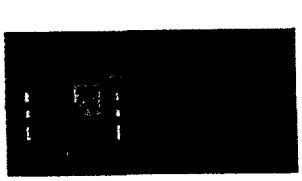

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ACRONYMS AND ABBREVIATIONS

ASOC	Antarctic and Southern Ocean Coalition
ASMA	Antarctic Specially Managed Areas
ASPA	Antarctic Specially Protected Areas
ATS	Antarctic Treaty System
ATCM	Antarctic Treaty Consultative Meeting
CCAMLR	Convention for the Conservation of Antarctic Marine Living Resources
CCAS	Convention for the Conservation of Antarctic Seals
CEE	Comprehensive Environmental Evaluation
CEP	Committee for Environmental Protection
COMNAP	Council of Managers of National Antarctic Programmes
EIA	Environmental Impact Assessment
IAATO	International Association of Antarctic Tour Operators
ICG	Intersessional Contact Group
ICSU	International Council for Science
IEE	Initial Environmental Evaluation
IHO	International Hydrographical Organisation
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission
IP	Information Paper
IUCN	World conservation Union
SATCM	Special Antarctic treaty Consultative Meeting
SCAR	Scientific Committee on Antarctic Research
SPA	Specially Protected Areas
SSSI	Site of Special Scientific Interest
UNEP	United Nations Environmental Programme

WG	Working Group
WMO	World Meteorological Organisation
WP	Working Paper
WTO	World Tourism Organisation
WWF	World Wildlife Fund

PART I

FINAL REPORT

FINAL REPORT OF THE XXVI ANTARCTIC TREATY CONSULTATIVE MEETING

MADRID, SPAIN, 9-20 JUNE, 2003.

(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 Madrid from 9-20 June, 2003, 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 XXVI ATCM to observe the Meeting.

(3) In accordance with articles 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 article 38 of the RP, Experts from the following International Organizations and Non-Governmental Organizations attended the Meeting by the invitation of the XXV ATCM: The Antarctic and Southern Ocean Coalition (ASOC), the International Association of Antarctica Tourist Operators (IAATO), the International Hydrographic Organization (IHO), the International Union for the Conservation of Nature (IUCN) and the United Nations Environment Program (UNEP). The Chairman of the Artic Council was also invited to attend the Meeting for the purpose of item 9 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.

(6) Informal working meetings of the Heads of Delegations of the Consultative Parties were held in Madrid on 8 and 18 June.

Item 1: Opening of the Meeting

(7) In accordance with articles 5 and 6 of the RP, Ambassador Fernando de la Serna, Head of the Spanish Delegation, opened the Meeting and proposed Ambassador José Antonio de Yturriaga as Chairman of the XXVI ATCM, proposal which was accepted. The Chairman welcomed the delegations of Contracting Parties, Observers and Experts, and called for a minute of silence in memory of Mr. Esteban de Salas, former Secretary of CCAMLR, and Major José Ripollés, Head of the Spanish Base "Gabriel de Castilla" in 2001-2002, who had recently died.

(8) The XXVI ATCM was officially inaugurated by the Prince of Asturias, HRH Don Felipe de Borbón. After some introductory words by the Chairman, Mrs. María Elvira Rodriguez Herrer, Spanish Minister for the Environment, welcomed the delegates to Madrid, recalled the previous Meeting in Madrid in 1991 when the Protocol on Environmental Protection was signed, and underlined the importance of the Antarctic for the global ecosystem.

(9) HRH the Prince emphasized the special nature of the Antarctic Treaty System, a unique case of collective administration. HRH analyzed the political, scientific and environmental aspects of the Antarctic regime. HRH mentioned that SCAR had received the Principe de Asturias Prize for international cooperation. HRH also encouraged that an agreement be reached on the establishment of the Permanent Secretariat in Buenos Aires during the course of this XXVI ATCM.

(10) The opening statements are included in this Report at Annex D.

Item 2: Election of Officers.

(11) Mr. Chris Badenhorst, Head of the Delegation of South Africa (Host Country of the XXVII ATCM) was elected Vice-Chairman, and Ambassador Luis García Cerezo was appointed Secretary of the Meeting.

(12) Four Working Groups were established: Secretariat WG, Liability WG, Institutional Matters WG and Operational WG. It was agreed that the Institutional WG would deal with the issue of tourism and that an "ad hoc" Chairman would be chosen at a later stage to preside over the discussion on such issue. The following Chairmen of the WG were elected:

i) Secretariat WG: Prof. Francesco Francioni of Italy.
ii) Institutional Matters WG: Mr. Jan Huber of The Netherlands.
iii) Operational Matters WG: Ambassador José Manuel Ovalle of Chile.
iv) Liability WG: Ambassador Don MacKay of New Zealand
v) Institutional Matters-Tourism WG: Mr. Michel Brumeaux.

Item 3: Adoption of the Agenda

(13) The following Agenda, included in document RCTA/SEC.1 was adopted:

1) Opening of the Meeting.
2) Election of Officers.
3) Adoption of the Agenda.
4) Operation of the Antarctic Treaty System:
    a) General matters
    b) Antarctic Treaty Secretariat
5) Operation of the Antarctic Treaty System: Reports by Observers and Experts.
6) Report of the Committee for Environmental Protection.
7) The question of Liability as referred to in Article 16 of the Protocol.
8) Safety of Operations in Antarctica.
9) Relevance of developments in the Arctic and the Antarctic.
10) Tourism and Non-Governmental activities in the Antarctic Treaty Area.
11) Inspections under the Antarctic Treaty.
12) Science issues, particularly Scientific Co-operation and Facilitation.
13) Operational issues.
14) Education issues.
15) Exchange of Information.
16) Preparation of the XXVII Meeting.
17) Other Business.
18) Adoption of the Final Report.
19) Closing of the Meeting.

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

i) Plenary: Items 1, 2, 3, 5, 6, 16, 17, 18 and 19.
ii) Secretariat WG: 4b.
iii) Institutional Matters WG: 4a, 10, 11, 15.
iv) Operational Matters WG: 8, 9, 12, 13, 14.
v) Liability WG: 7.

Item 4: Operation of the Antarctic Treaty System

4a) General Matters.

(15) The United Kingdom introduced WP-3, proposing an amendment to the Rules of Procedure to ensure that the definitive text of all Measures, Decisions and Resolutions be circulated to Consultative Parties immediately following an ATCM meeting. The following text was agreed in principle:

"The [Secretariat/Host Government] shall notify all Consultative Parties immediately following an ATCM of all Measures, Decisions and Resolutions

adopted by the Meeting. Copies of the definitive texts adopted, in an appropriate official language of the Meeting, shall then be circulated to all Consultative Parties no later than 30 days following an ATCM".

It was suggested that, in respect of any Measure adopted under the procedure of Article 6 of Annex V of the Protocol, the notification should also include the time period for the approval of that Measure.

In light of the planned comprehensive revision of the Rules of Procedure at XXVII ATCM referred to below, it was agreed that in this revision use should be made of this text and the suggestion as appropriate.

(16) The United Kingdom introduced WP-18, which, with regard to the participation of non-party States to the ATCMs, considers that there is a gap in the rules that should be filled, to draw non-party States into the Antarctic Treaty System. In the discussion it was emphasized that the participation of non-party States would not be automatic but that these States would have to be invited explicitly by the ATCM. While most delegations supported the UK proposal, one delegation basically opposed any changes in the Rules of Procedure to regulate the attendance of non-party States, so no decision was taken on this proposal.

(17) The ATCM recognized that the rules of procedure should be adjusted in many places to take account of the Secretariat. WP-40, introduced by Australia at the XXV ATCM, and reintroduced at the XXVI ATCM, provides a starting point for the discussion of these adjustments at the XXVII ATCM. On the consultations between the Executive Secretary and the Consultative Parties referred to in article 3.3 of Measure 1, Japan introduced IP-124. The ATCM welcomed the offer of Japan to invite comments on the paper and to prepare a Working Paper on the basis of these comments, as a preparation for a decision to be taken by the XXVII ATCM.

(18) Pointing out the problems caused by the wide gap between the number of Measures adopted by the ATCM and the much smaller number that has entered into effect, the United Kingdom introduced WP-22, cosponsored by seven Consultative Parties, which poses three options for the speeding up of the approval of measures: a) to have all Measures entered into force through a tacit approval mechanism; b) to declare a tacit approval procedure applicable to all Measures unless a Consultative Party asks for explicit approval; c) to let the ATCM provide for tacit approval of any Measure at the time of its adoption. Some delegations expressed concerns with regard to the proposed tacit approval mechanism: i.e. concerns related to the implementation of article IX of the Antarctic Treaty, which, for some, requires explicit approval; and concerns regarding domestic legal systems. One delegation introduced a fourth option consisting of voluntary declaration by Consultative Parties that they would for themselves apply a tacit approval mechanism. Although there was no consensus on this proposal, there was support amongst a number of Contracting Parties for some form of tacit approval mechanism.

(19) A contact group was established to consider the analysis of recommendations conducted by Australia (WP-14 and IP-80). In order to make the task of reviewing past recommendations more manageable at the XXVII ATCM it was recommended that discussion initially focus only on recommendations related to protected areas. These were re-designated last year (Decision 1 – 2002) as a result of the approval of Annex V of the Protocol. Interested parties will consult intersessionally on the development of a working paper for the XXVII ATCM in which all past recommendations, measures, decisions and resolutions on protected areas will be analysed and classified.

(20) The ATCM noted that the work to review the status of past recommendations would be much less burdensome if the ATCM, when adopting measures, decisions and resolutions, clearly identified where they supersede or replace earlier decisions and recommendations. It is recommended therefore that in future, when a Consultative Party proposes a measure for adoption by the ATCM, it carefully reviews past recommendations, measures, decisions and resolutions on the same subject to determine if any will become spent, superseded or obsolete upon adoption/approval of its proposal. The use of the recommendations database being developed by The Netherlands was seen as being of considerable assistance in this regard. The Meeting endorsed the recommendation of the Contact Group that, when the Secretariat is established, it be tasked with the ongoing development and maintenance of this database and its modification so as to make it available on the Secretariat's web site.

(21) Australia introduced WP 041 on Procedure for the Appointment of the Executive Secretary of the Secretariat of the Antarctic Treaty. After some changes, the ATCM decided to include this Procedure and a draft text for an announcement and application form as Appendix 1 to this Final Report.

4b) Antarctic Treaty Secretariat

(22) Discussion of the Antarctic Treaty Secretariat was conducted at the Secretariat WG on the basis of the documents, drafted in Buenos Aires and included in WP-5, with an expression of the appreciation of the ATCM for the excellent organisation by the Argentinian Government of the intersessional meeting in Buenos Aires.

(23) The discussion started with the Draft Measure on the Secretariat of the Antarctic Treaty. With regard to paragraph 3 of the Preamble concerning the reference to the XXVII ATCM, it was agreed to delete this paragraph.

(24) Concerning Article 3, the discussion focussed on its paragraph 3 concerning consultations during the intersessional periods. The discussion also led to the question of whom should be consulted by the Secretariat during such periods. Although some Delegations saw a need to have a common convenor to coordinate such consultations, other Delegations were opposed to the establishment of any standing body and emphasized that consultations should be made with all Consultative Parties. Delegations agreed to delete the brackets of paragraph 3 and leave the text as it was.

(25) One Delegation proposed some addition to paragraph 1 of Article 3 in order to address the need to establish rules of procedure for the election of the Executive Secretary. A common text was drawn up stating that the procedure for the appointment of the Executive Secretary would be established by the ATCM (see par. 21).

(26) Concerning Article 4, the Chairman of the Secretariat Working Group reminded that the work done in Buenos Aires had permitted enormous progress toward consensus by splitting financial contributions into two different categories, equal shares, on the one side, and variable shares, determined in relation to Antarctic activities taking into account financial capacity, on the other. India presented IP-110 containing an additional contribution to the resolution of the problem of cost-sharing. This paper provided that the actual capacity to pay of Parties would be assessed by each Party, which could choose among five levels of contributions.

(27) In an informal contact group chaired by Jan Huber of the Netherlands Delegation consensus was reached on the following documents: a new version of Article 4 of the draft Measure and a draft Decision on apportioning contributions of Consultative Parties to the Secretariat, with a Schedule on the method of calculating the scale of apportioned contributions. The most significant features of these documents were: a) the acceptance of the percentage of 50 % for each type of contributions (equal and variable); b) the definition of the criterion for determining the variable part of contributions without a reference to SCAR, but mentioning the extent of national Antarctic activities, taking into account the capacity to pay; c) the rule governing the approval of the budget; d) the identification of five categories of contributors and the rules regulating how to move from one category to another.

(28) The draft Decision on the provisional functioning of the Secretariat was examined. During the discussion several important issues emerged which included: a) the provisional financing of the Secretariat, b) the procedure of selection and appointment of the Executive Secretary, c) the modalities of provisional application of the Headquarters Agreement.

(29) A Contact Group chaired by M. Michel Trinquier of the French Delegation proposed a new version of the draft Decision, the main features of which were: a) the functioning of the Secretariat during the period until the Measure enters into force, which should take place, as far as possible, in accordance with the provisions concerning the definitive establishment of the Secretariat; b) the procedure of appointment of the Executive Secretary; c) the provisions for the initial financing of the Secretariat on the basis of voluntary contributions, which should assure some certainty in the estimation of the budget of the Secretariat; d) the acceptance of the offer of the Argentine Republic to provisionally apply the Headquarters Agreement.

(30) A draft budget on the basis of a non-paper prepared by Argentina and Australia was discussed. The Meeting noted that this document was in fact a preliminary estimate of the expenditure of the Secretariat and agreed that it provided an adequate estimate for the calculation of an initial scale of contributions. Several delegations considered that there should be only one scale

of contributions without distinction between the two periods. The ATCM decided to include the projected costs of the Secretariat on the basis of this paper in Appendix 2 to this Final Report for reference by the Consultative Parties.

(31) The Netherlands introduced a initial scale of contributions to the budget. The ATCM decided to annex the "Initial Scale of Contributions to the Budget of the Secretariat", to the Decision on Provisional Application of the Measure on the Secretariat of the Antarctic Treaty. The Netherlands also stated that a confidential consultation with all Consultative Parties had shown that there was a readiness among most of them to make contributions on a voluntary basis from the year 2004 according to the initial scale, and that the total amount to be contributed in this way would be sufficient to start the operations of the Secretariat on a provisional basis.

(32) The Russian Federation expressed its readiness to join the emerging consensus and removed its reservation expressed at the XXV ATCM regarding the statement that the Headquarters Agreement would be concluded between ATCM and Argentine Republic. The Russian Federation mentioned that this has been done with its understanding that nothing in the Agreement could be construed as modifying the ATCM status as defined in the Article IX of the Antarctic Treaty.

(33) On the basis of consultations in a Contact Group an amended text of the Headquarters Agreement was approved as an Annex to the Measure on the Secretariat of the Antarctic Treaty.

(34) The Russian Federation declared that since the signing of the Headquarters Agreement is conditioned upon the approval of the ATCM Measure authorizing the ATCM Chairman to sign the Agreement, any amendment of the Agreement, as well as termination of the Agreement, may be affected in the same manner, i.e. only after, and based upon, the approval of the appropriate ATCM Measures by the ATCPs. In regard of settlement of disputes arising out of the interpretation or application of the Agreement, the Russian Federation was of the opinion that consultations mentioned in Article 24 could be understood only as consultations among Parties to the Agreements, i.e. among the Consultative Parties and the Argentine Republic.

(35) The ATCM also approved the text of a letter of commitment of the Argentine Republic, by which the Argentine Government commits itself to apply provisionally the Headquarters Agreement. The letter was to be annexed to the Decision on Provisional Application of the Measure on the Secretariat of the Antarctic Treaty.

(36) The ATCM discussed the Staff Regulations of the Secretariat on the basis of the document WP-12, submitted by Argentina and Australia, and the Financial Regulations of the Secretariat on the basis of document WP-11, submitted by Argentina and Australia.

(37) The personal report of the Chairman of the Secretariat Working Group was issued as Information Paper 125.

(38) After a brief general debate on the report of the Secretariat WG, the Meeting unanimously adopted the following documents[1]:

a) Measure 1 (2003) on the "Secretariat of the Antarctic Treaty", with an Annex containing the "Headquarters Agreement for the Secretariat of the Antarctic Treaty" (reproduced in Annex A to this Report)
b) Decision 1 (2003) on "Apportioning Contributions to the Secretariat of the Antarctic Treaty", with a Schedule on "Method for Calculating the Scale of Contributions" (reproduced in Annex B)
c) Decision 2 (2003) on "Provisional application of Measure 1 (2003)", with one Annex on "Initial Scale of Contributions to the Budget of the Secretariat of the Antarctic Treaty", and another Annex containing a "Letter of Commitment of the Argentine Republic" (reproduced in Annex B)
d) Decision 3 (2003) on "Staff Regulations of the Secretariat of the Antarctic Treaty", with an Annex with the said "Staff Regulations" (reproduced in Annex B)
e) Decision 4 (2003) on "Financial Regulations for the Secretariat of the Antarctic Treaty", with an Annex with the said "Financial Regulations" (reproduced in Annex B).

(39) The Argentine Delegation expressed its satisfaction for the approval of the Measure and Decisions and emphazised that priority should be given to the appointment of the Executive Secretary at the XXVII ATCM.

(40) The Chairman of the Meeting thanked Professor Francioni and the Secretariat WG for the excellent work done to deal successfully with the legally complex and delicate issue of the Secretariat, and remarked that the adoption of the various documents, which allowed the establishment of a Permanent Secretariat in Buenos Aires, constituted a historical landmark for the Antarctic Treaty.

(41) On 20th June 2003, the Chairman of the Meeting received a Letter from the Argentine Minister of Foreign Affairs stating the commitment of the Governement of the Argentine Republic to apply provisionally the Headquarters Agreement. The Letter is reproduced in Annex H to the Report.

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

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

i) The United States Government as Depositary Government of the Antarctic Treaty;
ii) The Australian Government as the Depository Government of the Convention on the Conservation of the Antarctic Marine Living Resources (CCAMLR);

[1] The Consultative Parties, once they have received the above documents in official languages other than English, may point out to the Host Country any inconsistency found between versions in other languages and the English language.

iii) The United Kingdom Government as the Depository Government of the Convention for the Conservation of Antarctic Seals;
iv) The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR);
v) The Scientific Committee on Antarctic Research (SCAR);
vi) The Council of Managers of National Antarctic Programs (COMNAP).

These reports are reproduced in Annex F.

(43) The US Delegation noted that no new accessions took place during the present year. There are at present 45 Parties to the Treaty. The Government of Ukraine notified the Depositary by diplomatic note on 25 May asking to become a Consultative Member of the Antarctic Treaty. Romania deposited its instrument of ratification of the Madrid Protocol on Environmental Protection on February 3, 2003. There are now thirty Parties to the Protocol. The United States also reminded all Parties of the importance of timely approval of Recommendations/Measures (IP-13 Rev.2). It was pointed out that eight countries have not taken action on Recommendations dating back more than ten years. The approvals of just a few remaining countries would bring a substantial number of Recommendations into effect. The United States urged all Parties to take the necessary actions to approve all outstanding Recommendations and Measures as quickly as possible. The United States delegation will contact these delegations privately, and suggested that a list of non-ratifying states may be made public at the XXVII ATCM. It also called the Parties' attention to the list of Arbitrators designated in accordance with Article 2 (1) of the Schedule to the Protocol, and made an appeal to Contracting Parties to the Madrid Protocol to appoint their Arbitrators.

(44) In connection with the Ukraine request, the Chairman pointed out that the procedure provided for in Decision 2 (1997) and 1 (1998) was applicable. The Depositary Government informed the ATCM that it has transmitted to the Consultative Parties the request and the supporting documents. This issue will be included in the Preliminary Agenda of the XXVII ATCM.

(45) The United Kingdom delegation noted that in some cases, including that of the United Kingdom, the decision not to approve Recommendations and Measures had been consciously made for sound legal reasons. This was the case for example of Recommendations XIV/2 (EIA), XV/3 (waste disposal) and XV/4 (marine pollution), which have not been approved by the United Kingdom because they have benn superseded by Annex I, III and IV respectively, of the Protocol. It was insisted that in such cases the Consultative Parties concerned should formally notify the Depositary of their decision not to approve a particular measure and their reasons. The Delegation of The Netherlands emphasized the importance in this regard of the ongoing review of the status of Recommendations. The Republic of Korea noted that it would take the necessary steps to designate its arbitrators. The Chilean Delegation welcomed the interest in the United States' Report, but enquired whether the point made by the United Kingdom and Netherlands Delegations amounted to an amendment of the Report. Chile stated that it believed that the Report should be maintained,

and that the status of the Recommendations and Measures should depend on the outcome of the Working Group.

(46) The Australian Delegation presented its report, contained in IP 091. No new States have acceded to the Convention in accordance with its Article XXVI nor have any States become members of the Commission for the Convention of Antarctic Marine Living Resources, in accordance with article VII (2) of the Convention. A copy of the status list for the Convention is available to States Parties through Australian diplomatic missions, as well as via the internet on the Australian Treaties Database at the following internet address: http://www.austlii.edu.au/au/other/dfat/treaty_list/deposity/camlr.html

(47) The United Kingdom submitted a Report which covers the events that took place from 1st March 2002 to 29th February 2003. The United Kingdom Delegation pointed out that the reporting period that lasts until the month of June, remains open. The United Kingdom pointed out that there has been no new accession to CCAS since last report.

(48) CCAMLR drew up a short summary of IP-9, highlighting the major issues the Commission has been dealing with:

- Membership: there were no substantial changes regarding the membership at the XXV ATCM.

- Illegal unregulated and unreported fishing activities. This topic has been considered of great importance by the ATCMs over the last three years. The Commission stressed the importance of the following items:

  - ⇨ Conservation measures gathered in Sec.4 IP 009.
  - ⇨ Progress made regarding Patagonian tootfish.
  - ⇨ Catch Documentation Schemes (Sec.5 IP 009).
  - ⇨ Development of a pilot electronically based scheme.
  - ⇨ The Institutional Action Plan regarding illegal, unregulated and unreported fishing, set up by FAO, will be discussed at the 22nd meeting of the Commission to be held this year.

- CCAMLR Ecosystem Monitoring Program (CEMP) will be reviewed in Cambridge (U.K.) in August 2003.

- CCMLAR expressed its active engagement in providing assistance in the debate of setting up a permanent Secretariat of the Antarctic Treaty.

(49) SCAR intorduced IP-103, which could be summarized as follows:

- SCAR was awarded last year the Prince of Asturias Prize for International Cooperation, in recognition of SCAR's role in Antarctica. The Prize, which amounts to 50.000 Euros, will be used to establish a SCAR Fellowship Program to fund five young scientists to undertake Antarctic research in a country other than their own. The selection process of these 5 scientists has not come to fruition yet.

- The XXVII SCAR, held in Shanghai 2002, was a landmark meeting at which the major work of re-structuring SCAR was achieved. The process of re-organization foresees the creation of three new Scientific Standing Groups: geosciences, life sciences and physical sciences.
- Two new Standing Committees were established on the Antarctic Treaty System, and on SCAR Finance.
- SCAR accepted Peru as full member, and noted with regret the withdrawal of Estonia from associate membership.
- There has been a restructuring effort in the SCAR Secretariat and an Executive Director should be recruited in the near future.

(50) COMNAP underlined that it had been working since the XXV ATCM on two different issues:

- The development of information on scenarios resulting from incidents presenting environmental harm (WP-9).
- The interaction between national operators, tourists and tourism operators (IP-37), has functioned in a very satisfactory manner.
- A plenary session of COMNAP is to be held next month in Brest. Some important issues will then be dealt with, such as the guidelines for aircraft operations near bird concentrations, the addition of information to the analysis of IEEs and a continuing comparison on medical standards.

(51) ASOC began the experts' interventions round by introducing its IP-65. with the sincere hope that this XXVI ATCM will lead to the full implementation of the Madrid Protocol. ASOC considered that the following key issues should be dealt with at the XXVI ATCM:

- Antarctic tourism: ASOC has submitted IPs on Commercial Tourism and port state jurisdiction in relation to vessels engaged in non-governmental activities.
- Liability: ASOC considers a priority for this ATCM to be the completion of an Annex on liability for damage to Antarctic environment.
- Secretariat: ASOC encourages the efforts made to allow the operation of a permanent Secretariat in Buenos Aires before the next Antarctic operational season.
- Annex 2 to the Madrid Protocol: ASOC congratulates Argentina for the valuable effort it has made during the intersessional period.
- Annex 5: 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. ASOC has participated in the Deception Island ASMA process.
- Lake Vostok: ASOC has participated in the Lake Vostok intersessional CEE review.
- IUU: ASOC has created an IUU vessel "red list" to assist governments in identifying vessels involved in IUU fishing.
- Only four members of the ATS have ratified the ACAP (Agreement on the Conservation of Albatross and Petrels). Only one more ratification is required for the full entry into force of the Agreement.
- ASOC expressed its hope that the Kyoto Protocol should be ratified by those countries that have failed to do so to date.

(52) IUCN underlined two aspects of IP-98:

- Developed Guiding Principles to assist with the selection and designation of a network of Antarctic Marine Protected Areas.
- Creation of new APAS to protect major marine ecosystems.

(53) IAATO briefly presented IP-78 and noted that the 2002-2003 season had been very successful. IAATO welcomed the substantial discussion on tourism at this Meeting and has submitted 8 papers for discussion.

(54) The International Hydrographic Organization (IHO) introduced IP-76 on the status of hydrography and nautical cartography in Antarctica. In introducing the papers the IHO provided an update on progress in production of its international chart scheme and suggested a draft Resoultion to encourage further cooperation on this initiative.

(55) The Meeting welcomed the update provided by the IHO and, recognizing the importance of accurate charting as an aid to the safety of navigation, adopted Resolution 3 (2003), reproduced at Annex C.

(56) The Reports of the Experts are reproduced at Annex G.

Item 6: Report of the Committee for Environmental Protection

(57) The Committee for Environmental Protection (CEP) met during the first week of the ATCM under the chairmanship of Dr Tony Press (Australia). Mr José María Acero of Argentina was re-elected, and Ms Anna Carin Thomer of Sweden was elected to the positions of Vice Chair for the next two tears. The CEP warmly farewelled Joyce Jatko, immediate past Vice Chair.

(58) The Chairman of the Committee presented the Report of CEP VI, which is reproduced at Annex E.

(59) The Meeting welcomed the advice that Romania had ratified the Protocol on 5 March 2003, and the news that Canada, the Czech Republic and Estonia were preparing to ratify the Protocol.

(60) The CEP considered the issue of the collection of meteorites (CEP VI paragraph 12), a matter previously discussed in the CEP and ATCM in Warsaw. The CEP formed the view that Article 7 of the Protocol extended to the collection of meteorites (CEP VI Appendix 1). While the Russian delegation indicated that it wanted to study the matter further before taking any stance on this matter, the ATCM noted the understanding of the CEP that meteorites were "mineral resources" within the meaning of Article 7 of the Protocol and that therefore all Parties to the Protocol have an obligation under article 7 to prohibit any activity in Antarctica relating to meteorites, other than scientific research. The Meeting recalled Resolution 3 (2001), which urges Parties to the Protocol "to take such legal or administrative steps as are necessary to preserve Antarctic meteorites so that they are collected and curated according to accepted scientific standards, and are made available for scientific purposes".

(61) The CEP considered the draft CEE for Water Sampling of the subglacial Lake Vostok submitted by the Russian Federation (CEP VI paragraphs 19-28 and Appendix 2). The CEP recommended that the Russian Federation be urged to "make such revisions in the final CEE as may be necessary to address the above insufficiencies and to produce a final CEE that is fully consistent with requirements of Annex I of the Protocol". The ATCM endorsed this view.

(62) The CEP also advised that it had considered the draft CEE from New Zealand for the ANDRILL Program. The CEP advice is at Appendix 3 to the CEP report. The ATCM accepted the advice of the CEP that the draft provided an appropriate assessment of the impacts of the proposed project and was consistent with the requirements of Annex I of the Environmental Protocol.

(63) The CEP finally considered a draft CEE by the Czech Republic (as an Information Paper) for the construction and operation of a scientific station at James Ross Island (CEP VI paragraphs 38-43). The CEP noted that the Czech Republic had not yet ratified the Protocol and therefore was not bound by its provisions at this time; and that the draft CEE forwarded by the Czech Republic did not meet the requirements of the Protocol. However, the CEP commended the Czech Republic for its commitment to act "as if" it had ratified, and urged members and observers to assist the Czech Republic with further development of its draft CEE.

(64) The ATCM noted that the Czech Republic had not yet ratified the Protocol and therefore was not bound by its provisions at this time, but that the draft CEE forwarded by the Czech Republic is not of a standard consistent with the requirements of the Environmental Protocol. However the ATCM commended the Czech Republic for its commitment to act "as if" it had ratified, and urged Parties and Observers to assist the Czech Republic with further development of its draft CEE.

(65) Estonia informed the CEP of its plan to establish a research station in the Ross Sea region and is in process of considering its environmental impact assessment requirements (CEP VI paragraphs 44-49) and the United States reported on intersessional work on cumulative impacts (CEP VI paragraphs 50-55).

(66) Spain introduced CEP WP-34 on "Noise and Anthropogenic Acoustic Discharges, and their effect on Marine Mammals". The CEP had further discussions on acoustic noise in the marine environment, and awaits further information from SCAR (CEP VI paragraphs 56-62).

(67) Spain also intoduced IP-56 on "Illegal Fishing: International Cooperation to Reinforce Implementation Mechanisms". Spain was congratulated for its leadership role in this matter.

(68) The CEP considered the progress report on the intersessional work on the review of Annex II and provided advice to the Intersessional Contact Group on matters that should be or should not be further considered. Terms of reference for further intersessional work were established (CEP VI paragraph 105). The ICG is to provide a Final Report to CEP VII in South Africa in 2004. This final

report should contain an annotated and amended draft of Annex II for consideration.

(69) The ATCM considered a question from the CEP as to whether a new title of Annex II would be permissible. The CEP ICG report had suggested "Conservation of Antarctic Living Organisms". Some Parties expressed reservations about the proposed change of name, while others felt that further consideration was needed before taking a decision. Two Parties noted that the proposed name change was based on the technical and scientific expertise of SCAR. The ATCM Chairman concluded that there was no consensus on the matter at this meeting, and that Parties should consider the matter and prepare to discuss it at the XXVII ATCM.

(70) The CEP considered the question of specially protected species, including issues related to marine species and other bodies and instruments such as CCAMLR and CCAS. In this context the CEP was unable to agree on a definitional term for native marine species (CEP VI paragraphs 85-93). The CEP also noted that there is a need to develop procedures and guidelines for designating Specially Protected Species with some urgency.

(71) Concerning matters covered by Annex V of the Protocol, the CEP proposed the adoption of a Measure on "Management Plan for Antarctic Specially Protected Areas" (CEP VI Appendix 4). It contained 2 new and 9 revised protected areas management plans (CEP VI paragraphs 120-129). It included areas with marine components (two of these plans were for solely marine areas), which had been considered by CCAMLR and the CEP in accordance with the guidelines developed by the Committee following Decision 4 (1998). For the first time the CEP was presented with draft management plans for Antarctic Specially Managed Areas. Both proposals included arrangements where ASPAs were located within the ASMAs, a concept welcomed by the CEP. 4 revised and 3 new management plans will be considered by intersessional groups led by 4 different nations proposing the plans (CEP VI paragraphs 130-134).

(72) The Meeting adopted Measure 2 (2003) on "Antarctic Protected Area System: Management Plans for Antarctic Specially Protected Areas" (reproduced in Annex A).

(73) The CEP recommended a revised list of Historic Sites and Monuments be adopted by the ATCM (CEP VI paragraphs 135-137 and Appendix 5). The Meeting adopted Measure 3 on "Antarctic Protected Areas System: Revised List of Historic Sites and Monuments"(reproduced in Annex A). A delegation recalled the practice in matters concerning Antarctic geographic names.

(74) The CEP revised its Guidelines for Consideration of New and Revised ASPA and ASMA Management Plans to record the agreements with CCAMLR about plans with a marine component (CEP VI paragraphs 139-140 and Annex 4).

(75) The CEP noted that there appears to be a typographical error in the Final report of the XXV ATCM in paragraph 72, where it should refer to Appendix 6

(CEP VI paragraph 157). The Chairman suggested that Poland, as the Host Country of the XXV ATCM issue a corrigendum to the Final Report of the 2002 Meeting.

(76) The CEP established an Intersessional Contact Group to further progress consideration of state of the Antarctic environment reporting leading to CEP VII (CEP VI paragraphs 163-170).

(77) The CEP discussed the issue of biological prospecting in Antarctica (CEP VI paragraphs 171-179), and noted there are many complex legal and political issues that should be considered by a future ATCM.

(78) The CEP noted the information of the CEP observer to the Scientific Committee of CCAMLR, particularly the information relating to the continued high levels of IUU fishing and associated mortality of seabirds.

(79) Spain and Chile submitted a draft Resolution on "Support for the Agreement on the Conservation of Albatrosses and Petrels", which was also co-sponsored by Australia, New Zealand, Russia, South Africa and the United Kingdom. After the introduction of some modifications, the Meeting adopted Resolution 4 (2003) reproduced in Annex C.

(80) The ATCM accepted the CEP recommendation that the CEP VII draft agenda remain the same as that for CEP VI.

(81) The Meeting expressed its appreciation and thanks to the CEP and its Chairman for the Report.

Item 7: The question of Liability as referred to in Article 16 of the Protocol.

(82) The meeting of the WG on Liability was chaired by Don MacKay (New Zealand). In opening, the Chair referred to his letter to delegates of 30 April 2003 and revised personal draft attached thereto (WP-33) as well as papers prepared by COMNAP addressing worst and less than worst case scenarios (WP-9) and by IAATO concerning insurance of tourist vessels (IP- 85). In referring to these documents, the Chair proposed that the meeting first focus on insurance and financial limits on compensation, noting that the COMNAP and IAATO papers would be useful in this regard. The Chair further advised the meeting that Lloyd Watkins, the Secretary of the International Group of the P&I Club through which constituent P&I Clubs pool larger insurance risks, had accepted an invitation to address the WG on 18th June.

(83) The Chair emphasised that all previous papers also remained before the meeting, and that while some articles were now well developed, nothing was finally agreed until everything was agreed.

(84) Several delegations noted the time constraints facing the Liability WG at the current meeting. The Chair acknowledged the limited time available at this meeting, but expressed the hope that more time would be made available in the

first week of the next meeting to avoid concurrent work on liability and other legal and institutional matters.

(85) COMNAP then introduced WP-9 emphasing that its content represented the experience of national Antarctic operators. COMNAP drew attention to its use of a new parameter called "environmental significance" which took account of the likelihood of the occurrence of harm, the severity of harm and capacity to take response action. COMNAP stressed that its analysis was not a quantitative exercise as particular weightings had been attributed to different characteristics of the parameter.

(86) In respect of sea-based emergencies, the paper identified as a worst case the foundering of a vessel and releasing fuel in a way that impacted on an environmentally sensitive area where response action is not possible. COMNAP provided information on the cost of response action from an historical incident that was of the worst case category which suggested costs would lie the order of $US10 million. In respect of land based emergencies, the worst case scenario was exemplified by the unplanned introduction of contaminants into pristine ecosystems where response action was not possible. COMNAP calculated that the clean up cost of a representative land based worst case incident where response action was possible, was likely to lie in the order of $US3 million.

(87) COMNAP noted that in assessing environmental significance of scenarios, some less than worst case scenarios ranked higher than worst case scenarios. This result was a function of the semi-quantitative nature of the parameter, and the somewhat artificial division between the two types of scenario. In the case of shipping and air activity, where COMNAP was able to draw on the experience of its membership, the paper addressed both occurrence of incidents and their cost. Estimates of the volume of shipping activity were based on a poll of COMNAP membership. Few serious incidents were reported with respect to ships over the survey period. Two ships were lost, only one of which caused environmental damage. The largest aircraft incident, involving the crash of a tourist DC 10 aircraft, did not result in a significant environmental emergency, since the impact on the environment was transitory. COMNAP noted the small number of incidents and urged caution in consideration of probability figures provided in respect of maritime and aviation activities.

(88) In response to questions concerning the extent to which the COMNAP estimates of $US 10 million and US$3 million could be taken as maximum anticipated costs associated with sea and land based environmental incidents respectively, COMNAP commented that the former estimate reflected the actual costs of responding to the (sole) historical incident that fell into the worst-case category. COMNAP added that it considered that marine incident to be very similar to the worst case incident of environmental harm that might occur at present, as measured by the environmental impact index introduced in WP-9. The cost of responding to worst case land based incidents was derived form a particular scenario, which COMNAP said was broadly representative of a range of incidents.

(89) A number of delegations spoke to register appreciation for the work done by COMNAP. Some referred to the utility of considering the coverage of other liability regimes.

(90) In response to questions from the group, COMNAP noted that although analysis of sea based emergencies was based on historical data, including records of the cost of clean up and response, factors that should be considered in establishing absolute maximum costs, should in COMNAP's view, take account of the operation of increasingly large ships by national operators, but also the fact operators were now more experienced in developing emergency response plans. For land based emergencies, there had been no historical worst case scenario. COMNAP had analysed the clean up costs of serious rather than worst case scenarios.

(91) Mr Lloyd Watkins, Secretary of the International Group of P&I Clubs addressed the group, explaining the structure and composition of the P&I Clubs and noting the mutuality and indemnity functions they serve.

(92) Mr Watkins gave an overview of the operation of the International Convention on Civil Liability for Oil Pollution Damage 1969 as amended by the Protocol of 1992 (CLC), noting its focus on the registered owner of the vessel concerned as the repository of liability and the obligation which the Convention required to be imposed on that owner to take out liability insurance. Mr Watkins further advised, that when compensation claims exceeded liability under the CLC, additional compensation was paid under the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage 1971, as amended by the Protocol of 1992 (Fund Convention). Insurance coverage offered by the P&I Clubs exceeded the level of maximum liability under the CLC. The top level of liability under the CLC was 120 million. Under the Fund Convention the top level of liability was currently $US 300 million. The ceiling of the P&I Clubs' coverage was just over 4 billion dollars for general liability, and 1 billion for oil pollution liability. Provision of such coverage served strictly as a safety net. The P&I Clubs would not pay more than the actual liability incurred.

(93) Mr Watkins noted that Article II of the CLC provided that it applied to pollution damage caused, in the territory, including the territorial sea, of a Contracting State, and in the exclusive economic zone of a Contracting State and to preventive measures, wherever taken, to prevent or minimize such damage. Coverage included clean up and restoration of land areas caused by such incidents. Mr Watkins pointed out that the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 and the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996 similarly applied to impacts of pollution in the territorial sea and the EEZ.

(94) Liability under the CLC was limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken. Insurance would cover almost all liability incurred by ship owners. Exclusions were set out in Article III of the Convention, including in respect of nuclear, terrorist, war risks. Mr Watkins considered there was little likelihood that the creation of new liability

obligations in Antarctica would impact on insurance premiums. Calculation of premiums related closely to quantity and magnitude of claims rather than exposure to possible liability.

(95) Mr Watkins said that the insurance industry had assumed that some element of liability obligation in Antarctica already existed under some law, and to the extent liability existed, cover was already available. The industry would welcome clarification of the extent of liability in the new instrument.

(96) With respect to the proposed regime under the current draft Annex, Mr Watkins observed that payment for irreparable damage would be viewed as a fine and that he had reservations as to whether there would be coverage in this circumstance. In some situations, the P&I Clubs would cover payment of compensation further loss or damage caused by response action and compensation in the form of restoration of an equivalent site. Payment into a fund of an amount exceeding the cost actually incurred, which could be regarded as a fine or tax, would be problematic. Mr Watkins said that the restoration measures taken at an alternative site would need to be reasonable and there would need to be a linkage with the original incident. Execution of alternative measures by a fund, presupposed control of the implementation of such measures by the operator. Mr Watkins said he would be happy to be approached by delegations for further information.

(97) It was suggested that it would be desirable to consider ways of extending application of the IMO Conventions relating to pollution damage and compensation to the Antarctic.

(98) IAATO commented on its paper IP-85, noting that all of its member operators held adequate insurance, although some insured their vessels outside the P&I Clubs listed in the paper. Adventure tourism insurance was available. All member expeditions were required to be covered including private expeditions. Such insurance covered costs arising from response to environmental damage. IAATO determined the requisite level of coverage based on estimated worst case scenarios in respect of all individual groups going to Antarctica. Adventure Network International arranged insurance for expeditions it sponsored. Currently, coverage ranged from a minimum of $US 100 000, to a maximum of just over one million dollars.

(99) Mr René Lefeber from the Netherlands delegation reported on the outcome of intersessional email contact on a number of practical questions identified at the Working Group's meeting at the XXV ATCM in Warsaw. The Netherlands had received a substantive reply only from the US, which stated that municipal courts would determine whether prompt and effective response action should have been taken by non-State operators and to determine how much should be paid to the Environmental Protection Fund. The US did not support conferring legal capacity on the Fund to bring a legal action under the Annex. The US also thought it unnecessary for the Annex to provide for enforcement of judgments against non-State operators. Mr Lefeber had added new practical questions to list, and invited other Delegations to come up with others, but no other delegation had responded.

(100) Germany introduced WP-42 submitted by Germany, Italy, Sweden, Australia, the Netherlands, Finland, France, and Spain. The paper proposed an amendment to the Chair's text (Article 14) with the objective of establishing a comprehensive liability regime under Article 16 of the Protocol through negotiation of subsequent annexes. A number of delegations expressed support for including such a provision in the text. Others expressed difficulty with creating a binding undertaking of this nature or negotiating an additional Annex without having first reached agreement on the coverage of the current draft Annex.

(101) Francois Alabrune (France) reported on discussions of the contact group on Article 7 of the Chair's text, which he had convened. With respect to paragraph 1 of the text, the discussion revealed no objection to the substance of the draft. There appeared to be general agreement on a proposal specifying that it was the State Party which had started the response action under Article 6 (1) which could bring the action against the non-State operator. Proposals with respect to deadlines and time frames for bringing actions were also discussed.

(102) Mr Alabrune noted that with respect to paragraph 2, all three options had support from some Delegations. No consensus emerged in support of a particular option. With respect to paragraph 3, there had been one proposal to replace "ensure" with a more customary reference to the adoption by a party of rules in order to give jurisdiction to its courts. There also had been a proposal to delete "necessary". With regard to paragraph 4, the Contact Group noted the link between that paragraph and paragraph 2. At least one delegation had reservations as to the substance of paragraph 4. A number of difficulties were identified with respect to paragraph 5 (a) and (b), includig the reference to Article 6(3).

(103) With regard to the earlier discussion on financial limits for liability, the Chair noted that the figures discussed had been derived from the COMNAP presentation and therefore related only to national Antarctic programmes. No financial limits had been discussed with regard to other vessels, although the IP-85 had been extremely helpful. It was noted that some of the very large vessels had the potential to create considerably greater environmental emergencies –i.e. the leakage of significant heavy bunker oil – than Antarctic programme's vessels.

(104) It had been clear, however, from the P&I presentation and the IAATO working paper, that most, if not all, tourist vessels (and indeed some Antarctic programme vessels) carry liability insurance in respect of oil pollution damage. In the Antarctic context, therefore, the insurance appears to exist but not a regime that creates a legal liability for which insurance can be triggered. The limit of liability for such vessels might perhaps be the limit of the insurance cover. The Chair, therefore, proposed to talk informally to P&I and other relevant bodies during the intersessional period to see if and how the benefits of that insurance cover might be derived for such vessels under the draft Annex. If we were able to have the same level of oil pollution insurance cover in respect of Antarctica as applied in the rest of the world, this would be a significant advance for the protection of the Antarctic environment. Such discussions would be for

the purpose of obtaining additional information which would be conveyed to delegations.

(105) While not disagreeing with the Chair's proposal, some delegations expressed concern that there should not be an attempt to replicate other conventions such as the CLC or Fund Convention in the Antarctic context, and also noted that the regime being negotiated would have to be the work of the Consultative Parties themselves.

(106) There was then discussion of the revised language of the Chair's text in Article 6 (2), but no clear consensus emerged.

(107) With regard to Article 6 (3), a number of delegations expressed serious reservations regarding this approach. Some were, however, supportive of the elements in sub-paragraphs (i), (ii) and (iii) for inclusion in a liability regime. Additional questions were raised regarding the working of the Environmental Protection Fund. One delegation recalled the relationship between Articles 7, 6 and 5(2). When prompt and effective repose action was not taken by the operator, the Party of that operator, in all circumstances, should be given priority to endeavour to take such action. The issue of other Parties "stepping in" required further consideration.

(108) The Chair said that the original objective of Article 6(3) of the draft had been to broaden out response action to something more comprehensive so as to try to avoid the need for a protracted second step of negotiations on a further Annex. The Chair observed that many delegations' comments, including those made the previous day, had indicated difficulty with this concept, and that the inclusion of an Article 6(3) would not remove their need for a further annex under the step by step approach. Article 6(3) had been conceived as a means of solving rather than creating a problem. If it was going to create problems, a great deal of time should not be spent on including it.

(109) In summary, the Chair remarked that the WG had conducted a constructive and beneficial discussion. Textual elements had been usefully considered, particularly in respect of Article 7, which was one of the keys to an effective liability Annex, and also in relation to some other Articles. More importantly, the Group had engaged in significant policy discussion, addressing some elements of the liability regime in any detail for the first time. The Chair drew attention to the Group's consideration of figures, albeit tentatively, as possible limits for liability. This had helped to put the Group's legal discussion into a practical context. The Chair undertook to follow up questions relating to liabilty coverage of insured vessels during the intersessional period and to pass such information onto delegates once received.

(110) The Chair observed that the discussions on the Liability Annex were approaching their final stage, as was evident from the fact that discussion of figures had taken place. The Chair's personal objective was to conclude negotiation of the Annex within the next two ATCMs. He urged delegations to come to Capetown with instructions on the basis of which they could negotiate outstanding issues. Delegations needed to be prepared to compromise and to find consensus. Delegations also needed to pursue a real outcome that would protect the Antarctic environment.

Item 8: Safety of Operations in Antarctica.

(111) The United Kingdom introduced WP-4 on "Antarctic Shipping Guidelines". The U.K. noted that COMNAP had already undertaken a technical review of the IMO's draft "Guidelines for Ships Operating in Artic Ice-covered Waters" (XXV ATCM IP-40) and suggested that COMNAP be asked to examine the final version of the IMO Artic Shipping Guidelines and report back to the ATCM. Chile, Russia and the U.K. also considered that the ATCM should, based on COMNAP's advice, adopt Antarctic Shipping Guidelines, in a modified form to suit Antarctic conditions by means of a Decision of the ATCM. Such Guidelines when adopted should then be transmitted to the IMO for their consideration with a view to their adoption by that body, so that third party-flag vessels would have to take into account the guidelines.

(112) The ATCM thanked the United Kingdom for its efforts on this issue over many years. The ATCM requested that COMNAP undertake a technical review of the "Guidelines for Ships Operating in Artic Ice-covered Waters" approved by the IMO Maritime Safety Committee at its 76 session (2-13 December 2002). The ATCM requested COMNAP to report back to the XXVII ATCM, so that there could be a further examination of the IMO Artic Shipping Guidelines to evaluate their applicability to the Antarctic. Several delegations congratulated the United Kingdom for this document.

(113) COMNAP stated that it was examining the IMO Shipping Guidelines in the Arctic, as these later would be a useful basis for its work and that it would inform about the results of this exam at the next ATCM. IAATO noted that it would provide useful comments to COMNAP on the Arctic Shipping Guidelines relevant to Antarctic operators.

(114) There was consensus about WP-4 and about the need for COMNAP to examine IMO's guidelines so that they can be applied in Antarctica. COMNAP should inform about this matter at the XXVII ATCM to recommend the exam of IMO's Shipping Guidelines and to inform about it in such Meeting.

(115) Chile introduced IP-26 on "Joint Naval Antarctic Patrol 2002-2003". This IP informed about the latest Joint Patrol conducted by Navy ships from Argentina and Chile, focused mainly on search, rescue, and recovery operations, environmental protection, and the transfer of individuals and materials among Antarctic stations following eventual requests. The cost of the operation amounted to approximately US$300,000 for each country. These activities will continue during the antarctic summer.

(116) Chile introduced IP-27 on "Integration of the Chilean and Argentine military on Antarctic matters", referred to the 2002 agreement between the two countries, which increases safety for the Antarctic community as a whole and the exchange of information on stations and routes and of station maintenance experts.

(117) At the request of the United Kingdom, WP-37 on "Advice to Mariners and Vessel Operators on the Environmental Protocol's Obligations" was examined in this item of the Agenda because it dealt with an operational matter.

As a result of the debates, ATCM adopted Resolution 1 (2003), which is included at Annex C.

Item 9: Relevance of developments in the Arctic and the Antarctic.

(118) The representative of the Arctic Council opened the debate and expressed that the aim of this forum is focused on the sustainable development of the Arctic, on environmental monitoring, and on the identification of pollution risks both through activities and a dialogue that involve national governments, regional authorities, indigenous peoples, and civil society in a region with a population of 4 million people. The Arctic Council representative stressed the need to increase cooperation on a regional basis and with other international organizations. The Arctic Council's work is a useful reference for the Antarctic region as well, in spite of the differences between the two poles. Several delegations welcomed this intervention and stressed the importance of the cooperation and comparison between both regions on scientific, logistic and environmental issues. The extensive ongoing research on climate change was noted as one area of special importance for comparative studies.

(119) Spain introduced IP-14 on "Antarctica and sustainable development: Spain's position", where it stressed the importance of the relation between sustainable development and the Antarctica. Spain also backed the pertinence of strengthening the links between the Treaty and other international fora.

(120) Spain introduced IP-66 on "Implementation of the Action Plan of the World Summit for Sustainable Development in the framework of the Antarctic Treaty and of the Madrid Protocol".

(121) Russia pointed out that the two main areas of cooperation between the Arctic and Antarctic regions were science and environment. Canada and Argentina shared this view. An example of bipolar cooperation was the celebration of the Arctic Science Summit Week in Kiruna in Northern Sweden in April 2003. ASOC recalled that there are differences between the two poles. Economic and social development is not critical in Antarctica, where environmental protection is a priority.

(122) The Russian Federation introduced IP-19. On the basis of this document the ATCM analyzed the way item "Relevance of Developments in the Arctic and the Antarctic" should be considered in future summits' agendas. An agreement was reached to consider this item of the agenda in the XXVII ATCM under the title "Relevance of developments in the Arctic and the Antarctic and the International Polar Year (IPY) 2007/2008".

(123) The Republic of Korea introduced IP-108 on "The first field activities at the Korean Arctic Facility" concerning its Arctic research program, which is focused on marine biology and climate change, as well as comparative studies with Antarctic regions. Korea is using two spectrometers to study the dynamics of the upper atmosphere in collaboration with British Antarctic Survey. This constitutes another example of Arctic-Antarctic interaction and international cooperation in this area.

(124) Japan introduced IP-112 on "Arctic studies by the National Institute of Polar Research". This IP reports on Japan's activities in the Arctic and their relevance to Antarctica. These activities are conducted with the support of Norway and other countries.

(125) The Russian Federation submitted IP-123 on "Third International Polar Year Initiative" which refers to the adoption by the XIV WMO Congress of Resolution 9 1/3 (Cg-XIV), that approved the idea of holding a third IPY in 2007-2008.

(126) SCAR introduced IP-120 on "International Polar Year (IPY) 2007-2008". The IPY will provide an opportunity to galvanize ongoing programs and promote new activities in polar regions. Moreover, SCAR pointed out that the International Council for Science has established a planning group charged with developing a concept for the IPY and a work plan. The United Kingdom, Russia, Chile, France, the United States, New Zealand, Canada, Norway and the Netherlands agreed on the need to adopt a resolution to support SCAR's efforts in this area.

(127) Australia and Canada understood that paragraph 4 of the IP provided a basis for IPY preparations by the States in close cooperation with SCAR. Chile believed that this IP provided a new framework for the Parties' work. Even though there were political and legal differences between the two Poles, there was also a strong interdependence which demanded a global approach to scientific and environmental matters.

(128) The ATCM adopted Resolution 2 (2003) on "Support of the ATCM for the International Polar Year 2007/8", reproduced in Annex C.

Item 10: Tourism and Non-Governmental Activities in the Antarctic Treaty Area.

(129) - On the basis of the discussions held at Warsaw (2002), France introduced a synthesis of the work carried out on tourism matters by the informal Group (IP-12 on "Report of the Informal Intersessional Group on Tourism Activities in Antarctica") and presented their document WP-29 on "Usefulness of an Intersessional Working Group on the Adoption of a Regulation on Tourism Activities in Antarctica".

- Australia introduced WP-13 on "Management of Antarctic Non-Government Activities", which contains draft proposals related to the setting up of a database and to adventure tourism.
- United Kingdom introduced WP-23 on "Proposals to improve the Management and Regulation of Antarctic Tourism".
- COMNAP intoduced IP-37 on "The Interaction Between National Operators, Tourists and Tourism Operators".
- United Kingdom introduced WP-26 on "Proposed Amendment of Recommendation XVIII-1 (1994)".

(130) During the debate, some Delegations felt that the current legal framework in place did not enable the Consultative Parties to regulate tourism

activities effectively, particularly in the area of safety. Some Delegations stated that tourism activities were legitimate and that their regulation and management should be achieved through effective implementation of existing legal instruments.

(131) Several delegations underlined the high importance they attached to the issue of tourism and the need to have a comprehensive discussion in a separate WG. It was also proposed to create an intersessional WG on Tourism and other Non-Governmental Activities in Antarctica with a clear mandate, in order to prepare discussions at the XXVII ATCM.

(132) Some delegations mentioned the need to have safety regulations. In that respect, insurance was another issue raised during the session.

(133) Certain Delegations preferred a more legal approach in order to know whether binding regulations or optional guidelines were needed for regulating the activity of operators.

(134) Some delegations questioned whether a new legal instrument was necessary for a targeted and efficient approach to these issues. In this respect, options appeared to be: i) the elaboration of a new Protocol on Tourism, ii) the elaboration of a new Annex to the Madrid Protocol, iii) the adoption of a specific Measure, iv) The use and review of the existing guidelines on tourism activities.

(135) IAATO intorduced IP-78 on "Annual Report of the International Association of Antarctica Tour Operators (IAATO) 2003 Under Article III (2) of the Antarctic Treaty", and briefly introduced IP-72 on "IAATO Site Specific Guidelines 2003". Following a question addressed by the Chairman, IAATO quoted its IP-71 on "IAATO Overview of Antarctic Tourism" in order to stress that, since 1999, there had been no drastic acceleration of tourist activities in Antarctica. IAATO noted the submission of IPs-69, 70, 95 and 96. Those IPs were aimed to provide useful information. The ATCM thanked IAATO and welcomed the extensive and valuable information contained in these papers, and noted its contributions to managing Antarctic tourism.

(136) ASOC referred to two papers (IP-64 and IP-65 already treated in a previous session) and presented two other papers: IP-44 on "Port State Control" and IP-67 on "Regulating Commercial Tourism in Antarctica: The Policy Issues".

(137) Database: According to some Delegations, Parties have relied so far on the data supplied by IAATO and the US National Science Foundation, but now it is a priority for the Parties to have their own centralized database. However, some Delegations considered premature to assign this task to the future Permanent Secretariat. Australia offered its assistance for the development of the information database (Annex A of WP-13, containing a Project of Resolution on the issue of creating a database on tourism and non-government activities). In that sense, IAATO informed the Meeting that it had been compiling data on Antarctic tourism in view of preparing a database to be submitted to the Parties at the XXVII ATCM. There were no initial objections to

the creation of a centralized database on tourism. However, a Delegation felt it would imply more bureaucracy, especially as it thought that the current information system worked well. Other Delegations underlined the extra work that it might require. All Delegations welcomed the idea of creating a Working Group or Contact Group on the principle of a database. Note was taken of Australia's proposal of taking a leading role in such a group with the mandate to consider the objective and operation of the database, and its relations to the tasks assigned to the Secretariat.

(138) Guidelines: There was active discussion on the legal instruments which could be used for tourism issues: Several Delegations proposed to analyze the list of guidelines presented by IAATO (IP-72) and by Australia in WP-13 on "Management of Antarctic Non-Governement Activities". There was general agreement on the need for further deliberation concerning guidelines.

(139) Safety: Delegations expressed the need to tackle safety issues and identify the regime applicable to adventure tourism and general tourism. The navigation safety was included in this concern, since the rules issued by IMO did not cover all the difficulties met in the Antarctic context.

(140) Spain informed on the current Spanish legislation for the regulation of whale watching observation (Royal Decree, 178/2000) that could be used as benchmark for future consideration.

(141) A debate was held on the kind of activities that should fall under any legal framework regulating tourism. A distinction was suggested between commercial tourism and adventure tourism. Some Delegations launched a debate on what should be meant by "adventure tourism".

(142) On request of the Chairman, three contact groups were set up in order to report back to the meeting as a basis for a possible intersessional WG:

a) A Contact Group to deal with the tourism database issue, led by the United Kingdom.
b) A Contact Group focused on guidelines for sites and other questions related to this topic, led by Australia.
c) A Contact Group on adventure tourism, led by Spain

(143) Key issues raised in the Contact Group a) were the following:

- Avoid duplication and extra burdensome bureaucracy. Need to build on existing information (e.g. Annual Exchange of Information). Parties need to be reminded of their existing obligations.
- Need to consider carefully what information was required. Some information reporting was mandatory (e.g. Annual Exchange), whilst other information reporting was voluntary (e.g. Tourist Post-Visit Site Reports).
- Learn the lessons from similar database already in existence (US-NSF, IAATO). Use new computer technology to link databases and so avoid double-entry of data.
- The ATCM needed its own database and should not rely on others

- In the long-term, the Antarctic Treaty Secretariat should take on the task straight away. ATCPs had already agreed to a central web-site – InfoAntarctica- hosted by Argentina, and to provide their Annual Exchange of Information to this site.
- If a Party in the short-term developed a database should be easy to transfer to the Secretariat.

(144) On recommendation of the Contact Group on database development, the ATCM agreed that an Intersessional Contact Group should examine the development of an Antarctic Treaty System database on non-government activities.

The ICG will have the following Terms of Reference:

- ⇨ Define the specific information that a database on non-government activities would be needed to provide.
- ⇨ Examine the capacity of existing data sources and databases to provide the information needed, and identify any gaps in the information currently available.
- ⇨ Determine whether and how a prototype database could be developed.
- ⇨ Report back to the next XXVII ATCM or to the Group of Experts on Tourism in 2004.

Australia has kindly offered to act as the Coordinator of the ICG.

The Meeting agreed that it was important to encourage the full participation of Parties in the ICG, and that IAATO, COMNAP and SCAR be invited to join the ICG because of their expertise in developing database.

(145) The Contact Group b) on Site-Specific guidelines focused its activities on WP-26, submitted by the United Kingdom on "Proposed Ammendments of Recommendation Xviii-1 (1994)" as a vehicle for introducing Site-Specific Guidelines into reality. The paper presented some model Site-Specific Guidelines as examples of how such Guidelines might look. After discussions, most members of the Contact Group supported the principle of Site-Specific Guidelines as an effective means of providing guidance for tour operators, and environmental protection for localities that are already used by tourists, recognizing the relative speed with which their provisions can become effective. It considered the utility of Annex V provisions for protection but noted that ASMAs and ASPAs would be effective only where "on site" management was possible. For most sites visited by tourists this was not possible. The Group noted the "soft law" approach that Guidelines would take, but saw this as an effective means to establish the concept at an early stage. The Group concentrated on environmental values of sites visited by tourists but noted that a system of Site-Specific Guidelines could be extended later to incorporate other types of values (eg science, wilderness). The Group also considered what type of vehicle might be best for introducing Site-Specific Guidelines whether through a modification of Resolution XVIII-I (1994) or through a new, stand-alone Resolution. The views of Group members diverged on this point.

(146) The ATCM agreed on the following:

1. WP-26 (UK) should be referred to the Institutional Matters WG for comment and advice about the best mechanism for the introduction of Site-Specific Guidelines (either through a modification to Resolution XVIII-I (1994) or through a new, stand-alone Resolution).

2. WP-26 (UK) should also be referred to CEP VII for comments on
   a. The format and scope of Site-Specific Guidelines, using the models presented by the UK as a starting point.
   b. A system for prioritization of sites for inclusion within the list of those for which Guidelines are developed.
   c. The timescale for the development and finalization of Site-Specific Guidelines.

(147) It was noted that CEP might wish to seek advice on these matters from experts and observers.

(148) The Contact Group c) discussed the concept of "adventure tourism", even though some delegations considered that it was extremely difficult to draw a distinction between what might be considered adventure tourism or tourism in general. Some characteristics ascribed to adventure tourism were its high risk and the autonomy of the participants. Two main implications of adventure tourism were underlined:

- Safety for those practices, which implied risks, and possible rescue operations by national operators.
- Environmental impact.

(149) Several delegations agreed on the need of discouraging and not giving support to these risky activities even in the framework of the ATS. It would be necessary to make the difference between responsible and irresponsible tourist activities, discouraging the later.

(150) The issue of permits was discussed. It was noted that for some Delegations permits were not compulsory for these adventure expeditions. A proposal concerning a "check list" of specific obligations was made in WP-13. The key point would be to make them compulsory and not merely voluntary. There was a concern that, while it was possible to make regulations in terms of environmental impact, issues such as risk and insurance had no legal backing. Some Delegations suggested that a Measure be adopted to address these issues.

(151) The ATCM agreed to create a unified WG of Experts before the XXVII ACTM. Norway offered to host this meeting in March 2004. The meeting of experts should be preceded by an exchange of documents and information by email. France offered to play the role of coordinator and to centralize all information. Delegations welcomed the proposal and agreed to establish the Terms of Reference for that group of Experts, based on a draft presented by the United Kingdom. The Meeting adopted Decision 5 (2003) on "Meeting of

Experts on Tourism and Non-Governmental Activities", which is contained in Annex B.

(152) France, as coordinator of the Group, urged Delegations to provide input in their domains of interest within these Terms of Reference.

Item 11: Inspections under the Antarctic Treaty.

(153) UNEP and ASOC introduced IP-118 on "Review of Inspections Under Article 7 of the Antarctic Treaty and Article 14 of its Protocol on Environmental Protection (1959-2001)", later revised (IP-118 Rev.1). UNEP pointed out some imbalances and gaps in the stations and facilities covered by inspections and the Consultative Parties participating in inspections. ASOC recommended parties to engage in inspections of tourist sites. The ATCM thanked UNEP and ASOC for submitting IP-118 and recommended Parties planning inspections to take account of the conclusions in this paper.

Item 12: Science issues, particularly Scientific Co-operation and Facilitation.

(154) Uruguay introduced IP-3 on "Proposed Collaborative Survey of Electromagnetic Emissions", in which Uruguay informed of its carrying out a survey project around Artigas scientific station. Measurements are being taken with a magnetometer equipped with two magnetoresistive sensors. Uruguay offered its cooperation to the Parties and to International Organizations in this area.

(155) Russia introduced IP-18 on "Russian studies on the sub-glacial Lake Vostok 1995-2002", IP-20 on "Major Results of Stage 1 of Antarctic Studies and Research Subprogram Completed in 2002 under the National World Ocean Program". The Program consists of five areas: fundamental scientific research, scientific and applied research and development activities, environmental monitoring, environmental protection and logistic support of research. The most interesting result have been obtained under the projects on Modern Trends in Antarctic Climate Variability, and Studies on Sub-glacial Lake Vostok.

(156) Chile introduced IP-28 on "Reform of the O'Higgins Base" which shows that the aim of the reform of the O'Higgins base has been to contribute to advance the development of scientific research.

(157) Romania introduced IP-61 on "Romanian scientific Antarctic Activities in cooperation with China", in which describes the projects carried out in cooperation with China in different fields such as biology and climate change. Australia underscored the positive effects of this cooperation and showed its interest in being informed of future developments of these projects.

(158) Australia introduced IP-35 on "Prince Charles Mountain Expedition of Germany and Australia". Germany expressed its satisfaction with this fruitful project of cooperation. Not only costs were shared, but also a transfer of scientific knowledge was made. ASOC warned about the necessity of avoiding duplicity of activities and encouraged countries to strengthen their cooperation efforts in this field.

(159) SCAR introduced two IPs simultaneously: IP-101 on "Biological Responses to Temperature Change in Antarctic Marine System" and IP 102 on "Predicting the state of the Southern Ocean during the 21st Century". These documents underscored the crucial role that Antarctica plays for the knowledge of global phenomena.

(160) The Republic of Korea introduced IP-109 on "Cooperation with Other Parties in Science and Related Activities during the 2002-2003". This IP dealt with the cooperation with other countries such as Chile, France and Italy, and the logistic support offered by Chile, Uruguay and China. This later country thanked Chile and Uruguay, as well as Australia for its transport facilities.

(161) Chile introduced IP-119 on "Aerial Exploration of the Glaciers in Amundsen Sea and in the Antarctic Peninsula". The outcome of this study, which will be presented in the near future, will be crucial for the knowledge of glaciers worldwide.

Item 13: Operational issues.

(162) Russia introduced IP-22 on "Snow-Ice Runway at the Russian Novolazarevskaya Station (Queen Maud Land)". Russia underlined the logistical importance of this runway for intercontinental flights and for flights between stations, as well as for improving safety conditions and scientific research. Germany has cooperated in order to improve the access to this area and wishes to continue this cooperation with national operators in the region.

(163) Chile introduced IP-30 on "Economic effects in Rescue Operations". Chile highlighted the increase of rescue operations of people who are not related to activities developed by national programs. Chile also underlined the huge economic resources invested for this purpose and considered that an objective analysis of this issue would be necessary. This analysis could be led by the Liability Group. Its aim would be to reach a balance between the cost of operations and the responsibility. Norway pointed out that its national legislation demands an insurance, which could be an example for other countries.

(164) Australia introduced IP-34 on "Installation of Wind Turbines at Mawson". The IP presented is one of its renewable energy programs in Antarctica. The installation of these turbines is important for two reasons: on the one hand it implies energy saving, and on the other hand it generates clean energy. ASOC, the UK and the USA congratulate Australia for this initiative.

(165) Norway introduced IP-121 "Norway Establishes Year-round Research Activities at Troll Station, Dronning Maud Land". Norway has proceeded to upgrade this station into a winter station with a runway. The objective is to increase scientific research activities. Germany welcomed this upgrading as well as the construction of a new runway, which will increase safety in intercontinental flights.

Item 14: Cultural issues.

(166) United Kingdom introduced IP-51 on "Antarctic Waves", underlining that it is a program which is included in British education and which links Antarctica and music. Several countries congratulated the United Kingdom for this excellent initiative.

Item 15: Exchange of Information.

(167) Ukraine introduced IP-74 on "Ukraine Antarctic Scientific Research (1996-2003)". It informed the parties on the implementation of the Madrid Protocol into the Ukrainian law as well as the submitting to the Depositary Government of the application documents to become a Consultative Party of the Treaty. The Ukrainian application will be included in the agenda of the XXVII ATCM.

(168) Uruguay introduced IP-4 on "Exchange of Information in accordance with Resolution 6 (2001)". In this context, Uruguay has included Verification List A (Recommendation ATCM XIX-5) in order to facilitate the achievement of inspections and the compilation of information about the Antarctic bases.

(169) Peru introduced IP-45 on "Key Activities undertaken by Peru in Antarctic Matters during the 2002 – 2003 period".

Item 16:Preparation of the XXVII Meeting

a) Date and place of the next Meeting

(170) In accordance with the decision adopted at the XXV ATCM in Warsaw, the Meeting agreed that South Africa would be the host country of the of the next ATCM. The Delegation of South Africa informed the Meeting that the XXVII ATCM would take place in Cape Town from 24 May to 4 June 2004.

b) Invitation of International and Non-Governmental Organizations

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

c) Invitation to Third States

(172) The ATCM decided to invite Malaysia to send representatives to observe the XXVII Meeting.

(173) The ATCM also decided to invite Iceland to participate in the discussion of item 10 of the agenda of the XXVII Meeting

d) Preparation of the Agenda for XXVII ATCM

(174) The meeting approved a preliminary agenda for the XXVII ATCM, which is attached as Annex M.

e) SCAR's verbal presentation

(175) Taking into account the valuable verbal presentation made by SCAR at the XXVI ATCM, the Meeting decided to invite SCAR to make a further verbal presentation on scientific issues of relevance to the ATCM at its XXVII Meeting.

Item 17: Other Business

(176) The Meeting decided to send a message to the Stations in Antarctica. The text of the message is reproduced in Annex I.

Item 18: Adoption of the Final Report

(177) The draft Final Report was adopted by Consultative Parties on 20 June 2003.

(178) The representative of South Africa, as the host country to the XXVII ATCM, expressed on behalf of all the delegations, their heartfelt thanks for the hospitality provided by Spain and the quality of the organization of the XXVI ATCM. He invited representatives of the Parties, observers and experts to participate in the XXVII ATCM, scheduled in Cape Town for May-June 2004.

Item 19: Closing of the Meeting

(179) Mr Josep Piqué, the Minister for Science and Technology of the Kingdom of Spain, delivered the closing address to the Meeting, which is enclosed in Annex D.

The XXVI ATCM closed at 15:30 hours on 20 June 2003.

Part I Appendix 1

ATCM XXVI
Working Paper WP-041
Agenda Item 4(a)
Australia

Original: English

Procedure for the Appointment of the Executive Secretary of the Secretariat of the Antarctic Treaty

Advertisement

(i) Consultative Parties may advertise, at their own cost, the vacancy in publications and websites they consider appropriate.

Eligible Applicants

(ii) Nationals of a Consultative Party may apply for the post of Executive Secretary to their National authority, who will be responsible for forwarding applications to the Depositary Government.

Submission of Applications

(iii) Applications must be submitted electronically to the Depositary Government after written notification to the Consultative Parties of its readiness to receive them.

Receipt of Applications

(iv) The Depositary Government will notify Consultative Parties of the receipt of applications who will then notify their nationals accordingly.

Availability of Applications

(v) Each application received by the Depositary Government by 15 February 2004 shall be forwarded electronically by the Depositary Government to the Representative of each Consultative Party. Consultative Parties shall be notified in writing by the Depositary Government when the applications are being forwarded.

Ranking of Applicants

(vi) Each Consultative Party will notify the Depositary Government of it's 10 preferred candidates in order of preference, by 31 March 2004. On receipt of all Consultative Parties' preferences, the Depositary Government will aggregate individual applicants' rankings, awarding 10 points for a first preference, 9 points for a second preference etc.

Short List

(vii) The candidates with the five highest aggregate scores will be short-listed for selection. Should the application of any candidate be withdrawn, the next ranking candidate will be substituted.

Interview Process

(viii) The short-listed candidates will be notified to Consultative Parties by the Depositary Government by 15 April 2004. Consultative Parties will invite their short-listed candidates to attend an interview at the XXVII ATCM.

(ix) Travel and per diem expenses of candidates invited for final selection will be met by the applicants except where a Consultative Party pays for the costs directly. Consultative Parties are strongly urged to assume these costs.

(x) Short-listed candidates will be interviewed by those Heads of Delegation wishing to participate in the selection process at the XXVII ATCM.

(xi) The outcome of the selection process will be notified to short-listed candidates at the conclusion of the first week of the XXVII ATCM by the Chair of that meeting.

Start Date

(xii) The chosen candidate will report to the Secretariat headquarters in Buenos Aires for commencement of duties as soon as possible following their appointment, but no later than the date agreed to by the ATCM.

Draft Advertisement

EXECUTIVE SECRETARY OF THE SECRETARIAT OF THE ANTARCTIC TREATY

The Antarctic Treaty Consultative Meeting (ATCM) invites applications for the position of Executive Secretary.

The ATCM consists of 27 Consultative Parties which meet on an annual basis to consult on the application of the Antarctic Treaty. The Secretariat of the Antarctic Treaty is located in Buenos Aires, Argentina.

The Executive Secretary manages a small administrative staff to carry out the duties of the Secretariat assigned to it by the ATCM. She/he presents and manages the Secretariat's budget; organises meetings of the ATCM and performs other duties identified by the ATCM.

Selection Criteria

Applicants must have the following qualifications:

1. Experience and detailed knowledge of the operations of international, regional and/or intergovernmental organisations;

2. Familiarity with Antarctic affairs;

3. Demonstration of a high level of managerial and leadership experience and proven competence, in such areas as;

    a. the selection and supervision of professional, administrative and technical staff;

    b. the preparation of financial budgets and the management of expenditures;

    c. the organisation of meetings and provision of secretariat support for high level committees; and

    d. the oversight and management of computer services and information technology.

4. Fluency in one of the four official working languages of the ATCM (English, French, Russian or Spanish);

5. A university degree or equivalent qualification; and

6. Be a national of a Consultative Party to the Antarctic Treaty.

Salary and Allowances

The appointment will be for a term of four years with the possibility of one additional four-year appointment. The commencement salary will be $US88,762 p.a. net. No Argentine income tax will be payable on this salary, except in the case of the successful applicant being an Argentine national or permanent resident. An additional 25 % of this salary shall be paid to the successful applicant to provide for allowances and salary on-costs, such as superannuation, life and medical insurance, installation grant and repatriation allowances and child education benefits.

Interview

A short list of applicants will be drawn up by the United States Government as Depositary of the Antarctic Treaty. Interviews of the short-listed candidates will be undertaken during the XXVII ATCM to be held in Cape Town, South Africa (24 May – 4 June 2004).

Availability

The individual chosen for the post of Executive Secretary should be available to commence duties as soon as possible following appointment, and no later than the date determined by the ATCM.

Additional Information

Please consult the following website ???????? for complete information on duties, selection criteria the application process, staff regulations and other relevant documents.

Equal Employment Opportunity

The Secretariat of the Antarctic Treaty is an equal opportunity employer.

Closing Date

Applications must be received no later than 15 February 2004 and must be submitted in electronic format to ????????? (e-mail address to be provided by the Consultative Parties).

STANDARD SUMMARY APPLICATION FORM

Name:

Address:

Phone:

Fax:

Email Address:

Nationality:

University and/or Other Qualifications

(List degrees and years awarded)

Language Proficiency in English, French, Russian, Spanish

(Note level)

Professional and Management Experience

(Include additional information elaborating on this summary in resume or narrative application)

Appendix 2

INDICATIVE ESTIMATES OF THE COSTS OF THE SECRETARIAT OF THE ANTARCTIC TREATY

EXPENDITURE	USD
Salaries	
Executive Category	
Executive Secretary	110,952
Environmental Officer	77,909
Total	**188,861**
General Staff Category	
Finance / Admin Manager	23,187
Web Master / Data Manager	23,187
Documentation/Information Officer	22,393
Translators x 3	55,980
Computer Assistant	12,846
Administrative Assistant	12,846
Receptionist / Personal Assistant	10,530
Total	**160,969**
Communication	
Postage & Freight	13,000
Internet	12,500
Facsimile	6,000
Telephone	6,000
Total	**37,500**
Hire and Lease	
Computers (#1)	22,000
Maintenance of Equipment	3,000
Training	10,000
Photocopying Equipment	8,000
Total	**43,000**
ATCM Translation and Interpretation	
Interpretation (2 teams of 8 interpreters by 2 weeks)	116,000
Translation (5 persons x 19 days) (#2)	37,500
Typists (4 multilingual x 21 days) (#3)	21,800
Hire of multilingual Equipment	20,000
Hire of translation Facilities	9,000
Translation/preparation of final report	52,000
Airfares (#4)	26,000
Travel Allowance (#5)	136,500
Total	**418,800**

Travel for Secretariat Staff	
Airfares for preparatory meetings at the Host Country (two staff x 3 times) (#6)	8,400
Travel Allowance (USD250 per day x 9 days two staff) (#6)	4,500
Airfares to attend ATCM (10 staff)	14,000
Travel Allowance (USD250 per day x 21 days for 10 people)	52,500
Misc. travel for Exec Secretary to attend other forums (#7)	20,400
Total	**99,800**
Support Costs	
Auditor	6,500
Insurance	10,500
Light and Power	9,800
Printing and Copying	12,000
Stationery	10,900
Miscellaneous (#8)	5,500
Total	**55,200**
Grand Total	**1,004,130**

(#1) – Computer costs are based on CCAMLR expenditure figures (annual cost divided by number of staff) which equates roughly to USD2,000 per person.

(#2) – Five additional translators will be employed for 19 days prior to and during the meeting to supplement the three translators + coordinator (a translator also) employed on a permanent basis by the Secretariat. These figures included per diem and travel allowance costs but not airfares

(#3) – Includes the cost of per diem and travel allowance but not airfares

(#4) – Based on a return economy airfare – estimated at USD1,400 per person return. Does not include staff members employed by the Secretariat.

(#5) – Travel allowance figures are based on USD415 per person per day and includes accommodation and per diem for 16 interpreters for 14 days and 5 translators for 21 days.

(#6) In accordance with suggestions made by the Parties during the second informal meeting, two new items have been included under 'Travel for Secretariat staff' in order to provide sufficient funds to allow Secretariat staff to travel to the host country to make the necessary consultations and preparations for the ATCM.

(#7) – It is estimated that the Executive Secretary may be required to attend up to three international meetings per annum, excluding the ATCM (COMNAP, CCAMLR and possibly one other). Costs are based on an airfare of up to USD4,000 (business class), and allowances of USD200 per day for 14 days per trip.

(#8) – Miscellaneous includes items such as library books and periodicals; bank fees; representation expenses for the Executive Secretary; incidental costs of

meetings; and other minor costs not appropriately classified under other items and sub-items of expenditure.

PART II

MEASURES, DECISIONS AND RESOLUTIONS ADOPTED AT XXVI ATCM

ANNEX A

MEASURES

MEASURE 1 (2003)

SECRETARIAT OF THE ANTARCTIC TREATY

The Representatives,

Recalling the Antarctic Treaty and the Protocol on Environmental Protection to the Antarctic Treaty (the Protocol);

Recognizing the need for a secretariat to assist the Antarctic Treaty Consultative Meeting (the ATCM) and the Committee for Environmental Protection (the CEP) in performing their functions;

Recalling Decision 1 (2001) of the XXIV ATCM on the establishment of the Secretariat of the Antarctic Treaty (the Secretariat) in Buenos Aires, Argentina;

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

ARTICLE 1
Secretariat

The Secretariat shall constitute an organ of the ATCM. As such it shall be subordinated to the ATCM.

ARTICLE 2
Functions

1. The Secretariat shall perform those functions in support of the ATCM and the CEP which are entrusted to it by the ATCM.

2. Under the direction and supervision of the ATCM, the Secretariat shall, in particular:

(a) Provide, with assistance from the host government, secretariat support for meetings held under the Antarctic Treaty and the Protocol and other meetings in conjunction with the ATCM. Secretariat support shall include:
   i) Collation of information for ATCM / CEP meetings e.g. environmental impact assessments and management plans;
   ii) Preparatory work for and distribution of the meeting agendas and reports;
   iii) Translation of meeting documents;
   iv) Provision of interpretation services;
   v) Copying, organizing and distributing meeting documents; and
   vi) Assisting the ATCM, in drafting the meeting documents including the final report;

(b) Support intersessional work of the ATCM and the CEP by facilitating the exchange of information, organizing meeting facilities and providing other secretariat support as directed by the ATCM;
(c) Facilitate and coordinate communications and exchange of information amongst Parties on all exchanges required under the Antarctic Treaty and the Protocol;
(d) Under guidance from the ATCM, provide the necessary coordination and contact with other elements of the Antarctic Treaty system and other relevant international bodies and organizations as appropriate;
(e) Establish, maintain, develop and, as appropriate publish, databases relevant to the operation of the Antarctic Treaty and the Protocol;
(f) Circulate amongst the Parties any other relevant information and disseminate information on activities in Antarctica;
(g) Record, maintain and publish, as appropriate, the records of the ATCM and CEP and of other meetings convened under the Antarctic Treaty and the Protocol;
(h) Facilitate the availability of information about the Antarctic Treaty system;
(i) Prepare reports on its activities and present them to the ATCM;
(j) Assist the ATCM in reviewing the status of past Recommendations and Measures adopted under Article IX of the Antarctic Treaty;
(k) Under the guidance of the ATCM, take responsibility for maintaining and updating an Antarctic Treaty system "Handbook"; and
(l) Perform such other functions relevant to the purposes of the Antarctic Treaty and the Protocol as may be determined by the ATCM.

ARTICLE 3
Executive Secretary

1. The Secretariat shall be headed by an Executive Secretary who shall be appointed by the ATCM from among candidates who are nationals of Consultative Parties. The procedure for the selection of the Executive Secretary shall be determined by a Decision of the ATCM.

2. The Executive Secretary shall appoint staff members essential for the carrying out of the functions of the Secretariat and engage experts as appropriate. The Executive Secretary and other staff members shall serve in accordance with the procedures, terms and conditions set out in the Staff Regulations which shall be adopted by a Decision of the ATCM.

3. During the intersessional periods the Executive Secretary shall consult in a manner to be prescribed in the Rules of Procedure.

ARTICLE 4
Budget

1. The Secretariat shall operate in a cost-effective manner.

2. The budget of the Secretariat shall be approved by the Representatives of all Consultative Parties present at the ATCM.

3. Each Consultative Party shall contribute to the budget of the Secretariat. One half of the budget shall be contributed equally by all Consultative Parties. The other half of the

budget shall be contributed by the Consultative Parties based on the extent of their national Antarctic activities, taking into account their capacity to pay.

4. The method for calculating the scale of contributions is contained in Decision 1 (2003) and the Schedule attached to it. The ATCM may amend the proportion in which the abovementioned two criteria shall apply and the method for calculating the scale of contributions by means of a Decision.

5. Any Contracting Party may make a voluntary contribution at any time.

6. Financial Regulations shall be adopted by a Decision of the ATCM.

ARTICLE 5
Legal capacity and privileges and immunities

1. The legal capacity of the Secretariat as an organ of the ATCM as well as its privileges and immunities and those of the Executive Secretary and other staff members in the territory of the Argentine Republic shall be provided for in the Headquarters Agreement for the Secretariat of the Antarctic Treaty (the Headquarters Agreement) hereby adopted and annexed to this Measure, to be concluded between the ATCM and the Argentine Republic.

2. The ATCM hereby authorizes the person who holds the office of the Chair to sign the Headquarters Agreement on its behalf at the time this Measure becomes effective.

3. The Secretariat may exercise its legal capacity as provided for in Article 2 of the Headquarters Agreement only to the extent authorized by the ATCM. Within the budget approved by and in accordance with any other decision of the ATCM, the Secretariat is hereby authorized to contract, and to acquire and dispose of movable property in order to perform its functions as set out in Article 2 of this Measure.

4. The Secretariat may not acquire or dispose of immovable property or institute legal proceedings without the prior approval of the ATCM.

Annex

HEADQUARTERS AGREEMENT FOR THE SECRETARIAT OF THE ANTARCTIC TREATY

The Antarctic Treaty Consultative Meeting (ATCM) and the Argentine Republic,

Convinced of the need to strengthen the Antarctic Treaty system;

Bearing in mind the special legal and political status of Antarctica and the special responsibility of the Antarctic Treaty Consultative Parties to ensure that all activities in Antarctica are consistent with the purposes and principles of the Antarctic Treaty and its Protocol on Environmental Protection;

Having regard to Decision 1 (2001) of the XXIV ATCM and Measure 1 (2003) of the XXVI ATCM on the Secretariat of the Antarctic Treaty in Buenos Aires, Argentina;

Desiring to enable the Secretariat as an organ of the ATCM fully and efficiently to fulfill its purposes and functions; and

Desiring to define the legal capacity of the Secretariat as an organ of the ATCM as well as its privileges and immunities and those of the Executive Secretary and other staff members in the territory of the Argentine Republic;

Have agreed as follows:

Article 1 Definitions

For the purpose of this Agreement:

a) "Antarctic Treaty" or "the Treaty" means the Antarctic Treaty done at Washington on 1 December 1959;

b) "Appropriate Authorities" means the national, provincial or local authorities of the Argentine Republic in accordance with the laws of the Argentine Republic;

c) "Archives" means all correspondence, documents, manuscripts, photographs, computer data storage, films, recordings and any other records, in paper, electronic or any other form, belonging to or held by the Secretariat;

d) "Committee for Environmental Protection" or "CEP" means the Committee established under Article 11 of the Protocol;

e) "Delegates" means Representatives, Alternate Representatives, Advisers and any other persons who represent the States Parties;

f) "Executive Secretary" means the Executive Secretary appointed by the ATCM to head the Secretariat according to the instrument establishing the Secretariat;

g) "Expert" means a person engaged to perform short term or temporary projects on behalf of the Secretariat or participate in the work of or perform a mission on behalf of the Secretariat without necessarily receiving remuneration from the Secretariat, but does not include staff members;

h) "Government" means the Government of the Argentine Republic;

i) "Headquarters" means the premises, including buildings or parts of buildings and any land ancillary thereto, irrespective of ownership, occupied by the Secretariat for the performance of its Official Activities;

j) "Official Activities" means all activities undertaken pursuant to the Treaty and the Protocol including the Secretariat's administrative activities;

k) "Protocol" means the Protocol on Environmental Protection to the Antarctic Treaty done at Madrid on 4 October 1991;

l) "Secretariat" means the Secretariat of the Antarctic Treaty, established as a permanent organ of the ATCM;

m) "Staff member" means the Executive Secretary and all other persons appointed for employment with the Secretariat and subject to its Staff Regulations, but does not include persons recruited locally and assigned to hourly rates of pay; and

n) "States Parties" means the States Parties to the Antarctic Treaty.

Article 2 Legal capacity

The Secretariat as an organ of the ATCM has legal personality and capacity to perform its functions in the territory of the Argentine Republic. It has, in particular, the capacity to contract, to acquire and dispose of movable and immovable property, and to institute and be a party to legal proceedings. The Secretariat may exercise its legal capacity only to the extent authorized by the ATCM.

Article 3 Headquarters

1. The Headquarters shall be inviolable and shall be under the full authority of the Secretariat.

2. The Government shall provide premises rent-free, in Buenos Aires, suitable as the Headquarters.

3. The Government shall take all appropriate steps to protect the Headquarters against any intrusion or damage and to prevent any impairment of its dignity.

4. The Government shall arrange for the Headquarters to be supplied by the appropriate authorities with available public services, such as electricity, water, sewerage, gas, mail, telephone, telegraph, drainage, garbage collection and fire protection, on terms no less favourable than those enjoyed by diplomatic missions in Argentine Republic.

5. Through the ATCM, the Secretariat shall make known to the Government the need for any changes to the location or extent of its permanent premises or archives and of any temporary occupation of premises for the performance of its Official Activities. Where any premises other than those provided under paragraph 2 above are used or

occupied by the Secretariat for the performance of its Official Activities, such premises shall, with the concurrence of the Government, be accorded the status of official premises of the Secretariat. Where any permanent or temporary changes are made to the premises of the Secretariat in accordance with this paragraph, any additional premises occupied by the Secretariat shall not necessarily be provided by the Government rent-free.

6. Without prejudice to the terms of this Agreement, the Secretariat shall not permit the Headquarters to become a refuge from justice for persons avoiding arrest or service of legal process or against whom an order of extradition or deportation has been issued.

7. The Appropriate Authorities may enter the Headquarters to carry out their duties only with the consent of the Executive Secretary and under the conditions agreed by him/her. The Executive Secretary's consent shall be deemed to have been given in the case of fire or other exceptional emergencies which require immediate protective action.

Article 4 Immunities

1. Subject to what is provided for in the Treaty, the Protocol or this Agreement, the activities of the Secretariat in the Argentine Republic shall be governed by Argentine domestic law consistent with international law.

2. Within the scope of its Official Activities, the Secretariat as an organ of the ATCM and its property, premises and assets shall have immunity of jurisdiction in judicial and administrative proceedings except:

a) to the extent that the ATCM expressly waives such immunity;

b) in respect of any contract for the supply of goods or services and any loan or other transaction for the provision of finance and any guarantee or indemnity in respect of any such transaction or of any other financial obligation;

c) in respect of a civil action by a third party for death, damage or personal injury arising from an accident caused by a motor vehicle belonging to, or operated on behalf of, the Secretariat to the extent that compensation is not recoverable from insurance;

d) in respect of a motor vehicle offence involving a motor vehicle belonging to, or operated on behalf of, the Secretariat;

e) in the event of a claim for salaries, wages or other emoluments owed by the Secretariat;

f) in respect of a counter-claim directly connected with proceedings initiated by the Secretariat;

g) in respect of claims made on real estate situated in the Argentine Republic; and

h) in respect of actions based on the Secretariat's status as heir or beneficiary of property situated in the Argentine Republic.

3. The Secretariat's property, premises and assets shall have immunity from any form of restrictions or controls such as requisition, confiscation, expropriation or attachment. They shall also be immune from any form of administrative or judicial constraint

provided that motor vehicles belonging to or operated on behalf of the Secretariat shall not be immune from administrative or judicial constraint when temporarily necessary in connection with the prevention of, and investigation into, accidents involving such motor vehicles.

4. Nothing in this Agreement shall impair, or shall be construed as a waiver of, immunity that States enjoy in the territory of other States.

Article 5 Objective and waiver of privileges and immunities

1. Privileges and immunities provided for in this Agreement are granted to ensure the unimpeded functioning of the ATCM and the Secretariat and the complete independence of the persons to whom they are accorded. They are not granted for the personal benefit of the individuals themselves.

2. Except as provided in paragraph 3 below, the privileges and immunities provided in this Agreement may be waived by the ATCM. They should be waived in a particular case where the privilege and immunity in question would impede the course of justice and can be waived without prejudice to the purpose for which they are accorded.

3. In the case of Delegates, their privileges and immunities provided in this Agreement may be waived by the States Parties which they respectively represent.

Article 6 Archives

The Archives shall be inviolable.

Article 7 The Treaty flag and emblem

The Secretariat shall be entitled to display the Treaty flag and emblem on the premises and means of transport of the Secretariat and of the Executive Secretary.

Article 8 Exemption from direct taxes

Within the scope of its Official Activities, the Secretariat, its property, premises and assets, and its income (including contributions made to the Secretariat as the result of any agreement arrived at by the States Parties) shall be exempt from all direct taxes including income tax, capital gains tax and all State taxes. The Secretariat shall be exempt from municipal taxes with the exception of those which constitute payment for specific services rendered in accordance with paragraph 4 of Article 3 above.

Article 9 Exemption from customs and excise duties and value added tax

1. The property used by the Secretariat necessary for its Official Activities (including the ATCM publications, motor vehicles and items for official entertainment purposes) shall be exempt from all customs and excise duties.

2. The Secretariat shall be exempt from any value added tax or similar taxes for services and goods, including publications and other information material, motor vehicles and items for official entertainment purposes, if the services and goods so purchased by the Secretariat are necessary for its official use.

Article 10 Exemption from restrictions and prohibitions

Goods imported or exported for the Official Activities of the Secretariat shall be exempt from any prohibitions or restrictions applicable to such goods on grounds of national origin.

Article 11 Re-sale

Goods which have been acquired or imported by the Secretariat to which exemptions under Article 9 above apply and goods acquired or imported by the Executive Secretary or other staff members to which the exemptions under Article 16 or Article 17 below apply, shall not be given away, sold, lent, hired out or otherwise disposed of in the Argentine Republic, except under conditions agreed in advance with the Government.

Article 12 Currency and exchange

The Secretariat shall be exempt from any currency or exchange restrictions, including those in respect of funds, currency and securities received, acquired, held or disposed of. The Secretariat may also operate without restrictions bank or other accounts for its official use in any currency, and have them transferred freely within the Argentine Republic or to any other country.

Article 13 Communications

1. With regard to its official communications and the transfer of all its documents, the Secretariat shall enjoy treatment not less favourable than that generally accorded by the Government to any other government, including the latter's diplomatic mission, in the matter of priorities, rates and taxes on mails and all forms of telecommunications.

2. The Secretariat may employ any appropriate means of communication, including encrypted messages. The Government shall not impose any restriction on the official communications of the Secretariat or on the circulation of its publications.

3. The Secretariat may install and use radio transmitters with the consent of the Government.

4. Official correspondence and other official communications of the Secretariat are not subject to censorship and shall enjoy all the guarantees established by Argentine domestic law.

Article 14 Publications

The importation and exportation of the Secretariat's publications and other information material imported or exported by the Secretariat within the scope of its Official Activities shall not be restricted in any way.

Article 15 Privileges and immunities of delegates

1. Delegates of the States Parties shall enjoy, during their stay in the Argentine Republic for exercising their official functions, the privileges and immunities of diplomatic agents as established in the Vienna Convention on Diplomatic Relations of 18 April 1961.

2. The provisions of paragraph 1 above shall be applicable irrespective of the relations existing between the governments which the persons referred to represent and the

Government, and are without prejudice to any additional immunities to which such persons may be entitled in the Argentine Republic.

3. The privileges and immunities described in paragraph 1 above shall not be accorded to any delegate of the Government or to any national or permanent resident of the Argentine Republic.

4. The Government shall treat Delegates with all due respect and shall take all necessary measures to prevent encroachment on their person, freedom and dignity. Where it appears that an offence may have been committed against a Delegate, steps shall be taken in accordance with Argentine legal procedures to investigate the matter and to ensure that appropriate action is taken with respect to the prosecution of the alleged offender.

Article 16 Executive Secretary

In addition to the privileges, immunities, exemptions and facilities provided for in Article 17 below, the Executive Secretary, unless he or she is a national or a permanent resident of the Argentine Republic, shall enjoy the privileges, immunities, exemptions and facilities to which a diplomatic agent in the Argentine Republic is entitled, including privileges, immunities, exemptions and facilities in respect of the members of their family which form a part of the household, unless they are nationals or permanent residents of the Argentine Republic.

Article 17 Staff members

1. Staff members of the Secretariat:

a) shall have, even after the termination of their service with the Secretariat, immunity from suit and any other legal or administrative proceedings or judicial request in respect of acts and things done by them in the exercise of their official functions, including words written or spoken;

b) immunities set out in the sub-paragraph above shall not, however, apply in the case of a motor vehicle offence committed by such a staff member or the Executive Secretary nor in the case of civil or administrative proceedings arising out of death, damage or personal injury caused by a motor vehicle belonging to or driven by him or her to the extent that compensation is not recoverable from insurance;

c) shall be exempt from any obligations in respect of military service and all other kinds of mandatory service, unless they are nationals or permanent residents of the Argentine Republic;

d) shall be exempt from the application of laws relating to the registration of aliens and immigration;

e) unless they are nationals or permanent residents of the Argentine Republic, they shall be accorded the same exemption from currency and exchange restrictions as is accorded to an official of comparable rank from an international agency in the Argentine Republic;

f) unless they are nationals or permanent residents of the Argentine Republic, they shall when taking up their post in the Argentine Republic for the first time, be exempt from customs duties and other such charges (except payments for services) in respect

of import of furniture, motor vehicles and other personal effects in their ownership or possession or already ordered by them and intended for their personal use or for their establishment. Such goods shall be imported within six months of a staff member's first entry into the Argentine Republic but in exceptional circumstances an extension of this period shall be granted by the Government. Goods which have been acquired or imported by staff members and to which exemptions under this sub-paragraph apply shall not be given away, sold, lent, hired out, or otherwise disposed of except under conditions agreed in advance with the Government. Furniture and personal effects may be exported free of duties when leaving the Argentine Republic on the termination of the official functions of the staff member;

g) shall be exempt from all taxes on income received from the Secretariat. This exemption shall not apply to staff members who are nationals or permanent residents of the Argentine Republic;

h) shall have similar repatriation facilities as are accorded to representatives of international agencies in times of international crisis; and

i) shall have personal inviolability with respect to any form of personal arrest or detention or seizure of their personal baggage unless they are nationals or permanent residents of the Argentine Republic.

2. Privileges and immunities applicable to a staff member in accordance with sub-paragraphs c), d), e), f), h) and i) of paragraph 1 above shall also apply to the members of his or her family forming a part of the household, unless they are nationals or permanent residents in the Argentine Republic.

Article 18 Experts

In the exercise of their functions experts shall enjoy the following privileges and immunities to the extent necessary for the carrying out of their functions, including while traveling in the Argentine Republic to that effect:

a) immunity from suit and any other legal or administrative proceedings or judicial request in respect of acts and things done by them in the exercise of their official functions, including words written or spoken. This immunity shall not, however, apply in the case of a motor vehicle offence committed by such experts nor in the case of civil or administrative proceedings arising out of death, damage or personal injury caused by a motor vehicle belonging to or driven by him or her to the extent the compensation is not recoverable from insurance. Such immunity shall continue after the expert's function in relation to the Secretariat has ceased;

b) inviolability for all their official papers and documents as well as other official materials, which are related to the performance of the functions of the Secretariat;

c) unless they are nationals or permanent residents of the Argentine Republic, the same exemption from currency and exchange restrictions as is accorded to a representative of a foreign Government on a temporary mission in Argentina on behalf of that Government; and

d) unless they are nationals or permanent residents of the Argentine Republic, immunity from personal arrest and detention and from attachment of personal luggage.

Article 19 Visas

1. All persons having official business with the Secretariat, (namely Delegates and members of their families forming a part of the household, staff members of the Secretariat and any members of their families forming a part of the household, and the experts referred to in Article 18 above, shall have the right of entry into, stay in and exit from the Argentine Republic.

2. The Government shall take all measures necessary to facilitate the entry into the Argentine Republic, the sojourn on that territory and the exit therefrom of all persons mentioned in paragraph 1 above. Visas, where required, shall be granted without wait or delay, and without fee, on production of a certificate that the applicant is a person described in paragraph 1 above. In addition, the Government shall facilitate travel for such persons within the territory of the Argentine Republic.

Article 20 Cooperation

The Secretariat shall co-operate fully at all times with the appropriate Authorities in order to prevent any abuse of the privileges, immunities and facilities provided for in this Agreement. The Government reserves its sovereign right to take reasonable measures to preserve security. Nothing in this Agreement prevents the application of laws necessary for health and quarantine or, with respect to the Secretariat and its officials, laws relating to public order.

Article 21 Notification of appointments, identity cards

1. The ATCM shall notify the Government of the appointment of an Executive Secretary and the date when he or she is to take up or relinquish the post.

2. The Secretariat shall notify the Government when a staff member takes up or relinquishes his or her post or when an expert starts or finishes a project or mission.

3. The Secretariat shall twice a year send to the Government a list of all experts and staff members and the members of their families forming a part of the household in the Argentine Republic. In each case the Secretariat shall indicate whether such persons are nationals or permanent residents of the Argentine Republic.

4. The Government shall issue to all staff members and experts as soon as practicable after notification of their appointment, a card bearing the photograph of the holder and identifying him or her as a staff member or expert as the case may be. This card shall be accepted by the appropriate Authorities as evidence of identity and appointment. The members of their families forming a part of the household shall also be issued with an identity card. When the staff member or expert relinquishes his or her duties, the Secretariat shall return to the Government his or her identity card together with identity cards issued to members of his or her family forming a part of the household.

Article 22 Consultation

The Government and the Secretariat as an organ of the ATCM shall consult at the request of either of them concerning matters arising under this Agreement. If any such matter is not promptly resolved, the Secretariat shall refer it to the ATCM.

Article 23 Amendment

This Agreement may be amended by agreement between the Government and the ATCM.

Article 24 Settlement of disputes

Any dispute arising out of the interpretation or application of this Agreement shall be settled by consultation, negotiation or any other mutually acceptable method, which may include resort to binding arbitration.

Article 25 Entry into force and termination

1. This Agreement shall enter into force upon signature.

2. This Agreement may be terminated by written notification by either Party. Termination shall take effect two years after receipt of such notification unless otherwise agreed.

DONE at Madrid , on 16 June 2003 in English, French, Russian and Spanish, all of them being equally authentic.

MEASURE 2(2003)

ANTARCTIC PROTECTED AREA SYSTEM: MANAGEMENT PLANS FOR ANTARCTIC SPECIALLY PROTECTED AREAS

The Representatives,

Recalling Resolution 1 (1998) of XXIV ATCM allocating responsibility among Consultative Parties for the revision of Management Plans for protected areas;

Noting that the draft Management Plans annexed to this Measure have been endorsed by the Committee for Environmental Protection and the Scientific Committee on Antarctic Research;

Recognising that these Areas support outstanding natural features and biota of scientific interest;

Recommend that their Governments, in accordance with paragraph 1 of Article 6 of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty, approve the Management Plans, annexed to this Measure, for the following sites:

Antarctic Specially Protected Area No 105, Beaufort Island, Ross Sea;

Antarctic Specially Protected Area No 114, Northern Coronation Island, South Orkney Islands;

Antarctic Specially Protected Area No 118, Cryptogam Ridge, Mt Melbourne, North Victoria Land and summit of Mt Melbourne, North Victoria Land;

Antarctic Specially Protected Area No 135, North-East Bailey Peninsula, Budd Coast, Wilkes Land;

Antarctic Specially Protected Area No 143, Marine Plain, Mule Peninsula, Vestfold Hills, Princess Elizabeth Land;

Antarctic Specially Protected Area No 152, Western Bransfield Strait, Antarctic Peninsula;

Antarctic Specially Protected Area No 153, Eastern Dallmann Bay, Antarctic Peninsula;

Antarctic Specially Protected Area No 154, Botany Bay, Cape Geology, Victoria Land;

Antarctic Specially Protected Area No 156, Lewis Bay, Mount Erebus, Ross Island, Ross Sea;

Antarctic Specially Protected Area No 160, Frazier Islands, Wilkes Land;

Antarctic Specially Protected Area No 161, Terra Nova Bay, Ross Sea.

ANTARCTIC SPECIALLY PROTECTED AREA No 105
BEAUFORT ISLAND, ROSS SEA

In accordance with the provisions Annex V of the Protocol on Environmental Protection to the Antarctic Treaty and Resolution 1 (1998), New Zealand has initiated a review of the management plans for the following Antarctic Specially Protected Areas (ASPAs):

- ASPA 105, Beaufort Island, Ross Sea (previously SPA 5)
- ASPA 154, Botany Bay, Cape Geology, Victoria Land (previously SSSI 37). (Find text related to this Plan in list attached to Mesure 2)
- ASPA 156, Lewis Bay, Mount Erebus (previously SPA 26). (Find text related to this Plan in list attached to Mesure 2)

These ASPAs have been renamed and renumbered from previous Specially Protected Area and Site of Special Scientific Interest designations in accordance with Decision 1 (2002).

The review processes for three of the ASPAs (105, 154 and 156) have been completed and are described in this paper. Draft revised plans for these Areas are annexed to Attachment 4, a draft Measure.

The review process for ASPAs 155 and 131 revealed more complex issues and will be continued.

Introduction

Beaufort Island is protected for its penguin and skua colonies and significant vegetation. The area is one of the most important breeding grounds in the region for the birds, and because of its isolation the ecosystem is a potential reference site. Fast ice attached to the island is also included in the Area's boundaries to protect breeding Emperor penguins there. The area was first designated in 1966 (Resolution IV-5) as Specially Protected Area No. 5 and the management plan was last revised in 1997 (Measure XXI-1).

Review of Activities

In the period since the last revision of the management plan for ASPA 105, the United States has issued three permits to enter the Area and New Zealand has issued eight. Research conducted in this Area has been varied with studies carried out on Adélie penguin populations, geology, and Antarctic terrestrial biodiversity.

A recent review on literature suggests that the ecological values in the Area remain significant and unique. The avifauna is substantial and the Area is considered one of the most important breeding grounds in the region. The Adélie penguin colony population has been increasing in this Area, which is the closest colony to the ice edge, perhaps due to the harsh conditions faced by Adélie penguins at some of the other colonies in the region.

No significant management activity has been undertaken for this Area. This level of activity is considered appropriate due to the low use of the Area over this period and the

sensitivity of some areas to visitation. The continued low levels of shipping in the region combined with the isolation of Beaufort Island makes the installation of boundary markers and signs unnecessary.

Consultation with the Science Community

New Zealand researchers known to have worked in the Area since its designation were contacted to gauge whether information in the management plan was still current and whether the values identified had changed since the last revision. In general, the values of the Area were considered more than sufficient to warrant protection.

Proposed Revision

The Management Plan text has been modified slightly.

The major changes include:

Section: 3. Management activities

Added:

- A map showing the location of the Area (stating the special restrictions that apply) shall be displayed prominently and copies of the Management Plan shall be made available at Scott Base (NZ).

Section: 7. Permit conditions

Added:

- it is issued for essential management purposes consistent with plan objectives such as inspection or review;
- the appropriate authority should be notified of any activities/measures undertaken that were not included in the authorized Permit.

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

Changed:

The helicopter coordinates have been modified to reflect those shown on the maps - 166° 52' 31" E, 76° 55' 49" S: Maps A-C and Figure 1.

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

Added:
Permanent installations are prohibited.

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

Expanded.

The Adélie colony numbers have been updated.

The maps and figures have been updated to reflect the new naming and numbering system under Annex V.

A bibliography of relevant literature (see below) has also been added to the management plan.

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ANTARCTIC SPECIALLY PROTECTED AREA (ASPA) NO. 105 BEAUFORT ISLAND, McMURDO SOUND, ROSS SEA

1. Description of values to be protected

Beaufort Island was originally designated in Recommendation IV-5 (1966, as Specially Protected Area No. 5) after a proposal by New Zealand on the grounds that it "contains substantial and varied avifauna, that it is one of the most important breeding grounds in the region, and that it should be protected to preserve the natural ecological system as a reference area". The Area has been set aside primarily to protect the site's ecological values and these reasons for long-term special protection still apply.

The island comprises a variety of terrain and habitats: gently sloping ice-free ground with summer ponds and small meltwater streams draining to the coast; moderately sloping ice fields covering much of the west side of the island; and steep, rugged cliffs on the eastern slopes. Recent investigations indicate the avifauna is not as varied as first thought, but there exists a large Adélie penguin (*Pygoscelis adeliae*) colony, a small breeding colony of Emperor penguins (*Aptenodytes forsteri*), and several breeding colonies of South polar skua (*Catharacta maccormicki*). The boundaries of the Area, which previously excluded the Emperor colony, have been extended to include fast-ice occupied by breeding birds.

Site visits in January 1995 and 1997 discovered and described a significant area of vegetation previously unrecorded on an ice-cored moraine bench of up to 50 m wide and 5–7 metres above the beach on the north of the island. The vegetation is exceptional both in its quantity and quality, and is the most extensive, continuous area of mosses yet known for the McMurdo Sound region. Although the area is extensive (approximately 2.5 ha), the moss community is dominated by a single species, *Bryum argenteum*: the essentially monospecific character of the site is also unique. The site enjoys warm summer temperatures because of its northerly aspect and shelter from southerly winds by high ice cliffs. The local microclimate, stability of the substrate and supply of water from the nearby ice-cliffs and snow banks are favourable for vegetation growth. As a result there is also a diverse community of algae, and while a detailed algal survey has not yet been undertaken, *Prasiola crispa* is particularly abundant throughout the site, together with a number of unicellular chlorophytes and xanthophytes (including *Botrydiopsis* and *Pseudococcomyxa*), and cyanobacteria (particularly scillatorians) mixed with the *Prasiola*. Green snow algae, a mixture of *Chloromonas* and *Klebsormidium*, are present as well as the red snow algae *Chlamydomonas* sp., *Chloromonas* sp., and *Chlamydomonas nivalis*. This represents one of the most southerly locations where red snow algae have been observed. The exceptional plant communities at this site are fragile and vulnerable to disturbance and destruction by trampling, sampling and/or through foreign introductions. Conservation of the ecological and scientific values of this community are important reasons for special protection at Beaufort Island.

As an isolated island difficult of access, the site is known to have been visited only infrequently. Beaufort Island has not been comprehensively studied or documented but is largely undisturbed by direct human activity. In particular, Beaufort Island has been exposed to fewer opportunities for direct exotic biological introductions than many other sites in the Ross Sea. The ecological, scientific and aesthetic values derived from the isolation and relatively low level of human impact are important reasons for special protection at Beaufort Island.

2. Aims and objectives

Management at Beaufort Island aims to:

- avoid degradation of, or substantial risk to, the values of the Area by preventing unnecessary human disturbance to the Area;
- preserve the natural ecosystem as a reference area largely undisturbed by direct human activities;
- allow scientific research on the natural ecosystems, plant communities, avifauna and soils in the Area provided it is for compelling reasons which cannot be served elsewhere;
- minimise human disturbance to plant communities by preventing unnecessary sampling;
- minimise 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 are to be undertaken to protect the values of the Area:

- A map showing the location of the Area (stating the special restrictions that apply) shall be displayed prominently and copies of the Management Plan shall be made available at Scott Base (NZ).
- 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 to assess whether the Area continues to serve the purposes for which it was designated and to ensure management and maintenance measures are adequate.
- National Antarctic Programmes operating in the region shall consult together with a view to ensuring these steps are carried out.

4. Period of designation

Designated for an indefinite period.

5. Maps and photographs

Map A: Beaufort Island regional topographic map. The map is derived from the orthophotograph in Map B, using Map B specifications. Inset: McMurdo Sound, showing Ross Island and the location of McMurdo Station (US) and Scott Base (NZ).

Map B: Beaufort Island regional orthophotograph. Orthophotograph specifications: Projection: Lambert conformal conic; Standard parallels: 1st 76° 40' 00" S; 2nd 79° 20' 00"S; Central Meridian: 167° 00' 00" E; Latitude of Origin: 78° 01' 16.211" S.
Spheroid: WGS84. The original orthophotograph was prepared at 1:5000 with a positional accuracy of ±2.5 m (horizontal and vertical) with an on-ground pixel resolution of 1 m. Photography: USGS/DoSLI (SN7850) 22 November 1993.

Map C: North Beaufort Island site orthophotograph. Specifications are the same as in Map B. The site of rich vegetation is indicated by hachures. The precise area of fast-ice occupied by breeding Emperor penguins is subject to variation both seasonally and inter-annually.

Map D: South Beaufort Island site orthophotograph. Specifications are the same as in Map B.

Figure 1: Perspective view of Beaufort Island from an elevation of 225 m, 900 m out from the preferred Helicopter Pad at an azimuth of 300° W.

6. Description of the Area

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

The designated Area encompasses the whole of Beaufort Island (76°59'S, 167°00'E Map A) above the mean high water mark, and includes adjacent fast-ice occupied by breeding Emperor penguins. The 7 km by 3.2 km island rises to 771 m at Paton Peak. The west side of the island is predominantly an ice field with ice cliffs of about 20 m on the coast, while the east and south sides of the island are largely ice-free, with steep and inaccessible cliffs rising straight from the sea. In view of the isolation of Beaufort Island and the current low levels of shipping activity in the region, boundary markers and signs have not been installed to mark the Area: the need for marking should be re-evaluated at each management plan review.

Beaufort Island is one of a series of late Tertiary volcanic vents that developed along a line of weakness in the Ross Sea floor. The geology is typical of an eroded, sub-aerially produced basaltic complex, with lava flows and explosion breccias and tuffs evident. Many of the volcanic rocks have been intruded by a series of late stage basaltic dikes, and there is evidence of layered ash-fall tuffs and welded spatter flows from local subsidiary cinder and spatter cones. Cadwalader Beach comprises a beach foreland and cuspate spit, backed by steep basaltic cliffs and several talus cones. A series of beach ridges, which are generally occupied by the breeding penguins, have trapped meltwater ponds and mark the growth of the beach face away from the cliffs with time. A series of raised beaches is evident at the northeastern end of the island, some with evidence (quills and guano) of former and apparently substantial penguin colonies. Sub-tidal (abrasion) platforms and massive boulders are found below the highly weathered eastern and southern cliffs.

An Adélie colony occupies the flat area at Cadwalader Beach (Map D). The number of Adelie penguins breeding on Beaufort Island peaked at 53,733 pairs in 1986. Since then the population has ranged from 23,512 breeding pairs (in 1998) to 45,768 (in 1987). Above the steep cliffs that rise behind the colony, a population of skuas (numbers unknown) nest on more gentle ice-free slopes at the edge of the permanent ice field on the west flank of the island. This ice field is punctuated mid-way by a 2 km line of rocky outcrops at an elevation of approximately 200 m. In the north the ice field broadens into an extensive flat area of less than 50 m elevation, NE of which extends an ice-free beach about 1000 m in length and 50 m wide (Map C). In January 1995 a newly-established, possibly transitory, colony of Adélie penguins (comprising 2 pairs with 3 chicks and a approximately 10-15 non-breeders) occupied the west end of this beach. Above the beach, a raised ice-cored moraine terrace (5–20 m elevation, ranging from 2-3 metres wide over most of its length but broadening to 20-50 metres at its eastern end) extends for 550 m before rising more steeply toward the unstable basaltic cliffs which persist around the entire eastern side of the island. At least three sub-fossil penguin colony deposits have been identified within the moraine terrace, each layer vertically separated by around 50–100 cm of gravels and sand, suggesting this part of the island had been occupied by a sizable breeding penguin colony in the recent past.

The deposits may be useful for determining the age of former penguin colonies in the region.

A population of approximately 100 skuas (1995 count) breeds on the terrace and ice-free slopes leading toward the cliffs. The proportion of breeders to non-breeders in this population is not known, but approximately 25 and 50 chicks were counted in January 1995 and 1997 respectively.

On the fast-ice adjacent to the northern coastal reaches, a small colony of breeding Emperor penguins (1787 pairs at 1976 count; 179 pairs at 1983 count, 1355 adults at October 1994 count) is present annually between the months of approximately April to January. The size of the colony is limited by the areal extent and condition of the fast-ice, which affects the availability of breeding sites in the lee of the northern slopes of Beaufort Island. The precise location of the colony varies from year to year and the colony moves within a breeding season, but the general area of occupation is indicated on Map C.

The ice-free moraine terrace on the north end of the island (Map C) also supports the richest growth of vegetation recorded on Beaufort Island. This vegetation is exceptional both in quantity and quality, and is the most extensive, continuous area of mosses yet known for the McMurdo Sound region. The site enjoys warm summer temperatures (an air temperature +13°C was recorded on 18 January 1997) because of its northerly aspect and shelter from southerly winds by a 20 m high semi-circular ice cliff. The local microclimate, stability of the ground surface and supply of water from the nearby ice-cliffs and snow banks are favourable for vegetation growth. Initially the water forms a diffuse flush but becomes progressively entrained into rivulets that have eroded narrow valleys in the edge of the terrace. The moss community is extensive (approximately 2.5 ha), with much of the site showing 100% ground cover, dominated by a single species, *Bryum argenteum*. One specimen of another species, *Pottia heimii*, was found after an extensive search: the essentially monospecific character of the site is also unique. The *Bryum* occurs in scattered patches at the upper (southern) margin of the bench, adjacent to the annual drift snow at the base of the ice cliff, and more continuous mats (hummocks) occur in the middle of the bench and in areas where spreading water drainage occurs, especially at the eastern end. In the upper (southern) part of the area the *Bryum* is intermixed with *Nostoc* colonies (cyanobacterium). At lower and more northerly sites in areas of high water flow the moss may be overgrown with a brown coloured mixed cyanobacterial community, particularly in areas prone to flooding, cryoturbic disturbance and, possibly, skua activity. *Bryum argenteum* produces dehiscent shoot tips which disperse the plants down stream. Evidence of this dispersal was commonly seen with *B. argenteum* sometimes occurring as small, and probably ephemeral, communities on the beach below the terrace. The moss community is known to support significant populations of mites, but a detailed survey of invertebrates on Beaufort Island has yet to be undertaken.

The vegetation at Beaufort Island is comparable to the upper, wetter parts of the flush at Canada Glacier (ASPA 131), Taylor Valley, Victoria Land. The Canada Glacier flush has a common, second species, *Pottia heimii*, that grows in drier areas but this was almost completely absent at Beaufort Island. The reason for this is unknown, but could be due to substrate differences, the presence of numerous skuas occupying the drier areas at Beaufort Island, high nutrient levels in the melt water at Beaufort Island, or limited dispersal and colonisation opportunities. At Botany Bay (ASPA 154), Granite

Harbour, Victoria Land — a warmer site than at Canada Glacier but at a similar latitude to Beaufort Island — the wetter areas are occupied by the moss *Ceratodon purpureus* or *Bryum argenteum*, so that there may be a sequence from wet to dry of *C. purpureus* - *B. argenteum* - *P. heimii*. While there is no understanding as to why *C. purpureus* is absent at Beaufort Island it is likely that limited dispersal and colonisation opportunities, as well as water nutrient status, may be important.

There is also a diverse community of algae, and while a detailed algal survey has not yet been undertaken, *Prasiola crispa* is particularly abundant throughout the site, reflecting the high nutrient status and abundance of melt water. A number of unicellular chlorophytes and xanthophytes (including *Botrydiopsis* and *Pseudococcomyxa*) and cyanobacteria (particularly scillatorians) were found mixed with the Prasiola. Green snow algae, noticeable as a green band at the lower levels of snow banks above the beach and below the ice cliffs, contained a mixture of *Chloromonas* and *Klebsormidium*. The snow and ice cliffs forming the upper edge of the beach also contain a pinkish-brown deposit, consisting largely of fine silty material as well as the red snow algae *Chlamydomonas* sp., *Chloromonas* sp., and *Chlamydomonas nivalis*. This represents one of the most southerly locations where red snow algae have been observed.

During a NZ/US visit in January 1995 abandoned equipment was removed from among the Adélie colony at Cadwalader Beach. No other human impact was visually evident in 1995.

6(ii) Restricted zones within the Area
None.

6(iii) Structures within and near the Area
The only structure known to exist on the island is a signpost on a prominent rock in the Adélie colony at Cadwalader Beach (Map D). The sign, erected in 1959–60, bears the names and home-towns of seamen and the Captain of the HMNZS *Endeavour:* the sign is set in concrete and was in good condition in January 1995. The sign is of potential historic value and should remain *in situ* unless there are compelling reasons for its removal, which should be kept under review.

An astronomical survey station is recorded on a map of the island compiled in 1960, but it is unknown whether any associated permanent marker exists. The station is recorded as located at the south end of the main island ridge-line divide at an altitude of 549 m (Map A).

6(iv) Location of other protected areas within close proximity of the Area
The nearest protected area to Beaufort Island is New College Valley ASPA 20 located 35 km to the south at Cape Bird, Ross Island. Cape Royds ASPAs 121 and 157 are a further 35 km to the south. (Refer to the inset: Map A).

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

- it is issued only for compelling scientific reasons that cannot be served elsewhere;

- the actions permitted will not jeopardise the ecological or scientific values of the Area;
- any management activities are in support of the aims 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

Land vehicles are prohibited within the Area and access shall be by small boat or by aircraft. Aircraft should land on the island only at the designated site (166° 52' 31" E, 76° 55' 49" S: Maps A-C and Figure 1) on the large flat toe of ice on the north end of the island. Should snow conditions at the designated landing site at the time of visit militate against a safe aircraft landing, a suitable mid- to late-season alternative to the designated landing site may be found at the nominated northern camp site at the western end of northern beach on Beaufort Island. It is preferred that aircraft approach and depart from the designated landing site from the south or west (Map A, Figure 1). When it is found necessary to use the alternative site at the northern beach campsite, practical considerations may dictate a northern approach: when this is the case aircraft shall avoid overflight of the area east of this site indicated on Maps A–C and Figure 1. Use of smoke grenades when landing within the Area is prohibited unless absolutely necessary for safety, and all grenades should be retrieved. There are no special restrictions on where access can be gained to the island by small boat. Pilots, air or boat crew, or other people on aircraft or boats, are prohibited from moving on foot beyond the immediate vicinity of the landing site unless specifically authorised by a Permit.

Overflight of bird breeding areas lower than 750 m (or 2500 ft) is normally prohibited: the areas where these special restrictions apply are shown on Maps A–D and Figure 1. When required for essential scientific or management purposes, transient overflight down to a minimum altitude of 300 m (1000 ft) may be allowed over these areas: conduct of such overflights must be specifically authorised by Permit.

Visitors should avoid unnecessary disturbance to birds, or walking on visible vegetation. Pedestrian traffic should be kept to the minimum consistent with the objectives of any permitted activities and every reasonable effort should be made to minimise effects.

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

- Scientific research that will not jeopardise the ecosystem of the Area and which cannot be served elsewhere;
- Essential management activities, including monitoring.

7(iii) Installation, modification or removal of structures

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

7(iv) Location of field camps
Camping is permitted only at two designated sites (Maps A–D). The north camping site is located on the flat area north of the designated landing site, on a more sheltered location at the NW end of the beach, 200 m from where several pair of Adélie penguins and skuas nest (if present). The second site is located on the snow 100 m from the northern edge of the large Adélie colony at Cadwalader Beach.

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. 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 required for essential purposes connected with the activity for which the Permit has been granted. All materials introduced shall be for a stated period only, shall be removed at or before the conclusion of that stated period, and shall be stored and handled so that risk of their introduction into the environment is minimised.

7(vi) Taking or harmful interference with native flora or fauna
Taking or interfering with flora or fauna is prohibited, except in accordance with a Permit issued under Article 3 of Annex II by the appropriate national authority specifically for that purpose. 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 authorised, 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, including all human 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
1. Permits may be granted to enter the Area to carry out biological monitoring and site inspection activities, which may involve the collection of small 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 of the isolation and historically low level of human impact at Beaufort Island visitors shall take special precautions against introductions. Of particular concern are microbial or vegetation introductions sourced from soils at other Antarctic sites, including stations, or from regions outside Antarctica. Visitors shall take the following measures to minimise the risk of introductions:

a) Any sampling equipment or markers brought into the Area shall be sterilised and, to the maximum extent practicable, maintained in a sterile condition before being used within the Area. To the maximum extent practicable, footwear and other equipment used or brought into the Area (including backpacks or carry-bags) shall be thoroughly cleaned or sterilised and maintained in this condition before entering the Area;
b) Sterilisation should be by an acceptable method, such as by UV light, autoclave or by washing exposed surfaces in 70% ethanol solution in water.

7(x) Requirements for reports
Parties should ensure that the principal holder for 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.

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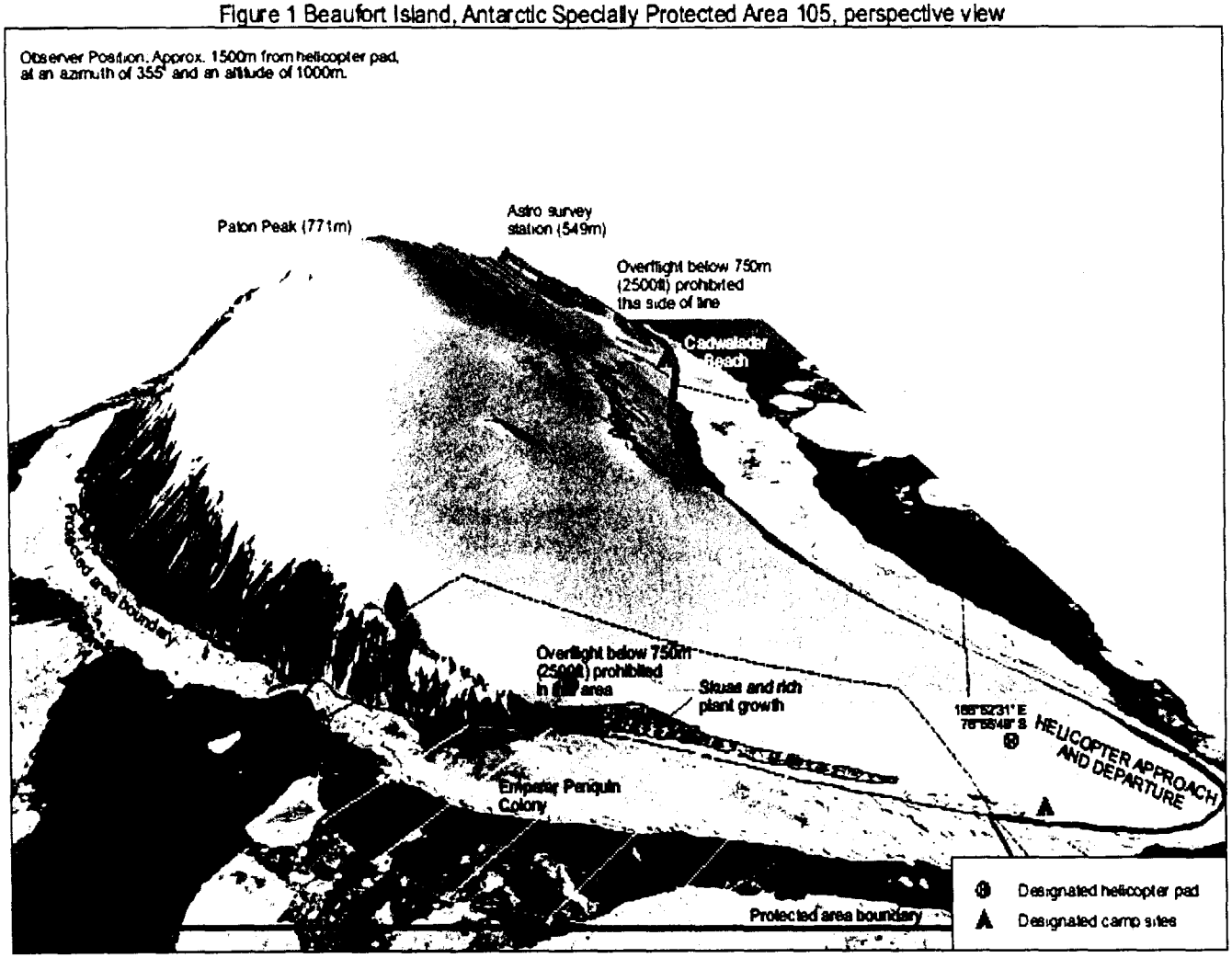
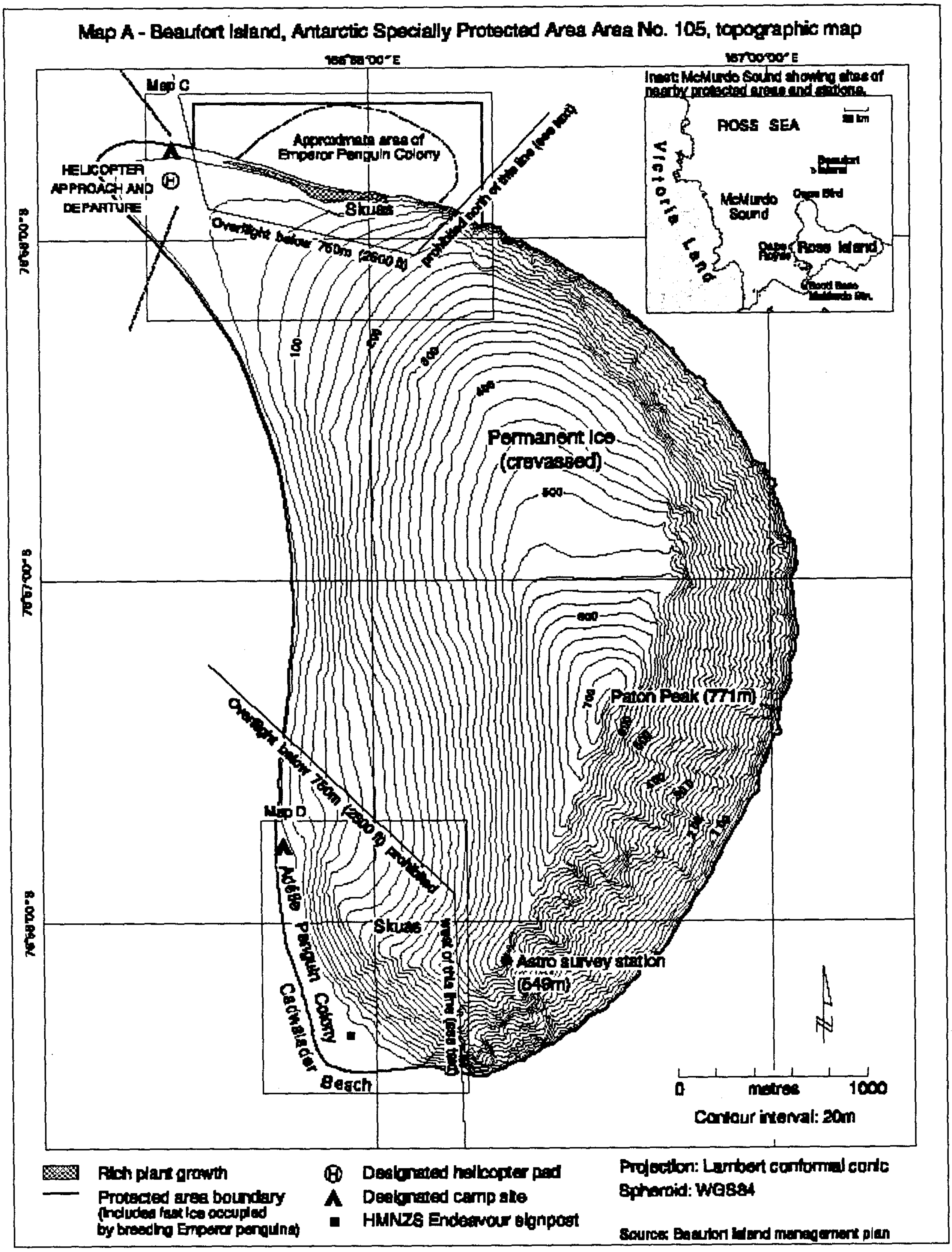
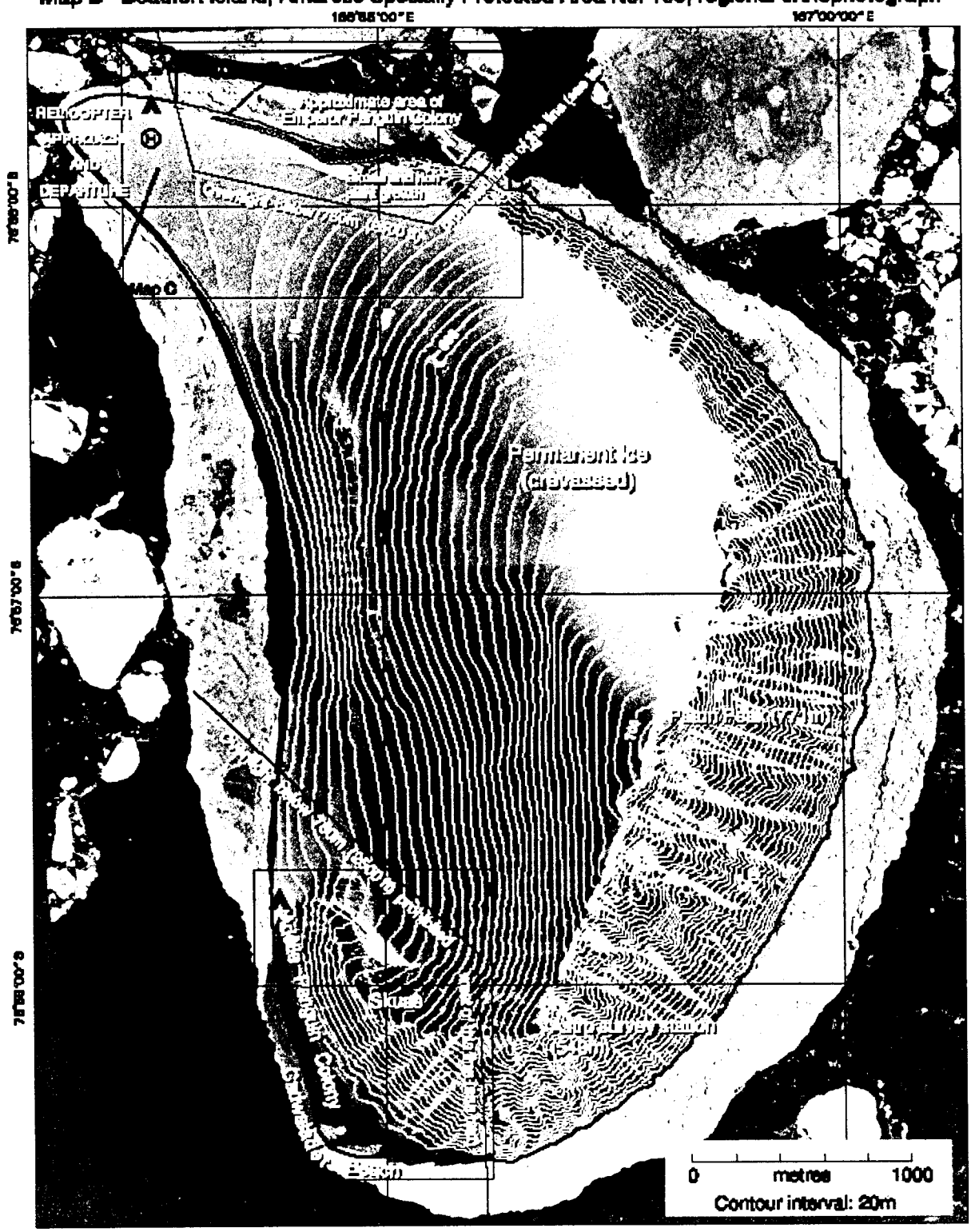
Figure 1 Beaufort Island, Antarctic Specially Protected Area 105, perspective view




Map A - Beaufort Island, Antarctic Specially Protected Area Area No. 105, topographic map
Map C
HELICOPTER APPROACH AND DEPARTURE
Approximate area of Emperor Penguin Colony
Skuas
Overflight below 750m (2500 ft) prohibited north of this line (see text)
Inset: McMurdo Sound showing sites of nearby protected areas and stations.
ROSS SEA
Victoria Land
McMurdo Sound
Ross Island
Permanent Ice (crevassed)
Paton Peak (771m)
Overflight below 750m (2500 ft) prohibited west of this line (see text)
Map D
Adélie Penguin Colony
Skuas
Astro survey station (549m)
Cathedral Beach
0 metres 1000
Contour interval: 20m
Rich plant growth
Protected area boundary (includes fast ice occupied by breeding Emperor penguins)
Designated helicopter pad
Designated camp site
HMNZS Endeavour signpost
Projection: Lambert conformal conic
Spheroid: WGS84
Source: Beaufort Island management plan

Map B - Beaufort Island, Antarctic Specially Protected Area No. 105, regional orthophotograph



Protected area boundary (includes fast ice occupied by breeding Emperor penguins)

HMNZS Endeavour signpost

Designated helicopter pad

Designated camp site

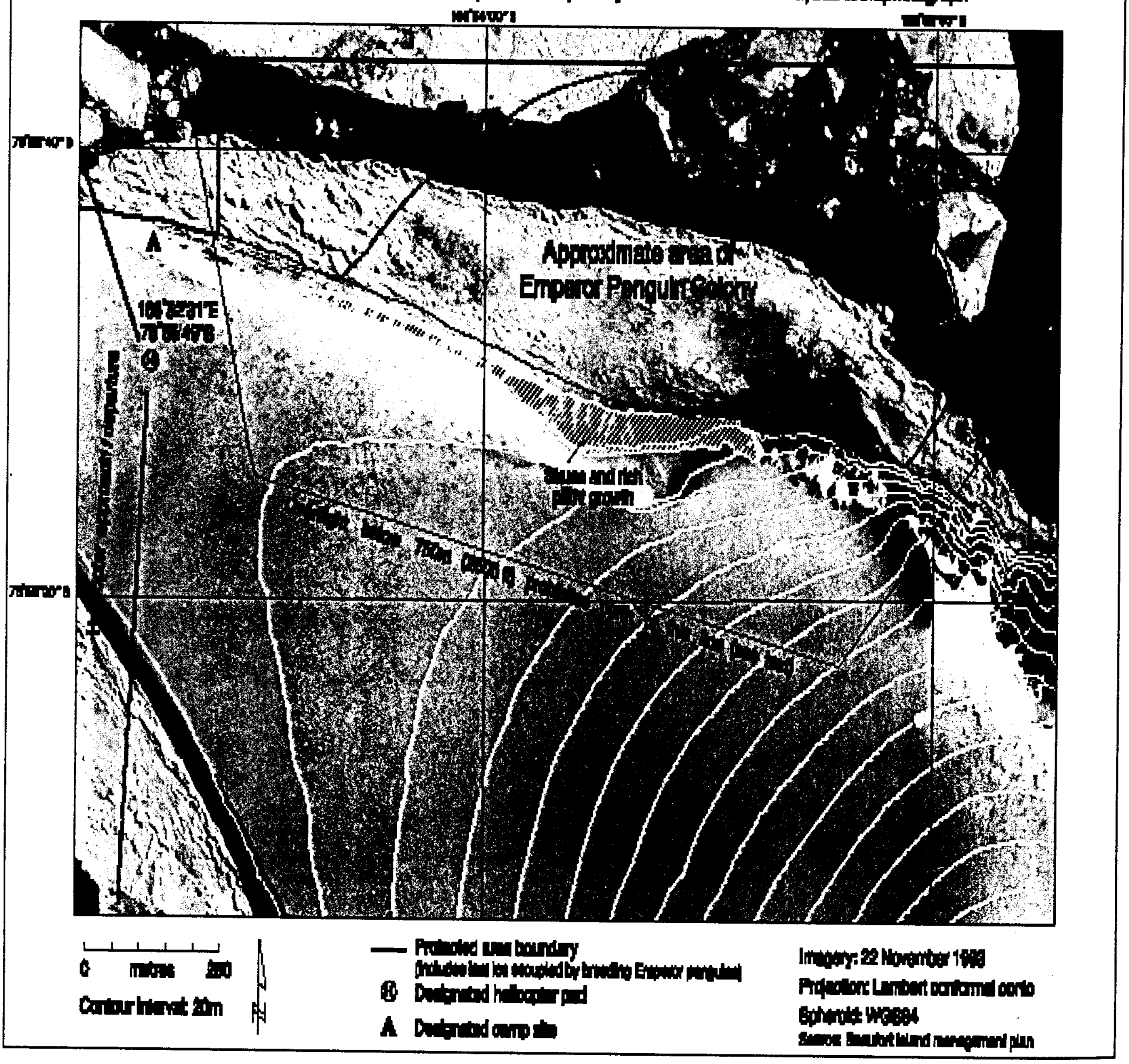
Imagery: 22 November 1983

Projection: Lambert conformal conic

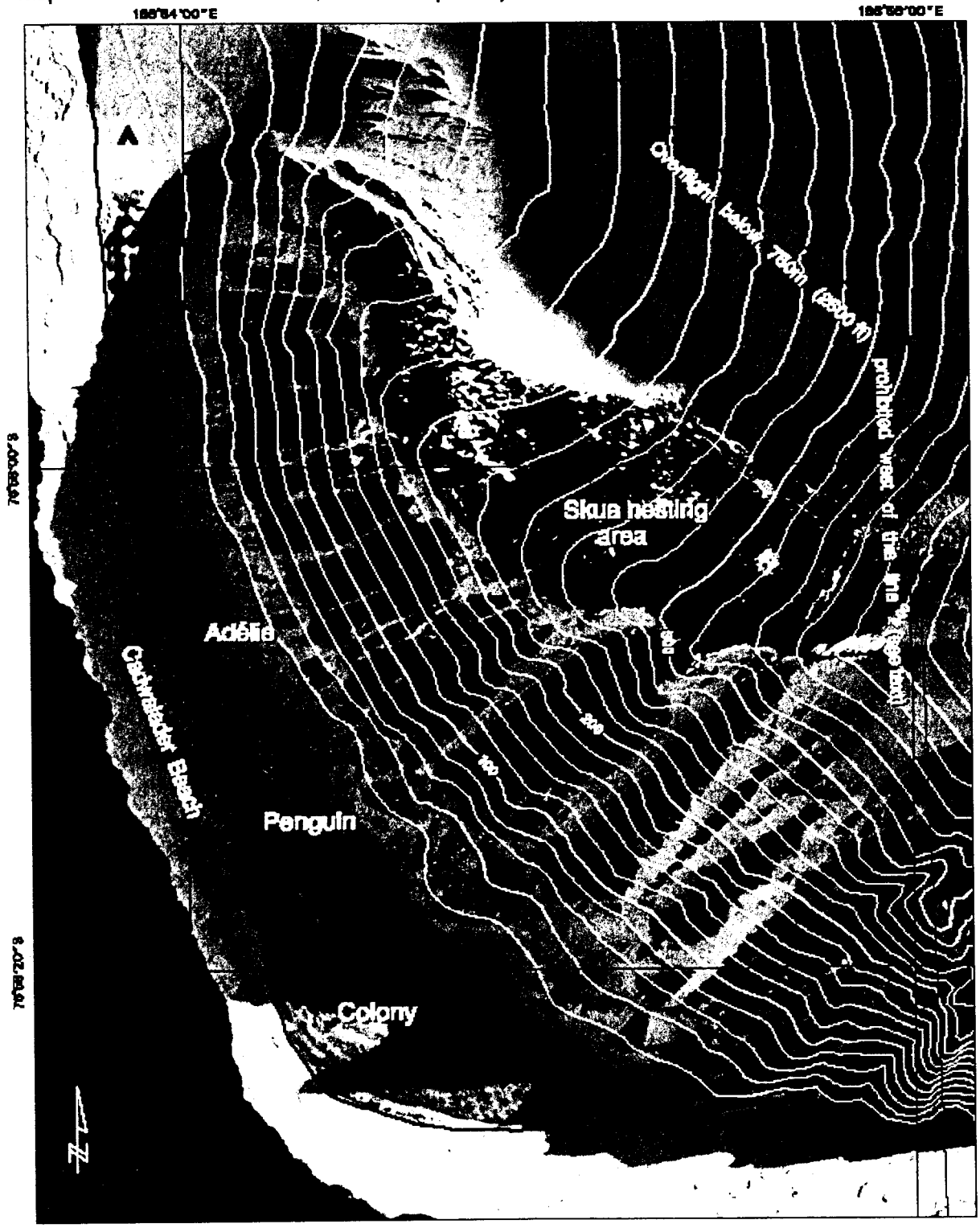
Spheroid: WGS84

Source: Beaufort Island management plan

Map C - North Beaufort Island, Antarctic Specially Protected Area No. 105, site orthophotograph



Map D - South Beaufort Island, Antarctic Specially Protected Area No. 105, site orthophotograph



ANTARCTIC SPECIALLY PROTECTED AREA No 114
NORTHERN CORONATION ISLAND, SOUTH ORKNEY ISLANDS

Introduction

1. At CEP IV, following discussion of several management options, the Committee asked the UK to prepare a draft Management Plan for ASPA No. 114, Northern Coronation Island (formerly SPA No. 18), for consideration at CEP V (paras 53 to 56 of the Final Report of CEP IV refer).

2. At CEP V the UK introduced a Working Paper (XXV ATCM/WP3) on the revision of the Management Plan for ASPA No. 114, Northern Coronation Island (para 78 of the Final Report of CEP V refer).

3. An open-ended intersessional contact group led by the United Kingdom was established to consider the submitted draft Management Plan.

4. At the time of the preparation of this paper comments had been received on the draft Management Plan from SCAR and from Australia. No other comments have been received.

5. As a result of comments received, together with improvements made to the site map, the United Kingdom has made further revisions to the draft Management Plan.

Comments received on the draft Management Plan submitted at CEP V

6. SCAR expressed the view that the site should be deleted from the protected area list because the values that were originally cited for the Area cannot be substantiated.

7. Notwithstanding their view, SCAR offered comments on the submitted draft Management Plan should site designation be retained. These comments, together with how they have been addressed, are summarised in Table 1 below. Comments received from Australia are also summarised in Table 1.

The revised draft Management Plan

8. The revised draft Management Plan attached is, as far as possible, consistent with the *Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas.* The revised draft plan follows the format and structure recommended in the *Guide.* It has been prepared so that it maintains consistency, as appropriate, with other plans adopted by the ATCM.

9. However, it must be noted that site access continues to prove exceptionally difficult, and a visit to verify the values originally cited for the Area has not been possible. Aerial photography from 1992 does suggest seabird colonies exist on ice-free ground along the northern coast, although the species represented and colony sizes could not be substantiated from this source. It has also not been possible to evaluate the management provisions proposed, such as those relating to access to, or movement within the Area, against practical site experience. The chances of mounting a successful survey of the site are still considered extremely low.

10. It is acknowledged, therefore, that the revised draft plan put forward is based on minimal recent or reliable baseline data from the site. As such, the value of the Area for reference studies remains limited until such data can be obtained.

11. It is also noted that the revised draft Management Plan attached cannot be said to have met certain key objectives as stated in the *Guide to the Preparation of Management Plans*, in particular that:

> "The description of the value or values of the site should state, clearly and in detail, why it is that the site deserves special protection and how site designation will strengthen protection measures" (Sec 3.2, para 1, p. 3)
>
> "In cases where the intent is to protect the value of sites as reference areas or controls for long-term environmental monitoring programmes, the particular characteristics of the area relevant to long-term monitoring should be described." (Sec 3.2, para 3, p. 3)
>
> "In all cases the description should provide sufficient detail to enable readers to understand precisely what the site designation is intended to protect and how the Management Plan will achieve that aim." (Sec 3.2, para 4, p. 3)

12. For the above reasons, the revised draft Management Plan proposes a period of designation of five years. If access to the site cannot be achieved during this time, and sufficient baseline information collected, the UK believes that retention of the site as an ASPA would not be tenable.

13. The UK submits the revised draft Management Plan for the consideration of the Committee and recommends that the revised Plan be forwarded to the ATCM for adoption. A draft Measure to this effect is attached to this Working Paper.

Table 1. How comments received have been addressed in the revised draft Management Plan for ASPA No. 114, Northern Coronation Island

Comments received (in summary)	How the revised draft Management Plan attached has addressed comments received
Sec 5. Maps SCAR commented on: • lack of clarity of some shading • some missing annotations • lack of clear identification of the boundary • revise the old site number of SPA No. 18 • lack of labels for contours and some heights. Australia commented on: • lack of clarity of some shading • lack of projection and spheroid details • some missing annotations: north arrow, contour interval and spot heights.	All of the comments made by SCAR and Australia have been addressed in the new map prepared. The two maps in the CEP V draft have been replaced by a single map which is based on the most recent data available (SCAR Antarctic Digital Database V. 4, 2002). One map with a location inset is considered adequate for management of this site, given current usage. The map prepared is at the largest scale that can be justified given the source data. The new map facilitated more precise definition of the boundary, which has been refined to follow the two principal catchments in this part of Northern Coronation Island.
Sec 6(i) Description of the Area Note that the Area includes an area of sea.	The inclusion of the marine component has been highlighted in Paras 1 and 2. The description of boundaries has been revised to reflect the new catchment-based boundary.
Sec 7(i) Access and movement The requirement that movement should be on foot seemed anomalous given the need for access to and movement within the Area by boat / aircraft.	Provisions on access to and movement within the Area have been comprehensively revised. Access into and movement within the Area by aircraft and by small boat are allowed, subject to specified restrictions.
Sec 7(v) Restrictions on materials / organisms SCAR noted an anomaly in allowing fuel for transport within the Area when in Sec 7(i) it had been stated that movement was to be on foot.	This anomaly has been removed by revision of provisions in Sec 7(i) on access to and movement within the Area.

Attachment

Draft Measure nn (2003)

Antarctic Protected Area System: Management Plans for Antarctic Specially Protected Areas

The Representatives,

Recalling Recommendation XIII-10 adopting the first management plan for Specially Protected Area number 18;

Recalling also Resolution 1 (1998) allocating responsibility among Consultative Parties for the revision of management plans for protected areas, and Decision 1 (2002) renumbering all Antarctic Specially Protected Areas;

Noting that the Management Plan annexed to this Measure has been endorsed by the Committee for Environmental Protection and commented upon by the Scientific Committee on Antarctic Research (SCAR);

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 Plan for Antarctic Specially Protected Area No 114, North Coronation Island, South Orkney Islands, which is annexed to this Measure, be adopted.

ANTARCTIC SPECIALLY PROTECTED AREA No 114
NORTHERN CORONATION ISLAND, SOUTH ORKNEY ISLANDS

1. Description of values to be protected

Northern Coronation Island (Latitude 60°33' S, Longitude 45°35' W), South Orkney Islands, was originally designated as a Specially Protected Area through Recommendation XIII-10 (1985, SPA No. 18, 88.5 km^2) following a proposal by the United Kingdom. It was designated on the grounds that the Area "embraces areas of coastal ice-free terrain (Conception, Prong and Foul Points) with large seabird colonies and lichen-dominated cliffs, and permanent ice rising to the Brisbane Heights plateau which provides an excellent representative area of a pristine ice environment near the northern limit of the maritime Antarctic and the Antarctic Treaty Area, and that the interrelated terrestrial, permanent ice and marine components of this area comprise an integrated example of the coastal, permanent ice and sublittoral ecosystems of the maritime Antarctic environment".

The Area is difficult to access, few site visits have been made and there is little baseline or up-to-date information available on the ecosystems within the Area. Generally, the original values cited for the Area cannot be reaffirmed, as insufficient information exists for the values to be substantiated. While seabird colonies within the Area were observed in the 1990s, in particular on ice-free ground along the northern coast, detail on the species represented and on numbers remains very limited. The extent and types of lichen--dominated cliffs referred to in the original plan are largely unknown. The extent to which the ice environment and the ecosystems within the Area are representative is also unknown. It has not proved possible to make a recent inspection of the Area despite numerous attempts.

However, the few records of visits to the Area suggest it has been subjected to minimal direct human disturbance and, as such, is likely to be relatively pristine. In view of this assumed pristine condition, the primary potential value of the Area is as a reference site for use in comparative studies with more heavily impacted sites. Before this value can be realised, baseline studies are required on the nature of the environment and ecosystems present. In order to maintain the site for its potential value as a reference area, all visits to the Area shall be prohibited except for compelling scientific research, including gathering baseline data, or to exploit the value of the site as a reference area, or for site inspection.

The boundaries of the Area have been modified from those originally designated to include all of the catchment of northern Coronation Island draining northward into the sea between Conception Point and Foul Point (total area 92 km^2).

2. Aims and objectives

Management at Northern Coronation Island aims to:

- preserve the ecosystem of the Area in a largely undisturbed state for its potential as a reference area;
- avoid degradation of, or substantial risk to, the potential value of the Area as a reference site by prohibiting all visits, except for scientific research within the Area for compelling reasons which cannot be served elsewhere, or for the purpose of acquiring baseline data, or monitoring of the state of the environment, or for inspections;

- ensure that the purpose, nature, methods and conditions of observation and / or sampling are clearly defined before access for scientific research is allowed;
- ensure that visits for management purposes are 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 Signy (UK) and Orcadas (Arg.) research stations.
- Visits may be made as necessary to assess whether the Area continues to serve the purposes for which it was designated.

4. Period of designation

Designated for a period of five years to allow opportunity for site visits to be made. If access to the site remains unachievable during this time, consideration should be given to terminating the site's status as an ASPA.

5. Maps and photographs

Map 1: Northern Coronation Island, Antarctic Specially Protected Area No. 114: Boundaries and physical features. The location of Signy Research Station (UK) and other nearby protected areas are shown. Map specifications: Projection, UTM Zone 23S; Spheroid, WGS84. Contour interval 250 m. Data source: SCAR Antarctic Digital Database Version 4.0, 2002, 'Scale 0'. Caution: features and distances are approximate and horizontal and vertical accuracy is unknown. Inset: the location of the South Orkney Islands with respect to the northern Antarctic Peninsula and the South Shetland Islands.

6. Description of the Area

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

GENERAL DESCRIPTION AND BOUNDARIES

Coronation Island (Latitude 60°33' S, Longitude 45°35' W, 478 km^2) is the largest of the South Orkney Islands, extending approximately 48 km with a west-north-west to east-south-east orientation (Map 1). It is largely ice-covered, and the northern coastline, like that of most of the island, is indented and generally precipitous, with sharp rocky ridges forming bold headlands between ice cliffs. Exposed boulder beaches are present at the base of many of the ice and rock cliffs. The interior of Coronation Island is mountainous and rugged, rising to its maximum height of 1266 m at Mount Nivea (Map 1). The Area includes two glacial catchments draining northwards from Mount Nivea and the Brisbane Heights plateau to the Coronation Island coast. Together with the marine component of Ommanney Bay and a bay of similar size to its west, the Area is approximately 92 km^2 in size. The majority of land within the Area is dominated by permanent glacial ice, with rocky outcrops and sheer cliffs exposed in a few places. The east face of Conception Point is a spectacular cliff of some 700 m in height. Small areas of ice-free terrain are present on the coast, the largest of which are on Conception, Prong and Foul points. Exposed boulder beaches occur below some of the frequent coastal ice cliffs, and there are a number of small, rocky, ice-free islands close to the shore.

The Area includes the region of northern Coronation Island between Conception Point to the west and Foul Point to the east (Map 1). The eastern boundary follows a ridge from Foul Point approximately 6 km southwards to the summit of Mount Nivea (1266 m), thence west-south-westwards for a distance of 1500 m down the ridge to the col at High Stile. From High Stile, the boundary continues WSW for approximately 6 km following the ridge of the broad plateau of Brisbane Heights to the summit of Wave Peak (960 m). From Wave Peak the boundary extends due north for 1000 m, thence west and in a northwesterly direction for about 6 km following the broad ridge of Brisbane Heights. The boundary then extends due north for approximately 6 km, following the main ridgeline to Conception Point. The glacial catchments draining to the northern coastline of Coronation Island within this boundary are within the Area. The actual summits of Mount Nivea and Wave Peak and the southern side of High Stile are outside of the Area. The northern boundary is defined as a straight line extending 11 km across the sea from Conception Point to Foul Point, including Ommanney Bay and the bay further to the west as within the Area.

CLIMATE

No climate data are available for northern Coronation Island, but conditions are expected to be broadly similar to those at Signy Island, 7 km to the south. Mean summer (November – March) air temperatures at Signy Research Station range from –2°C to +3°C, with an extreme maximum temperature of +19.8°C. In winter, mean monthly temperatures range from –2°C to –17°C, with an extreme minimum of –39.3°C (Shears and Downie 1998). However, compared to Signy Research Station, northern Coronation Island experiences more persistent cloud cover, which often forms fog banks when the prevailing moisture-laden north-westerly winds rise over the ice-covered peaks of the island. Differences in elevation also suggest that temperatures within the Area will be much colder than those recorded at Signy Research Station.

GEOLOGY AND SOILS

Coronation Island is composed predominantly of regionally metamorphosed rocks belonging to the Scotia metamorphic complex (Tanner *et al.* 1982). The rocks were deformed and metamorphosed to albite-epidote-amphibolite-facies grade during or prior to the late Triassic but the true age of the original sedimentary sequences is uncertain. The main rock type within the Area is a grey micaceous schist (quartz rich quartz-mica-schist with albite, biotite and muscovite) (Dalziel *et al.* 1977). Beds are flat-lying and uncontorted (Matthews 1956). The schists on Coronation Island are thought to represent a metamorphosed sandstone-shale sequence in which there were interbedded tuffs and basic lavas and/or basic minor intrusions (Thomson 1974).

STREAMS AND LAKES

No information on streams and lakes in the area is available.

BIOLOGICAL COMMUNITIES

There is little information available on the biological communities in the Area. Breeding chinstrap penguins *(Pygoscelis antarctica)* occupy the few flat and gently sloping parts of the Area at Conception Point, with numbers roughly estimated to be around 5000 in 1997 (Convey 1997). Crags are occupied by nesting cape petrels *(Daption capense)* and snow petrels *(Pagodroma nivea)*. Skuas *(Catharacta* sp.) and sheathbills *(Chionis alba)* have been noted at Conception Point, while southern giant petrel *(Macronectes giganteus)*, Antarctic fulmar *(Fulmarus glacialoides)*, prions *(Pachyptila*

sp.), and Wilson's and blackbellied petrels *(Oceanites oceanicus, Fregetta tropica)* have been observed close to the coast (Convey 1997). Guano-stained ground and what appear to be individual birds are evident on ice-free ground at Conception and Prong points, and on other small promontories and islets along the coast, in British Royal Navy aerial photography (RN/9/92) taken in January, 1992. This suggests a number of breeding colonies of birds occupy these areas, although species and numbers could not be determined. Some vegetation appeared to be present on Prong Point, with a number of moss banks also apparent on a promontory 1000 m to its west, although positive identification was hampered by the resolution of the panchromatic photographs. Foul Point was outside of the region of photography.

Seals have not been observed within the Area, and the rough boulder beaches at the foot of ice and rock cliffs are generally unsuitable for breeding fur or elephant seals *(Arctocephalus gazella, Mirounga leonina).*

White, yellow and orange encrusting lichens are present, often on ice-free cliffs on the coast, along with patches of the common alga *Prasiola crispa.*

No information is available on the marine environment within the Area.

HUMAN ACTIVITIES AND IMPACTS

There have been few reported visits to Northern Coronation Island and human impacts, while unknown, are considered to be minimal.

6(ii) Restricted and managed zones within the Area

None.

6(iii) Structures within and near the Area

There are no structures known to be present in the Area. The nearest scientific research station is Signy Research Station (United Kingdom) (60°43'S, 45°36'W), 12 km south of the Area on Signy Island.

6(iv) Location of other protected areas within close proximity of the Area

The nearest protected areas to Northern Coronation Island are Lynch Island (ASPA No. 110), which lies about 5 km to the south of Wave Peak, and Moe Island (ASPA No. 109) which is 15 km SSW (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 research within the Area for reasons which cannot be served elsewhere, or for the purpose of acquiring baseline data, or monitoring of the state of the environment, or for site inspection;

- the purpose, nature, methods and conditions of observation and / or sampling are clearly defined before access for scientific research is allowed;
- the actions permitted will not jeopardise the values of the Area;
- proposed activities are in support of the objectives of 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 and movement within the Area shall be on foot, by small boat or by helicopter. Land vehicles are prohibited.
- Access to and movement within the Area on land is exceptionally difficult because of the presence of glaciers, crevasses and icefalls. However, there are no special restrictions on overland access routes because little is known about which routes might be suitable.
- There are no special restrictions on landings from the sea, or that apply to the sea routes used to move to and from the Area. However, the existence and location of suitable landing sites for small boats is unknown, although the most promising sites appear to be Foul, Prong or Conception points. Caution must be exercised when attempting boat landings owing to significant dangers from swell, submerged rocks and on-shore ice-falls onto narrow boulder-strewn beaches.
- Landing of helicopters in or close to sites occupied by concentrations of breeding birds is prohibited. There are few ice-free sites suitable for landing of helicopters, and those that do exist along the coast are generally occupied by breeding colonies of birds throughout the summer period of 1 October – 30 April inclusive.
- Helicopters may land elsewhere within the Area when necessary for purposes consistent with the objectives of the Plan. However, overflight of the Area should be kept to a minimum. The guidelines specified in Table 1 (below) shall be followed to the maximum extent practicable in the period of 1 October – 30 April inclusive, when operating aircraft within one kilometre of the northern coastline.
- Use of helicopter smoke grenades is prohibited within the Area unless absolutely necessary for safety. Expended smoke grenades must be retrieved.
- Pilots, air or boat crew, or other people on helicopters or boats are prohibited from moving on foot beyond the immediate vicinity of their landing site unless specifically authorised by Permit.
- All movement within the Area should be kept to the minimum consistent with the objectives of any permitted activities, and should be undertaken carefully so as to minimise disturbance to animals, soils, geomorphological features and vegetated surfaces.

Table 1: Aircraft overflight guidelines applying 1 October – 30 April inclusive when operating aircraft within one kilometre of the northern coastline.

Aircraft type	**Number of engines**	**Minimum approach distance (m)**	
		Vertical (above ground)	
		Feet	**Metres**
Helicopter	1	*2460*	750
Helicopter	2	*3300*	1000
Fixed-wing	1 or 2	*1480*	450
Fixed-wing	4	*3300*	1000

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

- scientific research for compelling reasons that cannot be served elsewhere;
- collection of baseline information on the Area provided such collection will not jeopardise the potential value of the site as a reference Area;
- essential management activities, including site inspection or monitoring.

7(iii) Installation, modification or removal of structures

Structures shall not be erected within the Area.

7(iv) Location of field camps

Camping is permitted within the Area for purposes consistent with the objectives of this management plan. No information is available on sites suitable for camping, although they would appear to be few and difficult to access. For this reason, it is not currently possible to designate specific camping sites.

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. In view of the presence of breeding bird colonies on the northern coast of the Area, no poultry products, including products containing uncooked dried eggs, including wastes from such products, shall be released into the Area or into the adjacent sea. No herbicides or pesticides, nor any other chemicals, including radio-nuclides or stable isotopes, shall be brought into the Area. Fuel may be used for essential transport within the Area, although fuel and other materials shall not be stored in the Area except in support of essential activities for which a Permit is granted. All fuel and other materials shall be stored and handled so that risk of any introduction into the environment is minimised and shall be removed when permitted activities cease. 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.* The appropriate authority should be notified of any materials released and not removed that were not included in the authorised Permit.

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

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. Permits shall not be granted if there is a reasonable concern that the sampling proposed would take, displace, remove or damage such quantities of rock, soil, water, or native flora or fauna that their distribution or abundance at Northern Coronation Island would be significantly affected. 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 authorised, 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.

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

To help maintain the values derived from the historically low level of human impact at Northern Coronation Island special precautions against introductions shall be taken. To the maximum extent practicable, all equipment brought into the Area (including, for example, sampling equipment, and footwear) 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 a report describing the activities undertaken to the appropriate authority. 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.

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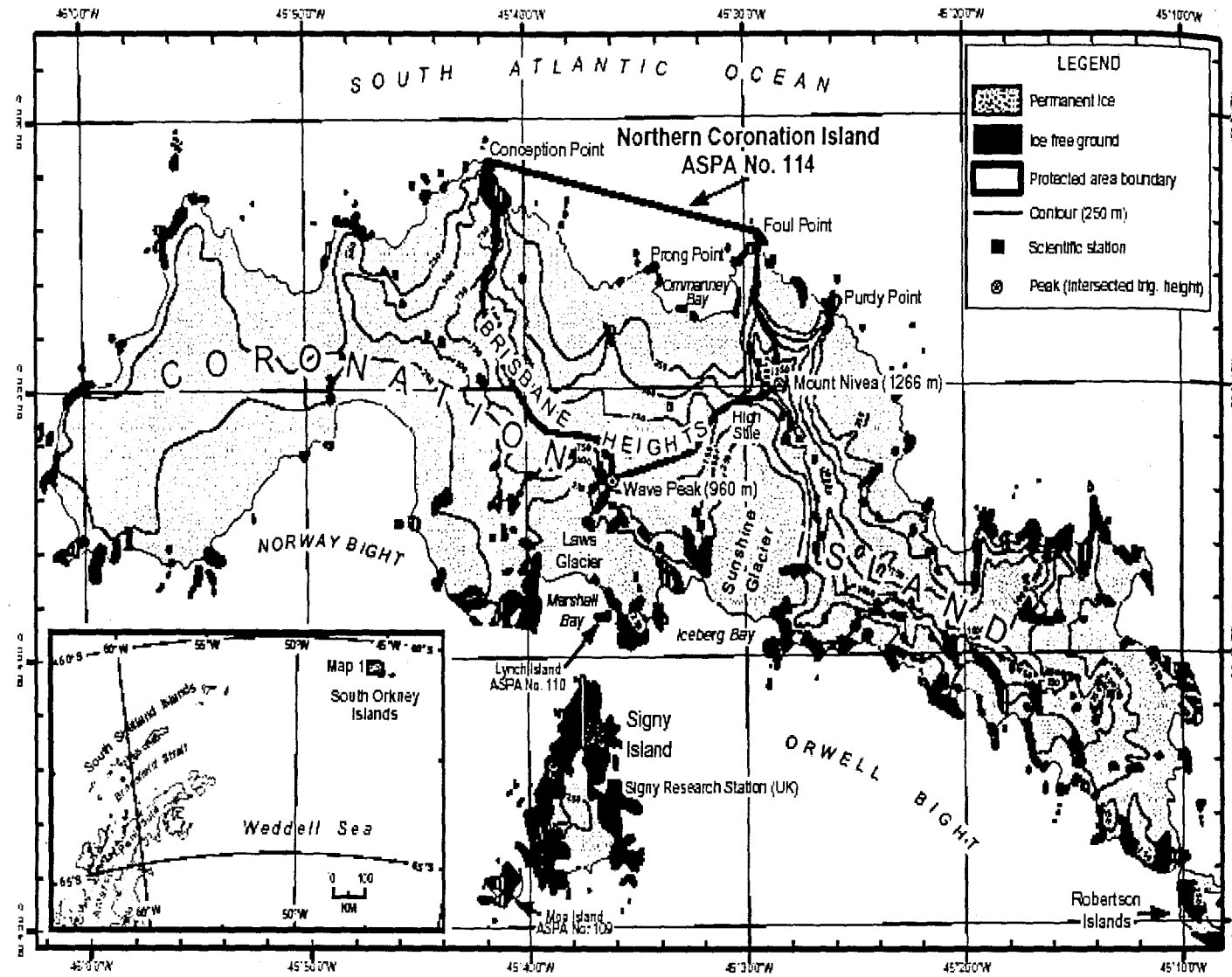

Projection: UTM Zone 23S
Spheroid: WGS84
Contour interval: 250 m
Data source:
SCAR Antarctic Digital Database V4.0 2002
Caution: Features and positions approximate

Map 1. Northern Coronation Island ASPA No. 114. South Orkney Islands Boundaries and physical features

March 2009
Environmental Research & Assessment

ANTARCTIC SPECIALLY PROTECTED AREA No 118 CRYPTOGAM RIDGE, MT MELBOURNE, NORTH VICTORIA LAND AND SUMMIT OF MT MELBOURNE, NORTH VICTORIA LAND

Introduction

An area of 6 km^2 on the summit of Mount Melbourne was originally designated in Recommendations XVI-5 (1987, SSSI No. 24, Summit of Mount Melbourne) and XVI-8 (1991 SPA No.22, Cryptogam Ridge, Mount Melbourne) after proposals by New Zealand and Italy on the grounds that these areas contain geothermal soils that support a unique and diverse botanical community.

In accordance with the provisions of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty and Resolution 1 (1998), New Zealand undertook a review of the management plans for these related sites and submitted a combined revised management plan for the two Areas to CEP V as Working Paper XXV ATCM/WP16.

CEP V agreed to refer the revised Management Plan to an intersessional contact group (ICG), led by New Zealand, which would report back to CEP VI.

Process

The participants in the ICG were Australia, Chile, Romania, Sweden, the United Kingdom and the United States. The ICG used the standard terms of reference:

- Ensure that each of the draft Management Plans are consistent with the Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas;
- Ensure consistency of approach of management measures, as appropriate, across the Management Plans being reviewed;
- Report back to CEP on the results of the contact group's assessment and provide recommendations on how the CEP should proceed with respect to these Management Plans.

Comments on the plan were provided by Sweden. The management plan was redrafted accordingly, and further comments were received from Australia, the United States and Romania. Additional comments were then received from Italy and SCAR. Because of the late stage at which these arrived, some of the issues raised could not be fully considered by the ICG, and were therefore deferred until the next review of the plan.

Key issues

The main item of discussion within the ICG was the role helicopters might play as a mechanism for introduction of matter and organisms from outside the Area, and how this should be managed. It was proposed that helicopters could be cleaned to minimise the risk of introductions, and also that the point of departure for helicopters landing at the Area could be recorded, to aid diagnosis should introductions occur. However, concerns were raised regarding the practicality of cleaning helicopters that visit the Area. This requirement has been retained in the Management Plan although it should be specifically re-examined at the next review of ASPA 118.

The need for inspections to check if new organisms are being introduced was also discussed. Although such action could be expected in site inspections, it was agreed to make this requirement explicit, given the very significant impact introductions would have on the values of the Area.

Participants provided updates of relevant references and information regarding the species present, which were incorporated. Suggestions were also incorporated regarding consistency of language on the issue of Permits.

As noted, some comments from outside the ICG were received very late in the timeframe the group had agreed. Overall it was considered that the attached plan is a considerable improvement over the previous version, and no threats to the values of the Area would be posed by deferring some of the more complex new issues raised until the next review. The following are the key issues deferred until the next review:

- Possible improvements to the maps;
- Alteration of the boundary to remove any non-essential areas;
- Exclusion of the proposed Managed Zones from the Area to alleviate the need for Permits for activities at these sites; and
- Greater prescription of conditions on sampling.

Conclusion

The ICG has reviewed the management plan in accordance with the terms of reference and is satisfied that the draft revised management plan for ASPA 118 is consistent with the *Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas* and current standard practices for management plans.

Recommendation

The intersessional contact group recommends that the CEP forward the draft revised management plan for Antarctic Specially Protected Area No. 118, Summit of Mount Melbourne, Victoria Land attached to this Working Paper to the ATCM and recommend adoption in accordance with the draft Measure attached.

Attachment

Draft Measure xx (2003)

Antarctic Protected Areas System: Management Plans for Antarctic Specially Protected Areas

The representatives,

Recalling Resolution 1 (1998) allocating the responsibility among Consultative Parties for the revision of Management Plans for protected areas;

Noting that the Draft Management Plan appended to this measure has been endorsed by the Committee for the Environmental Protection;

Recognising that this Area supports outstanding natural features and a unique biological community of outstanding scientific value;

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 revised Management Plan for Antarctic Specially Protected Area No. 118, Summit of Mount Melbourne, Victoria Land, which is annexed to this Measure, be adopted.

ANTARCTIC SPECIALLY PROTECTED AREA No 118
SUMMIT OF MOUNT MELBOURNE, VICTORIA LAND

1. Description of values to be protected

An area of 6 km^2 on the summit of Mount Melbourne was originally designated in Recommendations XVI-5 (1987, SSSI No. 24, Summit of Mount Melbourne) and XVI-8 (1991 SPA No.22, Cryptogam Ridge, Mount Melbourne) after proposals by New Zealand and Italy on the grounds that these areas contain geothermal soils that support a unique and diverse biological community. The warmest areas of ground created by fumaroles support patches of moss, liverwort and algae along with one species of invertebrate protozoan. ASPA No. 118a (SPA No. 22) was originally enclosed within ASPA No. 118b (SSSI No. 24) in order to provide more stringent access conditions to this part of the Mt Melbourne summit area. ASPA 118a and 118b have now been merged in the current plan, and Prohibited and Restricted zones provide for more stringent access conditions within the former SPA. The outer boundaries of the Area follow the original SSSI No. 24 designation.

The biotic communities of the closest documented fumarolic ground, 400 km to the south on Tramway Ridge, Mt Erebus and on Mt Rittman, in the Mountaineer Range over 180 km to the north, are considered significantly different to that on Mt Melbourne. Mount Melbourne has the only known leafy example of the moss *Campylopus pyriformis* on the Antarctic continent (the moss is present on Mt Erebus only in the protonema stage). The algae *Stigonema ocellatum* and *Chlorella* cf. *reniformis* are the only Antarctic records. Several other algal species are not recorded elsewhere in Antarctica, apart from Mt Erebus. An entirely new species of thermophilic bacteria, *Bacillus thermoantarcticus*, has also been discovered on the summit.

The total cover of vegetation within the Area is hard to assess due to largely permanent snow cover, but is estimated at 100-200 m^2. Despite this relatively small area of cover, the uniqueness and fragility of the biological communities and their physical environment are such that the Area is of high scientific and conservation value and vulnerable to human disturbance. The dangers of introducing new organisms and disturbance by trampling and sampling are great and justify this site being given long-term special protection. Extensive ice-free geothermal areas at high altitude, supporting a unique community of flora and microbiota and accumulations of organic matter, make this Area of exceptional scientific interest.

2. Aims and objectives

Management at Mount Melbourne aims to:

- avoid degradation of, or substantial risk to, the values of the Area by preventing unnecessary human disturbance;
- allow scientific research on the ecosystem in the Area, in particular on the plants, liverworts, algae and invertebrates, while ensuring protection from oversampling;
- allow other scientific research provided it is for compelling scientific reasons which cannot be served elsewhere;
- minimise the possibility of introduction of alien soils, plants, animals and microbes into the Area;
- preserve a part of the natural ecosystem of the Area, which is declared a Prohibited Zone, as a reference site for the purpose of future comparative studies;
- allow visits for the purposes of installation and maintenance of essential communications equipment that does not compromise the values of the Area;
- allow visits for management purposes in support of the aims of the management plan.

3. Management activities

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

- Information 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 all of the research hut facilities located within 25 km of the Area.
- Markers, signs or structures erected within the area for scientific or management purposes shall be secured and maintained in a good condition.
- Visits shall be made 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.
- National Antarctic Programmes operating in the region are encouraged to consult together with a view to ensuring these steps are carried out.

4. Period of designation

Designated for an indefinite period.

5. Maps and photographs

Map A: Mount Melbourne, location map. Map specifications: Projection: Lambert conformal conic; Standard parallels: 1st 72°40'0.000"S; 2nd 75°20'0.000"S; Central Meridain: 165°0'0.000"E; Latitude of Origin 74°0'49.2"S; Scale approx. 1:350,000. Spheroid: WGS84

Map B: Mount Melbourne, site map. Map specifications: Projection: Lambert conformal conic; Standard parallels: 1st 72°40'0.000"S; 2nd 75°20'0.000"S; Central Meridain: 165°0'0.000"E; Latitude of Origin 74°0'49.2"S; Scale approx. 1:16,000. Spheroid: WGS84. Photography USGS/DoSLI (SN7851) 22 November 1993.

6. Description of the Area

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

Mount Melbourne (2733 m, 74°21'S 164°42'E) in northern Victoria Land, is situated between Wood Bay and Terra Nova Bay, on the western side of the Ross Sea, and Campbell Glacier, about 10 km to the west (see Map A). The Area encompasses all terrain above the 2200 m contour surrounding the main crater of Mt Melbourne. Boundary markers are not installed at points on the 2200 m contour, due to access being predominantly via helicopter to the summit of the mountain, making assessment of altitude straightforward.

Mount Melbourne is part of the McMurdo volcanics, which are a line of dormant and extinct volcanoes running along the coast of Victoria Land. The Mt Melbourne area is thought to be late Quaternary in age and the most recent eruption may have been as little as 150 years ago. The volcanic rocks have been detailed as trachyte to trachyandesite on the mountain itself, with basalt at its base.

Mount Melbourne is an almost perfect low-angle volcanic cone with extensive areas of hot ground, fumaroles, and ice towers prominent around the summit crater and on some upper parts of the mountain. The summit caldera is about 1 km in diameter and forms the névé for a westward flowing glacier. Several smaller basaltic cones and mounds occur near the base and on the flanks of the mountain. The summit also contains the most extensive areas of warm ground, marked by snow-free warm or steaming ground, fumaroles and ice towers or pinnacles. Surface soil (0-2 cm depth) temperatures of up to 42°C, areas of cooler ground where activity is discontinuous, and zones of geothermal activity are marked by ice and snow hummocks up to a metre in height.

There are three main areas exhibiting thermal activity (see Map B); two situated on the edge of the caldera, and a third about 250 m lower on the northern slopes. However, areas of surface activity extend at least as low as 2400 m on the north-west side of the mountain. These geothermal areas support a unique biological assemblage of species otherwise restricted to low altitudes. The species are not of a local provenance and must have been dispersed over long distances to reach the Area. The total cover of vegetation at the site is small, perhaps only 100-200 m^2 with plant life only possible through the occurrence of small water droplets formed by the condensation of steam keeping the soils moist. Known sites of vegetation are marked as A-E on Map B. Site D is known to have been disturbed and possibly contaminated by human activity.

Mount Melbourne exhibits high biodiversity relative to other geothermal sites in the Antarctic, both maritime and high altitude. Biota includes algal crusts and felts (11 species) that coat small stones, gravel and finer substrata, bryophytes (one species of moss and one of liverwort), a protozoan, and a range of microflora. A lichen association has been observed as a component of black crusts over small areas of warm soil. The warmest areas of ground support yellowish-green patches of the moss *Campylopus pyriformis,* along with the liverwort *Cephaloziella varians* and brownish crusts of algae. The unusual occurrence of shallow peat is evidence of bryophyte growth over at least several decades. The amoeboid protozoan *Corythion dubium* was observed as empty shells in both mineral substrates and amongst bryophytes. The species is not common in continental Antarctica, and only found at one other site in Victoria Land.

6(ii) Prohibited, restricted and managed zones within the Area

Prohibited and Restricted Zones - Cryptogam Ridge

An area on the southern rim of the main summit crater (known as Cryptogam Ridge) is designated as a Prohibited Zone and a Restricted Zone (see Map B) in order to protect the most extensive stand of vegetation and preserve part of the Area as a reference site for future comparative study. The remainder of the Area, similar in biology, features, and character, is available for research programmes and controlled sample collection.

The zones consist of areas of snow-covered cool ground, warm snow-free ground, and ice-hummocks covering steam emissions and extend 40 m in all directions from the ridge line. Most of Cryptogam Ridge is incorporated within the Restricted Zone, which may be accessed by permit for essential scientific reasons which cannot be met elsewhere in the Area. The western most 100 m of the Cryptogam Ridge is a Prohibited Zone, to which access is strictly prohibited until such time it is agreed by management plan review that access should be allowed.

Managed Zones

Two Managed zones (see Map B) have been established within the Area where survey marks used in deformation studies need to be regularly accessed, and a radio repeater is installed and maintained each season. The zones extend 15 m around the survey marks and are located as follows:

1. Summit of Mt Melbourne, containing survey mark no. 600 and radio repeater site; and
2. South-east of Cryptogam Ridge, containing survey mark no. 601.

6(iii) Structures within and near the Area

A total of six survey marks, consisting of a metal tube set into a concrete base, are located around the summit area (see Map B) and are used in an ongoing Italian scientific programme examining the deformation study on the mountain. A radio repeater to support communications for the Italian Antarctic programme, consisting of an equipment box and aerial, is also installed annually on cool, ice-free ground near the summit.

6(iv) Location of other protected areas within close proximity of the Area

The nearest protected areas are: Cape Hallett, Victoria Land ASPA No. 106 (SPA No. 7), approximately 300 km to the north and Botany Bay, Cape Geology, Victoria Land ASPA No. 164 (SSSI No. 37) approximately 300 km to the south.

7. Permit conditions

Entry into the Area is prohibited except in accordance with a specific Permit issued by the appropriate national authoritie under Article 3 of Annex II. Permits may be issued for the following purposes:

- For activities outside the Restricted and Managed zones, permits may be issued only for scientific study of the ecosystem, for a compelling scientific or management purpose that cannot be served elsewhere, or for essential management purposes consistent with the plan objectives such as inspection, monitoring or review.
- Permits to access to the Restricted Zone may only be issued for essential scientific or management purposes that cannot be met elsewhere in the Area.

- Permits to enter ONLY the Managed Zones may be issued for essential operational or scientific purposes consistent with the objectives of the Management Plan, such as to access survey marks and radio repeater sites.

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

- the actions permitted are not likely to jeopardise the natural ecological system or scientific values of the Area;
- any management activities are in support of the objectives of the Management Plan;
- the actions permitted are in accordance with all requirements of the Management Plan;
- a Permit, or a copy, shall be carried within the Area, including a copy of all relevant maps from the Management Plan;
- a visit report shall be supplied to the authority named on the permit; and
- any Permit shall be issued for a stated period.

7(i) Access to and movement within the Area

The following restrictions apply within the Area:

- land vehicles are prohibited with the Area;
- helicopters may only land at the established survey marks within the two Managed Zones (see Map B), unless specifically allowed by Permit for purposes consistent with the aims of this plan;
- use of helicopter smoke grenades within the Area is prohibited;
- any overflight of the Prohibited or Restricted Zone must be more than 50 m above the ground level; and
- hovering over any part of the Area is not permitted lower than 50 m, and ice-free areas should be avoided unless absolutely necessary for access to the Area.

Visitors must avoid walking on areas of visible vegetation or moist soil, both on ice-free ground and among ice hummocks, and should not interfere with any ice structures unless specified in the permit. Pedestrian traffic should be kept to the absolute minimum necessary consistent with the objectives of any permitted activities and every reasonable effort should be made to minimise effects.

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

As outlined above, permitted activities within the Area may include:

- scientific research that will not jeopardise the ecosystem of the Area and cannot be conducted elsewhere;
- essential management activities, including monitoring and inspection; and
- essential operational activities, such as access to survey marks and radio repeater sites.

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 in the Area must be approved by Permit and clearly identified by country, name of the principal investigator, and year of installation. All such items should be made of materials that pose minimal risk of contamination of the Area. Removal of specific equipment for which the Permit has expired shall be a condition of the Permit.

7(iv) Location of field camps
Camping is permitted only in the ice-filled summit of the caldera or outside the Area (i.e. below the 2200 m contour).

7(v) Restrictions on materials and organisms which can be brought into the Area.
To avoid compromising the values of the ecosystem for which the Area is protected, the following restrictions apply to all activities in the Area:

- no living animals, plant material or microorganisms shall be deliberately introduced into the Area and precautions shall be taken against accidental introductions;
- 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 required for essential purposes connected with the activity for which the Permit has been granted and shall not be stored on ice free areas; and
- all materials introduced shall be for a stated period only, shall be removed at or before the conclusion of that stated period, and shall be stored and handled so that risk of their introduction into the environment is minimised.

7(vi) Taking or harmful interference with native flora or fauna
Any removal or disturbance of the vegetation or invertebrates is prohibited, except in accordance with a Permit issued under Article 3 of Annex II by the appropriate national authority specifically for that purpose. Any sampling is to be kept to the absolute minimum required for scientific or management purposes, and carried out using techniques which minimise disturbance to the surrounding soil, ice structures and biota. Any sampling or experimental sites should be photographed and the location recorded in detail and reported to the Permitting authority.

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 issued under Article 3 of Annex II by the appropriate national authority specifically for that purpose and should be limited to the minimum necessary to meet scientific or management needs. Sampling is to be carried out using techniques which minimise disturbance to the surrounding soil and biota. 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 authorised, may be removed from any part of the Area, including the Restricted Zone, 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, including all human 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

1. Permits may be granted to enter the Area to carry out biological monitoring and site inspection activities, which may involve the collection of small samples for analysis, or for protective measures and other essential management activities.

2. Any specific sites of long-term monitoring shall be appropriately marked (as in *7iii* above).
3. To help maintain the ecological and scientific values derived from the isolation and relatively low level of human impact at the Area, visitors shall take special precautions against introductions, especially when visiting several thermal regions in a season. Of particular concern are microbial or vegetation introductions sourced from:

- thermal areas, both Antarctic and non-Antarctic;
- soils at any other Antarctic sites, including those near stations;
- soils from regions outside Antarctica.

To this end, visitors shall take the following measures to minimise the risk of introductions:

a) Any sampling equipment or markers brought into the Area shall be sterilised and maintained in a sterile condition before being used within the Area. To the maximum extent practicable, footwear and other equipment used or brought into the Area (including backpacks or carry-bags) shall be thoroughly cleaned or sterilised and maintained in this condition before entering the Area;

b) Sterilisation should be by an acceptable method, such as by UV light, autoclave, or by washing surfaces in 70 percent ethanol solution in water.

c) Sterile protective overclothing shall be worn. The overclothing shall be suitable for working at temperatures of -20°C or below and comprise at a minimum sterile overalls to cover arms, legs and body and sterile gloves suitable for placing over the top of cold-weather gloves. Disposable sterile/protective foot coverings are not suitable for the scoria surface and should not be used. Instead, all footwear should be thoroughly brushed to remove soil particles and wipes with 70 percent ethanol.

d) Both the interior and exterior of helicopters should be cleaned as far as practicable before landing within Area.

7(x) Requirements for reports

Parties shall 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. Under item 10 of this form (mode of transport to/from the area), particular note should be made of where any helicopter used took off from and which landing site was used.

Parties shall maintain a record of such activities and, in the Annual Exchange of Information, shall provide summary descriptions of activities conducted by persons subject to their jurisdiction, in sufficient detail to allow evaluation of the effectiveness of the Management Plan. Parties should, wherever possible, deposit originals or copies of such reports in a publicly accessible archive to maintain a record of usage, to be used both for review of the Management Plan and in organising the scientific use of the site.

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ANTARCTIC SPECIALLY PROTECTED AREA No 135 NORTH-EAST BAILEY PENINSULA, BUDD COAST, WILKES LAND.

At the fifth meeting of the Committee for Environmental Protection (CEP V) Australia submitted three draft management plans for protected areas for the Committee's consideration. These were:

1. Antarctic Specially Protected Area No. 135, North-east Bailey Peninsula, Budd Coast, Wilkes Land;
2. Antarctic Specially Protected Area No. 143, Marine Plain, Vestfold Hills, Princess Elizabeth Land, (Find text related to this Plan in list attached to Mesure 2)
3. Antarctic Specially Protected Area No. 160, Frazier Islands, Wilkes Land, East Antarctica (Find text related to this Plan in list attached to Mesure 2)

To further consider the management plans, CEP V established an Intersessional Contact Group (ICG) to be led by Australia. The ICG was required to report back to CEP VI. The ICG used the Terms of Reference established by CEP IV for the review of draft management plans for protected areas:

1. ensure that each of the draft Management Plans are consistent with the Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas;
2. ensure consistency of approach of management measures, as appropriate, across the Management Plans being reviewed;
3. report back to CEP VI on the results of the contact group's assessment and provide recommendations on how the CEP should proceed with respect to these Management Plans.

Australia initiated the contact group by means of a circular email to all CEP contact points on 14 October 2002. New Zealand, Sweden and Romania responded to say that they wished to participate in the work of the group. Comments and suggestions on the draft management plans were received from Romania, New Zealand and SCAR.

Suggestions were received for the clarification of a number of points contained in management plan sections: Aims and objectives; Management activities; and Permit conditions. Where appropriate the suggestions were incorporated into the revised plans. In the management plan for North-east Bailey Peninsula, ASPA No. 135, the section dealing with the description of values to be protected was restructured to more clearly differentiate the specific values of the Area from those of the wider region.

The ICG is satisfied that the plans have been appropriately revised and that they are consistent with the Guide to the Preparation of Management Plans. The contact group therefore submits the finalised management plans for approval by the CEP and ATCM.

Appendix 1

Draft Measure nn (2003)

Antarctic Protected Area System: Management Plans for Antarctic Specially Protected Areas

The Representatives,

Recalling Article 3 of Annex V of the protocol on Environmental Protection to the Antarctic Treaty, and Resolution 1 (1998) allocating responsibility among Consultative Parties for the revision of Management Plans for protected 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 outstanding natural features and biota of scientific interest;

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 the following sites:

- Antarctic Specially Protected Area No. 135, North-east Bailey Peninsula, Budd Coast, Wilkes Land;
- Antarctic Specially Protected Area No. 143, Marine Plain, Vestfold Hills, Princess Elizabeth Land,
- Antarctic Specially Protected Area No. 160 , Frazier Islands, Wilkes Land, East Antarctica

and which are annexed to this Measure, be adopted.

MANAGEMENT PLAN FOR ANTARCTIC SPECIALLY PROTECTED AREA NO.135, NORTH-EAST BAILEY PENINSULA, BUDD COAST, WILKES LAND

Introduction

North-east Bailey Peninsula was designated in 1985 as Site of Special Scientific Interest (SSSI) No 16 through Recommendation XIII-8 (1983), after a proposal by Australia. In accordance with Resolution XX -5 (1996) the site was redesignated and renumbered as Antarctic Specially Protected Area (ASPA) No. 135. This revised Management Plan reaffirms the scientific values of the original designation. The Area was originally designated because it is representative of a diverse assemblage of vegetation with extremely rich lichen and moss beds and an important stand of liverwort, these values are reaffirmed in this revised Management Plan.

1. Description of Values to be Protected

Windmill Islands Region

Excluding the Antarctic Peninsula, Bailey Peninsula, among Clark and Mitchell Peninsulas, and Robinson Ridge in the Windmill Islands region support some of the most extensive and best-developed plant communities on continental Antarctica. The region has rich associations of macrolichens and bryophytes that occupy very specific ecological niches. The flora of the Windmill Islands region comprises 36 species of lichen, five bryophyte species, a liverwort, and 150 non-marine algae and 120 fungal taxa have been recorded. An ascomycete mycorrhizal fungus has been shown in the liverwort *Cephaloziella varians*. Three species of the lichen genus *Lecidea* have been collected and await identification.

Eleven cryptogamic sociations have been identified. The vegetation forms a continuum of ecological variation along environmental gradients of soil moisture, soil chemistry, and microclimate. On the peninsulas, the major community types are distinguished by the dominance of three bipolar lichens, *Usnea sphacelata, Pseudephebe minuscula* and *Umbilicaria decussata*. Vegetation communities on the islands are dominated by algal species such as *Prasiola crispa*, with moss and lichen being considerably poorer developed than on the peninsulas. Mosses and lichens are all but absent in eutrophic sites near bird colonies with a preponderance of *Prasiola crispa, Prasiococcus calcareous and Desmococcus olivaceus* chlorophyte algae occurring. Lichens constitute the largest part of the Windmill Islands region flora with bryophytes being dominant in moister areas.

North-east Bailey Peninsula Protected Area

North-east Bailey Peninsula, Antarctic Specially Protected Area is representative of a diverse assemblage of the Windmill Islands region flora. As such, the Area has intrinsic ecological value and scientific importance, particularly to botanists, microbiologists, soil scientists and glacial geomorphologists.

The North-east Bailey Protected Area contains three extensive and contrasting moss fields that are the subject of taxonomic, ecological and physiological studies that commenced during the summer of 1982-3. Additional studies include population ecology of invertebrates associated with the vegetation, and soil/water chemistry. Permanent lichen growth monitoring sites have also been established as have sites monitoring annual growth increments in mosses. The cryptogamic plant communities are also being observed in relation to short-term microclimate fluctuation and long-term climate change in the region since deglaciation 8000-5000 years BP. Studies in the Area were undertaken as part of the Biological Investigations of Terrestrial Antarctic Systems (BIOTAS) program. More recent studies have concentrated on

the determination of biodiversity, physiological and biochemical attributes, component interactions, impact of anthropogenic pollutants, and potential effects of global climate change. Casey station is a nominated study site under the Regional Sensitivity to Climate Change in Antarctic Terrestrial and Limnetic Ecosystems (RiSCC) international research program on Antarctic and Peri-Antarctic terrestrial and limnetic organisms and ecosystems.

Moss and lichen communities are used to monitor the environmental impacts of Casey station. The Area provides baseline data with which to compare changes in similar plant communities in the immediate surroundings of Casey station. The Area also serves as a valuable comparative site for similar plant communities in the Clark Peninsula ASPA, which are subject to less environmental stress and disturbance.

Proximity to Casey station minimises logistics problems with respect to field research and, at the same time, maximises the potential for disturbance of study areas. It is primarily for this reason that this Area, where research is concentrated, requires protection.

2. Aims and Objectives

Management at North-east Bailey Peninsula aims to:

- avoid degradation of, or substantial risk to, the values of the Area by preventing unnecessary human disturbance and sampling in the Area;
- preserve a part of the natural ecosystem as a reference Area for the purpose of future comparative studies and to assess direct and indirect effects of Casey station;
- allow scientific research on the ecosystem in the Area provided it is for compelling reasons which cannot be served elsewhere;
- minimise the possibility of introduction of alien plants, animals and microbes to the Area;
- allow for maintenance of the Tandem Delta antenna communications installation and associated facilities without degradation of the Area's values;
- allow visits for management purposes in support of the aims of the Management Plan.

3. Management Activities

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

- signs illustrating the location and boundaries, with clear statements of entry restrictions, shall be placed at appropriate locations at the boundaries of the Area to help avoid inadvertent entry;
- information on the location of the Area (stating special restrictions that apply) shall be displayed prominently, and a copy of this Management Plan shall be kept available, at the adjacent Casey station and will be provided to ships visiting the vicinity;
- 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 required;
- abandoned equipment or materials shall be removed to the maximum extent possible provided doing so does not adversely impact on the values of the Area;

- visit the Area 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 that management activities are adequate: and
- review the Management Plan at least every five years and update as required.

4. Period of Designation

Designated for an indefinite period.

5. Maps

Map A: East Antarctica, showing location of North-east Bailey Peninsula.
Map specifications:
Projection: Polar Stereographic
Horizontal Datum: WGS84
True scale of latitude 71°.

Map B: Budd Coast, Wilkes Land, showing location of North-east Bailey Peninsula.
Map specifications:
Projection: UTM Zone 49
Horizontal Datum: WGS84.

Map C: Topographic map of North-east Bailey Peninsula.
Map specifications:
Projection: UTM Zone 49
Horizontal Datum: WGS84.
Contour Interval: 10 m.

Map D: Vegetation map of North-east Bailey Peninsula
Map specifications:
Projection: UTM Zone 49
Horizontal Datum: WGS84.

Map E: Geology of North-east Bailey Peninsula.
Map specifications:
Projection: UTM Zone 49
Horizontal Datum: WGS84.

Map F: Detail of North-east Bailey Peninsula vegetation, structures and lakes.
Map specifications:
Projection: UTM Zone 49
Horizontal Datum: WGS84.

6. Description of the Area

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

General Description

The North-east Bailey Peninsula Antarctic Specially Managed Area is approximately 0.28 square kilometres in area and located on Bailey Peninsula adjacent to the Windmill Islands Group on the Budd Coast, Wilkes Land, East Antarctica, (Maps A and B). Bailey Peninsula is an area of rock exposures and permanent snow and ice fields and lies between Newcomb Bay and O'Brien Bay, two kilometres south of Clark Peninsula. The Area consists of an irregular area of exposed rock during summer on the northeast of Bailey Peninsula, with the north-

western portion of the Area approximately 70 metres south of Brown Bay with Casey station (66°16'59.9"S, 110°31'59.9"E) approximately 200 metres to the west. Boundary coordinates for the Area are shown in Appendix I, Table 1. Topographically, Bailey Peninsula comprises low lying, rounded ice-free rocky outcrops (maximum altitude approximately 40 metres), and, approximately three kilometres east rising to the Løken Moraines (altitude approximately 130 metres). Intervening valleys are filled with permanent snow or ice, or glacial moraine and exfoliated debris and contain water catchment areas. The topography of Bailey Peninsula is shown at Map C.

Climate

The climate of the Windmill Islands region is frigid-Antarctic. Meteorological data for the period 1957 to 1983, from Casey station (altitude 32 m) on Bailey Peninsula show mean temperatures for the warmest and coldest months of 0.3 and -14.9°C, respectively, with extreme temperatures ranging from 9.2 to -41°C, mean annual temperature for the period was –9.3°C. The climate is dry with a mean annual snowfall of 195 mm $year^{-1}$ (rainfall equivalent), precipitation as rain has been recorded in the summer. However, within the last decade the mean annual temperature has changed to –9.1°C and mean annual snowfall to 230 mm $year^{-1}$ (rainfall equivalent).

There is an annual average of 96 days with gale-force winds, which are predominantly easterly in direction, off the polar ice cap. Blizzards are a frequent occurrence especially during winter. Snowfall is common during the winter, but the extremely strong winds scour the exposed areas of the Peninsula of snow. On most hill crests on Bailey Peninsula snow gathers in the lee of rock outcrops and in depressions in the substratum. Further down the slopes snow forms deeper drifts.

Geology and Soils

Windmill Islands Region

The Windmill Islands region represent one of the eastern most outcrops of a Mesoproterozoic low-pressure granulite facies terrain that extends west to the Bunger Hills and further to the Archaean complexes in Princess Elizabeth Land, to minor exposures in the east in the Dumont d'Urville area and in Commonwealth Bay. The total outcrop areas do not exceed more than a few square kilometres. The Mesoproterozoic outcrop of the Windmill Islands and the Archaean complexes of Princess Elizabeth Land are two the few major areas in East Antarctica that can be directly correlated with an Australian equivalent in a Gondwana reconstruction. The Mesoproterozoic facies terrain comprise a series of migmatitic metapelites and metapsammites interlayered with mafic to ultramafic and felsic sequences with rare calc-silicates, large partial melt bodies (Windmill Island supacrustals), undeformed granite, charnockite, gabbro, pegmatite, aplites and cut by easterly-trending late dolerite dykes.

Bailey Peninsula

Bailey Peninsula is part of a the northern gradation of a metamorphic grade transition which separates the northern part of the Windmill Islands region from the southern part. The metamorpohic grade ranges from amphibolite facies, sillimanite-biotite-orthoclase in the north at Clark Peninsula, through biotite-cordierite-almandine granulite, to hornblende-orthopyroxene granulite at Browning Peninsula in the south. The Ardery Charnockite of the south is prone to deep weathering and crumbles readily because of its mineral assemblage,

whereas the metamorphic sequences of the northerly parts of the region have a much more stable mineral assemblage and crystalline structure. This difference has a significant influence on the distribution of vegetation in the Windmill Islands region with the northern rock types providing a more suitable substrate for slow growing lichens.

The leucocratic granite gneiss which constitutes the main outcrop on Bailey Peninsula, may be subdivided into leucogneiss and two different types of garnet-bearing gneiss. The outcrop on Bailey Peninsula is characterised as a garnet-bearing gneiss type 1 which is white, medium grained and foliated. The foliation is defined by the alignment of an early biotite generation that is tight to openly folded, with a garnet and a later biotite generation that overgrows the fabric. Unmetamorphosed and undeformed dolerite dykes occur over Bailey Peninsula such as at "Penguin Pass" (-66°17'18", 110°33'16"E), to the south of the ASPA. Small outcrops of metapelite, metapsammite and leuco- gneisses occur on the Peninsula. Recent geochronology of the rocks of the Windmill Islands region suggest two major phases of metamorphism, the first at c. 1400-1310 Ma, an upper amphibolite facies event, followed by a granulite facies overprint c. 1210-1180 Ma. The geology of Bailey Peninsula is shown at Map F.

Glaciation

The Windmill Islands region was glaciated during the Late Pleistocene. The southern region of the Windmill Islands was deglaciated by 8000 corr. yr B.P., and the northern region, including Bailey Peninsula deglaciated by 5500 corr. yr B.P. Isostatic uplift has occurred at a rate of between 0.5 and 0.6 m/100 yr, with the upper mean marine limit, featured as ice-pushed ridges, being observed on Bailey Peninsula at approximately 30 metres where they extend in continuous rows from the present sea-level.

Soils

Soils on Bailey Peninsula are derived from weathered gneiss, moraine deposits and outwash gravels stemming from glacial episodes. Seabirds have a large impact on soil formation in the entire landscape. Soils are frozen much of the year, during summer the upper 30-60 cm thaws with the few top centimetres, refreezing at night. Soils are mainly formed by cryoturbation and cryoclastic weathering. In the vicinity of Casey station most soils are classified by Blume, Kuhn and Bölter (2002) as cryosols with lithic, leptic, skeletal, turbic and stagnic subunits. Other soils in the Area are gelic subunits of histosols, podzols, and regosols, boulder and rock outcrops with ecto- and enolithic flora are classified as Lithosols.

Lakes

Cold monomictic lakes and ponds occur throughout the Windmill Islands region in bedrock depressions and are usually ice-free during January and February. Nutrient rich lakes are found near the coast , in close proximity to penguin colonies or abandoned colonies, sterile lakes are located further inland and are fed by meltwater and local precipitation. A number of these lakes and ponds occur across Bailey Peninsula with two large lakes located 500 metres to the west of the Area. Two ponds occur within the protected Area, the largest being approximately 75 metres by 50 metres and the smaller approximately 25 metres diameter. The distribution of lakes and ponds on Bailey Peninsula is shown at Map E.

Vegetation

The vegetation of Bailey Peninsula is exceptionally well developed and diverse and represents one of the most important botanical sites on continental Antarctica. Within the relatively complex plant communities and contrasting habitats found on Bailey Peninsula, are found at

least 23 lichens, three mosses, and an important stand of liverwort. The flora forms dense stands of macrolichens and in the moister and more sheltered areas bryophytes form closed stands of 25-50 m2 moss turf up to 30 cm in depth. The lichens, *Umbilicaria decussata, Pseudephebe minuscula* and *Usnea sphacelata* with mixed bryophytes dominate the vegetation cover of most of the ice-free areas, particularly on the north-east and centre of the Peninsula in dense lichen communities similar to those found on Clark Peninsula. Abandoned penguin colonies are dominated by *Xanthoria candelaria, Candelariella hallettensis, Buellia frigida* and *Usnea antarctica.* The most complex bryophyte communities are restricted to small locally moist hollows adjacent to melt pools and streams in the central north-east and central parts of the Peninsula. Vegetation is absent or poorly developed on the ice-free areas of the Peninsula's southern coast. Annex I, Table 2 provides a list of bryophytes and lichens identified in the Bailey Peninsula ASPA.

Two principal cryptogamic subformations are recognised; a lichen dominated association occupying a variety of windswept substrata ranging from bedrock to gravel, and, a short cushion and turf moss subformation comprising four moss dominated sociations. The vegetation of Bailey Peninsula is shown at Maps D and F.

At least 145 taxa of non-marine algae and cyanobacteria flora have been isolated and include 50 cyanobacteria, 70 chlorophytes and 23 chromophytes. The taxa have been found in snow and ice, soil, rocks, ephemeral ponds, tarns and lakes, 24 of these cyanobacterial and algal species occur in the snow. Snow algae are abundant and widespread in the icy corridors between the rocky outcrops and in semi-permanent snow drifts. A list of cyanobacterial and algal species from the Area, Bailey Peninsula, and the Windmill Islands region is shown in Appendix I, Table 3.

The vegetated soils of Bailey Peninsula contain fungal hyphae, yeasts, fungal propagules, an assortment of algae, cyanobacteria, protozoa, and provide a significant habitat for soil microfauna such as nematodes, mites, rotifers and tardigrades. There is relatively low fungal diversity in the Windmill Islands region, with 35 taxa representing 22 genera of fungi being isolated from soils, mosses, algae and lichens. Compared with mosses and algae, fungal distribution and diversity are poor in lichens. Thirty taxa have been detected in the soils in the vicinity of Casey station with 12 of these taxa restricted to anthropologically influenced soils around the station, *Penicillium* species dominated in these sites. Eight fungi taxa have been isolated from soils within the Area. More broadly within the Windmill Islands region, 21 taxa have been isolated from the mosses, *Bryum pseudotriquetrum, Ceratodon purpureus* and *Grimmia antarctici*, with 12 taxa isolated from algae and 6 taxa from the lichens, *Xanthoria candelaria, Umbilicaria decussata* and *Usnea sphacelata.* A number of fungi have also been found associated with animals of the region. Appendix I, Table 4 provides detail of the taxa and their source.

Birds

Four species of birds are known to nest in the vicinity of Bailey Peninsula. These include Adélie Penguin *Pygoscelis adeliae*, which is the most abundant bird species in the Area. The nearest breeding colony is on Shirley Island about 1.5 km west of Casey station. Snow Petrels *Pagodroma nivea*, are seen all year-round and breed throughout the Windmill Islands region including Reeve Hill about 750 metres west of the Area and Budnick Hill, 600 metres to the northwest. Wilson's Storm Petrel *Oceanites oceanicus*, breeds throughout the Windmill Islands region and nests in the Area. The Antarctic Skua *Catharacta maccormicki*, breeds throughout the Windmill Islands region at widely dispersed nests, mostly near Adélie Penguin colonies.

Other birds that breed in the Windmill Islands region but not in the immediate vicinity of Bailey Peninsula include Southern Giant Petrel *Macronectes giganteus*, Cape Petrel *Daption capense*, Southern Fulmar *Fulmarus glacialoides* and Antarctic Petrel *Thalassoica antarctica*. The Emperor Penguin *Aptenodytes forsteri* is a common visitor to the Windmill Islands region and a breeding colony of approximately 2000 pairs is established in the area of Peterson Bank.

Terrestrial invertebrates and microbial communities

The Antarctic flea *Glaciopsyllus antarcticus,* has been found in the nests of Southern fulmars, *Fulmarus glacialoides*. The anopluran louse, *Antarctophthirus ogmorhini*, is found on the Weddell Seal, *Leptonychotes weddellii*. A number of species of mallophagan lice have also been found on birds.

The mite *Nanorchestes antarcticus* has been found on Bailey Peninsula at sites characterised as having sandy or gravelly soils, free of extensive moss or lichen cover, and moist but not water-logged.

Five species of tardigrades have been collected on Bailey Peninsula, *Pseudechiniscus suillus, Macrobiotus* sp., *Hypsibius antarcticus, Ramajendas frigidus and Diphascon chilenense.* Significant positive associations between bryophytes and the most common species of tardigrades, *P. suillus, H. antarcticus* and *D. chilenense*, have been found, and strong negative associations between those species and algae and lichens have been established. No systematic or ecological accounts of nematodes have yet been published for the Windmill Islands region.

Protozoa have been studied on at a number of sites on Bailey Peninsula and in the Area, ciliates and testate amoebae are active. Twenty seven ciliate species and six testacean species have been found. The species are shown in Table 5.

6(ii) Special Zones within the Area

There are no special zones within the Area.

6(iii) Location of Structures within and adjacent to the Area

Casey station (Australia) is located west of the northern portion of the Area. Prior to the designation of the Area as a protected site in 1986 an array of radio transmitters had been established on the site progressively from 1964. During the summer of 2001/2002 redundant aerials and infrastructure were removed. A number of structures remain within the Area. These are a small storage rack in the north-west of the Area, the transmitter building and rigging store of 52.3 m^2, a 45 metre high tandem delta antenna mast located in the south east of the protected Area. Another 35 metre mast is located approximately 100 metres south of the Area.

6(iv) Location of other Protected Areas in the vicinity

The nearest protected Area to North-east Bailey Peninsula is Clark Peninsula, Antarctic Specially Protected Area No. 136, 2.5 km north-east of Bailey Peninsula, across Newcomb Bay, adjacent to abandoned Wilkes station. Antarctic Specially Protected Area, No. 103, Ardery Island, 66°22'S, 110°27'E, and Odbert Island, 66°22'S, 110°33'E, Budd Coast lying in Vincennes Bay, is approximately 11 km south of Casey station, west of Robinson Ridge.

7. Permit Conditions

Entry into the Area is prohibited except in accordance with a Permit issued by an appropriate National Authority. A Permit to enter the Area may only be issued for compelling scientific research, maintenance of the Tandem Delta antenna communications installation and associated facilities, or for essential management purposes consistent with the Management Plan's objectives and provisions, and providing that the actions permitted will not jeopardise the ecological or scientific values of the Area or interfere with existing scientific studies. Conditions that must be included in the Permit are that the Permit or an authorised copy shall be carried within the Area, and that the Permit specify the period for specific activities. Additional conditions, consistent with the Management Plan's objectives and provisions, may be included by the issuing Authority.

7(i) Access to and Movement within or over the Area

Vehicles are prohibited within the Area and access should be by foot. The Area is accessible by walking, the Casey station precinct lies approximately 200 west of the north-west of the Area. Helicopters are prohibited from landing within the Area. Visitors should avoid walking on visible vegetation. Care should be exercised walking in areas of moist ground, where foot traffic can easily damage sensitive soils, plant or algae communities, and degrade water quality: walk around such areas, on ice or rocky ground. 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 walk on bare rocks and minimise impacts.

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

- Compelling scientific research which cannot be undertaken elsewhere and which will not jeopardise the ecosystem of the Area.
- Essential management activities, including monitoring.
- Sampling, but this should be the minimum required for the approved research programs.
- Maintenance and activities associated with the antennas and transmitter facility.

7(iii) Installation, modification or removal of structures

Any structures erected or installed within the Area are to be specified in a Permit. Scientific markers and equipment must be secured and maintained in good condition, clearly identifying the permitting country, name of principal investigator and year of installation. All such items should be made of materials that pose minimum risk of contamination of the Area. Removal of equipment associated with scientific research before the Permit for that research expires, shall be a condition of the Permit. Details of markers and equipment left in situ (GPS locations, description, tags, etc. and expected "use by date") should be reported to the permitting Authority.

7(iv) Location of field camps

Parties are prohibited from camping within the Area.

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

- No living animals, plant material or microorganisms shall be deliberately introduced into the Area and precautions shall be taken against accidental introductions.
- No herbicides or pesticides shall be brought into the Area. Any other chemicals, including radio-nuclides or stable isotopes, which may be introduced for scientific or management purposes specified in a 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 required for essential purposes connected with the activity for which the Permit has been granted. Permanent fuel depots are not permitted.
- All material 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 to the environment is minimised.

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

Taking of or harmful interference with native flora and fauna is prohibited, except in accordance with a Permit. Where taking or harmful interference with animals 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 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 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, and which was not brought into the Area by the Permit Holder or otherwise authorised, may be removed unless the impact of the removal is likely to be greater than leaving the material *in situ*: if this is the case the appropriate Authority must be notified and approval obtained.

7(viii) Disposal of waste

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

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

Permits may be granted to enter the Area to carry out biological monitoring and Area inspection and management activities, which may involve the collection of small samples for analysis or review, to erect or maintain signposts, or for other protective measures.

Remove the storage rack and supplies located in the north-west of the Area, provided doing so does not adversely impact on the values of the Area.

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

To help maintain the ecological and scientific values of the plant communities found in the Area persons entering the Area shall take special precautions against introductions. Of particular concern are microbial or vegetation introductions sourced from soils at other Antarctic sites, including stations, or from regions outside Antarctica. To minimise the risk of

introductions footwear and any equipment to be used in the Area – including sampling equipment and markers – shall be thoroughly cleaned before entering the Area.

7(x) Requirements for reports

Parties should ensure that the principal Permit Holder for 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 contained in Appendix 4 of Resolution 2 (1998)(CEPI). 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.

8. Supporting Documentation

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Annex I

Table 1: North-east Bailey Peninsula, Antarctic Specially Protected Area No 135, boundary coordinates.

Boundary Point	Longitude	Latitude	Boundary Point	Longitude	Latitude
1	110°32′42″	66°17′3″	15	110°32′12″	66°16′51″
2	110°32′56″	66°17′11″	16	110°32′16″	66°16′52″
3	110°32′50″	66°17′11″	17	110°32′19″	66°16′53″
4	110°32′41″	66°17′10″	18	110°32′19″	66°16′55″
5	110°32′22″	66°17′7″	19	110°32′24″	66°16′55″
6	110°32′20″	66°17′6″	20	110°32′25″	66°16′53″
7	110°32′18″	66°17′2″	21	110°32′29″	66°16′53″
8	110°32′18″	66°17′0″	22	110°32′44″	66°16′54″
9	110°32′14″	66°16′60″	23	110°33′9″	66°17′5″
10	110°32′9″	66°16′56″	24	110°33′11″	66°17′6″
11	110°32′8″	66°16′54″	25	110°33′10″	66°17′9″
12	110°32′5″	66°16′54″	26	110°33′2″	66°17′11″
13	110°32′7″	66°16′52″	27	110°32′56″	66°17′11″
14	110°32′7″	66°16′52″			

Table 2: Mosses, Liverworts and Lichens identified from North-east Bailey Peninsula Antarctic Specially Protected Area No. 135, (from Mellick 1994, Seppelt pers. comm.).

Mosses
Bryum pseudotriquetrun (Hedw.) Gaertn., Meyer et Scherb.
Ceratodon purpureus (Hedw.) Brid.
Schistidium antarctici (Card.)
Liverworts
Cephaloziella varians Steph.
Lichens
Acarospora gwynii Dodge & Rudolph
Amandinea petermannii (Hue) Matzer, H. Mayrhofer & Scheid.
Buellia cf. cladocarpiza Lamb?
Buellia frigida (Darb.) Dodge
Buellia grimmiae Filson
Buellia cf. lignoides Filson
Buellia papillata Tuck.
Buellia pycnogonoides Darb.
Buellia soredians Filson
Caloplaca athallina Darb.
Caloplaca citrina (Hoffm.) Th. Fr.
Candelariella flava (C.W. Dodge & Baker) Castello & Nimis
Lecanora expectans Darb.
Lecidea spp.
Lecidea cancriformis Dodge & Baker (=*Lecidea phillipsiana* Filson)
Lecidea andersonii Filson
Lepraria sp.
Pleopsidium chlorophanum (Wahlenb.) Zopf
Rhizocarpon flavum Dodge & Baker
Rhizoplaca melanophthalma (Ram.) Leuck. & Poelt
Rinodina olivaceobrunnea Dodge & Baker
Rinodina petermannii (Hue) Darb.
Physcia caesia (Hoffm.) Hampe
Umbilicaria aprina Nyl.
Umbilicaria decussata (Vill.) Zahlbr.
Umbilicaria cf. propagulifera (Vainio) Llano
Xanthoria elegans (Link) Th. Fr.
Xanthoria mawsonii Dodge.
Pseudephebe minuscula (Nyl ex Arnold) Brodo & Hawksw.
Usnea antarctica Du Rietz
Usnea sphacelata R. Br.

Table 3: Fungi isolated from soils, mosses, lichens and algae from ASAP No 135, North-east Bailey Peninsula and from species of wider distribution in the Windmill Islands region (from Azmi and Seppelt 1998)

			Windmill Islands Region Species				
	ASPA No. 135	Bailey Peninsula	Bryum pseudotri-quetrum	Ceratodon purpureus	Grimmia antarctici	Algae	Lichens*
Acremonium sp.					✓		
Acremonium crotociningenum		✓					✓
Alternaria alternata		✓					
Arthrobotrys			✓	✓			
Aspergillus nidulans		✓					
Aspergillus sp.						✓	
Botrytis cinerea		✓					
Chrysosporium sp	✓		✓	✓	✓		
Chrysosporium pannorum	✓	✓	✓	✓	✓	✓	✓
Cladosporium sp.		✓					
Diplodia sp.		✓					
Fusarium oxysporum		✓					
Geomyces sp.		✓	✓	✓		✓	✓
Geotrichum sp.							
Mortierella sp.		✓	✓		✓	✓	✓
Mortierella gamsii		✓	✓				
Mucor pyriformis		✓	✓		✓		
Mycelia sterilia 1	✓		✓	✓	✓	✓	✓
Mycelia sterilia 2	✓		✓	✓	✓	✓	
Mycelia sterilia 3	✓		✓	✓	✓		
Mycelia sterilia		✓					
Nectria peziza		✓	✓		✓		
Penicillium chrysogenum	✓		✓		✓	✓	
P. commune		✓					
P. corylophilum		✓					
P. expansum		✓	✓	✓		✓	
P. hirsutum		✓					
P. palitans		✓	✓	✓	✓		
P. roqueforti		✓					
Penicillium sp.			✓	✓	✓	✓	
Penicillium sp. 1							
Penicillium sp. 2							
Phialophora malorum		✓	✓	✓	✓	✓	
Phoma herbarum		✓	✓	✓	✓		
Phoma sp.	✓						
Phoma sp. 1			✓	✓	✓		
Phoma sp. 2				✓	✓		
Rhizopus stolonifer		✓				✓	
Sclerotinia sclerotiorum		✓					
Thelebolus microsporus	✓	✓	✓	✓	✓	✓	✓
Trichoderma harzianum		✓					
T. pseudokoningi		✓					

*Lichens are *Xanthoria candelaria, Umbilicaria decussata and Usnea sphacelata.*

Table 4: Cyanobacterial and algal species identified from the Windmill Islands region.
The taxa are listed in alphabetical order under each phylum together with their habitats and whether they are maintained in culture. *A = Aquatic, T = Terrestrial* (from soil), *S = Snow* or ice and *C = Culture*. (from Ling and Seppelt 1998)

Cyanobacteria	
Aphanothece castagnei (BRÉB.) RABENH.	A
Aphanocapsa elachista var. irregularis BOYE-PET.	A
Aphanocapsa muscicola (MENEGH.) WILLE	A
Aphanothece saxicola NAGELI	A
Aphanothece sp.	A
Calothrix parietina THUR.	A
Chamaesiphon subglobosus (ROS-TAF.) LEMMERM.	A
Chroococcus dispersus (KEISSL.) LEMMERM.	A
Chroococcus minutus (KÜTZ.) NÄGELI	A
Chroococcus turgidus (KÜTZ.) NÄGELI	A
Dactylococcopsis antarctica F E. FRITSCH	A
Dactylococcopsis smithii R. et E CHODAT (= *Rhabdogloea smithii* (R. et E CHODAT)	A
Eucapsis sp.	T
Gloeocapsa dermochroa NÄGELI	A
G. kuetzingiana NÄGELI	A
Hammatoidea sp.	A
Homoeothrix sp.	A
Isocystis pallida WORON.	AT
Katagnymene accurata GEITLER	AT
Lyngbya attenuata FRITSCH	A
Lyngbya martensiana MENEGH.	A
Merismopedia tenuissima LEMMERM.	AT
Myxosarcina concinna PRINTZ	A
Nodularia harveyana var. *sphaerocarpa* (BORN. et FLAH.)ELENKIN	A
Nostoc commune VAUCHER	ATC
Nostoc sp.	T
Oscillatoria annae VAN GOOK	A
Oscillatoria fracta CARLSON	A
Oscillatoria irrigua KÜTZ.	A
Oscillatoria lemmermannii Wolosz.	A
Oscillatoria proteus SKUJA	A
Oscillatoria sp. (BROADY 1979a, *Oscillatoria* cf. *limosa* AGARDH)	A
Oscillatoria sp. (BROADY 1979a, *Oscillatoria* sp. C)	T
Phormidium autumnale(AGARDH) GOMONT	T
Phormidium foveolarum GOMONT	A
Phormidium frigidum F.E. FRITSCH	A
Phormidium subproboscideum (W et G. S. WEST) ANAGNOST et KOMAREK.	A
Phormidium sp.	A
Plectonema battersii GOMONT	A
Plectonema nostocorum BORNET	A
Pseudanabaena mucicola (HUB.-PEST. et NAUM.) BOURR.	A
Schizothrix antarctica F E. FRITSCH	A
Stigonema mesentericum GEITLER f.	T
Stigonema minutum (AGARDH) HASSALL	T
Stigonema sp.	T
Synechococcus aeruginosus NÄGELI	T
Synechococcus major SCHROETER	AT
Tolypothrix byssoidea (BERK.) KIRCHNER f	A
Tolypothrix distorta var. *penicillata* (AGARDH)LEMMERM.(= Tolypothrix penicillata THURET)	A
Chlorophyta	
Actinotaenium cucurbita (BRÉB.) TEILING	AC
Apodochloris irregularis LING et SEPPELT	AC
Asterococcus superbus (CIENK.) SCHERFF.	AC
Binuclearia tatrana WITTR.	AC
Binuclearia tectorum (KÜTZ.) BEGER	AC
Chlamydomonas pseudopulsatilla GERLOFF	S
Chlamydomonas sphagnicola (F.E. FRITSCH) FE. FRITSCH et TAKEDA	TC
Chlamydomonas subcaudata WILLE	A
Chlamydomonas sp. 1	A
Chlamydomonas sp. 2	A
Chlorella vulgaris BEIJ.	AT
Chloromonas brevispina HOHAM, ROEMER et MULLET	S
Chloromonas polyptera (F.E. FRITSCH) HOHAM. MULLET et ROEMER	SC
Chloromonas rubroleosa LING et SEPPELT	SC
Chloromonas sp. 1	SC
Chloromonas sp. 2	A
Coenochloris sp.	T
Desmococcus olivaceus (PERS. ex ACH.) LAUNDON	ATC
Desmotetra sp. 1	SC
Desmotetra sp. 2	SC
Dictyosphaerium dichotomum LING et SEPPELT	T
Fernandinella alpina CHODAT	AC
Geminella terricola BOYE-PET.	T

Gloeocystis polydermatica (KÜTZ.) HINDAK	T
Gloeocystis vesiculosa NÄGELI	T
Gongrosira terricola BRISTOL	AC
Gonium sociale (DUJARD.) WARM.	AC
Hormotila sp.	SC
Kentrosphaera bristolae G.M.SMITH	A
Klebsormidium dissectum var. 1(BROADY 1979a, *Chlorhormidium dissectum* var. A)	T
Klebsormidium subtilissimum (RABENH.) SILVA, MATTOX et BLACKWELL	A
Klebsormidium sp. (BROADY 1981, *Klebsormidium* sp. A)	SC
Lobococcus sp.?	T
Lobosphaera tirolensis REISIGL	TC
Macrochloris multinucleate (REISIGL)ETTL et GARTNER	ATC
Mesotaenium berggrenii (WITTR.) LAGERH. f.	S
Monoraphidium contortum (THUR.) KOMARK.-LEGN.	A
Monoraphidium sp.	S
Myrmecia bisecta REISIGL	T
Palmella sp. 1	TC
Palmella sp. 2	A
Palmellopsis sp.	SC
Prasiococcus calcarius (BOYE-PET.) VISCHER	ATSC
Prasiola calophylla (CARMICH.) MENEGH.	TC
Prasiola crispa (LIGHTF.) MENEGH.	ATSC
Prasiola sp.?	A
Pseudochlorella subsphaerica REISIGL	T
Pseudococcomyxa simplex (MAINX) FOTT	T
Pyramimonas gelidfcola MCFADDEN, MOESTRUP et WETHERBEE	A
Pyramimonas sp.	A
Raphidonema helvetica KOL	S
Raphidonema nivale LAGERH.	S
Raphidonema sempervirens CHODAT	TC
Raphidonema tatrae KOL	S
Schizogonium murale KÜTZ.	ATC
Schizogonium sp.	AT
Staurastrum sp.	A
Stichococcus bacillaris NÄGELI	TSC
Stichococcus fragilis (A. BRAUN) GAY	A
Stichococcus minutus GRINTZESCO et PETERFI	S
Tetracystis sp. 1	TC
Tetracystis sp. 2	TC
Trebouxia sp.	TC
Trichosarcina mucosa (B BROADY) CHAPPELL et O'KELLY	TC
Trochiscia sp. (BROADY 1979x,	A

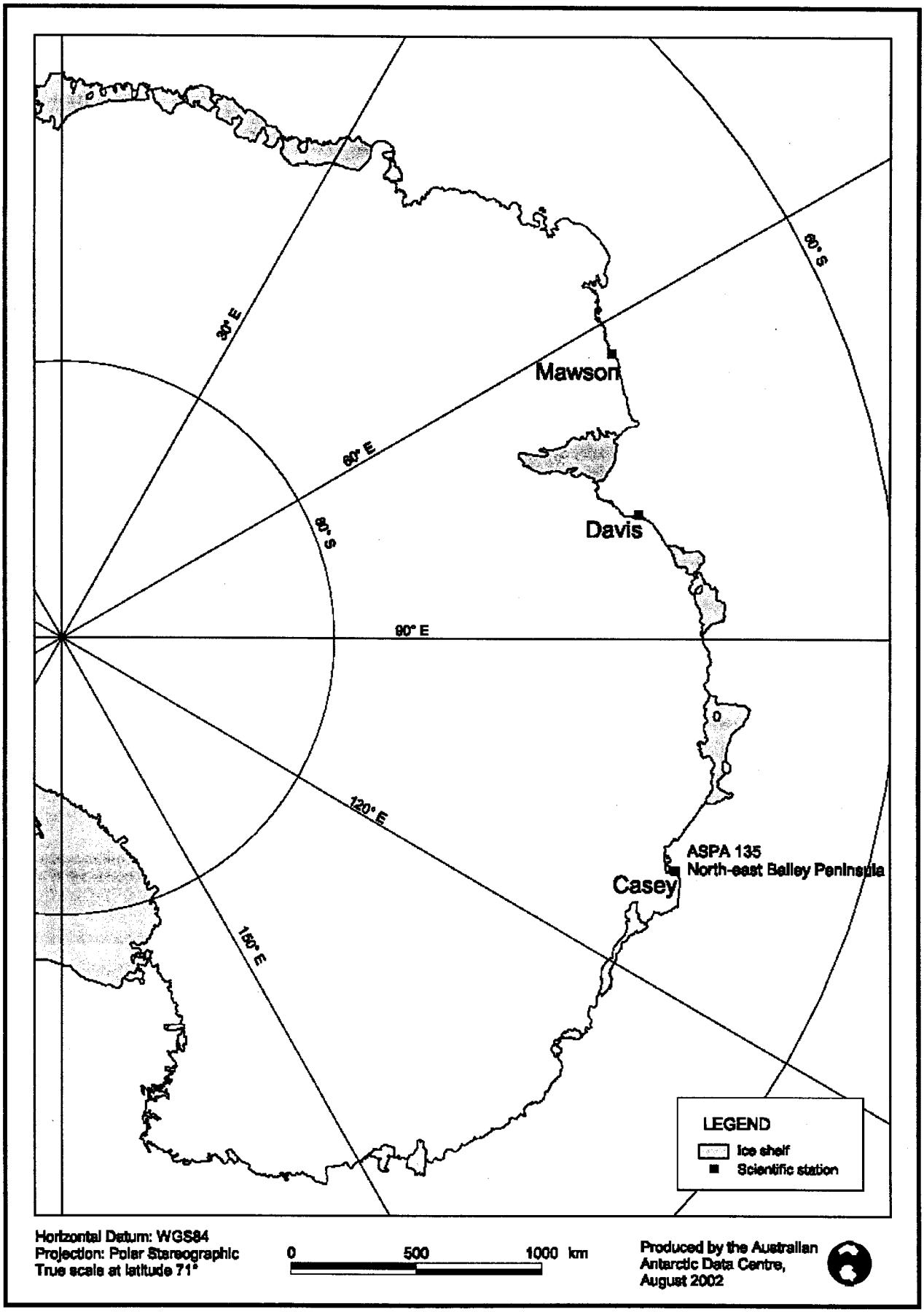
Trochiscia sp. A)	
Ulothrix implexa (KÜTZ.) KÜTZ. A	
Ulothrix zonata (WEBER et MOHR) KÜTZ	
Ulothrix sp. 1	A
Ulothrix sp. 2	S
Uronema sp.	S
Xanthophyta	
Botrydiopsis sp.	TC
Bumilleriopsis sp.	TC
Ellipsoidion sp.?	S
Fremya sp.	ATC
Gloeobotrys sp.	A
Heterococcus filiformis PITSCHM.	TC
Heterococcus sp.	TC
Heterothrix debilis VISCHER	TC
Tribonema microchloron ETTL	A
Chrysophyta	
Chrysococcus sp.	S
Chroomonas lacustris PASCHER et RUTTNER	A
Dinophyta	
Gymnodinium sp.	A
Bacillariophyta	
**Achnanthes coarctata* var. *elliptica* KRASSKE	S
Amphora veneta KÜTZ.	A
**Cocconeis imperatrix* A. SCHMIDT	S
**Diploneis subcincta* (A. SCHMIDT) CLEVE	S
**Eucampia balaustium* CASTRAY	S
Fragilaria sp.	A
Fragilariopsis antarctica (CASTRAY) Hust.	A
Hantzschia amphioxys (EHRENB.) GRUN.	A
Navicula atomus (NÄG.)GRUN.	A
Navicula murrayi W. et G. S. WEST	A
Navicula muticopsis VAN HEURCK	AT
Navicula sp.	A
Nitzschia palea (KÜTZ.) W. S M.	AT
Pinnularia borealis EHRENB.	AT
Torpedoes laevissima W et G. S. WEST	A

**Believed to be marine diatoms from wind-borne sea spray.

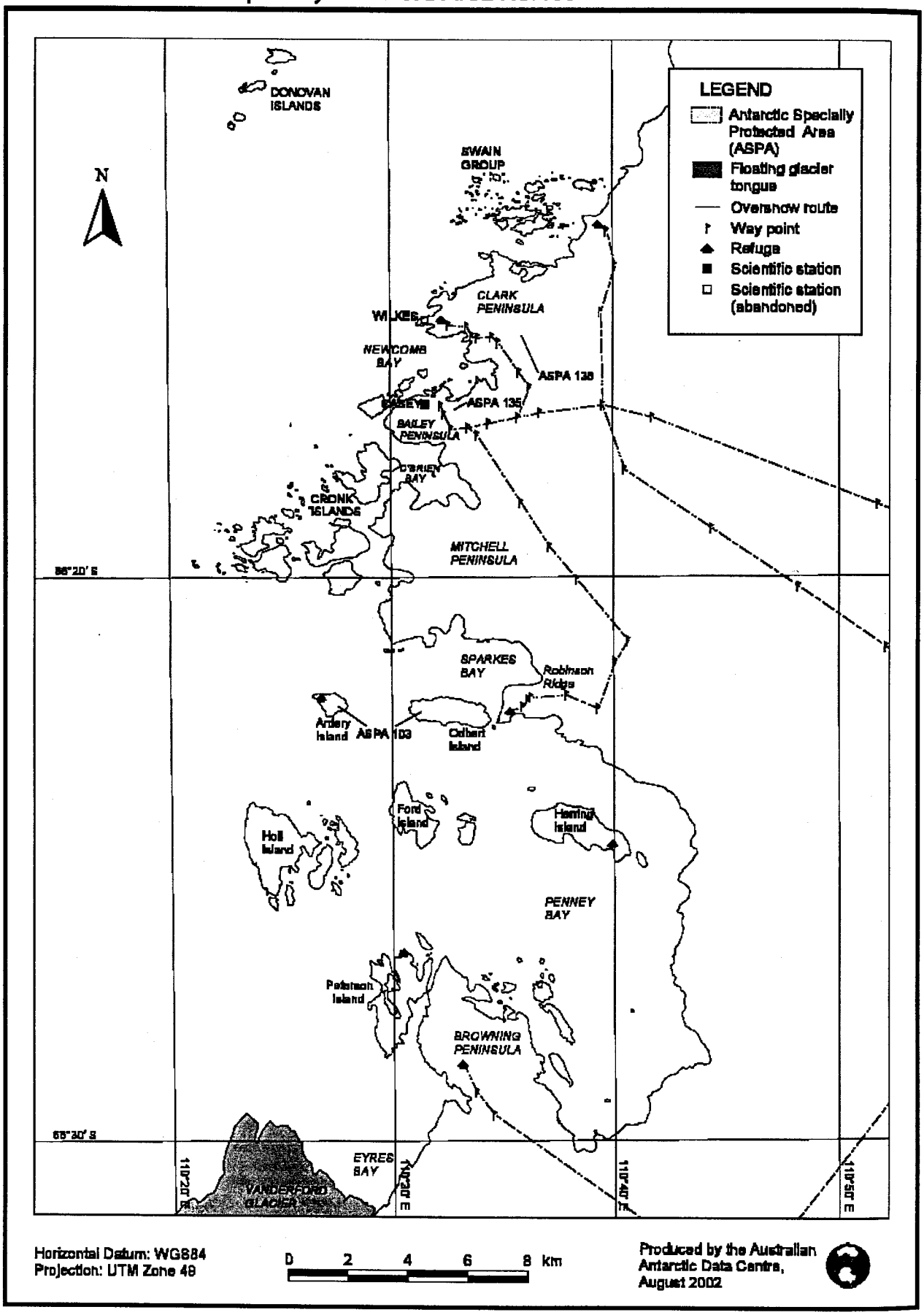
Table 5: Ciliates and Testate Amoebae active in the vicinity of Casey station on Bailey Peninsula. (Modified from Petz and Foissner 1997)

Ciliates
Bryometopus sp
Bryophyllum cf. loxophylliforme
Colpoda cucullus (Mueller, 1773)
Colpoda inflata (Stokes, 1884)
Colpoda maupasi Enriques, 1908
Cyclidium muscicola Kahl, 1931
Cyrtolophosis elongata (Schewiakoff, 1892)
Euplotes sp.
Fuscheria terricola Berger and others, 1983
Gastronauta derouxi Blatterer and Foissner, 1992
Halteria grandinella (Mueller, 1773)
Holosticha sigmoidea Foissner, 1982
Leptopharynx costatus Mermod, 1914
Odontochlamys wisconsinensis (Kahl, 1931)
Oxytricha opisthomuscorum Foissner and others, 1991
Parafurgasonia sp.
Paraholosticha muscicola (Kahl, 1932)
Platyophrya vorax Kahl, 1926
Pseudocohnilembus sp.
Pseudoplatyophrya nana (Kahl, 1926)
Pseudoplatyophrya cf. saltans
Sathrophilus muscorum (Kahl, 1931)
Sterkiella histriomuscorum (Foissner and others, 1991)
Sterkiella thompsoni Foissner, 1996
Trithigmostoma sp.
Vorticella astyliformis Foissner, 1981
Vorticella infusionum Dujardin, 1 841
Testate amoebae
Assulina muscorum Greeff, 1888
Corythion dubium Taranek, 1881
Euglypha rotunda Wailes and Penard, 1911
Pseudodifflugia gracilis var. *terricola* Bonnet and Thomas, 1960
Schoenbornia viscicula Schoenborn, 1964
Trachelocorythion pulchellum (Penard, 1890)

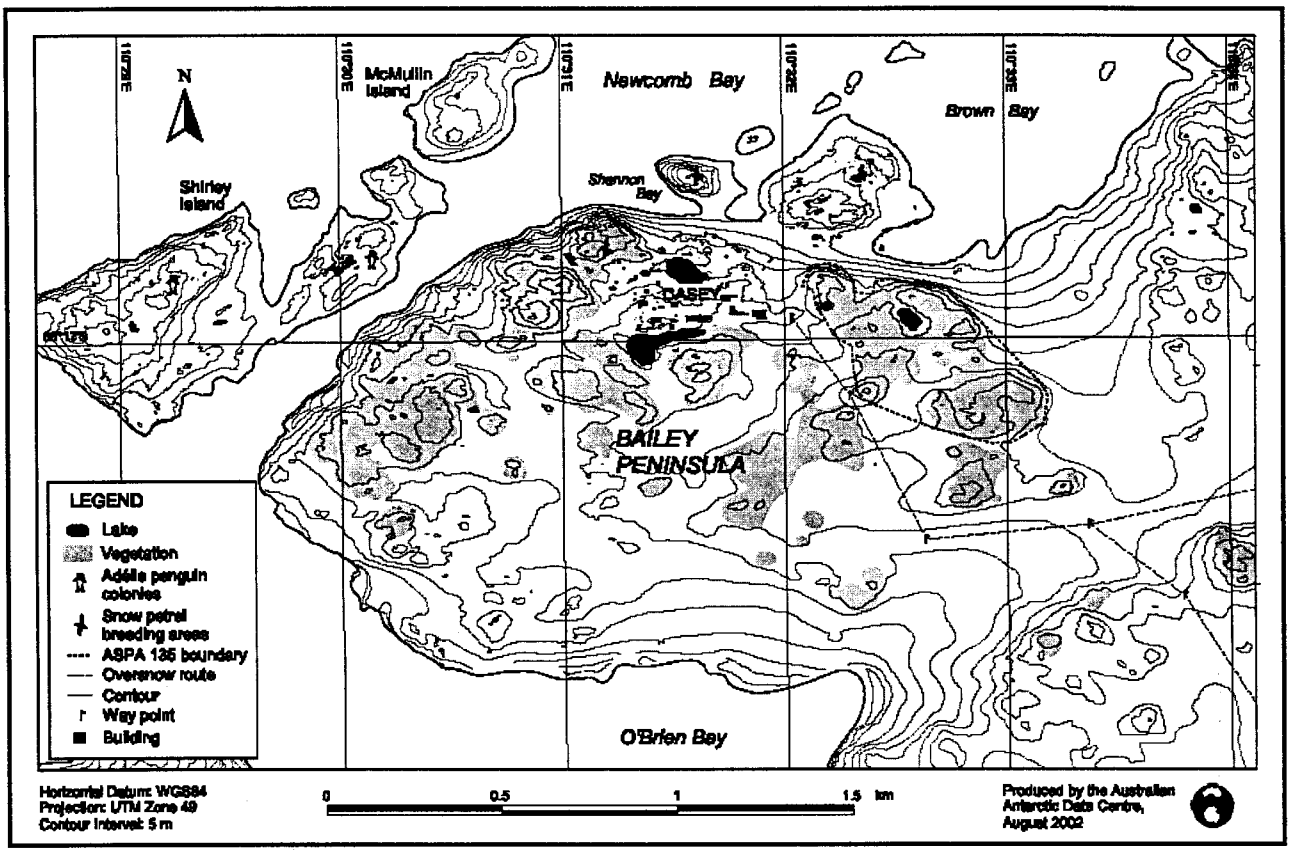
MAP A East Antarctica, Location of North-east Bailey Peninsula, Antarctic Specially Protected Area No.135



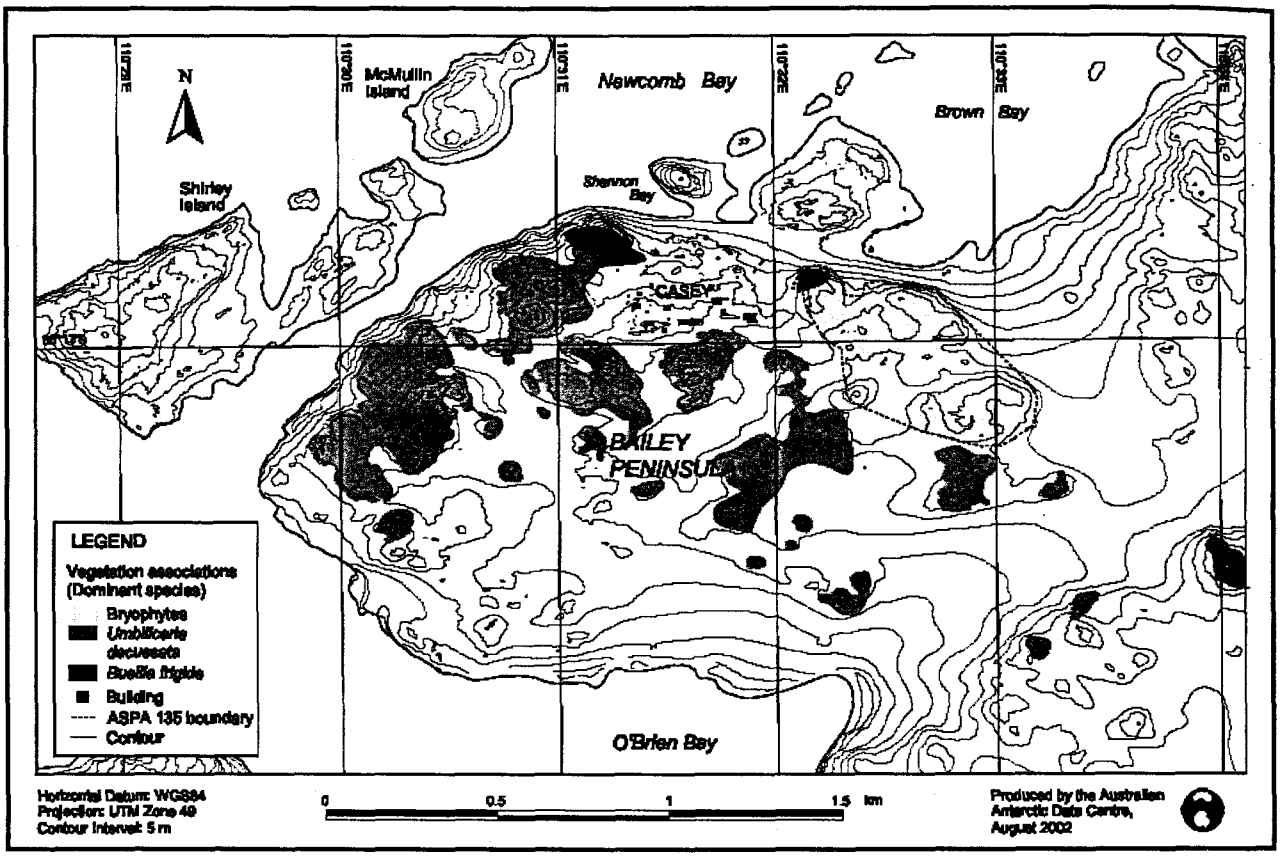
MAP B North-east Bailey Peninsula, Budd Coast, Wilkes Land. Antarctic Specially Protected Area No.135



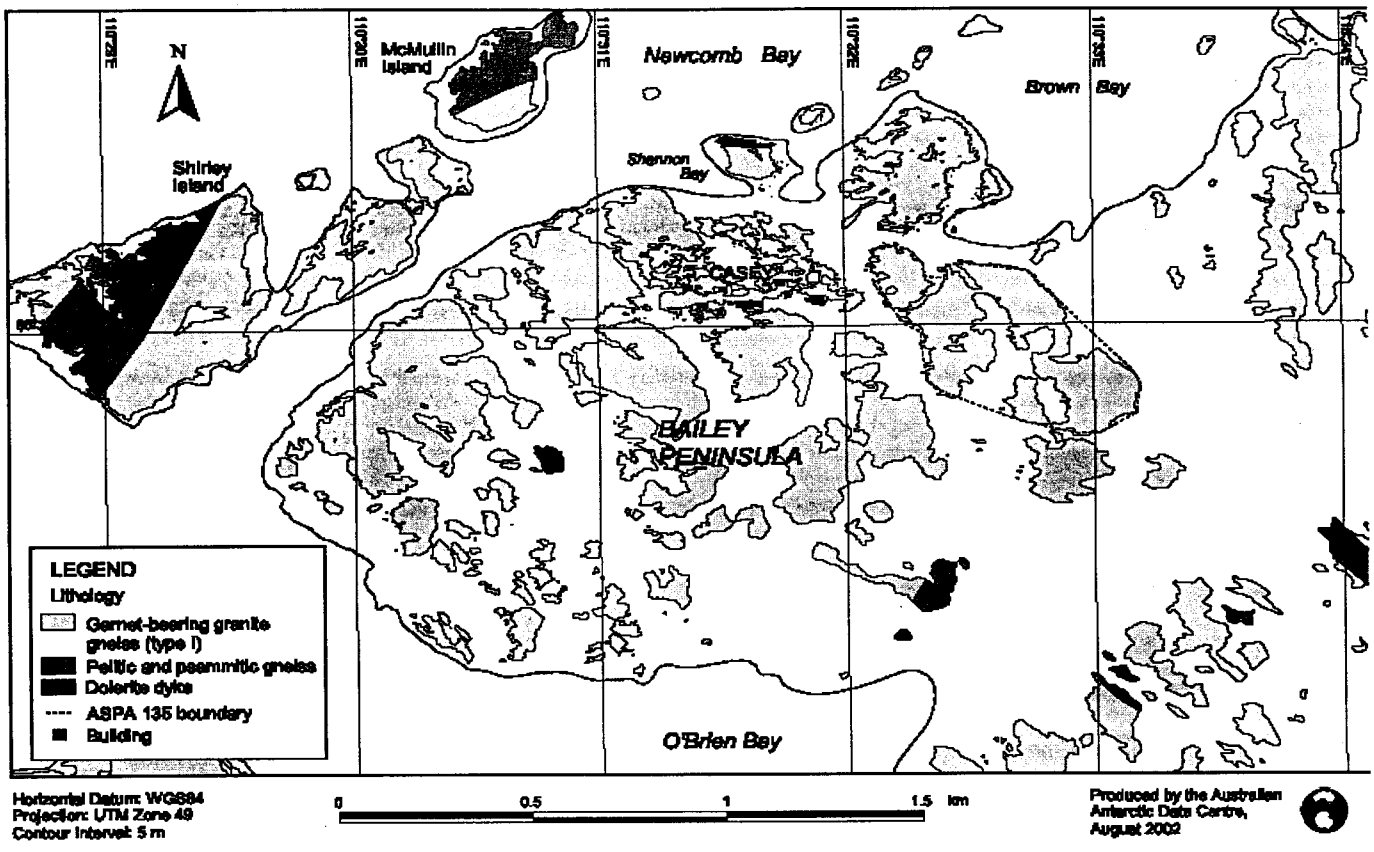
MAP C North-east Bailey Peninsula, Antarctic Specially Protected Area No.135, Topography.



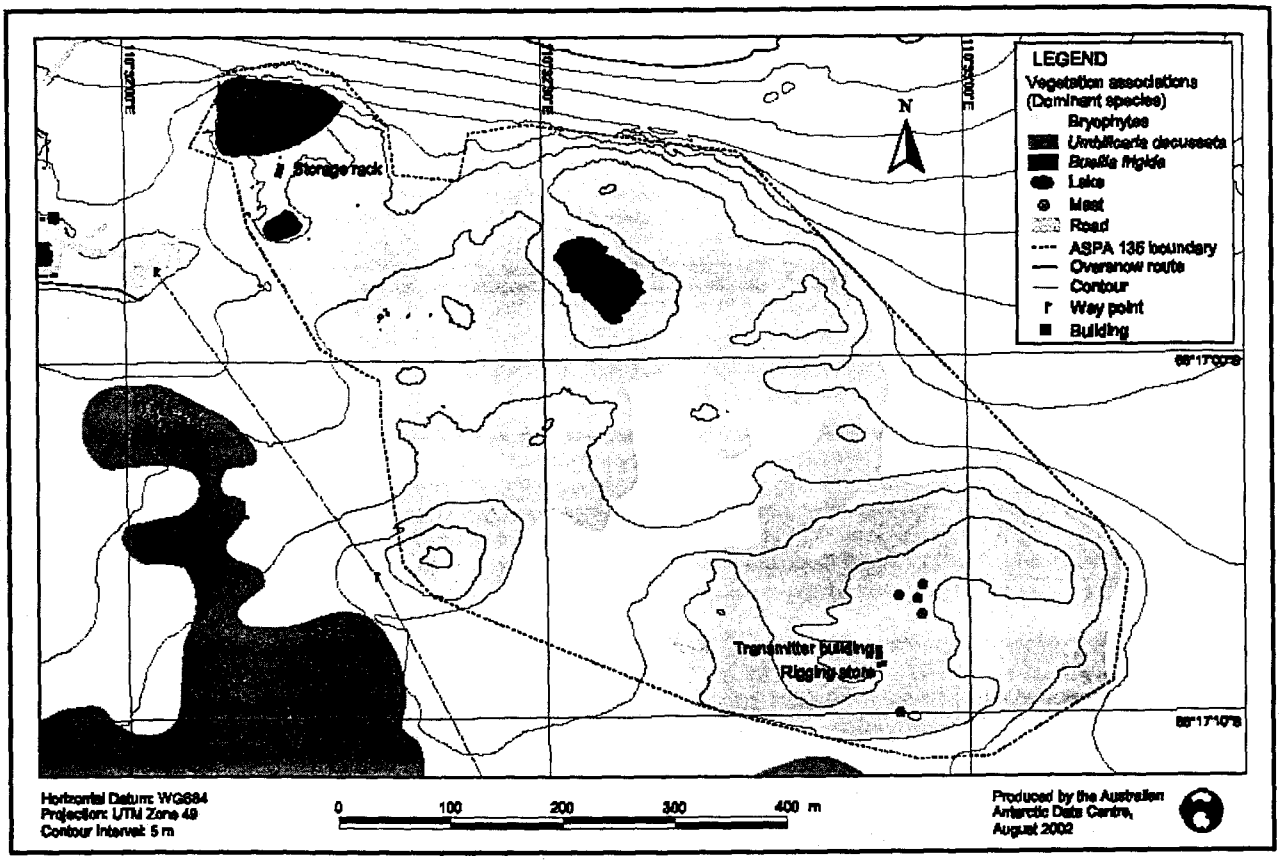
MAP D North-east Bailey Peninsula, Antarctic Specially Protected Area No.135, Vegetation.



MAP E North-east Bailey Peninsula, Antarctic Specially Protected Area No.135, Geology.



MAP F North-east Bailey Peninsula, Antarctic Specially Protected Area No.135.



ANTARCTIC SPECIALLY PROTECTED AREA No 143
MARINE PLAIN, MULE PENINSULA,
VESTFOLD HILLS, PRINCESS ELIZABETH LAND

At the fifth meeting of the Committee for Environmental Protection (CEP V) Australia submitted three draft management plans for protected areas for the Committee's consideration. These were:

1. Antarctic Specially Protected Area No. 135, North-east Bailey Peninsula, Budd Coast, Wilkes Land; (Find text related to this Plan in list attached to Mesure 2)
2. Antarctic Specially Protected Area No. 143, Marine Plain, Vestfold Hills, Princess Elizabeth Land,
3. Antarctic Specially Protected Area No. 160 , Frazier Islands, Wilkes Land, East Antarctica. (Find text related to this Plan in list attached to Mesure 2)

To further consider the management plans, CEP V established an Intersessional Contact Group (ICG) to be led by Australia. The ICG was required to report back to CEP VI. The ICG used the Terms of Reference established by CEP IV for the review of draft management plans for protected areas:

1. ensure that each of the draft Management Plans are consistent with the Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas;
2. ensure consistency of approach of management measures, as appropriate, across the Management Plans being reviewed;
3. report back to CEP VI on the results of the contact group's assessment and provide recommendations on how the CEP should proceed with respect to these Management Plans.

Australia initiated the contact group by means of a circular email to all CEP contact points on 14 October 2002. New Zealand, Sweden and Romania responded to say that they wished to participate in the work of the group. Comments and suggestions on the draft management plans were received from Romania, New Zealand and SCAR.

Suggestions were received for the clarification of a number of points contained in management plan sections: Aims and objectives; Management activities; and Permit conditions. Where appropriate the suggestions were incorporated into the revised plans. In the management plan for North-east Bailey Peninsula, ASPA No. 135, the section dealing with the description of values to be protected was restructured to more clearly differentiate the specific values of the Area from those of the wider region.

The ICG is satisfied that the plans have been appropriately revised and that they are consistent with the Guide to the Preparation of Management Plans. The contact group therefore submits the finalised management plans for approval by the CEP and ATCM.

Appendix 1

Draft Measure nn (2003)

Antarctic Protected Area System: Management Plans for Antarctic Specially Protected Areas

The Representatives,

Recalling Article 3 of Annex V of the protocol on Environmental Protection to the Antarctic Treaty, and Resolution 1 (1998) allocating responsibility among Consultative Parties for the revision of Management Plans for protected 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 outstanding natural features and biota of scientific interest;

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 the following sites:

- Antarctic Specially Protected Area No. 135, North-east Bailey Peninsula, Budd Coast, Wilkes Land;
- Antarctic Specially Protected Area No. 143, Marine Plain, Vestfold Hills, Princess Elizabeth Land,
- Antarctic Specially Protected Area No. 160 , Frazier Islands, Wilkes Land, East Antarctica

and which are annexed to this Measure, be adopted.

ANTARCTIC SPECIALLY PROTECTED AREA NO. 143 MARINE PLAIN, MULE PENINSULA, VESTFOLD HILLS, PRINCESS ELIZABETH LAND

Introduction

Marine Plain was originally designated as Site of Special Scientific Interest No. 25 in 1987 (ATCM Recommendation XIV-5). In accordance with Resolution V (1996), this site is redesignated and renumbered as Antarctic Specially Protected Area (ASPA) No. 143.

This revised Plan of Management reaffirms the scientific values of the original designation and accords with Annex V of the Protocol on Environmental Protection.

The Vestfold Hills is an ice-free area of low altitude, undulating hills and hundreds of lakes and ponds. Marine Plain (68°37'50.2" S, 78°07'55.2" E) is located on Mule Peninsula in the southwest of the Vestfold Hills, Princess Elizabeth Land, East Antarctica (Map A). Through ASPA designation, this sensitive Area can be protected for future studies of the palaeoenvironment of Antarctica.

1. Description of Values to be Protected

Marine Plain is representative of a major Antarctic terrestrial ice-free ecosystem with outstanding fossil fauna and rare geological features. It is of exceptional ongoing scientific interest and has been subject to several detailed geological, palaeontological, geomorphological and glaciological studies. This is the first time much of this information has been available from the coast of East Antarctica.

Marine Plain is of exceptional scientific interest because of its relevance to the palaeoecological and palaeoclimatic record of Antarctica. The Area has yielded outstanding vertebrate fossil fauna including *Australodelphis mirus*, the first higher vertebrate named from the Oligocene-Pleistocene interval on land in Antarctica, and the first cetacean fossil from the polar margin of circum-Antarctic Southern Ocean that postdates the break-up of Gondwana. Marine Plain has also revealed four other species of cetaceans; a species of fish; and a diverse invertebrate fauna comprising molluscs, gastropods, marine diatoms, and the first Pliocene decapod crustacean from Antarctica.

Marine Plain contains a roughly horizontal section of ca 8 m thick Pliocene marine sediments known as the Sørsdal Formation (Map D), which is in some areas exposed, but elsewhere underlies Holocene sediments, up to about 1 m thick. A diatom biostratigraphy placed the Sørsdal Formation in the *Fragilariopsis barronii* Zone, Early Pliocene (ca 4.5-4.1 Ma). The early Pliocene deposits are crucial as a source of information on the environment at this stage of Antarctic history. The fossil fauna – including deposits of vertebrate and invertebrate species – aids in the greater understanding of the early Pliocene Antarctic environments, including high-latitude climate and oceanography. By examining the diatom microfossils, it is possible to reconstruct the probable palaeoenvironmental conditions relating to the Sørsdal Formation and test hypothetical models of ice sheet behaviour against the geological record. This will also help in exploring the Antarctic ice sheet's response to future global warming.

The Vestfold Hills has an ice-free area of approximately 413 km^2, and are characterised by their low altitude, typically less that 180 m. The hills have been subject to intermittent glaciation and exposed rocks are characterised by polishing,

striation and fracturing. The glacial striae show the direction of past ice movements. These features, together with other periglacial and glacial features have been extensively studied to investigate the region's geomorphological and glacial history.

In addition, Marine Plain provides the largest periglacial thermokarst in East Antarctica. Sediments are normally cemented by permafrost (in addition to any cement formed during diagenesis), however thawing can lead to undercutting and collapse. The thermokarst landforms have been produced by thermal back wearing of low scarps, and include thaw pits, thaw lakes, ground ice sumps, linear depressions and very small scale beaded drainage features. Human impact may accelerate the permafrost thawing resulting in disturbance of important geomorphological values and potentially threatening fossils in the diatomite.

Intrinsically linked to this geological plain is the adjacent Burton Lake. To the west of Marine Plain, Burton Lake is a hypersaline lagoon in seasonal connection with the marine environment. This lagoon represents a stage in the biological and physio-chemical evolution of a terrestrial water body from the marine environment i.e. the geological creation of a lake.

The meromictic and saline Burton Lake, together with several smaller lakes and ponds in the ASPA, provide important examples in the spectrum of hypersaline to fresh water lake types in the Vestfold Hills and present the opportunity for important geochemical and limnological research. The interrelationships between environment and biological communities in lakes such as Burton, provide considerable insights into the evolution of the lake environments and consequently, Antarctic environmental development. It is currently the only meromictic lagoon that has been protected within East Antarctica.

Due to its proximity to Davis station (Australia), the scientific values of the Area may be compromised or damaged by accidental interference. The Area lies on the pedestrian route (Map B) to the Mule Peninsula lakes (Clear, Laternula, and McCallum) from Ellis Rapids and is easily accessible. The Area merits protection, as there is a demonstrable risk of interference which may jeopardise scientific investigation. For this reason, it is critical that fossil fauna be protected from unrecorded sampling, collection, or interference.

2. Aims and Objectives

Management for the Marine Plain ASPA aims to:

- avoid degradation of, or substantial risk to, the values of Marine Plain by preventing unnecessary human disturbance in the ASPA;
- allow scientific research for geological, palaeoclimatic, palaeontological, geomorphological, and limnological purposes, while ensuring protection from over-sampling;
- allow other scientific research provided it is for compelling reasons that cannot be served elsewhere;
- minimise damage to landforms, particularly Marine Plain; the plain south of Poseidon Lake and east of Pickard Ridge (68°37'22.8"S, 78°07 9.9"E); glacial and periglacial features; and potential fossil sites;
- maintain the aesthetic and wilderness values of the Area; and

- allow visits for management purposes in support of the aims of the Management Plan.

3. Management Activities

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

- information on the location of the Area (stating special restrictions that apply) shall be displayed prominently, and a copy of this Management Plan shall be kept available, at the adjacent Davis station, Marine Plain Refuge and will be provided to ships visiting the vicinity;
- install boundary markers to identify boundary turning points;
- signs illustrating the location and boundaries, with clear statements of entry restrictions, shall be placed at appropriate locations at the boundaries of the Area to help avoid inadvertent entry;
- require an environmental impact assessment of any activity within the ASPA in accordance with the requirements of Annex 1 of the Protocol on Environmental Protection to the Antarctic Treaty. A plan for the rehabilitation of the study site related to the activity should be submitted along with the environmental impact assessment application if appropriate;
- 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 required;
- abandoned equipment or materials shall be removed to the maximum extent possible provided doing so does not adversely impact on the values of the Area;
- visit the Area 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 that management activities are adequate: and
- review the Management Plan at least every five years and update as required.

4. Period of Designation

Designated for an indefinite period.

5. Maps

Map A: Vestfold Hills, East Antarctica, showing the locations of Marine Plain ASPA; Davis station and surrounding refuges; and the two nearby Historic Sites and Monuments. Inset: The location of the Vestfold Hills in Antarctica.
Map Specifications:
Projection: UTM Zone 44
Horizontal Datum: WGS84

Map B: The region immediately surrounding Marine Plain ASPA.
Map Specifications:
Projection: UTM Zone 44
Horizontal Datum: WGS84

Contour Interval: 20m

Map C: Geological map of Marine Plain ASPA illustrating dykes three underlying rock types: Chelnock Paragneiss, Crooked Lake Gneiss, and Mossel Gneiss.
Map Specifications:
Projection: UTM Zone 44
Horizontal Datum: WGS84

Map D: Sørsdal Formation sketch map of Marine Plain ASPA.
Map Specifications:
Projection: UTM Zone 44
Horizontal Datum: WGS84

Map E: Sketch of Surface Geology of Section of Marine Plain ASPA.
Map Specifications:
Sketch map based on three short (2-7 d) field visits and on study of colour aerial photographs of the area. The area covered by the map is contained within the following coordinates on the Second Edition (September 1982) 1:50000 Vestfold Hills map (Australian Division of National Mapping): north-west corner 825 860; north-east corner 860 860; south-east corner 860 820; south-west corner 825 820. This quadrangle is covered by: Run 4, photographs 2-7; Run 5, photographs 11-16 of 26 January 1979 helicopter colour aerial photography flown at 3050 m. Standard photographs were enlarged by some 3:1 and used as a base for field observation and later extrapolation.

6. Description of the Area

6(i). Geographical Co-Ordinates, Boundary Markers and Natural Features

General Description

Marine Plain ASPA lies approximately 10 km southeast of Davis station in the Vestfold Hills. The Area (23.4 km^2, 68°37'50.2" S, 78°07'55.2" E) opens into an arm of Crooked Fjord on the southern side of Mule Peninsula, the southernmost of the three major peninsulas that comprise the Vestfold Hills. The Vestfold Hills are a largely ice-free oasis of approximately 512 km^2 of bedrock, glacial debris, lakes, and ponds, at the eastern side of Prydz Bay, Princess Elizabeth Land.

The Area includes Marine Plain (approximately 3 km^2), which occupies the centre of the Area in a north-south orientation. Pickard Ridge (maximum elevation of 70 m) separates this site from Poseidon Basin in the northeast. Both locations are low-lying areas less than 20 m above sea level. Sections elsewhere above 20m are mostly low, rugged hills of Precambrian rock, and characterised at their base by a marked change in slope which may represent a Holocene shoreline. The surface of the lower area below 20 m is marked by a series of concave-to-the-south recessional moraine ridges. A series of south westerly facing sand slopes occupy Marine Plain east of Burton Lake.

The boundary of the ASPA has been slightly altered along its northern boundaries to reduce the possibility of inadvertent entry from a nearby pedestrian route. Starting at the most northerly point of the Area the boundary description is as follows:

> Commencing at 68°36'34"S, 78°09'28"E, then south-easterly to 68°36'45"S, 78°10'30"E; then south-easterly to 68°37'30"S, 78°12'30"E, then south along

meridian of longitude 78°12'30"E to its intersection with the northern shore of Pineapple Lake; then west along that shore to the edge of the Sørsdal Glacier; then westerly along the northern edge of the Sørsdal Glacier to its intersection with the low water mark of the north eastern shore of Crooked Fjord; then westerly along the low water mark of the northern shore of Crooked Fjord (cutting across the outlet of Burton Lake into Crooked Fjord) to its intersection with the meridian of longitude 78°03'0"E; then north along meridian of longitude 78°03'0"E to its intersection with the parallel of latitude 68°37'30"S, then north-easterly to 68°36'56"S, 78°05'39"E, then north-easterly to the point of commencement.

Geology and Palaeontology

The three major lithologies forming the Vestfold Hills (Map C) are (in order of age) Chelnock Paragneiss, Mossel Gneiss and Crooked Lake Gneiss. This is repeated in units from east-northeast to west-southwest. Intruded into these, are groups of mafic dykes in a rough north-south orientation (Map C). The dykes are a major feature of the Vestfold Hills.

The Precambrian rock is overlain in low-lying areas (approximately 10–17 m above sea level) by ca 8 m of early Pliocene (ca 4.5-3.5 Ma) diatomite with limestone lenses in the upper half. The limestone contains molluscs, especially bivalves including *Chlamys tuftsensis* Turner. Holocene (ca 6.49 ka) glacial debris disconformably covers the marine deposit (0.5-1 m), extending over an area of 8-10 km^2. A layer of lenticular sandstone separates the Pliocene and Holocene units.

Low scarps in the Pliocene marine sediments have yielded a diverse array of fossil marine vertebrates and invertebrates. The cetacean specimens occur as large assemblages of vertebral columns, skulls, or complete specimens normally about 2m or more in length, in the upper 2m of the Marine Plain section. The main occurrences are along the margins of locally known "Big Ditch", near Burton Lake, and in the scarp on the eastern side of Marine Plain. One notable cetacean fossil is *Australodelphis mirus* which illustrates a remarkable convergence between living dolphins (Family Delphinidae) and the living beaked whale genus *Mesoplodon.*

Marine Plain has also yielded the first Pliocene decapod crustacean from Antarctica The specimen is incomplete, making it difficult to identify precisely, although it probably belongs with the Palinuridae. Other species include a beaked whale and baleen whale (and others not yet studied), possibly penguins, fish, bivalves, gastropods, serpulid worms, bryozoans, asteroids, ophiuroids, echinoids and abundant leiospheres that are probably planktonic in origin.

Marine Plain has been subject to significant fluvial activity since the mid-Holocene resulting in small patches of lake sediment on its eastern side. Stream valleys and source lakes (now virtually empty) have been identified.

The Pliocene diatomite at Marine Plain appears to be the only such deposit in the Vestfold Hills. In some areas the Holocene till and glacials are very thin and consequently are easily disturbed. A thin crust over the loose powdery surface is easily crushed by footfall, releasing a plume of diatom and sand rich dust, and leaving a sharply defined, colour-contrasting footprint.

Permafrost occurs below ca 1m depth and the local landforms have evolved due to very slow progressive melting of ground ice. Terrain produced by this process is

known as periglacial thermokarst because the resulting depressions give the topography an appearance similar to that of conventional limestone karst.

The Sørsdal Glacier (near the edge of the Antarctic ice sheet) is the southern boundary for the ice-free Vestfold Hills. A 1 km length of the northern edge of Sørsdal Glacier has retreated c. 800 m away from the southern edge of Marine Plain in the 40 years from 1947. This retreat is due to the movement through the deep channel that the glacier fills, and the propensity of ice ridges forming in the glacier and collapsing into Crooked Fjord.

Lakes

Burton Lake is a major feature of the western side of the Area. There are number of unnamed ponds and small lakes within the Area. Burton Lake is seasonally isolated marine lagoon is meromictic and hypersaline, with a maximum depth of 18 m. Burton Lake is ice-covered for 10-11 months of the year and is seasonally connected to Crooked Fjord by a tidal channel approximately 20 m wide and up to 2 m deep. The lake is isolated from Crooked Fjord for about 6-7 months of the year by ice.

The lake contains a range of photosynthetic bacteria. The dominant species are *Chlorobium vibriofome* and *C. limiola* while minor species are *Thiocapsa roseopersicina* and *Rhodopseudomonas palustris.* The lake also harbours psychrophilic bacteria which are relatively uncommon (in Antarctic coastal ice zones), and thrive on the increased availability of nutrients from continental inputs, pelagic algal blooms, and breakout of pelagic algae into the water column from ice melting in the spring and summer. One novel species of bacterium is *Psychroserpens burtonensis*, which has not been cultured from or recorded in any other environment.

Marine algae are abundant in Burton Lake. A diatom floristic study of the lagoon revealed 41 diatom species.

The ultrastructure of *Postgaardi mariagerensis* was reported for the first time from research in Burton Lake. This very unusual organism cannot be regarded as a euglenid but regarded as a member of the clade *Euglenozoa – Euglenozoa incertae sedis.* Additionally, Burton Lake is one of two Antarctic lakes from which the first account of choanoflagellates, including *Diaphanoeca grandis, Diaphanoeca sphaerica* and *Saepicula leadbeateri* were reported. It is also type location for *Spiraloecion didymocostatum* gen. et sp. nov.

Four metazoan species have been regularly recorded in the zooplankton of Burton Lake: *Drepanopus bispinosus* and *Paralabidocera antarctica* (Copepoda), *Rathkea lizzioides* (Anthomedusae) and an un-named cydippid ctenophore. In addition, many holotrichia, at least two species of nematode, a large marine amphipod have been recorded in the benthic community, and tardigrades are present.

One species of fish, *Pagothenia borchgrevinki,* has been observed in the lake on one occasion. This species is common in coastal areas and fjords of the Vestfold Hills, although it does not appear to inhabit the lake continuously. Due to the seasonal marine connection, it remains probable that additional algae, zooplankton and fish enter the lake but do not survive the winter.

Vegetation

Mosses and lichens occur in the vicinity of small ephemeral watercourses draining radially down the 'talus skirt' fringing the Precambrian hills. Numerous small

crevices and cracks in the knoll jutting into the northern end of Burton Lake provide a rich lichen site, while the northern end of Poseidon Lake is rich in mosses. The moss and lichen flora of the Area has not been documented, although the Vestfold Hills supports at least six moss species and at least 23 lichens.

Vertebrates

Several vertebrates occur sporadically within the Area during the summer months between November and February. Two bird species, Wilson's storm petrels (*Oceanites oceanicus*) and Snow petrels (*Pagodroma nivea*) nest in the higher Precambrian rocks, while South polar skuas (*Catharacta maccormicki*) nest on marine Plain and occasionally around the water's edge. Weddell seals *(Leptonychotes weddellii*) and Southern Elephant seals (*Mirounga leonina*) along with Adélie penguins (*Pygoscelis adeliae*) and Emperor penguins (*Aptenodytes forsteri*) also occur in small groups in the Area but have not been specifically studied here.

Climate

Meteorological data for the Area are confined almost entirely to observations at Davis station, 10 km northwest of Marine Plain. The Vestfold Hills area has a polar maritime climate that is cold, dry and windy. Summer days are typically sunny, with a midday temperature from -1C to +3C and a summer maximum of +5C, but temperatures are below 0C for most of the year falling to as low as –40.7C in winter. The maximum temperature recorded at Davis station from 1957 to 2001 was +13°C. The record illustrates the seasonal climate expected for high latitudes, but on average Davis station is warmer than other Antarctic stations at similar latitudes. This has been attributed to the "rocky oasis" which results from the lower albedo of rock surfaces compared to ice, hence more solar energy is absorbed and re-radiated as heat.

6(ii). Special Zones within the Area

None.

6(iii). Location of Structures Within and Adjacent to the Site

There are no refuges within the Area but two refuges are located nearby. Marine Plain Refuge (68°36'54"S, 78°65'30"E) is approximately 150 m north of the northern boundary of the Area. A helicopter landing site is immediately adjacent to this refuge. Watts Hut (68°35'54"S, 78°13'48"E) is located at the eastern end of Ellis Fjord, approximately 5 km east-northeast of the Marine Plain Refuge and 2.9 km east-northeast of the northern-most point of the Area.

A variety of evidence of research activity remains at Marine Plain. Two parallel lines of small boulders mark out a helicopter landing site 30 m north of a fossil site (68°37'37"S, 78°08'11"E). At this fossil site, a black sheet of polythene (3 m x 1.7 m) held down by rocks is currently covering an excavation site. At the north western side of the embayment, there are approximately 10 wooden stakes 1m high in a rough line, north to south. In the next embayment to the north, three red painted rock cairns form a triangle area (of side length approximately 50 m) remaining from field work in 1980.

Within Marine Plain there also remains plastered hessian covering fossil bones; five shallow unfilled pits; a large unfilled pit (near Burton Lake); a major unfilled excavation occurring on one high flank of a natural trough (the trough locally known

as "Big Ditch") and some old filled trench sites. On the north western side of Burton Lake lies a pipe and rope (possibly for lake monitoring).

Boundary markers are to be installed at boundary turning points.

6(iv). Location of Other Protected Areas in the Vicinity

Two Historic Sites and Monuments lay in the Vestfold Hills, at least 25 km north of Marine Plain:

1. On the largest of the Tryne Islands (68° 18'29"S, 78° 23'44"E) in Tryne Bay (29 km north-east of Davis), HSM No. 72 is a cairn and wooden mast, erected in 1935 by Captain Klarius Mikkelsen marking the first landing in the Vestfold Hills area.
2. Walkabout Rocks Cairn HSM No. 6 (68°22'14"S, 78°32'19"E) 40 km north-east of Davis, is a rock cairn erected in 1939 by Sir Hubert Wilkins. The cairn contains a canister containing a record of his visit.

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 ASPA are that:

- it is issued only for scientific (palaeontological, palaeoclimatic, geological, geomorphological, glaciological, biological and limnological) research, or for compelling scientific, educational or cultural reasons, or for essential management purposes consistent with the Management Plan;
- actions do not jeopardise the ecological or scientific values of the Area, or other permitted activities;
- actions are consistent with the Plan of Management;
- the Permit (or copy) shall be carried within the ASPA;
- a visit report shall be supplied to the appropriate national authority within three months of the expiry date of the Permit; and
- Permits shall be issued for a stated period.

7(i). Access to and Movement within or over the Area

- Movement within the ASPA should be kept to a minimum with every reasonable effort made to minimise impact. The brittle surface crust is easily crushed under foot, risking damage to fossil material and long-term evidence of human impact. Where possible, movement on Precambrian areas is preferred, while movement on the scarps is to be avoided. All movement should be undertaken carefully so as to minimise disturbance to the soil, vegetation, diatomite, thermokarst, sediment outcrops and other geofeatures that provide scientific and environmental value to the site. Landing of aircraft and the use of vehicles is prohibited on the Sørsdal Formation.
- Normally the helicopter landing site is immediately adjacent to the Marine Plain refuge should be used. In order to minimise foot traffic within Marine

Plain, a helicopter landing site within the ASPA may be authorised for a particular visit. The landing site shall be:

- measured against overall usage in keeping with protected area status;
- on a debris free Precambrian bedrock surface (Map E) where minimal disturbance can be caused by the aircraft to water bodies, vegetation or sediment deposits; and
- at a location that will minimise the impact of passage to the intended research site.

- Motorised boats are not to be used on Burton Lake.
- Over-flight of lakes should be kept to the minimum necessary to achieve specific research or management requirements.
- Movement within the ASPA by vehicle is prohibited.

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

The following activities may be conducted within the ASPA throughout the year provided access requirements can be met:

- compelling scientific research which cannot be undertaken elsewhere and that will not jeopardise the values of the ASPA;
- sampling, which should be the minimum required for the approved research programs;
- sampling of lakes, ensuring equipment is washed before entry to the ASPA to prevent contamination from other lakes; and
- management activities, including monitoring.

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

Any structures erected or installed within the Area are to be specified in a Permit. Permanent structures or installations are prohibited. Scientific markers and equipment must be secured and maintained in good condition, clearly identifying the permitting country, name of principal investigator and year of installation. All such items should be made of materials that pose minimum risk of contamination of the Area. Removal of equipment associated with scientific research before the Permit for that research expires, shall be a condition of the Permit. Details of markers and equipment left *in situ* (GPS locations, description, tags and expected "use by date") should be reported to the permitting Authority.

7(iv). Location of field camps

Parties should not camp in the Area but use the Marine Plain Refuge (68°36'54"S, 78°6'30"E; see 6(iii)).

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

- No living animals, plant material or microorganisms shall be deliberately introduced into the ASPA and the precautions shall be taken against accidental introductions.
- No herbicides or pesticides shall be brought into the ASPA. Any other chemicals, including radio-nuclides or stable isotopes, authorised for scientific or management purposes, must be removed from the ASPA at or before the conclusion of the activity for which the Permit was granted.
- Organic material (wood, cotton, hessian, etc.) is not to be used for scientific markers or other research unless absolutely necessary. Inorganic materials (stainless steel, polythene, etc.) are to be used.
- Fuel is not to be stored in the ASPA unless required for essential purposes connected with the activity for which the Permit has been granted. Fuel must be removed from the ASPA on or before completion of the associated activity. Permanent fuel depots are prohibited.
- All materials introduced shall be for a stated period only, shall be removed at or before the conclusion of that stated period, and shall be stored and handled so that risk of their introduction to the environment is minimised.

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

The taking of 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 and removal of anything not brought into the Area by the Permit Holder

- Sample material may be collected or removed from the ASPA only in accordance with a Permit and should be limited to the minimum necessary to meet scientific or management needs;
- Permits shall not be granted if there is a reasonable concern that the sampling proposed would take, displace, remove or damage such quantities of rock, soil, water, or native flora or fauna that their distribution or abundance at Marine Plain would be significantly affected. Excavation of fossils is exempted from this requirement; and
- 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 authorised, may be removed unless the impact of the removal is likely to be greater than leaving the material *in situ*. In this event, the appropriate national authority should be notified.

7(viii). Disposal of waste

All wastes, including all human wastes, shall be removed from the ASPA.

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

- Permits may be granted to enter the ASPA to carry out monitoring and site inspections, which may involve the small-scale collection of samples for analysis or review, or for protective measures.
- Any specific sites of long-term monitoring shall be appropriately marked.
- To help maintain the geological, palaeontologic, geomorphological, biological, limnological, and scientific values of Marine Plain, persons shall take special care walking or skiing over slopes, moraines, rock exposures and diatomite soil. To minimise the risk of damage to these values, foot traffic to and from, Marine Plain and the plain south of Poseidon Basin and east of Pickard Ridge, shall be restricted wherever possible.
- To help maintain the ecological and scientific values derived from the relatively low level of human impact within the ASPA, special precautions shall be taken against introductions. Of particular concern are microbial or vegetation introductions sourced from soils at other Antarctic sites, including stations, or from regions outside Antarctica. To minimise the risk of introductions, footwear and any equipment to be used in the Area shall be thoroughly cleaned – particularly sampling equipment and markers – before entering the ASPA.
- The closure and securing of excavation sites during and at the completion of an activity should ensure to the extent reasonably possible, stratigraphic integrity is preserved and endolithic communities are maintained. Recommended measures include the placing of excavated soil on polythene sheet of adequate thickness, the replacing of soil/sediment in layers in the order in which it has been removed, the replacing of larger clasts by correct orientation, the removing of unnatural surface irregularities, and the reorientation of rock and till during closure.
- Abandoned scientific equipment shall be removed, and excavations rehabilitated, to the maximum extent possible.

7(x). Requirements for reports

Parties should ensure that the principal Permit Holder for each Permit issued submits to the appropriate national authority a report on activities undertaken. Such reports should include, as appropriate, the information identified in the Visit Report form contained in Appendix 4 of Resolution 2 (1998)(CEPI). 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 Plan of Management. 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 both in any review of the management plan and in organising the scientific use of the Area.

8. Supporting Documentation

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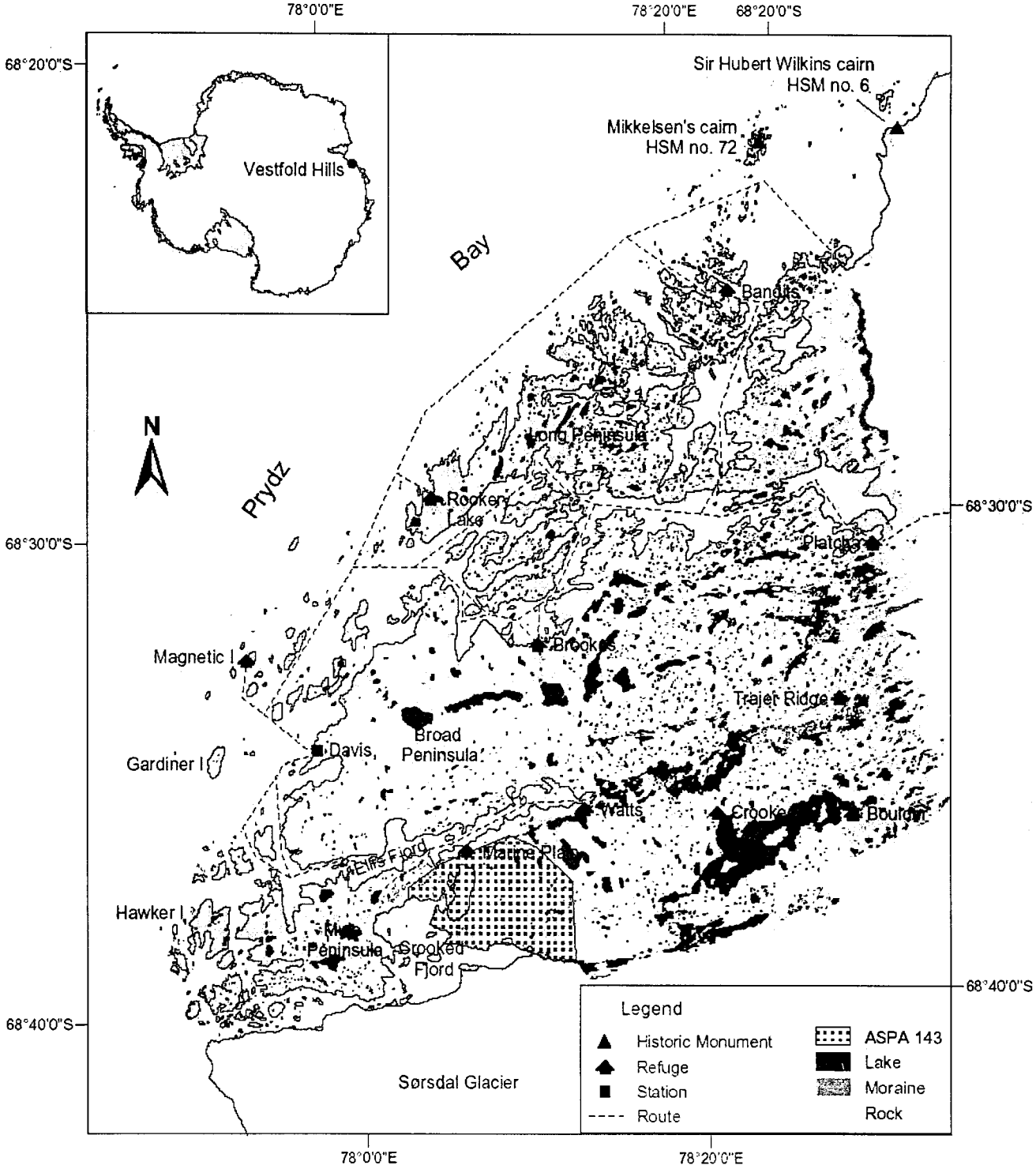
Map A Marine Plain, Antarctic Specially Protected Area, Vestfold Hills, East Antarctica

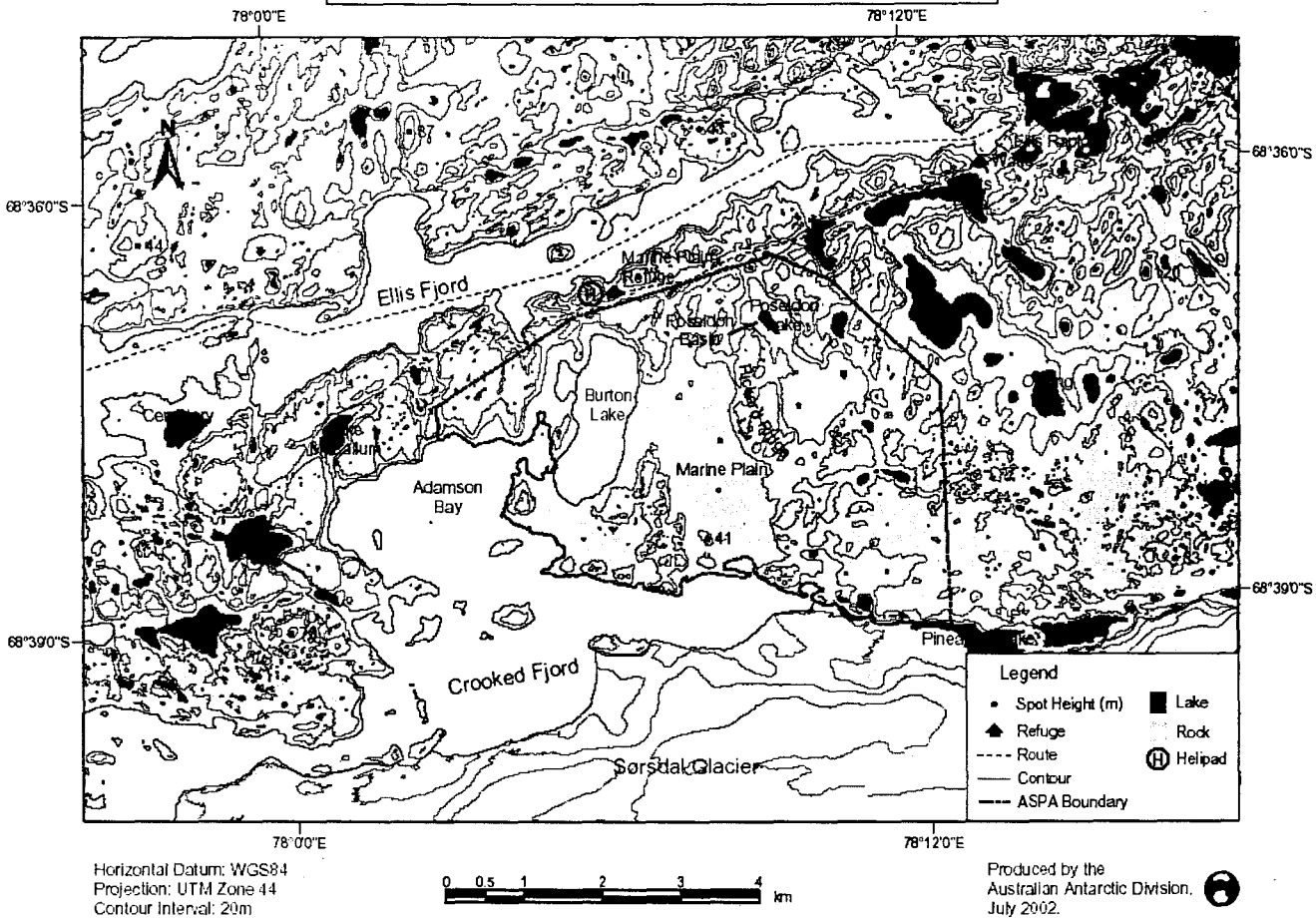


Horizontal Datum: WGS84
Projection: UTM Zone 44

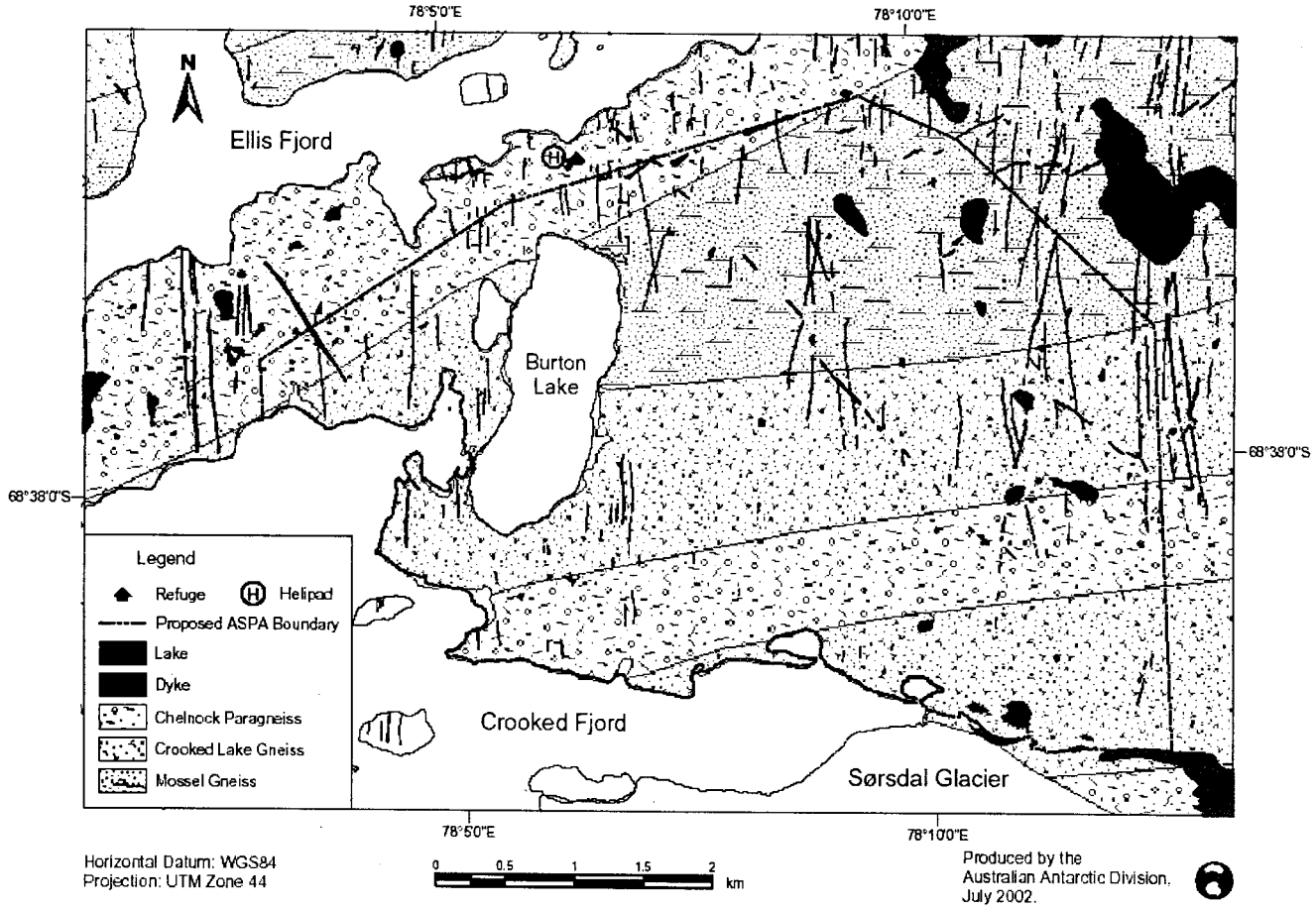
0 1 2 4 6 8 10 km

Produced by the
Australian Antarctic Division,
July 2002.

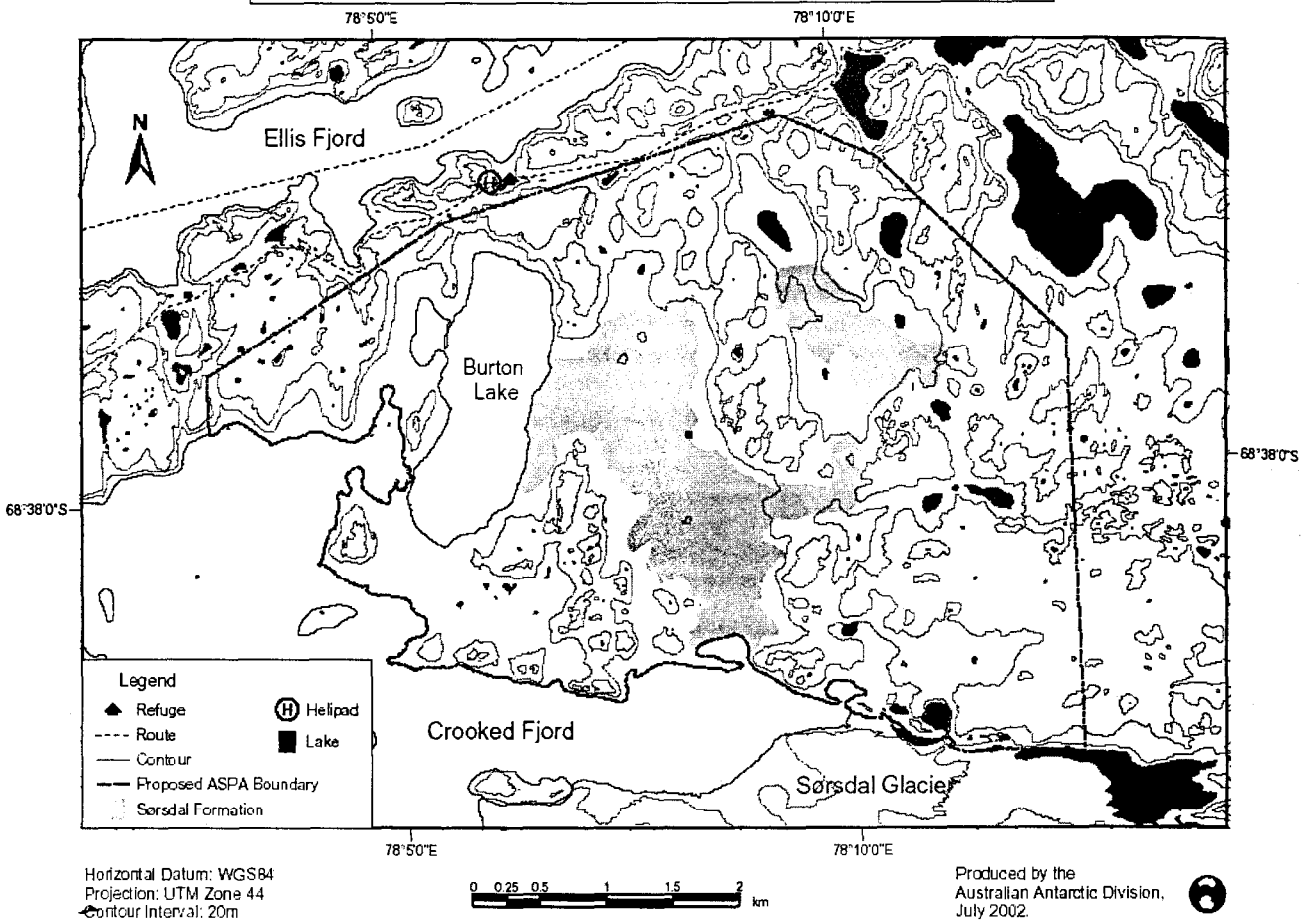
Map B Marine Plain ASPA, Vestfold Hills, East Antarctica



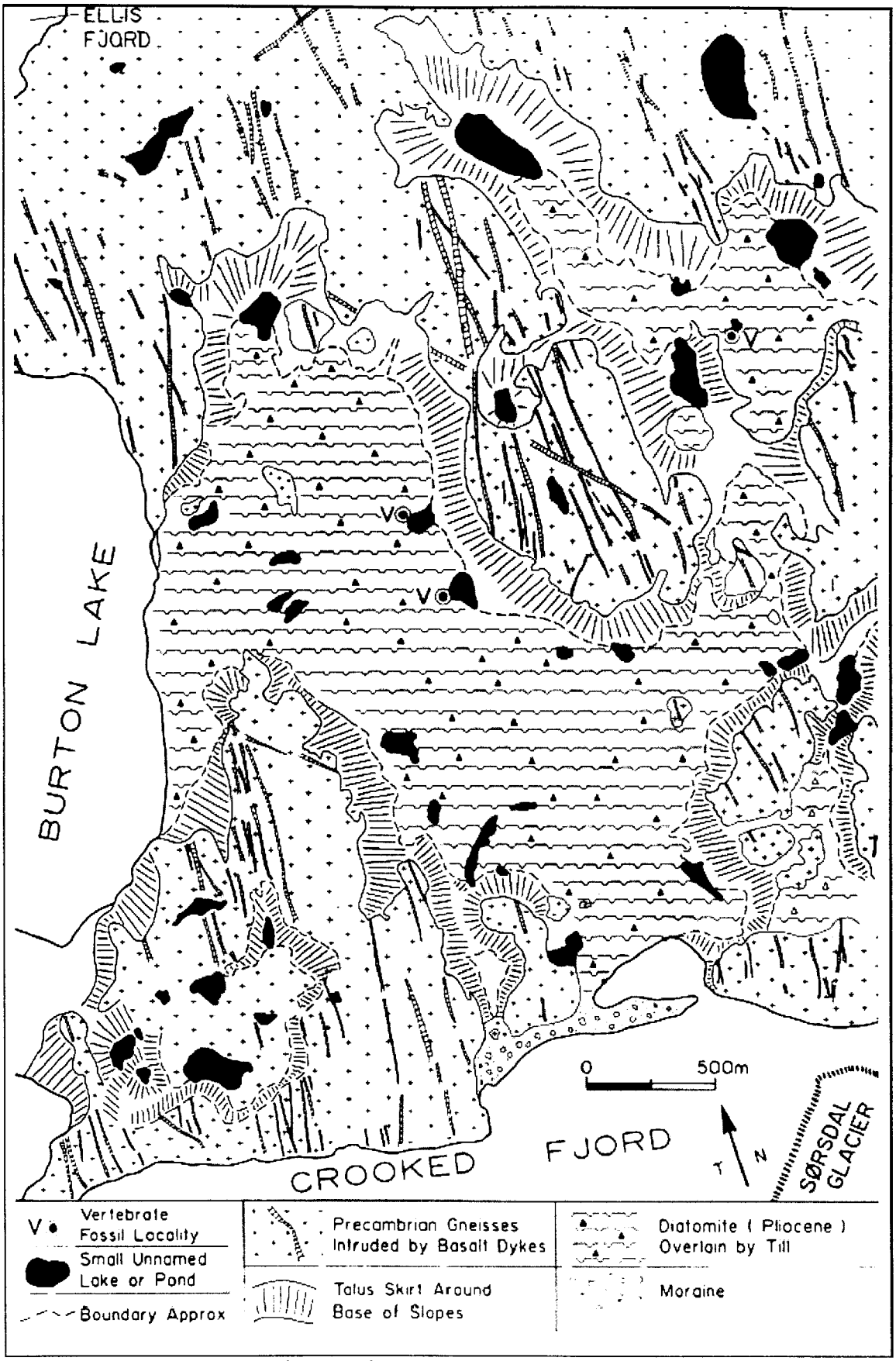
Map C Basement Geology, Marine Plain ASPA, Vestfold Hills.



Map D Sørsdal Formation, Marine Plain ASPA, Vestfold Hills.



Map E Sketch Map of Surface Geology of Section of Marine Plain ASPA No. 143, Vestfold Hills



Sketch map of surface geology of section of Marine Plain ASPA, indicating Precambrian Gneisses which may be suitable for helicopter landings. Landing on the diatomite and till of the Sørsdal Formation is prohibited. (from Quilty, 1991), see section 7(i) of Marine Plan ASPA Management Plan

ANTARCTIC SPECIALLY PROTECTED AREA No 152
WESTERN BRANSFIELD STRAIT

Revised Management Plans for ASPA No. 152, Western Bransfield Strait, and ASPA No. 153, Eastern Dallmann Bay (Find text related to Plan No 153 in list of Plans attached to Mesure 2)

At CEP V (Warsaw, 2002), an Intersessional Contact Group was established to review revised Draft Management Plans submitted by the United States for two Antarctic Specially Protected Areas, ASPA No. 152, Western Bransfield Strait, and ASPA No. 153, Eastern Dallmann Bay.

The United States led the Intersessional Contact Group (ICG) in the review of the revised management plans. Comments on the management plan were received from Australia and New Zealand. Corrections to the plans were made to reflect the coming into force of Annex V and the change from designation of the sites as Sites of Special Scientific Interest (SSSI) to Antarctic Specially Protected Areas (ASPA).

Suggestions were also made on making the plans available to ships in the area and the plans were revised to reflect this suggestion.

Suggestions were also made on providing more information on penguin colonies in the area and for adding another map to more clearly show the general location of the sites in respect to the Antarctic Peninsula. The plans were not changed with respect to these either of these comments. With respect to the penguin colonies, they are outside the protected areas and are not values under special protection. As there are already guidelines on approaching wildlife in general and birds in particular, no revisions were made. With respect to the suggestion of adding a map, the United States viewed that the insert maps were sufficient to provide a sense of the general location of the ASPAs and that adding a second map and additional page to the plan was not necessary. No revision was made.

The finalized management plans are attached to this Working Paper and are submitted for approval by the CEP and the ATCM.

ANTARCTIC SPECIALLY PROTECTED AREA NO. 152
WESTERN BRANSFIELD STRAIT

1. Description of values to be protected

Western Bransfield Strait (between latitudes 63°20'S and 63°35'S and longitudes 61°45'W and 62°30'W, approximately 910 km^2) was originally designated as a Marine Site of Special Scientific Interest through Recommendation XVI-3 (1991, SSSI No. 35) after a proposal by the United States of America. It was designated on the grounds that "the shallow shelf south of Low Island is one of only two known sites in the vicinity of Palmer Station that are suitable for bottom trawling for fish and other benthic organisms. From an ecological standpoint, the Low Island site offers unique opportunities to study the composition, structure, and dynamics of several accessible marine communities. The Site, and in particular, its benthic fauna, is of exceptional scientific interest and requires long-term protection from potential harmful interference".

New bathymetric data compiled for the Area since its original designation show that the original boundary failed to encompass part of the shallow shelf above 200 m depth to the west of Low Island. It also included deep water down to more than 1000 m in the east of the original Area, which is not considered strictly pertinent to the values identified for the Area. The boundaries of the Area have therefore been revised to include all of the shallow shelf down to 200 m depth to the west and south of Low Island, while the deeper water of Bransfield Strait to the east has now been excluded. This has resulted in a shift of the boundaries by approximately nine kilometers to the north and 12 kilometers to the west, although the overall size of the Area has not been significantly altered. The new boundaries of the Area at Western Bransfield Strait are between latitudes 63°15'S and 63°30'S and longitudes 62°00'W and 62°45'W and are defined in the north-east by the shoreline of Low Island, encompassing an area of approximately 900 km^2 (Map 1).

The Area continues to be considered important for studies of the composition, structure and dynamics of the marine communities, and the original reasons for designation are reaffirmed in the current Management Plan with the amended boundaries. In addition, the Area is recognized as an important spawning ground for several fish species, including the rockcod *Notothenia coriiceps* and the icefish *Chaenocephalus aceratus*. Fish have been collected from the Area by scientists from Palmer Station since the early 1970s. The Area is within the research area of the Palmer Long Term Ecological Research (LTER) Program; fish collected from the Area are used in the study of biochemical and physiological adaptations to low temperatures. Some of the fish collected have been used for comparative studies with the more heavily impacted Arthur Harbour area. Scientific research is also being undertaken on the benthic faunal communities.

2. Aims and objectives

Management at Western Bransfield Strait aims to:

- avoid degradation of, or substantial risk to, the values of the Area by preventing unnecessary human disturbance;
- allow scientific research on the marine environment while ensuring protection from over-sampling;

- allow other scientific research within the Area provided it will not compromise the values for which the Area is protected;
- 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:

- A map showing the location of the Area (stating the special restrictions that apply) shall be displayed prominently and copies of this Management Plan shall be made available at Palmer Station (USA).
- Copies of this Management Plan shall be made available to vessels traveling in the vicinity of the Area.
- Buoys, or other markers or structures installed within the Area for scientific or management purposes shall be secured and maintained in good condition.
- Visits shall be made 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.

4. Period of designation

Designated for an indefinite period.

5. Maps and photographs

Map 1:ASPA No. 152 Western Bransfield Strait bathymetric map. Coastline data are derived from the SCAR Antarctic Digital Database Version 2.0. Bathymetry is derived from published and unpublished depth data gridded by Morris (British Antarctic Survey, pers. comm. 2000) to the same specifications described in Schenke *et al.* (1998), which was gridded to cell sizes of between 1 and 4.6 km. Map specifications:

Projection: Lambert Conformal Conic; Standard parallels: 1st 62° 00' S; 2nd 64° 00' S

Central Meridian: 62° 00' W; Latitude of Origin: 63° 00' S; Spheroid: WGS84;

Horizontal accuracy: maximum error of ±300 m.

Vertical contour interval 100 m, vertical accuracy to within ±50 m.

Inset: the location of Map 1, ASPA No. 152 Western Bransfield Strait, Antarctic Peninsula, showing the nearest protected area, ASPA No. 153, Eastern Dallmann Bay, and the location of Palmer Station (US).

6. Description of the Area

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

GENERAL DESCRIPTION

Bransfield Strait is a deep water passage approximately 220 km long and 120 km wide between the Antarctic Peninsula and the numerous islands that comprise the South Shetland Islands. The Drake Passage is to the north and to the west is the Bellingshausen Sea. The lies approximately 80 km west of the Antarctic Peninsula, mostly within the 200 m isobath directly south and west of Low Island (Map 1). Low Island is the southern-most of the South Shetland Islands, lying 60 km south-west of Deception Island and 25 km south-east of Smith Island. To the west

and south of Low Island, and for approximately 20 km from the shore, the sea floor slopes gently from the intertidal zone to depths of approximately 200 m. The sea floor slopes steeply to the east of Low Island, reaching depths of up to 1200 m in this part of Bransfield Strait. The sea floor in the Area is generally composed of a matrix of soft sand, mud and cobbled-rock.

BOUNDARIES

The revised boundaries of the Area at Western Bransfield Strait are defined in the north as the line of latitude at 63°15'S and in the south at 63°30'S; in the east the boundary is defined as the line of longitude at 62°00'W and in the west 62°45'W (Map 1). The northeastern boundary is defined as the shoreline of Low Island, extending from 62°00'W, 63°20'S in the south-east (approximately two kilometers from Cape Hooker) to 62°13'30"W, 63°15'S in the north-west (Cape Wallace). The coastline boundary on the western and southern shores of Low Island is defined as the high tide level, and the intertidal zone is included within the Area. The Area extends a maximum of 27.6 km north-south and a maximum of 37.15 km east-west, encompassing an area of approximately 900 km^2. Boundary markers have not been installed because in the marine area this is impractical, while at Low Island the coast itself is a clearly defined and visually obvious boundary feature.

OCEANOGRAPHY AND CLIMATE

There is considerable year-to-year variation in sea-ice coverage within the Bransfield Strait region, although sea ice coverage appears to be less than 100 days per year (Parkinson, 1998). Rates of sea ice advance and retreat along the northwestern Antarctic Peninsula are also variable. Sea ice advance is for approximately five months followed by approximately seven months of retreat. Ice growth is fastest in June and July and the fastest decay is in December and January (Stammerjohn and Smith, 1996).

Water temperatures were recorded in the Area monthly from December 1986 to March 1987 and ranged between -0.6°C in December to 0.9°C in February and March (Niiler *et al.* 1991). Salinity averaged 33.8 ‰ to 33.9 ‰ within the top 20 m of the water column over the same time period.

Wind is predominantly from the NNW direction, resulting in a southward oceanic flow along the western Antarctic Peninsula. Coupled with the northward flow of the Antarctic Circumpolar Current, this results in a predominantly clockwise circulation in Bransfield Strait (Hofmann *et al.* 1996). However, there is weak counter-clockwise motion around Low Island (Niiler *et al.*, 1991; Hofmann *et al.*, 1996). Local circulation is also influenced by tides, with tide records obtained at Low Island during a six week period in December 1992 to January 1993 recording a maximum level variation of 1.70 m (López *et al.* 1994).

MARINE BIOLOGY

The predominantly soft sand/mud/cobbled-rock substrate of the Area supports a rich benthos with numerous fish species, invertebrates (sponges, anemones, annelids, molluscs, crustaceans, asteroids, ophiuroids, echinoids, holothurioids, brachiopods, tunicates), and marine plants, in several distinct communities.

Fish species commonly collected near Low Island include *Chaenocephalus aceratus, Harpagifer bispinis, Notothenia coriiceps, N. gibberifrons, Parachaenichthys charcoti* and *Trematomus newnesi*. Species rarely found at Low Island include *Champsocephalus gunnari, Chionodraco rastrospinosus* and *Pseudochaenichthys georgianus*. In addition, the Low Island shelf appears to be a spawning ground for several fish species, for example the ice fish *Chaenocephalus aceratus* and *N. coriiceps*. The Area is a mating ground for Yellowbelly rockcod (*Notothenia coriiceps*) (indicated by eggs) (Kellermann, 1996). The fish spawn in May/June. The large eggs, around 4.5 mm in diameter, are pelagic after fertilization and ascend to the surface waters where they incubate during the winter. Larval species recorded in the Area include *Bathylagus antarcticus, Electrona antarctica, Gymnodraco acuticeps, Nototheniops larseni, Notothenia kempi* and *Pleuragramma antarcticum* (Sinque *et al.*, 1986; Loeb *et al.*, 1993; Morales-Nin *et al.*, 1995).

The following benthic amphipod species have been recorded within the Area: *Ampelisca barnardi, A. bouvieri, Byblis subantarctica, Epimeria inermis, E. oxicarinata, E. walkeri, Eusirus antarcticus, E. perdentatus, Gitanopsis squamosa, Gnathiphimedia sexdentata, Jassa* spp., *Leucothoe spinicarpa, Liljeborgia georgiana, Melphidippa antarctica, Oediceroides calmani, O. lahillei, Orchomenella zschaui, Parharpinia obliqua, Parepimeria bidentata, Podocerus septemcarinatus, Prostebbingia longicornis, Shackeltonia robusta, Torometopa perlata, Uristes georgianus* and *Waldeckia obesa* (Wakabara *et al.*, 1995).

No information is available on the zooplankton or marine flora within the Area.

BIRDS

In 1987 approximately 295,000 pairs of chinstrap penguins (*Pygoscelis antarctica*) were breeding at five locations on Low Island. The largest colonies were at Cape Wallace (approximately 150,000 pairs) and Cape Garry (approximately 110,000 pairs) (Woehler, 1993). It is expected that the chinstrap penguins influence the Area, particularly near Cape Garry.

HUMAN ACTIVITIES / IMPACTS

No data are available on the numbers of ship movements through the Area, although the South Shetland Islands and northwestern Antarctic Peninsula are popular destinations for tourist ships. Numerous research cruises along the western Antarctic Peninsula have included sampling stations within the Area. Fish collected within the Area have been used to study the biochemical adaptations that enable proteins to function at low temperatures, and the physiological adaptations of muscle and energy metabolism to low temperatures (e.g. Detrich, 1987; Detrich and Parker, 1991; Detrich and Parker, 1993). Fish collected from the Area have also been used for comparative studies with fish collected from Arthur Harbor (McDonald *et al.*, 1992). Concentrations of polynuclear aromatic hydrocarbons (PAH's) were higher than expected in fish collected from the Area: while levels of exposure in fish sampled from the Area were considerably lower than those sampled from the vicinity of the *Bahia Paraiso* wreck, levels were similar to those in fish sampled from old Palmer Station (McDonald *et al.*, 1992).

6(ii) Restricted and managed zones within the Area

None.

6(iii) Structures within and near the Area
There are no structures known to be within or near the Area. The nearest scientific stations are Decepción (Argentina) and Gabriel de Castilla (Spain), both approximately 70 km to the north-east on Deception Island.

6(iv) Location of other protected areas within close proximity of the Area
The nearest protected areas to Western Bransfield Strait are Eastern Dallmann Bay (ASPA No. 153), which lies about 45 km to the SSE, and Port Foster and other parts of Deception Island (ASPAs No. 140 and No. 145 respectively), which are approximately 70 km to the north-east (Map 1, Inset).

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 are that:

- it is issued for at least one of the following purposes:
    - for scientific study of the marine environment in the Area, or for other scientific study which will not compromise the values for which the Area is protected; and/or
    - for essential management purposes consistent with plan objectives such as inspection, maintenance or review;
- the actions permitted will not jeopardize the values of the Area;
- any management activities are in support of the objectives of the Management Plan;
- the actions permitted are in accordance with the Management Plan;
- the Permit, or an authorized copy, shall be carried within the Area;
- a visit report shall be supplied to the authority named in the Permit;
- permits shall be issued for a stated period;
- the appropriate authority should be notified of any activities/measures undertaken that were not included in the authorised Permit.

7(i) Access to and movement within the Area
Access into the Area shall be by sea, over sea ice or by air. There are no specific restrictions on routes of access to or movement within the Area, although movements should be kept to the minimum necessary consistent with the objectives of any permitted activity. Every reasonable effort should be made to minimize disturbance. Anchoring should be avoided within the Area. There are no special overflight restrictions and aircraft may land by Permit when sea ice conditions allow.

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 values of the Area;
- Essential operational activities of vessels that will not jeopardize the values of the Area, such as transit through, or stationing within, the Area in order to facilitate science or other activities or for access to sites outside of the Area;
- Essential management activities, including monitoring;

7(iii) Installation, modification or removal of structures
Structures or scientific equipment shall not be installed within the Area except as specified in a Permit. All markers, structures or scientific equipment installed in the

Area shall be clearly identified by country, name of the principal investigator and year of installation. All such items should be made of materials that pose minimal risk of contamination of the Area. Removal of specific equipment for which the Permit has expired shall be a condition of the Permit. Permanent installations are prohibited.

7(iv) Location of field camps
None.

7(v) Restrictions on materials and organisms which can be brought into the Area
No living animals, plant material, pathogens or microorganisms shall be deliberately introduced into the Area. No herbicides or pesticides shall be introduced 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 used in the minimum quantities necessary to achieve the purpose of the activity for which the Permit was granted. Anything introduced shall be for a stated period only, shall be removed to the maximum extent practicable at or before the conclusion of that stated period, and shall be stored and handled so that risk of any introduction into the environment is minimized. If release occurs which is likely to compromise the values of the Area, removal or remediation is encouraged only where the impact of removal or remediation is not likely to be greater than that of leaving the material *in situ*. The appropriate authority should be notified of any materials released that were not included in the authorized Permit.

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. Permits shall not be granted if there is a reasonable concern that the sampling proposed would take, remove or damage such quantities of substrate, native flora or fauna that their distribution or abundance within the Area would be significantly affected. 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, including human 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

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 that are vulnerable to inadvertent disturbance should, where practical, be appropriately marked on site and on maps of 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.

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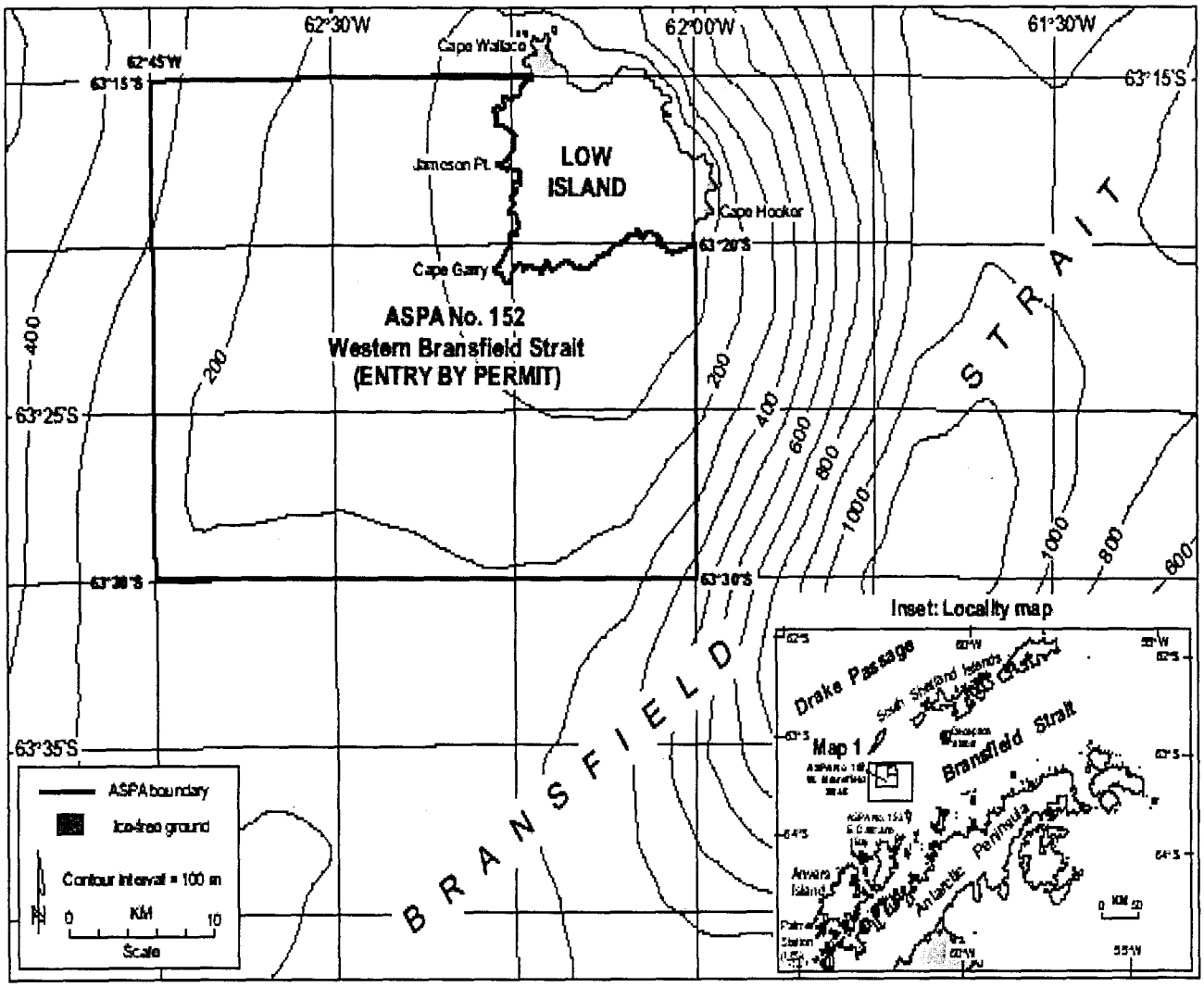
Map 1. ASPA No. 152 Western Bransfield Strait: bathymetric map



ANTARCTIC SPECIALLY PROTECTED AREA NO. 15□
EASTERN DALLMANN BAY

Revised Management Plans for ASPA No. 152, Western Bransfield Strait, and ASPA No. 153, Eastern Dallmann Bay (Find text related to Plan No 152 in list of Plans attached to Mesure 2)

At CEP V (Warsaw, 2002), an Intersessional Contact group was established to review revised Draft Management Plans submitted by the United States for two Antarctic Specially Protected Areas, ASPA No. 152, Western Bransfield Strait, and ASPA No. 153, Eastern Dallmann Bay.

The United States led the Intersessional Contact Group (ICG) in the review of the revised management plans. Comments on the management plan were received from Australia and New Zealand. Corrections to the plans were made to reflect the coming into force of Annex V and the change from designation of the sites as Sites of Special Scientific Interest (SSSI) to Antarctic Specially Protected Areas (ASPA).

Suggestions were also made on making the plans available to ships in the area and the plans were revised to reflect this suggestion.

Suggestions were also made on providing more information on penguin colonies in the area and for adding another map to more clearly show the general location of the sites in respect to the Antarctic Peninsula. The plans were not changed with respect to these either of these comments. With respect to the penguin colonies, they are outside the protected areas and are not values under special protection. As there are already guidelines on approaching wildlife in general and birds in particular, no revisions were made. With respect to the suggestion of adding a map, the United States viewed that the insert maps were sufficient to provide a sense of the general location of the ASPAs and that adding a second map and additional page to the plan was not necessary. No revision was made.

The finalized management plans are attached to this Working Paper and are submitted for approval by the CEP and the ATCM.

ANTARCTIC SPECIALLY PROTECTED AREA NO. 153
EASTERN DALLMANN BAY

1. Description of values to be protected

Eastern Dallmann Bay (between latitudes 64°00'S and 64°20'S and from longitude 62°50'W eastward to the western shore of Brabant Island, approximately 520 km^2) was originally designated as a Marine Site of Special Scientific Interest through Recommendation XVI-3 (1991, SSSI No. 36) after a proposal by the United States of America. It was designated on the grounds that "the shallow shelf west of East Dallmann Bay is one of only two known sites near Palmer Station that are suitable for bottom trawling for fish and other benthic organisms. The Site and, in particular, its benthic fauna, are of exceptional scientific interest and require long-term protection from harmful interference".

New bathymetric data compiled for the Area since its original designation show that the original boundary failed to encompass part of the shallow shelf above 200 m depth to the north of Brabant Island. It also included deeper water down to ~ 300-350 m in the west of the original Area, which is not considered strictly pertinent to the values identified for the Area. The boundaries of the Area have therefore been revised to focus more specifically on the shallow shelf down to 200 m depth to the west and north of Brabant Island, while the deeper water of Dallmann Bay to the west has now been excluded. This has resulted in a shift of the western boundary by approximately eight kilometers to the east, and the northern boundary by about 14 kilometers to the north, although the overall size of the Area has not been significantly altered. The new boundaries of the Area at Dallmann Bay are between latitudes 63°53'S and 64°20'S and longitudes 62°16'W and 62°45'W and are defined in the east by the shoreline of Brabant Island, encompassing an area of approximately 580 km^2 (Map 1).

The Area continues to be considered important for obtaining scientific samples of fish and other benthic organisms, and the original reasons for designation are reaffirmed in the current Management Plan with the amended boundaries. In addition, the Area is an important habitat for juvenile fish species, including the rockcod *Notothenia coriiceps* and the icefish *Chaenocephalus aceratus*. Fish have been collected from the Area by scientists from Palmer Station since the early 1970s. The Area is within the research area of the Palmer Long Term Ecological Research (LTER) Program; fish collected from the Area are used in the study of biochemical and physiological adaptations to low temperatures. Some of the fish collected have been used for comparative studies with the more heavily impacted Arthur Harbour area. Scientific research is also being undertaken on the benthic faunal communities.

2. Aims and objectives

Management at Eastern Dallmann Bay aims to:

- avoid degradation of, or substantial risk to, the values of the Area by preventing unnecessary human disturbance;
- allow scientific research on the marine environment while ensuring protection from over-sampling;

- allow other scientific research within the Area provided it will not compromise the values for which the Area is protected;
- 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:

- A map showing the location of the Area (stating the special restrictions that apply) shall be displayed prominently and copies of this Management Plan shall be made available at Palmer Station (USA).
- Copies of this Management Plan shall be made available to vessels traveling in the vicinity of the Area.
- Buoys, or other markers or structures installed within the Area for scientific or management purposes shall be secured and maintained in good condition.
- Visits shall be made 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.

4. Period of designation

Designated for an indefinite period.

5. Maps and photographs

Map 1:ASPA No. 153 Eastern Dallmann Bay bathymetric map. Coastline data are derived from the SCAR Antarctic Digital Database Version 2.0. Bathymetric is derived from published and unpublished depth data gridded by Morris (British Antarctic Survey, pers. comm. 2000) to the same specifications described in Schenke *et al.* (1998), which was gridded to cell sizes of between 1 and 4.6 km. Map specifications:

Projection: Lambert Conformal Conic; Standard parallels: 1st 62° 00' S; 2nd 64° 00' S;
Central Meridian: 62° 00' W; Latitude of Origin: 63° 00' S; Spheroid: WGS84;
Horizontal accuracy: maximum error of ±300 m.
Vertical contour interval 100 m, vertical accuracy to within ±50 m.

Inset: the location of Map 1, ASPA No. 153 Eastern Dallmann Bay, Antarctic Peninsula, showing the nearest protected area, ASPA No. 152, Western Bransfield Strait, and the location of Palmer Station (US).

6. Description of the Area

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

GENERAL DESCRIPTION
Dallmann Bay (between latitudes 64°00'S and 64°20'S and from longitude 63°15'W eastward to the western shore of Brabant Island) is situated approximately 65 km west of the Antarctic Peninsula, between Brabant Island and Anvers Island, with Bransfield Strait to the north and Gerlache Strait to the south. Brabant Island is

predominantly ice-covered, with a high north-south mountain chain which falls steeply to the sea on the western coast. The western coastline is characterized by rock and ice cliffs and ice-free headlands, interspersed by steep boulder and pebble beaches. Rock platforms are exposed at low tide in various locations north of Driencourt Point (Map 1). Numerous rocky islets extend several kilometers offshore, including Astrolabe Needle (104 m) which stands one kilometer offshore, two kilometers south of Claude Point. West of Brabant Island the sea floor slopes moderately from the intertidal zone to depths of approximately 200 m before the slope eases to depths of 400-500 m beyond the western boundary of the Area. The gradient from the shore down to 200 m slopes more gently in the north of the Area. The Area lies mostly within the 200 m depth contour west and north of Brabant Island (Map 1). The sea floor in the Area is generally composed of a matrix of soft sand, mud and cobbled-rock.

BOUNDARIES

The designated Area is defined in the south by latitude 64°20'S, extending from Fleming Point westward for two kilometers to 62°40'W. From this location, the western boundary extends due north on longitude 62°40'W for 18.5 km to 64°10'S, SSW of Astrolabe Needle. The western boundary then extends NNW almost 19 km to 62°45'W, 64°00'S. The western boundary then extends approximately 13 km due north on longitude 62°45'W to latitude 63°53'S, the northern boundary of the Area. The northern boundary extends along latitude 63°53'S from 62°45'W to 62°16'W, being a distance of approximately 23.4 km. The eastern boundary extends due south approximately 16 km from 62°16'W, 63°53'S to the eastern extremity of Pasteur Peninsula, Brabant Island, at 62°16'W, 64°02'S. From there, the eastern boundary is defined as the mean high water mark of the northern and western coastline of Brabant Island, which includes the intertidal zone within the Area. The Area is 50 km from north to south and extends up to a maximum of 23.4 km east-west. West of Brabant Island the width of the Area ranges between 10 km (at Guyou Bay) and 1.5 km (near Claude Point). The total area is approximately 580 km^2.

OCEANOGRAPHY AND CLIMATE

Regional winds are predominantly from the NNW, producing a southward oceanic flow along the western Antarctic Peninsula. Coupled with the northward flow of the Antarctic Circumpolar Current, this results in a predominantly clockwise oceanic circulation along the western Antarctic Peninsula (Hofmann *et al.* 1996). Circulation patterns in Dallmann Bay, however, are unknown. Sea ice coverage in Dallmann Bay appears to average less than 150 days per year, although there is considerable inter-annual variation (Parkinson, 1988). Tidal variation on Brabant Island is almost two meters and observations made while fishing indicate strong near-shore currents (Furse, 1986). Measurements made in the Area during four hydrographic cruises between November 1986 and March 1987 indicated water temperatures between minus 0.9°C in December to 0.9°C in February with salinity measurements averaging between 33.6 ‰ and 33.8 ‰ within the top 20 m of the water column (Niiler *et al.* 1991).

MARINE BIOLOGY

The Area supports a rich benthic community including numerous fish species, invertebrates, and marine plants and the Area is an important habitat for juvenile fish species. Fish commonly collected at Eastern Dallmann Bay include *Notothenia*

gibberifrons, *Chaenocephalus aceratus*, *Champsocephalus gunnari*, *Pseudochaenichthys georgianus* and *Chionodraco rastrospinosus*. Specimens of *Trematomus newnesi* and *Notothenia coriiceps* have only rarely been collected in this area. Larval species recorded in the Area include *Artedidraco skottsberg, Notothenia gibberifrons, N. nudifrons* and *Pleuragramma antarcticum* (Sinque *et al.*, 1986; Loeb *et al.*, 1993). Invertebrates collected within the Area have included varieties of sponge, anemone, annelid, mollusc, crustacean, asteroid, ophiuroid, echinoid, holothurioid and tunicate.

Acoustic echo-sounding was used to measure aggregations of Antarctic krill (*Euphausia superba*) within the Area during cruises between 1985 and 1988 (Ross *et al.*, 1996). Aggregations were generally recorded in the upper 120 m of the water column. The lowest numbers of aggregations were observed in early spring, increasing to a maximum in late summer and early winter.

BIRDS

Two colonies of chinstrap penguins (*Pygoscelis antarctica*) have been recorded on the northwestern coast of Brabant Island immediately adjacent to the Area. Approximately 5000 breeding pairs were counted at Metchnikoff Point in 1985 and approximately 250 pairs at Claude Point in 1985 (Woehler, 1993). Other birds observed breeding on the western coast of Brabant Island and frequenting the Area are: Antarctic fulmars (*Fulmaris glacialoides*), Antarctic terns (*Sterna vittata*), black-bellied storm petrels (*Fregetta tropica*), blue-eyed cormorants (*Phalacrocorax atriceps*), brown skuas (*Catharacta loennbergi*), cape pigeons (*Daption capense*), greater sheathbills (*Chionis alba*), kelp gulls (*Larus dominicanus*), snow petrels (*Pagodroma nivea*), south polar skuas (*Catharacta maccormicki*) and Wilson's storm petrels (*Oceanites oceanicus*) (Parmelee and Rimmer, 1985; Furse, 1986). Antarctic petrel (*Thalassoica antarctica*), black-browed albatross (*Diomedea melanophris*), southern giant petrel (*Macronectes giganteus*) commonly forage in the Area (Furse, 1986).

MARINE MAMMALS

Numerous marine mammals were observed in Dallmann Bay between January 1984 and March 1985 (Furse, 1986). Humpback whales (*Megaptera novaeangliae*) were the most frequently sighted whale species, with possible sightings of killer whales (*Orcinus orca*) off Metchnikoff Point in May and June 1985. Crabeater seals (*Lobodon carcinophagus*), southern elephant seals (*Mirounga leonina*), numerous Antarctic fur seals (*Arctocephalus gazella*), leopard seals (*Hydrurga leptonyx*) and Weddell seals (*Leptonychotes weddelli*), were observed in the Area from Metchnikoff Point.

HUMAN ACTIVITIES / IMPACTS

Numerous research cruises along the western Antarctic Peninsula have included sampling stations within the Area for oceanographic and/or biological research. Fish collected within the Area have been used for a variety of biochemical, genetic and physiological research, including: studies of the adaptations in fish that enable proteins to function at low temperatures (e.g. Detrich, 1987; Detrich and Parker, 1991; Detrich and Parker, 1993); the adaptations of muscle and energy metabolism to low temperatures; and for comparative studies of polynuclear aromatic hydrocarbon (PAH) contamination in fish with those collected from Arthur Harbor (McDonald *et al.*, 1992). The latter study found levels of contamination in fish sampled from the

Area were considerably lower than those sampled from the vicinity of the 1989 *Bahia Paraiso* wreck in Arthur Harbour. However concentrations of PAH were higher than had been expected in fish collected from within the Area, with levels found to be similar to those in fish sampled from near Old Palmer Station.

A British Joint Services Expedition involving 35 team members spent one year on Brabant Island from January 1984 to March 1985 (Furse, 1986). Several camps and numerous caches were established along the western coastline, including a main base camp at Metchnikoff Point. Some of the camp structures and possibly caches were abandoned following the expedition, although their status in 2002 is unknown. The level of impact of the expedition on the adjacent marine environment is also unknown.

The Brabant Island – Anvers Island region is popular for tourist ships. Data on tourist visits compiled by the US National Science Foundation show that since the Area was first designated in 1991 a number of tour vessels have visited Dallmann Bay, and more specifically Metchnikoff Point. Tourist activity in the vicinity since original designation is summarised in Table 1. It is not clear where in Dallmann Bay the reported tourist visits took place, although it has been, and still is, necessary to move through the Area to gain access to Metchnikoff Point by sea.

Table 1. Tourist activity in the vicinity of ASPA No. 153 Eastern Dallmann Bay 1991-92 – 2000-01.

Season	Number of tour vessels and passengers (pax)					
	Dallmann Bay			Metchnikoff Point		
	No. of vessels	Small-boat cruise (pax)	Small-boat landing (pax)	No. of vessels	Small-boat cruise (pax)	Small-boat landing (pax)
1991-92				1	12	
1992-93						
1993-94	1	84				
1994-95						
1995-96	2	104				
1996-97	1	70				
1997-98				1		55
1998-99				1		2
1999-00	2	102				
2000-01						
TOTALS	**6**	**60**			**12**	**57**

6(ii) Restricted and managed zones within the Area

None.

6(iii) Structures within and near the Area

There are no structures known to be within the Area. Structures and other material from the UK Joint Services Expedition to Brabant Island (January 1984 to March 1985) may remain on the western shores of Brabant Island, particularly at Metchnikoff Point. The nearest stations are President González Videla (Chile), approximately 55 km south in Paradise Harbour; Port Lockroy (UK), approximately 75 km south-west on Goudier Island, Yelcho (Chile), approximately 80 km south-west on Doumar Island; and Palmer (USA), approximately 90 km WSW on Anvers Island.

6(iv) Location of other protected areas within close proximity of the Area

The nearest protected areas to Eastern Dallmann Bay are Western Bransfield Strait (ASPA No. 152), which lies about 55 km to the NNW, and Biscoe Point (ASPA No. 139) and Litchfield Island (ASPA No. 113), both of which lie approximately 80 km to the south-west on the southern coast of Anvers 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 are that:

- it is issued for at least one of the following purposes:
  - for scientific study of the marine environment in the Area, or for other scientific study which will not compromise the values for which the Area is protected, and/or
  - for essential management purposes consistent with plan objectives such as inspection, maintenance or review
- the actions permitted will not jeopardize the values of the Area;
- any management activities are in support of the objectives of the Management Plan;
- the actions permitted are in accordance with the Management Plan;
- the Permit, or an authorized copy, shall be carried within the Area;
- a visit report shall be supplied to the authority named in the Permit;
- permits shall be issued for a stated period;
- the appropriate authority should be notified of any activities/measures undertaken that were not included in the authorised Permit.

7(i) Access to and movement within the Area

Access into the Area shall be by sea, over sea ice or by air. There are no specific restrictions on routes of access to or movement within the Area, although movements should be kept to the minimum necessary consistent with the objectives of any permitted activity. Every reasonable effort should be made to minimize disturbance. Anchoring should be avoided within the Area. There are no special overflight restrictions and aircraft may land by Permit when sea ice conditions allow.

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 values of the Area;
- Essential operational activities of vessels that will not jeopardize the values of the Area, such as transit through, or stationing within, the Area in order to facilitate science or other activities or for access to sites outside of the Area;
- Essential management activities, including monitoring;

7(iii) Installation, modification or removal of structures

Structures or scientific equipment shall not be installed within the Area except as specified in a Permit. All markers, structures or scientific equipment installed in the Area shall be clearly identified by country, name of the principal investigator and year of installation. All such items should be made of materials that pose minimal risk of contamination of the Area. Removal of specific equipment for which the Permit has expired shall be a condition of the Permit. Permanent installations are prohibited.

7(iv) Location of field camps

None.

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

No living animals, plant material, pathogens or microorganisms shall be deliberately introduced into the Area. No herbicides or pesticides shall be introduced 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 used in the minimum quantities necessary to achieve the purpose of the activity for which the Permit was granted. Anything introduced shall be for a stated period only, shall be removed to the maximum extent practicable at or before the conclusion of that stated period, and shall be stored and handled so that risk of any introduction into the environment is minimized. If release occurs which is likely to compromise the values of the Area, removal or remediation is encouraged only where the impact of removal or remediation is not likely to be greater than that of leaving the material *in situ*. The appropriate authority should be notified of any materials released that were not included in the authorized Permit.

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. Permits shall not be granted if there is a reasonable concern that the sampling proposed would take, remove or damage such quantities of substrate, native flora or fauna that their distribution or abundance within the Area would be significantly affected. 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, including human 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

3. 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.
4. Any specific sites of long-term monitoring that are vulnerable to inadvertent disturbance should, where practical, be appropriately marked on site and on maps of 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.

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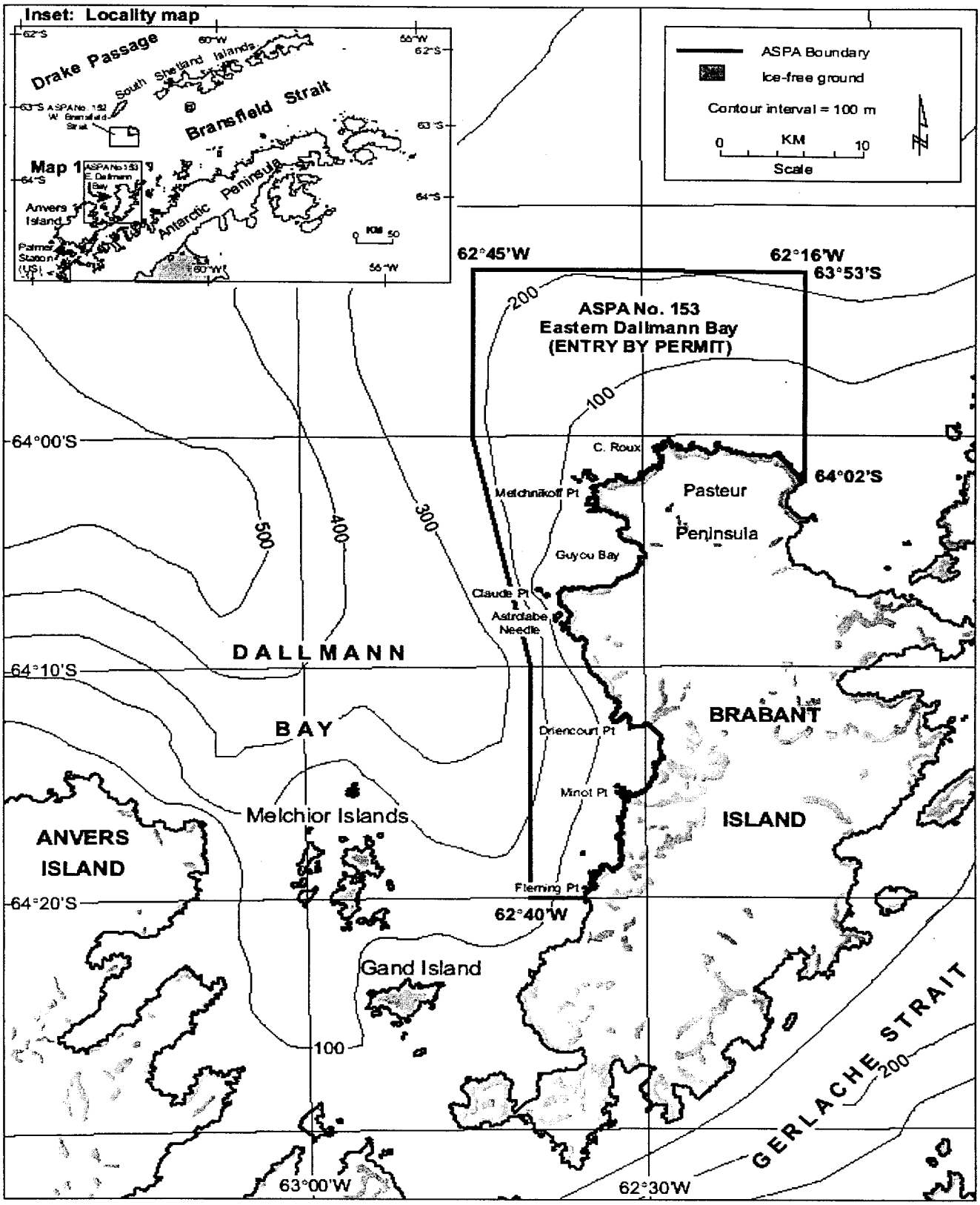
Map 1. ASPA No. 153 Eastern Dallmann Bay: bathymetric map



ANTARCTIC SPECIALLY PROTECTED AREA No 154
BOTANY BAY, CAPE GEOLOGY, VICTORIA LAND

In accordance with the provisions Annex V of the Protocol on Environmental Protection to the Antarctic Treaty and Resolution 1 (1998), New Zealand has initiated a review of the management plans for the following Antarctic Specially Protected Areas (ASPAs):

- ASPA 105, Beaufort Island, Ross Sea (previously SPA 5) (Find text related to this Plan in list attached to Mesure 2)
- ASPA 154, Botany Bay, Cape Geology, Victoria Land (previously SSSI 37)
- ASPA 156, Lewis Bay, Mount Erebus (previously SPA 26) (Find text related to this Plan in list attached to Mesure 2)

These ASPAs have been renamed and renumbered from previous Specially Protected Area and Site of Special Scientific Interest designations in accordance with Decision 1 (2002).

The review processes for three of the ASPAs (105, 154 and 156) have been completed and are described in this paper. Draft revised plans for these Areas are annexed to Attachment 4, a draft Measure.

The review process for ASPAs 155 and 131 revealed more complex issues and will be continued.

ASPA 154, Botany Bay, Cape Geology

Introduction

Botany Bay contains rich and diverse lichen and moss communities at high latitude and abundant algae, invertebrate and South polar skua populations. In addition to biological values, the Area protects a rock shelter constructed by the 1910-1913 British Antarctic Expedition within a special Managed Zone. It was designated as Site of Special Scientific Interest No. 37 in 1997 (Measure XXI-3).

Review of Activities

New Zealand has issued 25 permits in the period since the last revision of the management plan for ASPA 154. The United States has not issued any permits for entry to this Area. Research conducted in this Area has been wide and varied including studies on the biodiversity and performance of lichens and mosses, impacts of humans on Antarctic soils including research into fuel spills, terrestrial diversity, genetic variation in Antarctic mosses, the ecology of terrestrial fauna, and the microbiology of terrestrial biotopes. The Antarctic Heritage Trust conducted a site visit to the Area in the 2002/03 season and removed the sledge remains from the Managed Zone for conservation reasons.

The limited geographical extent of the ecosystem, its unusual ecological features and importance, its exceptional scientific and historic values verify the need for on-going long-term protection of this Area.

No significant management activity has been undertaken in the Area.

Consultation with the Science Community

New Zealand researchers known to have worked in the Area since its designation were contacted to gauge whether information in the management plan was still current and whether the values identified had changed since the last revision. In general, the values of the Area were considered more than sufficient to continue protection of the Area.

Proposed Revision

The management plan text has been modified slightly.

The section, *7(ix) Measures that are necessary to ensure that the aims and objectives of the Management Plan can continue to be met*, has been slightly modified and a more detailed description of the measures to be taken have been added

The sledge remains are no longer shown in the Managed Area (Map C) as the Antarctic Heritage Trust has removed them for conservation purposes. All of the maps have been updated to reflect the new naming and numbering system under Annex V.

A bibliography of relevant literature (see below) has also been added to the management plan.

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ANTARCTIC SPECIALLY PROTECTED AREA No 154
BOTANY BAY, CAPE GEOLOGY, VICTORIA LAND

1. Description of values to be protected

The Area at Botany Bay and Cape Geology (Granite Harbour, Victoria Land) has been proposed by New Zealand on the grounds that it is an extremely rich botanical refuge for such a high latitude location (162° 34' 00"E, 77° 00' 30"S), with a lichen and moss species diversity and abundance that is unique for southern Victoria Land. In addition to a high diversity and abundance of lichens and mosses there are abundant growths of algae, large populations of invertebrates (collembola, mites, nematodes, rotifers) and a colony (in excess of 40 pairs) of South polar skua (*Catharacta maccormicki*). The area is the type locality for the collembolan *Gomphiocephalus hodgsoni* Carpenter.

The structure and development of the moss and lichen communities is similar to that found more than 10° of latitude further north, with several species at their known southern limit. The Area contains the most southerly record of an hepatic (*Cephaloziella exiliflora*). Of great significance is the size (up to 15 cm diameter) of some lichen thalli (e.g. *Umbilicaria aprina*). The boulder beach has rich populations of both epilithic and endolithic lichens.

In addition to the biological values described, the Area contains within it the remains of a rock shelter and associated artifacts of historical importance, known as 'Granite House', designated as Historic Site No. 67 in Measure 4 (1995). Constructed by members of the 1910-1913 British Antarctic Expedition, the shelter and associated artifacts are vulnerable to disturbance and are therefore managed as a Managed Zone within the Area, which is subject to access restrictions.

The limited geographical extent of the ecosystem, its unusual ecological features and importance, its exceptional scientific and historic values and the vulnerability of the Area to disturbance through trampling, sampling, pollution or alien introductions, are such that the Area requires long-term special protection.

2. Aims and objectives

Management at Cape Geology 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 on the ecosystem and elements of the ecosystem in particular on lichen and moss species, algae, invertebrates and skuas while ensuring protection from over-sampling;
- allow other scientific research provided it is for compelling reasons which cannot be served elsewhere;
- preserve a part of the natural ecosystem as a reference area for the purpose of future comparative studies;
- minimise the possibility of introduction of alien plants, animals and microbes to the Area;
- allow visits to 'Granite House', but under strict control by Permit;

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

3. Management activities

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

- Maps showing the location of the Area (stating the special restrictions that apply) shall be displayed prominently, and copies of this Management Plan shall be kept in all of the research hut facilities located within 25 km of the Area. Copies of the Management Plan will also be available at Scott Base (NZ).
- Signs illustrating the location, boundaries and clearly stating entry restrictions shall be placed at appropriate locations at the boundaries of the Area and Zones within to help avoid inadvertent entry.
- Markers, signs or structures erected within the Area for scientific or management purposes shall be secured and maintained in good condition.
- Visits shall be made as necessary (no less than once every five years) to assess whether the Area continues to serve the purposes for which it was designated and to ensure management and maintenance measures are adequate.
- National Antarctic Programmes operating in the region shall consult together with a view to ensuring these steps are carried out.

4. Period of designation

Designated for an indefinite period.

5. Maps and photographs

Map A: Botany Bay and Cape Geology, protected area topographic map. Map specifications:
Projection: Lambert conformal conic; Standard parallels: 1st 79° 20' 00" S; 2nd 76° 40' 00"S Central Meridian: 162° 30' 00" E Latitude of Origin: 78° 01' 16.211" S; Spheroid: WGS84.

Inset 1: Southern Victoria Land, Ross Sea and Ross Island, showing location of Granite Harbour.

Inset 2: Cape Geology location map, and Granite Harbour region.

Map B: Botany Bay and Cape Geology, protected area orthophotograph. Map specifications are the same as those in Map A. The original orthophotograph was prepared at 1:2500 with a positional accuracy of ±1.25 m (horizontal) and ±2.5 m (vertical) with an on-ground pixel resolution of 0.5 m. Photography: USGS/DoSLI (SN7851) 22 November 1993.

Map C: Managed Zone with 'Granite House' site orthophotograph, derived from Map B. The richest areas of vegetation, sensitive to disturbance, are shown.

6. Description of the Area

6(i) Geographical coordinates, boundary markers and natural features
Cape Geology is situated in the south-western corner of Granite Harbour, southern Victoria Land, at 162°32'52"E, 77°00'14"S, approximately 100 km north-west of Ross Island (Map A, Insets). The Area encompasses much of the catchment above Botany Bay and consists of raised boulder beach terraces, weathered rocky steppes and irregular rock platforms around Cape Geology, extending south to include a well-defined elevated cirque containing a small ice field. The bedrock geology at Cape Geology has been described as a porphyritic grey biotite-granite, with phenocrysts of orthoclase of reddish colour, casting the weathered rock with a reddish tinge.

The northwest corner of the Area is marked by a brass plaque in a boulder (M1, 2 m: Maps A and B) 400 m SW of Cape Geology. The west boundary is defined by a line extending first 260 m SSE from M1 to a large boulder (marked by a cairn) with terrier bolt (M2) at an elevation of 118 m on the ridge above the campsite; thence the boundary extends 250 m up this ridge to a point at 162 m elevation marked by an iron tube with bamboo pole. The west boundary extends a further 300 m up this ridge to a large pointed rock at 255 m elevation near the edge of the permanent ice field. The boundary then extends 150 m south across the ice field to the west edge of a prominent line of exposed rock and moraine in the SW corner of the Area at 325 m elevation. The south boundary follows this line of rock east until the exposure is buried by the ice-field, thence SE across the ice field for 500 m to the edge of a second and more prominent exposure at an elevation of just over 400 m (M3). The boundary follows the upper edge of this exposure and then crosses the ice field SE to an elevation of approximately 325 m where the ice-free eastern boundary ridge and the ice field converge. The east boundary follows the ridge crest for 1550 m in a NE direction to a large pointed rock on the ridge (M4, 392 m) where the east boundary turns to descend due north to the coast at the eastern extremity of the boulder beach of Botany Bay (M5, 5 m). The mean high water mark of the coastline of Botany Bay and Cape Geology forms the northern boundary of the Area.

The Area is extremely rich botanically for such a high-latitude location — it is also one of the richest sites in the whole of continental Antarctica. There is a high diversity and abundance of lichens (more than 30 species) and mosses (eight species), and the structure and development of these communities are similar to those found 10° of latitude further north. Some lichen thalli (e.g. *Umbilicaria aprina*) measure up to 15 cm diameter. The boulder beach has rich populations of both epilithic and endolithic lichens. The Area contains by far the most southerly record of an hepatic (*Cephaloziella exiliflora*) and the mosses *Bryoerythrophyllum recurvirostre* and possibly *Ceratodon purpureus*. There are abundant growths of algae (at least 85 taxa), although the algal flora is not considered particularly unusual for the locality.

There are large populations of invertebrates (collembola, mites, nematodes, rotifers) and the area is the type locality for the collembolan *Gomphiocephalus hodgsoni* Carpenter. There is a colony of between 40 – 50 breeding pairs (and numerous non-breeders) of the south polar skua (*Catharacta maccormicki*), which is approximately the same number present in 1911–12. No other bird species are known to breed in the Cape Geology area.

6(ii) Restricted and managed zones within the Area

Restricted Zone

An area directly above Botany Bay is designated a Restricted Zone in order to preserve part of the Area as a reference site for future comparative studies, while the remainder of the Area (which is similar in biology, features and character) is more generally available for research programmes and sample collection. The west boundary of the Restricted Zone is defined by a line from a marker (iron tube in rock, 20 metres from mean high water mark, elevation 8 m) at the west side of Botany Bay (Map A), extending SW for 170 m up to a second iron tube marker on the crest of the adjacent ridge (87 m). This boundary extends 100 m to a third iron tube and a cairn (98 m), thence 50 m to a large flat rock in the centre of the main flush (marked '1' on Maps A and B). The south boundary of the Restricted Zone extends from the flat rock in the flush in a straight line 820 m to the first of two prominent boulders closely adjacent to each other, approximately in the middle of the ice-free slopes above Botany Bay (marked '2' on Maps A and B at 165 m). The east boundary extends 300 m from there to a large rock at 135 m elevation, thence NE downslope to the NE boundary point (M5, 5 m). The north boundary of the Restricted Zone is the mean high water mark of Botany Bay and is coincident with the north boundary of the Area.

Access to the Restricted Zone is allowed only for compelling scientific or management (such as inspection or review) purposes, which cannot be served elsewhere in the Area.

Managed Zone

Situated at the coast at the northernmost tip of Cape Geology, a Managed Zone is designated to protect historic artifacts and plant communities within this vicinity, yet also to allow access to the rock shelter known as 'Granite House', which was designated as Historic Site No. 67 in Measure 4 (1995). The Managed Zone is an enclave of approximately 100 m by 80 m that surrounds a rock ridge leading from the coast at Cape Geology to the old shelter. The boundaries are marked on Map C, with the southern-most corner marked by a cairn on a prominent boulder overlooking the rock shelter. The shelter was constructed by members of the 1910-1913 British Antarctic Expedition, and used between December 1911 and January 1912 while the party carried out geological and biological exploration in the vicinity. The structure was built using a natural hollow in the rocks, with walls built up from granite boulders and a roof of seal skins: in January 2003 parts of the walls remained, but while several of the skins were present the roof had collapsed. Access to the Managed Zone may be allowed by Permit, subject to the conditions of this management plan.

6(iii) Structures within and near the Area

The only structures known to exist in the Area are 'Granite House', the boundary survey markers and signposts in appropriate locations.

6(iv) Location of other protected areas within close proximity of the Area

The nearest protected area to Cape Geology is ASPA 123 at Barwick Valley, 50 km distant in a SW direction in the Victoria Land Dry Valleys.

7. Permit conditions

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

- outside of the Restricted and Managed Zones, it is issued only for scientific study of the ecosystem, or for compelling scientific reasons that cannot be served elsewhere, or for essential management purposes consistent with plan objectives such as inspection or review;
- access to the Restricted Zone is allowed only for compelling scientific or management reasons that cannot be served elsewhere in the Area;
- access to the Managed Zone may be permitted for scientific, management, historical, educational or recreational purposes;
- the actions permitted will not jeopardise the ecological, scientific or historic values of the Area;
- any management activities are in support of the objectives of the Management Plan;
- the actions permitted are in accordance with the Management Plan;
- the Permit, or an authorized copy, shall be carried within the Area;
- a visit report 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

Vehicles are prohibited within the Area and access should be by foot. Helicopters are normally prohibited from landing within the Area: there is a designated site 60 m outside of the Area (162° 31' 55"E, 77° 00' 19"S: Map A and Map B). Access to the landing site should be from the open water / sea ice to the north of the Area. Overflight of the Area lower than 300 m (~1000 ft) above ground level is normally prohibited. When required for essential scientific or management purposes, transient overflight or landing may be allowed: conduct of such anticipated overflights or landings must be specifically authorised by Permit. Use of helicopter smoke grenades within the Area is prohibited unless necessary for safety, and all grenades should be retrieved. All helicopter landing or overflight lower than 300 m AGL is prohibited within the Restricted Zone.

Access into the Area should preferably be from the recommended camping area along a preferred walking route 10–20 m from the coast, which is relatively devoid of vegetation. Visitors should avoid walking on visible vegetation, or unnecessary disturbance to bird populations. Care should be exercised walking in areas of moist ground, where foot traffic can easily damage sensitive soils, plant and algal communities, and degrade water quality: walk around such areas, on ice or rocky ground. 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 minimise effects.

Access to the Managed Zone should preferably be from the coast, following the ridge leading up to 'Granite House' (Map C). An alternative route may be used from the west of the Managed Zone if sea-ice travel is unsafe (Maps A–C). Unless specifically authorised by Permit, visitors are prohibited from entering the historic shelter, and are limited to access and viewing from the rock ridge designated for access from the coast in order to prevent damage to the rich vegetation within the Managed Zone.

Visitors shall not venture south of 'Granite House', unless specifically authorised by Permit. A maximum of 10 people is permitted to enter the Managed Zone at any one time, and a maximum of 5 people is allowed in the viewing area overlooking 'Granite House' at any one time (Map C).

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

- scientific research that will not jeopardise the ecosystem of the Area;
- essential management activities, including monitoring;
- limited visits to the Managed Zone for reasons other than science or management subject to the conditions described in this plan;
- activities with the aim of preserving or protecting the historic resources within the Area.

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 in the Area must be authorised by Permit and clearly identified by country, name of the principal investigator and year of installation. All such items should be made of materials that pose minimal risk of contamination of the Area. Removal of specific equipment for which the Permit has expired shall a condition of the Permit.

7(iv) Location of field camps

Camping within the Area is prohibited and should be at a site outside of the Area, 100 m from the NW corner (Map A), adjacent to the designated helicopter landing site. This camping site has been disturbed by previous activities and visitors should reoccupy these disturbed positions for tents and other facilities.

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 precautions shall be taken against accidental introductions. No herbicides or pesticides shall be brought into the Area. Any other chemicals, including radio-nuclides or stable isotopes, which may be introduced for scientific or management purposes specified in the Permit, shall be removed from the Area at or before the conclusion of the activity for which the Permit was granted. Fuel is not to be stored in the Area, unless required for essential purposes connected with the activity for which the Permit has been granted. All materials introduced shall be for a stated period only, shall be removed at or before the conclusion of that stated period, and shall be stored and handled so that risk of their introduction into the environment is minimised.

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

This is prohibited, except in accordance with a Permit. Where animal taking or harmful interference is involved this should, 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 authorised, 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.

Unless specifically authorised by Permit, visitors are prohibited from interfering with or attempting restoration of 'Granite House' in any way, or from handling, taking or damaging any artifacts found within the Managed Zone. Evidence of recent changes, damage or new artifacts observed should be notified to the appropriate national authority. Relocation or removal of artifacts for the purposes of preservation, protection or to re-establish historical accuracy is allowable by Permit.

7(viii) Disposal of waste
All wastes, including all human 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

1. Permits may be granted to enter the Area to carry out biological monitoring and site inspection activities, which may involve the collection of small samples for analysis or review, to erect or maintain signposts, or for management activities, especially those associated with the Historic Site.
2. Any specific sites of long-term monitoring shall be appropriately marked.
3. To help maintain the ecological and scientific values of the isolation and relatively low level of human impact at the Area visitors shall take special precautions against introductions. Of particular concern are microbial or vegetation introductions sourced from soils at other Antarctic sites, including stations, or from regions outside Antarctica. To minimize the risk of introductions, visitors shall thoroughly clean footwear and any equipment to be used in the area - particularly sampling equipment and markers – before entering the Area.

7(x) Requirements for reports
Parties should ensure that the principal holder for 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

Davidson, M.M., Broady, P.A. (1996). Analysis of gut contents of Gomphiocephalus hodgsoni Carpenter (Collembola: Hypogastruridae) at Cape Geology, Antarctica. *Polar Biology*, 16 (7), 463-467.

Montes, M.J., Andrés, C., Ferrer, S., Guinea, J. 1997. *Cryptococcus* a new Antarctic yeast isolated from Botany Bay, Tierra Victoria. *Real Sociedad Española de Historia Natural. Boletín. Sección Biológica.* 93 (1-4), 45-50.

Kappen, L., Schroeter, B., Green, T.G. A., Seppelt, R.D. 1998. Microclimate conditions, meltwater moistening, and the distributional pattern of *Buellia frigida* on rock in a southern continental Antarctic habitat. *Polar biology*, 19 (2), 101-106.

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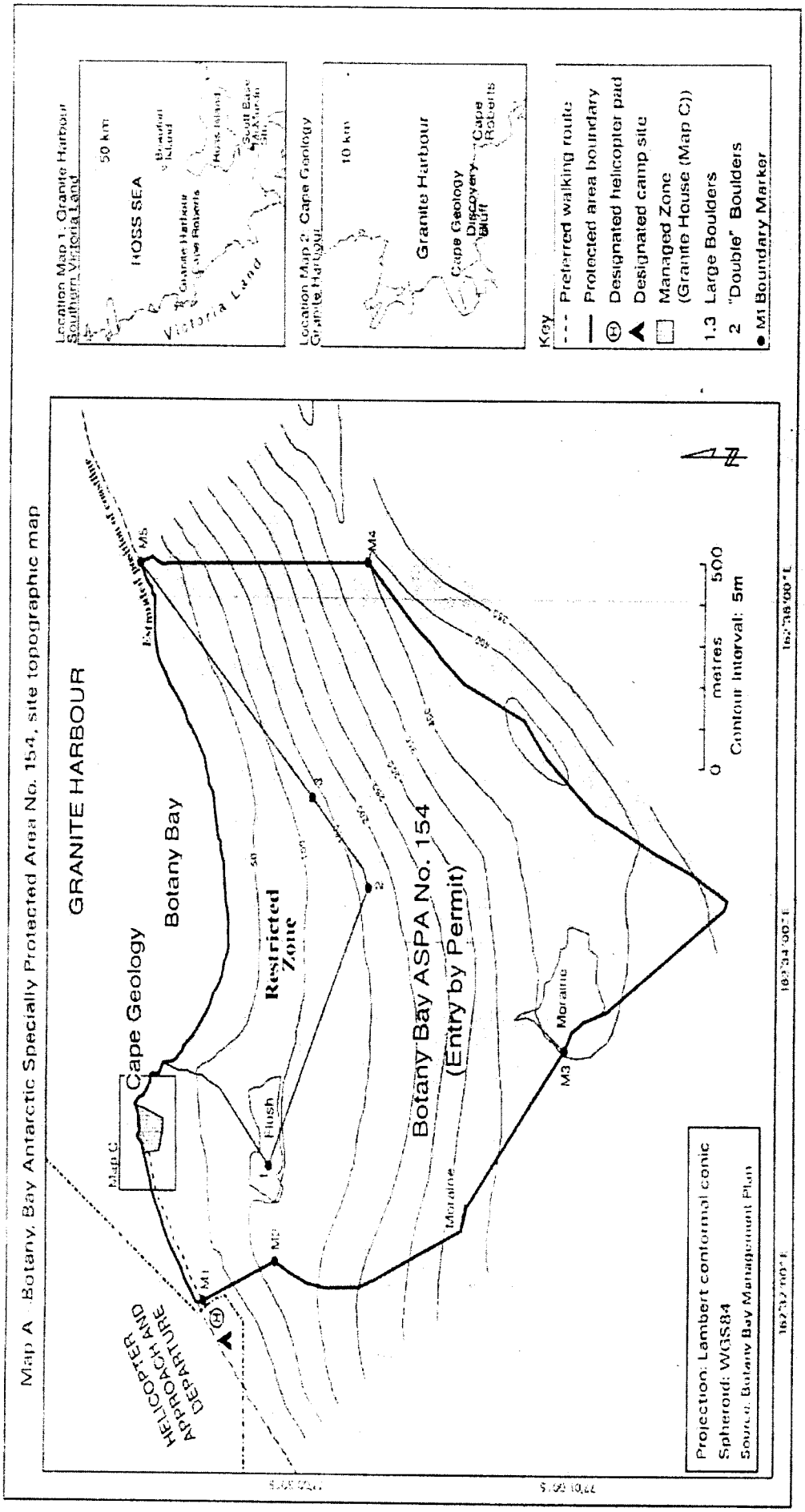

Map A: Botany Bay Antarctic Specially Protected Area No. 154, site topographic map
GRANITE HARBOUR
Botany Bay
Cape Geology
Restricted Zone
Botany Bay ASPA No. 154
(Entry by Permit)
Moraine
Hush
Map C
HELICOPTER APPROACH AND DEPARTURE
M1
M2
M3
M4
M5
1
2
3
Location Map 1: Granite Harbour Southern Victoria Land
50 km
ROSS SEA
Victoria Land
Location Map 2: Cape Geology Granite Harbour
10 km
Granite Harbour
Cape Geology
Discovery Bluff
Cape Roberts
Key
Preferred walking route
Protected area boundary
Designated helicopter pad
Designated camp site
Managed Zone (Granite House (Map C))
1,3 Large Boulders
2 "Double" Boulders
M1 Boundary Marker
0 metres 500
Contour interval: 5m
Projection: Lambert conformal conic
Spheroid: WGS84
Source: Botany Bay Management Plan

ANTARCTIC SPECIALLY PROTECTED AREA No 156
LEWIS BAY, MOUNT EREBUS, ROSS ISLAND, ROSS SEA

In accordance with the provisions Annex V of the Protocol on Environmental Protection to the Antarctic Treaty and Resolution 1 (1998), New Zealand has initiated a review of the management plans for the following Antarctic Specially Protected Areas (ASPAs):

- ASPA 105, Beaufort Island, Ross Sea (previously SPA 5) (Find text related to this Plan in list attached to Mesure 2)
- ASPA 154, Botany Bay, Cape Geology, Victoria Land (previously SSSI 37) (Find text related to this Plan in list attached to Mesure 2)
- ASPA 156, Lewis Bay, Mount Erebus (previously SPA 26)

These ASPAs have been renamed and renumbered from previous Specially Protected Area and Site of Special Scientific Interest designations in accordance with Decision 1 (2002).

The review processes for three of the ASPAs (105, 154 and 156) have been completed and are described in this paper. Draft revised plans for these Areas are annexed to Attachment 4, a draft Measure.

The review process for ASPAs 155 and 131 revealed more complex issues and will be continued.

ASPA 156, Lewis Bay, Mt Erebus

Introduction

Lewis Bay was the site of a DC-10 aircraft crash resulting in 257 fatalities in 1979. Despite the best efforts of recovery teams, not all the bodies of those who died could recovered and the site was declared a tomb in 1981. A Specially Protected Area designation (No. 27) was made in 1997 (Measure XXI-2) to ensure the area remains one of peace and remembrance.

Review Process

Because the site is a tomb, its values are enduring. Only one known entry to the Area has been made since its designation, this being a commemorative service marking the 20th anniversary of the crash in 1999. Relevant staff in the New Zealand and United States national Antarctic programmes were consulted with regard to any operational problems the designation may have caused. No concerns were raised.

Conclusion

Given the enduring nature of the values in this Area and the absence of any other concerns regarding this Area, no substantive changes to the text of plan are proposed. The only revisions in the annexed version are therefore the renaming and renumbering of all ASPAs referred to, and an improved copy of figure 1.

ANTARCTIC SPECIALLY PROTECTED AREA No 156
LEWIS BAY, MOUNT EREBUS, ROSS ISLAND

1. Description of values to be protected

An area on the lower slopes of Mount Erebus, above Lewis Bay on the north side of Ross Island, was originally declared a tomb in Recommendation XI-3 (1981) after notification by New Zealand that 257 people of several nationalities lost their lives when the DC-10 aircraft in which they were travelling crashed at this site on 28 November 1979. In spite of the determined and courageous actions of the New Zealand and United States Antarctic expeditions the bodies of some of those who died could not be recovered. Expressing deep sympathy with the relatives of those who died and with the Government and people of New Zealand, the tomb was declared in order to ensure that the area be left in peace. These reasons for special protection are still valid, and the Area is to be kept inviolate as a mark of respect, in remembrance and in order to protect the site's emotional values.

In late 1979 a six-foot oregon timber cross was erected close to the crash site as a memorial to those who lost their lives. After damage by wind this cross was replaced on 30 January 1987 with a cross of stainless steel, located on a rocky promontory overlooking and approximately 3 km from the site. This site is not part of the protected area, but is proposed as an Historic Monument in recognition of the commemorative and symbolic values of the cross.

2. Aims and objectives

Management at Lewis Bay aims to:

- avoid degradation of, or substantial risk to, the values of the Area;
- ensure the crash site is kept inviolate and prevent unnecessary human disturbance to the Area;
- allow visits to the nearby site of the memorial cross for the purposes of commemoration or to pay respects;
- allow visits for purposes in support of the aims of the management plan.

3. Management activities

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

- All pilots operating in the region shall be informed of the location, boundaries and restrictions applying to entry and over-flight in the Area;
- Visits shall be made as necessary (no less than once every five years) for inspection and to assess whether the Area continues to serve the purposes for which it was designated;
- National Antarctic Programmes operating in the region shall consult together with a view to ensuring these steps are carried out.

4. Period of designation

Designated for an indefinite period.

5. Maps and photographs

Map A: Lewis Bay protected area topographic map. Note: Map A is derived from the Antarctic Digital Database (ADD) Version 1.0, 1993, which was prepared to a base scale of 1:250,000 under the auspices of SCAR. Positional corrections have been applied to the ADD source data using

1993 and 1995 Global Positioning System (GPS) data and 1993 aerial photography. Accuracy of the map remains approximate pending publication of new and accurate Ross Island maps at 1:50,000 scale. The geographical coordinates of the crash site and other features are considered accurate to within approximately 100–200 m horizontally. Elevation data are considered accurate to approximately 100 m vertically.

Map A specifications: Projection: Lambert conformal conic; Standard parallels: 1st 79° 18' 00" S; 2nd 76° 42' 00"S; Central Meridian: 167° 30' 00" E; Latitude of Origin: 78° 01' 16.211" S; Spheroid: GRS80.

INSET: Lewis Bay, Ross Island location map, showing sites of nearby protected areas and stations.

Figure 1: Photograph of the Lewis Bay area and crash site from the memorial cross.

6. Description of the Area

6(i) Geographical coordinates, boundary markers and natural features
The designated Area on Ross Island (Map A) encompasses the crash zone (centered on 167° 28' 30"E, 77° 25' 29"S, elevation 520 m (1720 feet)) and the surrounding glacial ice 2 km above and to either side of this position, extends as a 4 km wide 'rectangle' down to the sea, and includes the airspace above this region to an altitude of 1000 m (3280 feet) with the exception of a 200 m wide air access 'corridor' along the coastline. The west boundary of the Area is the 167° 23' 33"E meridian; the east boundary is the 167° 33' 27"E meridian. The south boundary is the 77° 26' 33"S parallel, while the north boundary is defined by the coastline. The aircraft's primary impact occurred at an elevation of 446.7 m: debris was spread up-slope 570 m from that point over an area 120 m wide to an elevation of 580 m (1900 feet). Much of the aircraft wreckage is now buried in ice and is slowly moving down-slope with the glacier to the sea (Figure 1). The bodies of some of those who died could not be recovered and remain in the Area. Boundary markers have not been placed to mark the Area for two reasons: their presence is considered detrimental to the inviolate values of the site, and their maintenance would be impractical on the moving glacier.

6(ii) Restricted zones within the Area
None.

6(iii) Structures within and near the Area
The stainless steel memorial cross (proposed as a Historic Monument) is located on a rock outcrop (167° 33' 43"E, 77° 26' 38"S; elevation 810 m (2660 feet)) approximately 3 km SE of the crash site, and is a symbol of the special significance of the Area. No other structures exist within or near the Area. Debris from the aircraft remains *in situ*.

6(iv) Location of other protected areas within close proximity of the Area
The nearest protected area to Lewis Bay is ASPA 130 at Tramway Ridge (15 km distant) near the summit of Mt. Erebus. New College Valley ASPA 116 (at Cape Bird) and Cape Royds ASPA 121 are approximately 35 km west on Ross Island. Cape Crozier ASPA 125 is 40 km to the east. (Refer to inset: Map A).

7. Permit conditions

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

- it is issued only for compelling purposes that are in support of the aims of the Management Plan;
- the actions permitted will not compromise the values of the Area;
- 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

Land vehicles are prohibited within the Area and access shall be by foot or by helicopter. Overflight of the Area is prohibited below 1000 m (3280 feet) above sea level, except for essential access related to the values for which this site is protected, or for inspection and monitoring of the site (at least once every five years). An exception to the overflight restriction is provided by a 200 m wide access 'corridor' through the area immediately adjacent to the coastline (Map A), which allows transit of aircraft through the Area at times when visibility or conditions make avoidance of the Area otherwise impractical. No special restrictions apply to the air routes used to move to and from the Area by helicopter when access is permitted. Use of helicopter smoke grenades within the Area is prohibited unless absolutely necessary for safety, and then these should be retrieved.

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

All visits to the Area for any purpose shall be made recognising the principal values to be protected in the Area, and as far as possible the Area should be left in peace. Visits may be made for essential inspection to ensure the values of the Area are being maintained, and to determine if materials at the site present a problem by emergence from the ice and then possible wind dispersal, or for securing or removal of such items. Visits may also be made for removal of materials introduced into the Area subsequent to its designation, if appropriate.

7(iii) Installation, modification or removal of structures

No structures are to be erected within the Area except as specified in a Permit. It is prohibited to modify or remove any structure that was present within the Area at the time of special protection designation.

7(iv) Location of field camps

Camping is prohibited within the Area, unless under exceptional circumstances for management or protection. Where camping is required for such activities, the site selected shall be no closer than 200 m from the location of the wreckage at the time of the visit.

7(v) Restrictions on materials which can be brought into the Area

It is prohibited to introduce any materials into the Area. Smoke grenades used when absolutely necessary for safety of air operations should be retrieved.

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

Taking or harmful interference with native flora or fauna is prohibited within the Area.

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 is prohibited, unless it has been determined that materials at the site are emerging from the ice and their dispersal by wind presents a management problem. If this is the case, such materials should be appropriately disposed of with due regard to the families of victims and according to national procedures. Materials introduced into the Area subsequent to designation 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

It is prohibited to dispose of any waste, including all human wastes, within the Area.

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

None specified.

7(x) Requirements for reports

Parties should ensure that the principal holder for 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 in any review of the management plan.

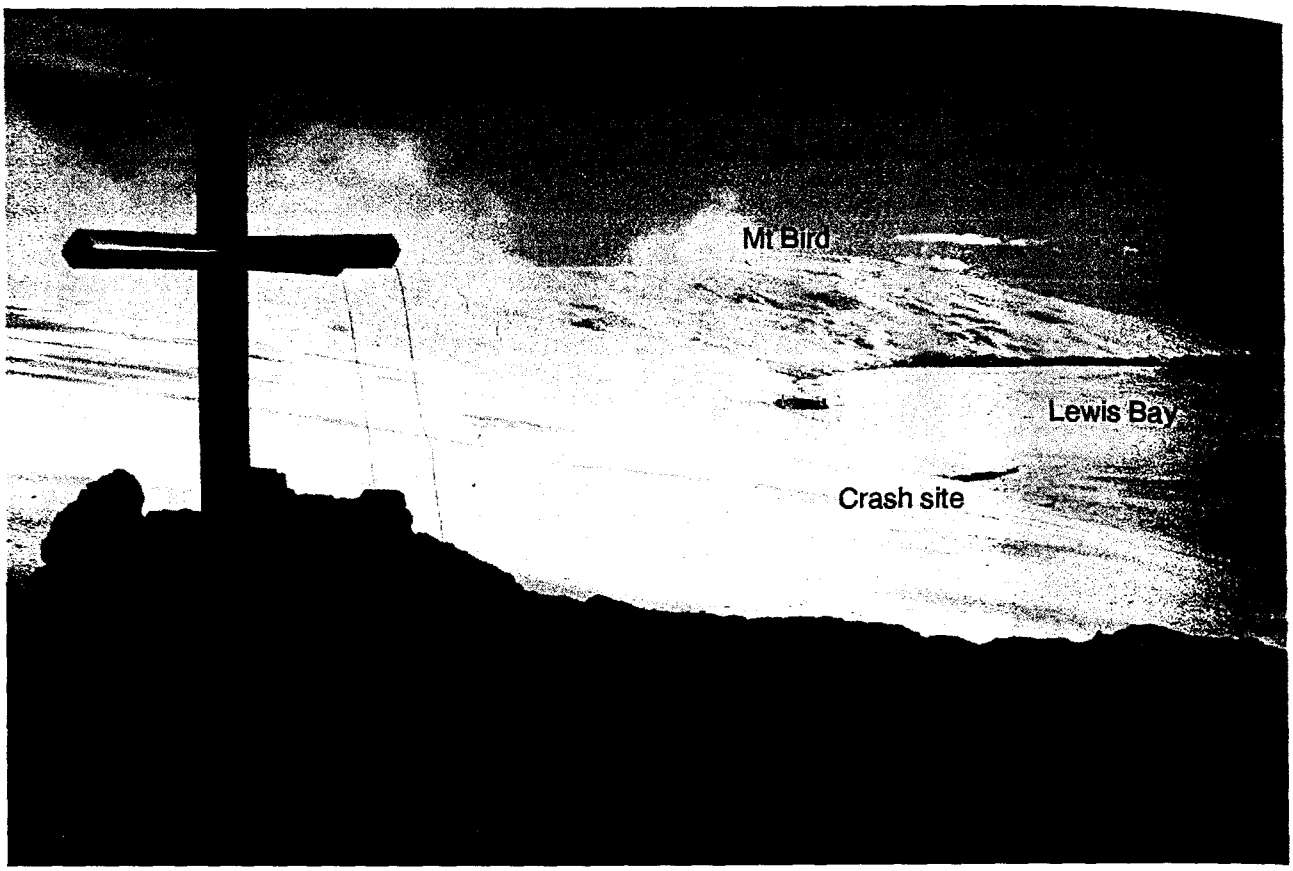
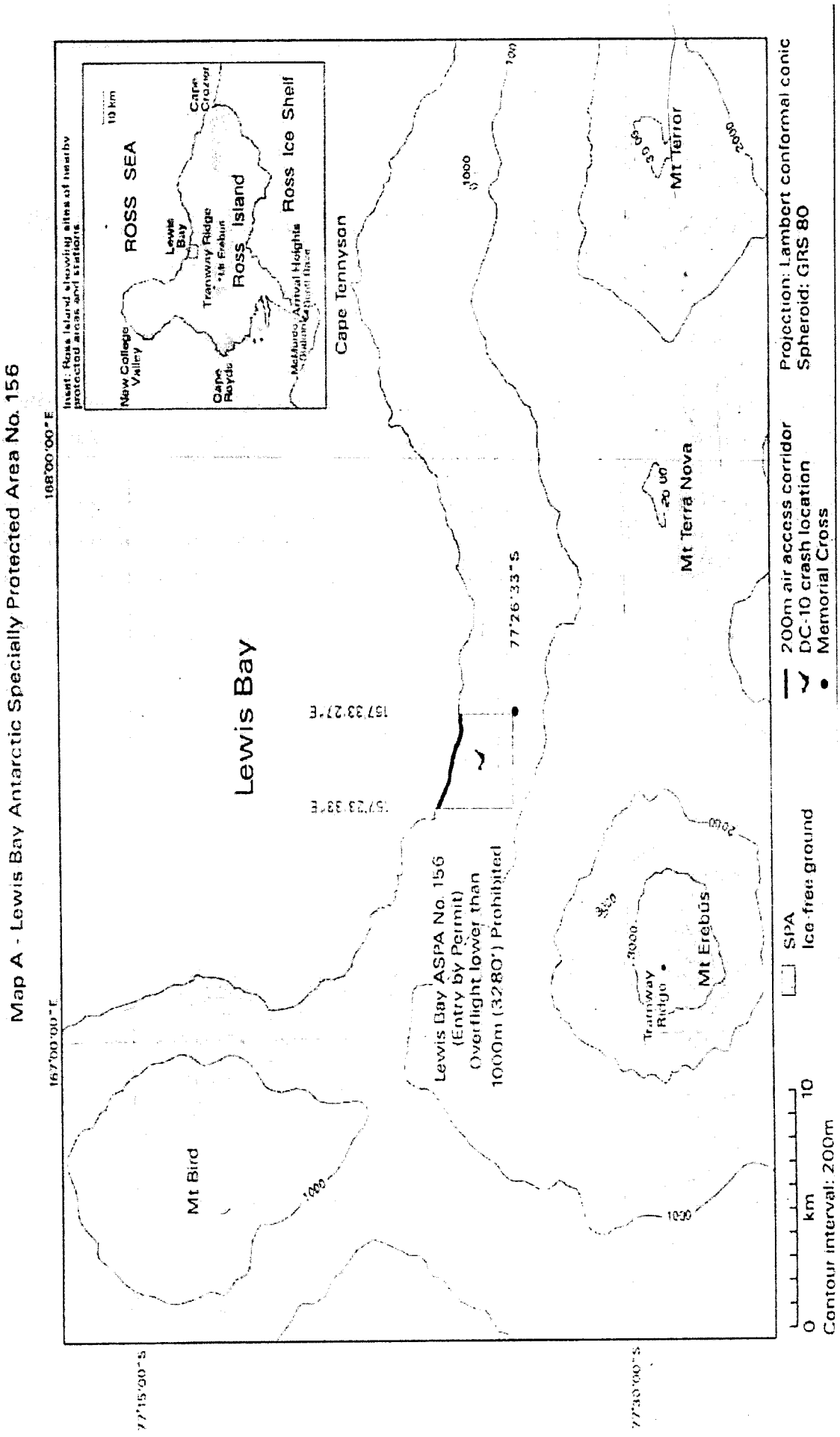


Figure 1. Lewis Bay from memorial cross site (December 1993).


Map A - Lewis Bay Antarctic Specially Protected Area No. 156
Lewis Bay
Cape Tennyson
Mt Bird
Mt Erebus
Mt Terror
Mt Terra Nova
Tramway Ridge
Lewis Bay ASPA No. 156
(Entry by Permit)
Overflight lower than
1000m (3280') Prohibited
77°26'33"S
157°33'27"E
157°23'38"E
168°00'00"E
167°00'00"E
77°15'00"S
77°30'00"S
Inset: Ross Island showing sites of nearby protected areas and stations
ROSS SEA
Ross Island
Ross Ice Shelf
Cape Crozier
New College Valley
Lewis Bay
Tramway Ridge
Mt Erebus
Cape Royds
Arrival Heights
McMurdo Station
10 km
0 km 10
Contour interval: 200m
SPA
Ice-free ground
200m air access corridor
DC-10 crash location
Memorial Cross
Projection: Lambert conformal conic
Spheroid: GRS 80

ANTARCTIC SPECIALLY PROTECTED AREA No 160 FRAZIER ISLANDS, WINDMILL ISLANDS, WILKES LAND, EAST ANTARCTICA

At the fifth meeting of the Committee for Environmental Protection (CEP V) Australia submitted three draft management plans for protected areas for the Committee's consideration. These were:

1. Antarctic Specially Protected Area No. 135, North-east Bailey Peninsula, Budd Coast, Wilkes Land; (Find text related to this Plan in list attached to Mesure 2)
2. Antarctic Specially Protected Area No. 143, Marine Plain, Vestfold Hills, Princess Elizabeth Land, (Find text related to this Plan in list attached to Mesure 2)
3. Antarctic Specially Protected Area No. 160, Frazier Islands, Wilkes Land, East Antarctica

To further consider the management plans, CEP V established an Intersessional Contact Group (ICG) to be led by Australia. The ICG was required to report back to CEP VI. The ICG used the Terms of Reference established by CEP IV for the review of draft management plans for protected areas:

1. ensure that each of the draft Management Plans are consistent with the Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas;
2. ensure consistency of approach of management measures, as appropriate, across the Management Plans being reviewed;
3. report back to CEP VI on the results of the contact group's assessment and provide recommendations on how the CEP should proceed with respect to these Management Plans.

Australia initiated the contact group by means of a circular email to all CEP contact points on 14 October 2002. New Zealand, Sweden and Romania responded to say that they wished to participate in the work of the group. Comments and suggestions on the draft management plans were received from Romania, New Zealand and SCAR.

Suggestions were received for the clarification of a number of points contained in management plan sections: Aims and objectives; Management activities; and Permit conditions. Where appropriate the suggestions were incorporated into the revised plans. In the management plan for North-east Bailey Peninsula, ASPA No. 135, the section dealing with the description of values to be protected was restructured to more clearly differentiate the specific values of the Area from those of the wider region.

The ICG is satisfied that the plans have been appropriately revised and that they are consistent with the Guide to the Preparation of Management Plans. The contact group therefore submits the finalised management plans for approval by the CEP and ATCM.

Appendix 1

Draft Measure nn (2003)

Antarctic Protected Area System: Management Plans for Antarctic Specially Protected Areas

The Representatives,

Recalling Article 3 of Annex V of the protocol on Environmental Protection to the Antarctic Treaty, and Resolution 1 (1998) allocating responsibility among Consultative Parties for the revision of Management Plans for protected 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 outstanding natural features and biota of scientific interest;

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 the following sites:

- Antarctic Specially Protected Area No. 135, North-east Bailey Peninsula, Budd Coast, Wilkes Land;
- Antarctic Specially Protected Area No. 143, Marine Plain, Vestfold Hills, Princess Elizabeth Land,
- Antarctic Specially Protected Area No. 160, Frazier Islands, Wilkes Land, East Antarctica

and which are annexed to this Measure, be adopted.

ANTARCTIC SPECIALLY PROTECTED AREA ASPA NO. 160, FRAZIER ISLANDS, WINDMILL ISLANDS, WILKES LAND, EAST ANTARCTICA

1. Description of Values to be Protected

The Frazier Islands, a group of three islands located approximately 16 km offshore from the Australian Casey Station in East Antarctica (Map A) at 66°13'S 110°11'E, is a breeding locality for Southern Giant Petrels *Macronectes giganteus*.

Macronectes giganteus has a world population of approximately 62,000 individuals and is inferred to have sustained a population reduction of at least 20% over the last 60 years. The species is in continued rapid decline.[2] The population of Southern Giant Petrels at the Frazier Islands is the largest known in the continental Antarctic[3]. The most recent estimate of the population was 248 breeding pairs in 2001/02[4]. Breeding colonies of Southern Giant Petrels are found on all three of the Frazier Islands (Nelly, Dewart and Charlton Islands). The largest breeding population is found on Dewart Island (Map B), with smaller colonies on Nelly and Charlton Islands.

The Frazier Islands are one of only four known breeding localities of Southern Giant Petrels around the coastline of continental Antarctica and are the only site in nearly 3000 km of coastline between Davis station and Dumont d'Urville. The other three continental breeding colonies are located near the Australian stations of Mawson (67°36'S, 62°53'E) (Giganteus Island) and Davis (68°35'S, 77°58'E) (Hawker Island), and near the French station Dumont d'Urville (66°40'S, 140°01'E) in Terre Adélie[5]. The Southern Giant Petrels on the Antarctic continent comprise less than 1% of the global breeding population[6]. The current population for continental Antarctica is estimated at approximately 290 pairs, comprised of 3 pairs on Giganteus Island, 25 pairs on Hawker Island, 16 pairs at Pointe Géologie archipelago (Terre Adélie) and 248 pairs on the Frazier Islands[7].

The breeding season for Southern Giant Petrels at the Frazier Islands usually commences between late October and mid November, and extends through to April with their departure northward for the winter (Murray and Luders 1990). Chicks from the Frazier Islands disperse throughout the Southern Hemisphere, with banded chicks recovered in New Zealand, South America, Easter Island, and South Africa within nine months of departure (summarised in Murray and Luders 1990).

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[2] Birdlife International (2000) Threatened birds of the world, pp. 53.

[3] Patterson D.L., Woehler, E.J., Croxall, J.P., Cooper, J., Poncet, S., Fraser, W.R. (in press) Breeding distribution and population status of the Northern Giant Petrel *Macronectes halli* and the Southern Giant Petrel *M. giganteus*. *Marine Ornithology*.

[4] Woehler, E. and Olivier, F. unpublished data.

[5] Woehler, E.J., Martin, M.R., Johnstone, G.W. (1990) The Status of Southern Giant Petrels *Macronectes giganteus* at the Frazier Islands, Wilkes Land, East Antarctica. *Corella* 14: 101-106.

[6] Woehler, E.J., Riddle, M.J., Ribic, C.A. 2003. *Long-term population trends in Southern Giant Petrels in East Antarctica.* Proceedings 8th SCAR Biology Symposium.

[7] Micol, T., Jouventin, P. (2001) Long-term population trends in seven Antarctic seabirds at Point Géologie (Terre Adélie): Human impact compared with environmental change. *Polar Biology* 24: 175-185

The global breeding population of Southern Giant Petrels is listed as Vulnerable under IUCN criteria (Table 1) and is estimated at around 31,300 pairs[8]. A total of 30 populations contain 500 or fewer breeding pairs, and at 15 of these sites there are 50 or fewer breeding pairs[9]. In the previous three generations, the global population has decreased by 20-50%[10].

Table 1: The conservation status of Southern Giant Petrels by various authorities using IUCN criteria.

Authority	Conservation Status under IUCN criteria
IUCN Red List 2000	Vulnerable (A1a,b,d,e & A2b,d,e)
Garnett, S.T. & Crowley, G. M. (2000) *The Action Plan for Australian Birds 2000*	Vulnerable (global population) Endangered (Australian population only)

Following its discovery in 1955, the breeding population of Southern Giant Petrels at the Frazier Islands decreased until the early 1980s (Appendix 1). The estimated total breeding population at the Frazier Islands in the mid 1950s was approximately 250 pairs (Appendix 1). The population decreased by approximately 80% and was visited six times, or once every 4-5 years between discovery in 1955 and the recorded population minimum of 57 pairs in 1982. The population has increased since 1982 with more than 200 nests recorded in 1998/99, and almost 248 nests in 2001/02. Most other breeding populations are decreasing[11].

Breeding populations of Southern Giant Petrels are highly sensitive to human disturbance at their colonies. It has been suggested that visits to the colonies to band adults and chicks contributed to the decreases recorded[12]. Reductions in breeding populations of Southern Giant Petrels at other locations in the Antarctic and Subantarctic have been attributed to activities associated with stations[13]. The bycatch of Southern Giant Petrels in longline fisheries operating in the Southern Ocean is also

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[8] Environment Australia (2001) *Recovery Plan for Albatrosses and Giant Petrels.* prepared by Wildlife Scientific Advice, Natural Heritage Division in consultation with the Albatross and Giant Petrel Recovery Team, Canberra.

[9] Ibid.

[10] Stattersfield, A.J., Capper, D.R. (2000) *Threatened Birds of the World.* Birdlife International, Lynx Publications; Garnett, S.T., Crowley, G.M. (2000) *The Action Plan for Australian Birds 2000.* Commonwealth of Australia, Environment Australia, Canberra; Patterson *et al.* Breeding distribution and population status of the Giant Petrel.

[11] Woehler, E.J., Cooper, J., Croxall, J.P., Fraser, W.R., Kooyman, G.L., Miller, G.D., Nel, D.C., Patterson, D.L., Peter, H-U, Ribic, C.A., Salwicka, K., Trivelpiece, W.Z., Weimerskirch, H. (2001) *A Statistical Assessment of the Status and Trends of Antarctic and Subantarctic Seabirds.* SCAR/CCAMLR/NSF, 43 pp.; Patterson *et al.* Breeding distribution and population status of the Giant Petrel; Woehler *et al.* "*Long-term population trends in Southern Giant Petrels*".

[12] Woehler, E.J., Riddle, M.J. (2001) *Long-term population trends in Southern Giant Petrels in the Southern Indian Ocean.* Poster presented at 8th SCAR Biology Symposium 2001, Amsterdam.

[13] Jouventin, P., Weimerskirch, H. (1991) Changes in the population size and demography of southern seabirds: management implications. In: Perrins, C.M., Lebreton, J.-D. and Hirons, G.J.M. *Bird population studies: Relevance to conservation and management.* Oxford University Press: 297-314; Woehler *et al.* The Status of Southern Giant Petrels *Macronectes giganteus*; Woehler *et al.* "*Long-term population trends in Southern Giant Petrels*".

likely to have contributed to observed population decreases[14]. Decreases in breeding populations of Southern Giant Petrels have also been observed at sites where human disturbance has been minimal, such as Heard Island[15].

Apart from visits for seabird censuses, the Frazier Islands have been visited relatively infrequently. Twenty-three visits, or on average one visit every two years has occurred since 1956 (see Appendix 1). In the mid 1980s, a management strategy was implemented for all three breeding localities in the vicinity of Australian Stations to minimise human disturbance to breeding colonies of Southern Giant Petrels. The strategy involved the Australian Antarctic Division restricting census visits to one in every three to five year period and implementing tight administrative controls over all other visits. The interval was considered an appropriate compromise between the risk of disturbance to breeding birds from censuses and the need to obtain meaningful population data. The strategy is believed to have contributed to the stabilisation and recovery observed in two of the three populations in Eastern Antarctica during the late 1980s onwards.

The recent increase in the breeding population of Southern Giant Petrels at the Frazier Islands in contrast to global trends, combined with the apparent positive effects of the existing management strategy, suggests that continued and formalised protection of Southern Giant Petrel breeding colonies may be warranted. Long-term protection and monitoring of Southern Giant Petrels at the Frazier Islands will contribute to the development of appropriate regional and global conservation strategies for the species and will provide information for comparisons with populations elsewhere.

2. Aims and Objectives

Management of the Frazier Islands aims to:

- minimise human disturbance to the breeding colonies of Southern Giant Petrels to assist stabilisation and recovery of the population in the wild;
- conserve the Frazier Islands as a reference area for future comparative studies with other breeding populations of Southern Giant Petrels;
- minimise the possibility of the introduction of alien plants, animals and microbes to the Frazier Islands; and
- preserve the Frazier Islands, henceforth, as a highly restricted area by limiting human visitation to the islands during the Southern Giant Petrel breeding season.

3. Management Activities

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

- one research visit should be conducted to census the Southern Giant Petrels and other seabird populations in each 5 year period to enable monitoring of

[14] Garnett, S.T., Crowley, G.M. (2000) The Action Plan for Australian Birds 2000. Commonwealth of Australia, Environment Australia, Canberra; Woehler et al. "A Statistical Assessment of the Status of Antarctic and Subantarctic Seabirds".

[15] Woehler, E.J. (1991) Status and Conservation of the Seabirds of Heard and the McDonald Islands. In: Croxall, J.P. (ed.) Seabird Status and Conservation: A Supplement. *ICBP Technical Publication* No. 11: 263-277.

breeding populations. These visits are to be conducted by two people, one of whom should be a bird biologist associated with an approved national program(s) or who has had previous field experience with Southern Giant Petrels;

- information on the location of the Frazier Islands ASPA (stating the restrictions that apply) shall be produced and prominently displayed at Casey Station and copies of this Management Plan shall be available at the station. Informative material and the Management Plan shall be provided to ships visiting the vicinity;
- clothing (particularly all footwear) and field equipment shall be appropriately cleaned before entering the Area; and
- the Management Plan shall be reviewed at least every five years and updated/modified as required.

4. Period of Designation

Designation is for an indefinite period.

5. Maps

Map A: Windmill Islands, showing the location of the Frazier Islands and protected areas within the region
Map specifications
Projection: UTM Zone 49
Horizontal Datum: WGS84

Map B: Frazier Islands, Antarctic Specially Protected Area showing distribution of seabird nesting sites. Map Specifications
Projection: UTM Zone 49
Horizontal Datum: WGS84

6. Description of the Area

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

The Frazier Islands are located at latitude 66°14'S, longitude 110°10'E (Map A). The three islands (Nelly, Dewart and Charlton Island) lie in the eastern part of Vincennes Bay approximately 16 km to the west north west of Casey Station. Nelly Island is the largest of the three islands (approximately 0.35 km^2 in area), and was named for the presence of several colonies of Southern Giant Petrels or "Nellies". The ASPA comprises the entire terrestrial area of the three islands, with the seaward boundary at the low water mark (Map B). The total area of the Frazier Islands ASPA is approximately 0.6 km^2. There are no boundary markers.

Nelly Island supports the largest and most varied avian community of the three islands, with records indicating that Snow Petrels (*Pagodroma nivea*), Cape Petrels (*Daption capense*), Antarctic Petrels (*Thalassoica antarctica*), Wilson's Storm-Petrels (*Oceanites oceanicus*), Southern Fulmars (*Fulmarus glacialoides*), and South Polar Skuas (*Catharacta maccormicki*) all nest on Nelly Island. South Polar Skua nests have also been found on Dewart Island (Table 3, Map B).

In 1961/62, 100 Adélie Penguin (*Pygoscelis adeliae*) nests were reported in one colony on Nelly Island[16]. During the 1989/90 season, three colonies were recorded on the northwest ridge of Nelly Island with a total of 554 nests. The increase corresponds with those recorded for most other Adélie Penguin populations in the Windmill Islands region during the period from 1959/60 to 1989/90[17]. In the 2001/02 season, approximately 1,000 pairs were estimated to be nesting on Nelly Island[18].

Recorded sightings of marine mammals at the Frazier Islands are scarce; however, in 1968 three Weddell Seals (*Leptonychotes weddellii*) were observed on an ice floe located between Nelly and Dewart Islands. An Orca (Killer Whale: *Orcinus orca*) was also sighted offshore from the islands during the same year[19]. A few Leopard Seals (*Hydrurga leptonyx*) were sighted near Nelly Island and a low number of Weddell Seals were recorded on the sea ice near the Frazier Islands in the 2001/02 season.

Vegetation recorded at Nelly Island comprises at least 11 species, including lichens *Buellia frigida*, *Usnea antarctica*, *Rhizoplaca melanophthalma*, *Candelariella flava*[20], (a terrestrial alga *Prasiola crispa*, an indeterminate green crust which is thought to be 'a mixture of fungal hyphae and green alga *Desmococcus olivaceus*'[21], and several species of snow algae including *Chlorococcum* sp., *Chloromonas polyptera*, *Chlorosarcina antarctica*, *Prasiococcus calcarius*. There are no published records of terrestrial invertebrates on the Frazier Islands; however, no surveys have been carried out[22]. (Table 3)

The topography of the Frazier Islands is characterised by steep cliffs rising from the sea. The highest peak on Nelly Island is approximately 65 metres. There is a broad 'U' shaped ice-filled valley on both Nelly and Dewart Islands.

The geology of the Frazier Islands is typical of the Windmill Islands group and is characterised by the layered schists and finely crenulated gneisses of the Windmill metamorphics. The geological character of the Frazier Islands developed as a result of two phases of metamorphosis at 1400-1310 Ma and about 1200 Ma of pre-existing volcanics, greywacke and shale. On Nelly Island there are steep cliffs of biotite and gneiss. A red sandstone erratic is located in the 'U' shaped valley on Nelly Island below the 30m contour[23]. Highly polished glacial striae in the gneisses provide evidence of recent glaciation and indicate the former direction of ice flow of 265° and

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[16] Woehler, E.J., Slip, D.J., Robertson, L.M., Fullagar, P.J., Burton, H.R. (1991) The distribution, abundance and status of Adélie Penguins *Pygoscelis adeliae* at the Windmill Islands, Wilkes Land, Antarctica. *Marine Ornithology* 19(1): 1-17.

[17] Ibid.

[18] Woehler, E. and Olivier, F. unpublished data.

[19] ANARE 1968, unpublished data

[20] Seppelt, R. pers. comm.

[21] Melick, D.R., Hovenden. M.J., Seppelt, R.D. (1994) Phytogeography of bryophyte and lichen vegetation in the Windmill Islands, Wilkes Land, Continental Antarctica. *Vegetatio* 111: 71-87.

[22] Seppelt, R. pers. comm.

[23] Goodwin, I.D. (1993) Holocene Deglaciation, Sea-Level Change, and the Emergence of the Windmill Islands, Budd Coast, Antarctica. *Quaternary Research* 40: 70-80.

280° T. Surface sediments consist of fine gravelly sand located in bedrock depressions[24].

The climate at the Frazier Islands is characteristic of that experienced at the Windmill Islands and other Antarctic coastal locations in the region. At Casey Station, located 16 kilometres to the ESE of the Frazier Islands group, mean temperatures are 0.3°C for the warmest month and –14.9°C for the coldest month. Precipitation is low and the high albedo of the exposed rock surfaces results in persistent ice-free areas that provide attractive nesting sites for the avifauna.

Table 3: Biota recorded at the Frazier Islands

	Nelly Island	**Dewart Island**	**Charlton Island**
Seabirds			
Adélie Penguins (*Pygoscelis adeliae*)	c.1000 (2001)		
Antarctic Petrel (*Thalassoica antarctica*)	P		
Cape Petrel (*Daption capense*)	P	P (2001)	P (2001)
Snow Petrel (*Pagodroma nivea*)	P	P	
Southern Giant Petrel (*Macronectes giganteus*)	93N (2001)	135N (2001)	20N(2001)
Wilson's Storm Petrels (*Oceanites oceanicus*)	P		
South Polar Skua (*Catharacta maccormicki*)	3N (2001)	1N (possible)	
Southern Fulmar (*Fulmarus glacialoides*)	P	P	
Mammals			
Leopard Seal (*Hydrurga leptonyx*)	X (2001)		
Weddell Seal (*Leptonychotes weddellii*)	X (2001)		
Orca (Killer Whale: *Orcinus orca*)	X (1968)		
Lichens			
Buellia frigida	R		
Usnea antarctica	R		
Rhizoplaca melanophthalma	R		
Candelariella flava	R	R	
Moss			
Bryum pseudotriquetrum	R		
Algae			
Indeterminate green crust	F		
Prasiola crispa	F		
Chlorococcum sp.	F		

[24] Ibid.

	Nelly Island	Dewart Island	Charlton Island
Chloromonas polyptera	F		
Chlorosarcina antarctica	R		
Prasiococcus calcarius	F		

Census data for breeding seabirds provided where available, 'P' indicates recorded breeding seabirds but no census data available, 2001 indicates observations in December 2001 visit, 'X' indicates recorded on or near the island, 'N' a count of nests, 'R' rare, and 'F' frequent. Data complied from records held by the Australian Antarctic Data Centre, ANARE records 1968, Appendix 1, Melick *et al.* 1994, Seppelt, R. pers. comm., Ling, H. pers. comm., Woehler, E. pers. comm., and Woehler, E. and Olivier, F. unpublished data (December 2001).

6(ii) Special Zones within the Area

There are no special zones within the Area.

6(iii) Location of Structures within the Area

There are no structures within or adjacent to the Area and none are to be erected.

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

The following Protected Areas are located on the Budd Coast near the Frazier Islands:

- North-east Bailey Peninsula, Antarctic Specially Protected Area No. 135 (66°17'S, 110°32'E);
- Clark Peninsula, Antarctic Specially Protected Area No. 136 (66°15'S, 110°36'E); and,
- Ardery Island and Odbert Island, Antarctic Specially Protected Area No. 103, (66°22'S, 110°30'E).

7. Permit conditions

Visits to the Frazier Islands ASPA are prohibited except in accordance with a Permit issued by an appropriate National Authority. National Antarctic Programs operating in the region shall consult with each other to ensure that the frequency of visits does not exceed that permitted in the Management Plan. Permits to enter the Area may be issued during the non-breeding period for Southern Giant Petrels, specifically from 1 May to 30 September, for compelling scientific research that cannot be undertaken elsewhere, or for essential management purposes consistent with the objectives and provisions of the Management Plan. Permits are only to be issued for research that will not jeopardise the ecological or scientific values of the Area, or interfere with existing scientific studies.

Only one Permit is to be issued for the purpose of conducting a seabird census in each 5 year period. The Permit issuing authority is to refer to the provision under the first dot point of section 3 of this management plan when issuing Permits. Censuses are to be conducted from outside the Giant Petrel colonies, wherever practicable. In most cases there are vantage points from where the nesting birds may be counted. The maximum time to be spent on the Frazier Islands is 12 hours in total; however, the census may involve several visits to the islands. Only the two persons named in the

Permit may be ashore within the Area at any time. The boat operator and others should remain at the shoreline for safety reasons.

Permits should include a condition that the Permit or a copy shall be carried at all times when within the Area. Additional conditions, consistent with the objectives and provisions of the Management Plan, may be included by the issuing authority. The principal Permit Holder for each Permit issued should be required to submit to the Permit issuing authority a visit report detailing all activities undertaken within the Area, and including all census data obtained during the visit.

7(i) Access to, and movement within or over the Area

Vehicles are prohibited within the Area:

- the only permitted access to the Frazier Islands is by watercraft. Landings must be made at the designated sites as marked on Map B. Boats used to visit the islands must be left at the shoreline and movement within the Area is by foot only. Only personnel who are required to carry out scientific/management work in the Area should leave the landing site;
- any movement within the Area is to be consistent with the minimum approach distances to nesting birds specified in Appendix 2. Persons shall not approach closer than is necessary to obtain census data or biological data from any nesting Southern Giant Petrels, and in no case closer than 20m; and
- to reduce disturbance to wildlife, noise levels including verbal communication is to be kept to a minimum. The use of motor-driven tools and any other activity likely to generate noise and thereby cause disturbance to nesting birds is prohibited within the Area during the breeding period for Southern Giant Petrels (1 October to 30 April).
- landing of aircraft in the Area is prohibited at any time;

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

The following activities may be conducted within the Area from 1 May to 30 September as authorised in a Permit;

- scientific research consistent with the Management Plan for the Area that will not jeopardise the values for which the Area has been designated or the ecosystems of the Area;
- compelling management activities, including monitoring; and
- sampling, which should be the minimum required for approved research programs.

Exceptions to restrictions outlined in the management plan are in an emergency as specified in Article 11 of Annex V of the Protocol on Environmental Protection to the Antarctic Treaty (the Madrid Protocol).

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

No permanent structures are to be erected in the Area.

7(iv) Location of field camps

Camping is prohibited in the Frazier Islands ASPA except in an emergency.

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

- Fuel is not to be depoted on the islands. Boat refuelling is permitted at shoreline landing sites. A small amount of fuel is permitted for an emergency stove.
- No poultry products, including dried food containing egg powder, are to be taken into the Area.
- No herbicides or pesticides are to be brought into the Area.
- Any chemical which may be introduced for compelling scientific purposes as authorised in a Permit shall be removed from the Area, at or before the conclusion of the activity for which the Permit was granted. The use of radio-nuclides or stable isotopes is prohibited.
- No animals, plant material or microorganisms shall be deliberately introduced into the Area and precautions shall be taken against accidental introductions. All equipment and clothing should be thoroughly cleaned before entering the Area.

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

- Taking of, or harmful interference with, native flora and fauna, is prohibited unless specifically authorised by permit issued in accordance with Article 3 of Annex II to the Protocol on Environmental Protection to the Antarctic Treaty.
- Disturbance of Southern Giant Petrels should be avoided at all times.

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

- Material may only be collected or removed from the Area as authorised in 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 authorised, may be removed unless the impact of the removal is likely to be greater than leaving the material *in situ*. If such material is found the appropriate Authority must be notified.

7(viii) Disposal of waste

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

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

- A census of Southern Giant Petrels should be conducted in each 5 year period. Censuses of other species may be undertaken during this visit provided no additional disturbance is caused to the Southern Giant Petrels.

- The length of time to be spent at the Frazier Islands to conduct a bird census should be minimised; e.g. a survey should be able to be completed in approximately a 12 hour period.
- Novel GPS data shall be obtained for specific sites of long-term monitoring for lodgement with the Antarctic Master Directory through the appropriate National Authority.

7(x) Requirement for reports

Parties should ensure that the principal Permit Holder for each permit issued submits to the appropriate national authority a report on 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 I). 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 Plan of Management. 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 both in any review of the Plan of Management and in organising the scientific use of the Area. A copy of the report should be forwarded to the National Party responsible for development of the Management Plan to assist in management of the Area, and monitoring of bird populations, additionally visit reports should provide detailed information on census data, locations of any new colonies or nests not previously recorded, a brief summary of research findings and copies of photographs taken of the Area

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Appendix 1: Census data for Southern Giant Petrel populations at the Frazier Islands, Wilkes Land, Antarctica

Date	Nelly Island	Dewart Island	Charlton Island	Source
21, 22 Jan. 1956	250N	not visited	not visited	Ingham (1959), ANARE
27 Jan. 1959	80-100	20*	not visited	Murray and Luders (1990)
3,4 Mar. 1959	no data	no data	no data	USARP
15 Dec. 1959	60A	not visited	not visited	R.L. Penney, unpublished data
12 Feb. 1960	46C	not visited	not visited	R.L. Penney, unpublished data
21,22 Mar. 1961	34C	10C*	no data	ANARE
21 Jan. 1964	10C*	not visited	not visited	ANARE
7 Mar. 1968**	72	no data	no data	Murray and Luders (1990)
20,21 Jan. 1972	52C	53C	10C*	Murray (1972)
31 Jan. 1974	76+	no data	no data	Murray and Luders (1990)
29 Jan. 1975	not visited	29C	not visited	Murray and Luders (1990)
13,17 Feb. 1977	37C	33C†	no data	Murray and Luders (1990)
24 Jan. 1978	48C	48C	6C	Murray and Luders (1990)
30 Jan., 2 Feb. 1979	37C†	46C	5C	Murray and Luders (1990)
20 Jan. 1980	44C	55C	no data	ANARE
18 Jan. 1983	43C	10C	Nil	ANARE
28, 29 Nov. 1983	63N	68N	9N	Woehler *et al.* (1990)
23 to 28 Jan. 1984	52C	not visited	not visited	ANARE
3 Mar. 1985	64C	69C	no data	ANARE
14 Feb. 1986	55C	54C	9C	ANARE
23 Dec. 1989	73N	106N	14N	Woehler *et al.* (1990)
23 Dec. 1997***	84N	62N	13N(incomplete survey)	Creuwels, J. unpublished data
26 Dec. 1998	95N	103N	17N	Creuwels, J. unpublished data
26 Dec. 2001	93N	135N	20N	Woehler, E. and Olivier, F. unpublished data

'N' indicates a count of nests, 'A' count of adults and 'C' count of chicks. 'ANARE' and 'USARP' indicates unpublished data obtained by Australian National Antarctic Research Expeditions and United States Antarctic Research Program personnel,

respectively. Census data are from Woehler *et al.* 1990 and supplemented with additional data from the 1997/98, 1998/99 and 2001/02 seasons.

*Only a subset of the chicks present on each visit was banded and no estimates of the total numbers were made.
**Reported as January in Murray and Luders (1990).
*** Data to be verified
†Reported as 43 and 35 respectively in Murray and Luders (1990).

Appendix 2: Minimum wildlife approach distances

The minimum (closest) approach distances as set out in Table 2 are to be maintained when approaching any wildlife on, or in the vicinity of the Frazier Islands unless a closer approach distance is authorised in a Permit. These distances are a guide and should an activity disturb wildlife, a greater distance is to be maintained.

Table 2: Minimum distances to maintain when approaching wildlife

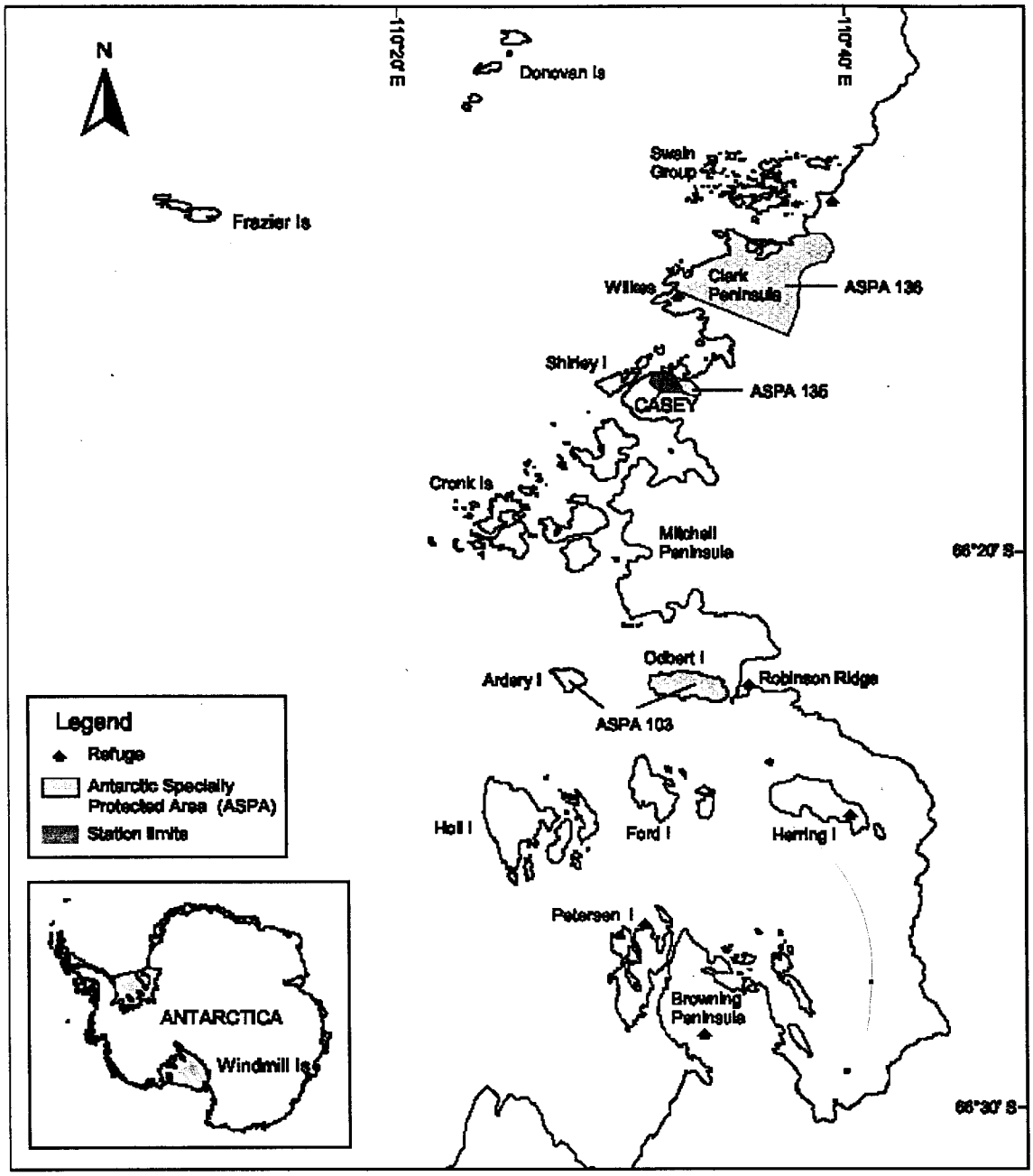
Species	**Distances (m)**		
	People on foot / ski	**Quad/ Skidoo**	**Hagglunds**
Giant petrels	100	150	250
Emperor penguins in colonies	30		
Other penguins in colonies Moulting penguins Seals with pups Seal pups on their own Prions and petrels on nest South polar skua on nest	15		
Penguins on sea ice Non breeding adult seals	5		

Notes:

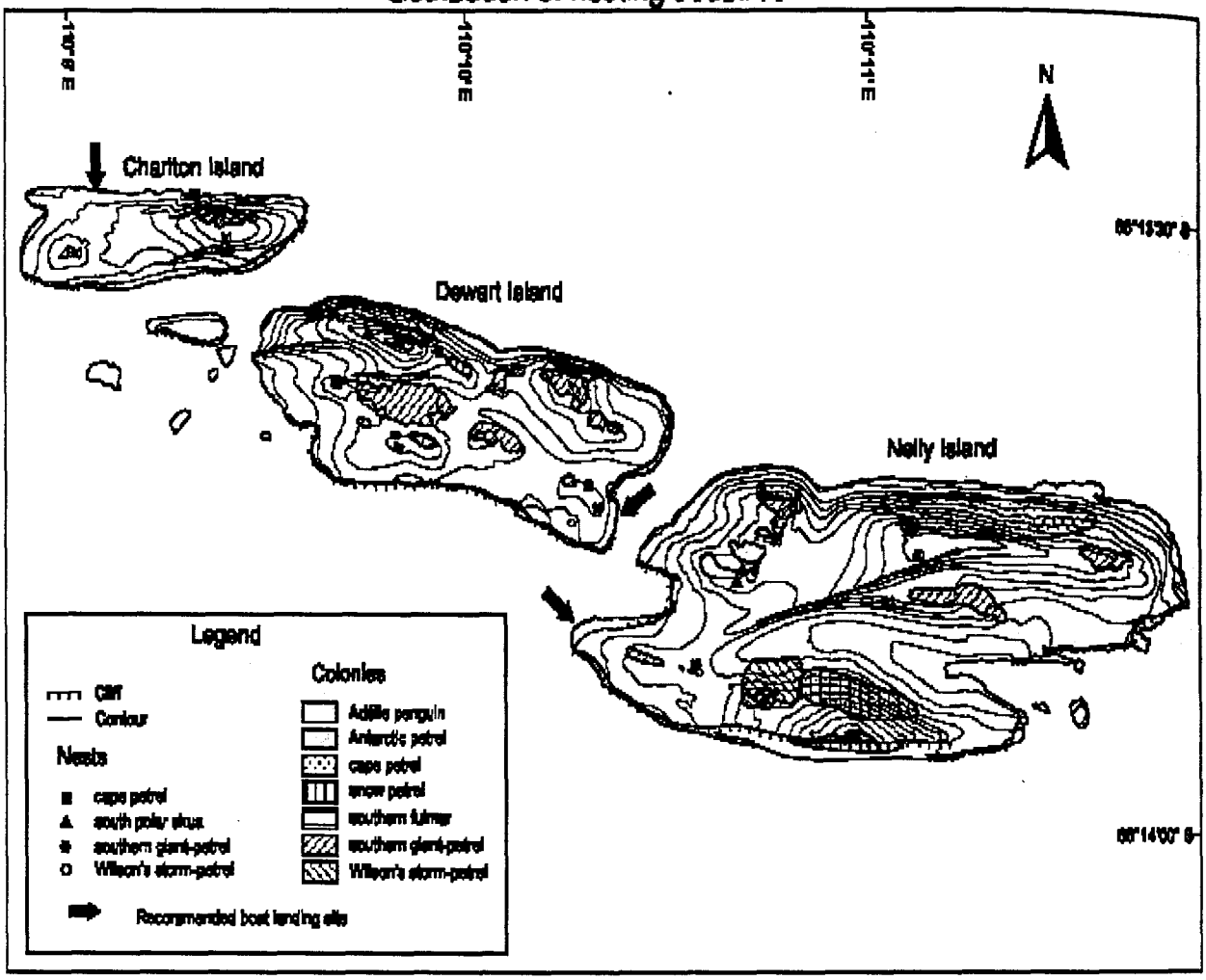
1. Includes Cape petrels, Antarctic petrels, Wilson's Storm Petrels, Snow Petrels and Southern Fulmars.

Source: Environmental Code of Conduct for Australian Field Activities in Antarctica, Australian Antarctic Division

Map A Windmill Islands, showing the location of the Frazier Islands and protected areas within the region



Map B Frazier Islands, Antarctic Specially Protected Area, distribution of nesting seabirds



ANTARCTIC SPECIALLY PROTECTED AREA No 161
TERRA NOVA BAY, ROSS SEA

1. Background

At CEP V (Warsaw, Poland, September 9-14, 2002) Italy introduced a draft management plan in proposal for a new Antarctic Specially Protected Area (ASPA) at Terra Nova Bay, Ross Sea (Working Paper XXV ATCM/WP36). The Area proposed for special protection is a small and narrow strip of waters extending approximately 9.5 km in length immediately to the south of Terra Nova Bay Station and up to a maximum of 7 km from the shore. The total area of the proposed site is just under 30 km^2. The background and rationale for the protected area proposal was given in Working Paper XXV ATCM/WP36. The site is considered of outstanding scientific interest and the scientific investigations being conducted are at risk of interference if they are not managed explicitly through a management plan.

The Committee agreed at CEP V to establish an open-ended Intersessional Contact Group to consider the submitted draft plan, which was chaired by Italy (Dr Sandro Torcini). This paper both reports on comments received and submits the final draft plan as attached for adoption under Annex V, together with a draft Measure to this effect.

2. Report from the Intersessional Contact Group

Comments on the proposed draft plan were received from SCAR and Australia, and are summarised in Table 1 below, together with how the points have been addressed in the revised draft. No other comments have been received. The plan was considered by CCAMLR prior to submission to CEP V (2002), and CCAMLR's comments, including those made by CCAMLR's Working Group on Ecosystem Monitoring and Management, were taken fully into account at that stage. Italy is very grateful for all comments received, which have been most helpful in preparing the draft.

The draft plan is attached for consideration for adoption as a new Antarctic Specially Protected Area. A draft Measure is also attached that would give effect to the proposal should it be accepted.

Table 1. How comments received have been addressed in the revised draft Management Plan for the proposed ASPA at Terra Nova Bay

Comments received (in summary)	How the revised draft Management Plan attached has addressed comments received
Sec 1 Description of Values SCAR noted the statement relating to CCAMLR and harvesting appeared to contradict the statement about protecting the area from human impact.	The statement causing concern referring to harvesting has been eliminated from the plan.
Sec 5. Maps SCAR commented on: • The use of unofficial place names is discouraged; • Consider marking the Adélie colony on the map; • The map was considered good, but the central meridian is not vertical and there could be merit to including a second inset showing the location of Terra Nova Bay.	• Adelie Cove is an official name adopted by NZ. Reference to the unofficial name "Penguin Cove" has been eliminated. Reference to the unofficial name "Campo Icaro" has been changed to "Atmospheric monitoring facility (locally referred to as 'Campo Icaro') ". It was considered useful to keep reference to 'Campo Icaro' for the benefit of local station personnel. Italy would be willing to amend the plan and refer to it simply as an "atmospheric monitoring facility" if the Parties believe this would be the preferable approach in this case. • The Adélie colony has now been marked on the map of the Area. • The central meridian is UTM Zone 58S, which uses standard parameters. The deviation from vertical is slight. A second inset map has been included showing the location of TNB.
Sec 6(i) Description of the Area • In the description (Sec 6(i) Para 3, Line 2), it was not clear whether 20-30 m was a depth or distance from the shore. • The small cove referred to as the "unnamed cove" should be given a name.	This has been clarified to "depth of 20-30 m". This is a very minor feature, so the plan has been altered to refer to the cove by its location, rather than by a name.

Sec 7(ii) Activities that are or may be conducted SCAR commented that there may be merit in noting: • that fishing is allowed only by Permit. • that transit of the Area by ship would require a Permit	• Fishing is covered by Sec 7(vi), which requires a Permit for all taking of animals, including fish. • Transit is covered in the provision "Entry into the Area is prohibited except in accordance with a Permit." (Sec 7). Also covered in Annex V (Article 3(4)).
Sec 7(iv) Camping SCAR suggested it could be useful to identify the location of the campsite on the beach at Adelie Cove.	The campsite is not within the Area, is used only occasionally, and has no designated position. The point is made in the plan for general information purposes - it is not intended to manage the campsite through the plan.
Sec 7(v) Retsrictions on materials / organisms SCAR questioned whether this section was relevant to marine areas.	This section was considered relevant to management of this marine area and it has been retained.
Sec 7(vi) Taking or harmful interference SCAR suggested there may be merit in noting that fishing is allowed only by Permit.	It was felt this point is covered by the requirement that ALL taking requires a Permit, which includes fishing.
Sec 7(viii) Disposal of waste Australia suggested there would be benefit to consistency with requirements at other marine sites (eg. ASPA No. 153 at Dallmann Bay) where it is proposed that all wastes, including human wastes, should be removed from the Area.	The wording has been changed to maintain consistency with the other marine plans.
Sec 7(ix) Measures to ensure aims and objectives are met SCAR questioned how one can enforce "clean ships" in the Area.	The provision attempts to reduce the risk of impacts, rather than require "clean ships". The wording has been changed to focus more specifically on the risk of fuel release from vessels, which is one of the main risks of operations within the Area.

Attachment

Draft Measure YY(2003)

Antarctic Protected Area System: Management Plans for Antarctic Specially Protected Areas

The Representatives,
Recalling Article 6(2) of Annex V, and Appendix 5 of the Final Report of CEP V, on procedures for consideration of Management Plans for protected areas with a marine component;

Noting that the draft Management Plan appended to this Measure has been endorsed by the Commission for the Conservation of Antarctic Marine Living Resources;

Noting also that the draft Management Plan appended to this Measure has been endorsed by the Committee for Environmental Protection and commented upon by the Scientific Committee on Antarctic Research (SCAR);

Recognizing that the Area supports diverse biota of outstanding scientific interest and that scientific investigations being conducted are at risk of interference if they are not managed through a management plan;

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 Plan for the following site:

- Antarctic Specially Protected Area No. 161, Terra Nova Bay, Ross Sea;

which is annexed to this Measure, be adopted.

ANTARCTIC SPECIALLY PROTECTED AREA No 161
TERRA NOVA BAY, ROSS SEA

1. Description values to be protected

A coastal marine area encompassing 29.4 km^2 between Adélie Cove and Tethys Bay, Terra Nova Bay, is proposed as an Antarctic Specially Protected Area (ASPA) by Italy on the grounds that it is an important littoral area for well-established and long-term scientific investigations. The Area is confined to a narrow strip of waters extending approximately 9.4 km in length immediately to the south of Terra Nova Bay Station and up to a maximum of 7 km from the shore. No marine resource harvesting has been, is currently, or is planned to be, conducted within the Area, nor in the immediate surrounding vicinity. The site typically remains ice-free in summer, which is rare for coastal areas in the Ross Sea region, making it an ideal and accessible site for research into the near-shore benthic communities in the region. Extensive marine ecological research has been carried out at Terra Nova Bay since 1986/87, contributing substantially to our understanding of these communities which had not previously been well-described.

High diversity at both species and community levels make this Area of high ecological and scientific value. Studies have revealed a complex array of species assemblages, often co-existing in mosaics (Cattaneo-Vietti, 1991; Sarà *et al.*, 1992; Cattaneo-Vietti *et al.*, 1997; 2000b; 2000c; Gambi *et al.*, 1997; Cantone *et al.*, 2000). There exist assemblages with high species richness and complex functioning, such as the sponge and anthozoan communities, alongside loosely structured, low diversity assemblages. Moreover, the sponge and anthozoan communities at Terra Nova Bay show an unique structure and long-term transects have been established to monitor changes in coastal benthic communities, both natural and human-induced. The presence of a population of Adélie penguins (*Pygoscelis adeliae*) at Adélie Cove allows assessment of the effects of this colony on the adjacent marine environment (Povero *et al.*, 2001).

It is important to protect the Area as far as possible from direct human impacts in order that it can be used to monitor potential impacts arising from activities at the nearby permanent scientific station of Terra Nova Bay (Mauri *et al.*, 1990; Berkman & Nigro, 1992; Focardi *et al.*, 1993; Minganti *et al.*, 1995; Bruni *et al.*, 1997; Nonnis Marzano *et al.*, 2000). The high ecological and scientific values derived from the diverse range of species and assemblages, in particular through the collection of extensive data on these features, together with the vulnerability of the Area to disturbance by pollution, over-sampling and alien introductions, are such that the Area requires long-term special protection.

2. Aims and objectives

Management at Terra Nova Bay 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 on the ecosystem, in particular on the marine species assemblages, while ensuring it is protected from oversampling or other possible scientific impacts;
- allow other scientific research and support activities provided they are for compelling reasons which cannot be served elsewhere;

- maintain long-term monitoring sites to evaluate natural changes in marine communities;
- monitor the effects of the research station and its associated activities on the marine ecosystem;
- minimise 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 are to be undertaken to protect the values of the Area:

- A map 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, at Terra Nova Bay Station (Italy);
- A sign illustrating the location and boundaries with clear statements of entry restrictions shall be installed at Terra Nova Bay Station at a prominent location;
- Buoys, or other markers or structures erected 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 to assess whether the Area continues to serve the purposes for which it was designated and whether management and maintenance measures are adequate.

4. Period of designation

Designated for an indefinite period.

5. Maps and photographs

Map 1: Terra Nova Bay, Antarctic Specially Protected Area No. 161, bathymetric map.
Map specifications: Projection: UTM Zone 58S; Spheroid: WGS84. Bathymetric contour interval 50 m. Land contours and coast derived from 1:50,000 Northern Foothills Satellite Image Map (Frezzotti *et. al.* 2001). Bathymetry within ASPA derived from high resolution sidescan sonar data surveyed by Kvitek, 2002. Bathymetry outside of ASPA supplied by Italian Hydrographic Office 2000. Marine data collected under Terra Nova Bay marine protected area Project (PNRA 1999-2001). Inset 1: The location of Terra Nova Bay in Antarctica. Inset 2: Terra Nova Bay location map, showing the region covered by Map 1, stations, and sites of nearby protected areas.

6. Description of the Area

6(i) Geographical co-ordinates, boundary markers and natural features
The designated Area is situated in Terra Nova Bay, between the Campbell Glacier Tongue and Drygalski Ice Tongue, Victoria Land. The Area is confined to a narrow strip of coastal waters to the south of Terra Nova Bay Station (Italy), extending approximately 9.4 km in length and generally within 1.5 – 7 km of the shore, comprising an area of 29.4 km^2 (Map 1). No marine resource harvesting has been, is currently, or is planned to be, conducted within the Area, nor in the immediate surrounding vicinity.

The western boundary of the Area is defined as the mean high water mark along the coastline extending between 74°42'57"S in the north (2.3 km south of Terra Nova Bay Station) and 74°48'00"S in the south (the southern shore of Adélie Cove), and includes the intertidal zone (Map 1). The northern boundary of the Area is defined as the 74°42'57"S line of latitude, extending from the coast 1.55 km eastward to the 164°10'00"E line of longitude. The boundary position may be recognised near the shore by the presence of a large and distinctive offshore rock in the northernmost cove on the coast south of Terra Nova Bay Station, which is an unique feature on this stretch of coast. The southern boundary is defined as the 74°48'00"S line of latitude, extending from the coast 3.63 km eastward to the 164°10'00"E line of longitude. The boundary position may be recognised visually as being at the southern shore of the mouth of Adélie Cove, immediately south of a distinctive rocky outcrop at the base of the coastal cliffs. The eastern boundary of the Area is defined as the 164°10'00"E line of longitude extending between 74°42'57"S in the north and 74°48'00"S in the south.

The coastline of Terra Nova Bay is characterised predominantly by rocky cliffs, with large boulders forming occasional 'beaches' (Simeoli *et al.*, 1989). In the sheltered areas, the soft bottom begins at a depth of 20–30 m. The tidal range is 1.5–2 m and pack ice of approximately 2–2.5 m thick covers the sea surface for 9–10 months of the year (Stocchino & Lusetti, 1988; 1990). Data available for the summer period suggest that ocean currents in the Area are likely to be slow and to flow generally in a north-south direction. Along the coastline of the Area there are two main coves; the larger Adélie Cove in the south and a smaller cove around 3 km to its north. The sea floor substrate of the smaller consists of pebbles of various sizes, while Adélie Cove is characterised by fine-grained, muddy sediments. An Adélie penguin (*Pygoscelis adeliae*) colony is situated at Adélie Cove, with a 1991 population of approximately 7899 breeding pairs. Outside of the coves, the sea floor characteristics and benthic species assemblages are relatively homogenous along the coastal length of the Area, and are observed to vary more particularly with the vertical gradient.

The seafloor within the Area is primarily granitic rock, with softer substrates composed of coarse sands or gravels. In the supralittoral zone, only cyanobacteria and diatoms colonise the hard substrates, while the intertidal zone (1.5–2.0 m wide) has, in the most sheltered areas, a high coverage of the green alga *Urospora penicilliformis* and *Prasiola crispa* (Cormaci *et al.*, 1992b). Below the tidal zone, down to 2–3 m depth, the community is very poor, due to the persistent presence and scouring action of pack ice, and is mainly composed of epilithic diatoms and the crustacean amphipod *Paramoera walkeri*. Immediately deeper, rocks can be fully colonised by the red alga *Iridaea cordata* (Cormaci *et al.*, 1996), frequently found with *Plocamium cartilagineum*, to a depth of 12 m (Gambi *et al.*, 1994; 2000a). At this level large sessile animals such as *Alcyonium antarcticum* and *Urticinopsis antarctica* can be occasionally observed, while frequent are the asteroid *Odontaster validus* and the echinoid *Sterechinus neumayeri*. *Phyllophora antarctica* is another red alga forming expanded mats from 12 to 25 m depth, often fully colonised by sessile organisms, mainly hydroids (Cerrano *et al.*, 2000c, Puce *et al.*, 2002), serpulids and bryozoans (*Celleporella antarctica* and *Harpecia spinosissima*). The upper algal belts represent shelter and a food source for diversified and abundant communities of mobile fauna. Numerous invertebrates, such as the polychaete *Harmothoe brevipalpa*, the mollusc *Laevilittorina antarctica*, the crustacean amphipod *Paramoera walkeri* and the isopod *Nototanais dimorphus* feed on these algal species and can be very abundant. On rocky bottoms in deeper layers, the algal

colonisation is replaced by a calcareous crustose coralline alga (*Clathromorphum lemoineanum*) on which sea-urchins feed.

The soft bottoms from 20–40 m depth are coarse sands and gravels, where the community is characterised by the mollusc bivalve *Laternula elliptica* and the polychaete *Aglaophamus ornatus* (Nephtiidae). The bivalve *Yoldia eightsi* is abundant in fine-sand sediments.

Between 30–70 m, the substrate becomes finer and is completely colonised by the bivalve *Adamussium colbecki*, the shells of which are colonised by a micro-community comprising mainly forams, bryozoans (*Aimulosia antarctica, Arachnopusia decipiens, Ellisina antarctica, Micropora brevissima*) and the spirorbid *Paralaeospira levinsenii* (Albertelli *et al.*, 1998; Ansell *et al.*, 1998; Chiantore *et al.*, 1998; 2000; 2001; 2002; Vacchi *et al.*, 2000a; Cerrano *et al.*, 2001a; 2001b). In this region, large predators such as the gastropod *Neobuccinum eatoni* and the nemertean *Parborlasia corrugatus* are frequent. The echinoid *Sterechinus neumayeri* and the starfish *Odontaster validus* are still very frequent at all depths on both hard and mobile substrates (Chiantore *et al.*, 2002; Cerrano *et al.*, 2000b).

Below 70–75 m down to 120–130 m depth, heterogeneous substrates allow hard- and soft-bottom communities to coexist. On the sparse rocky outcrops the encrusting algae disappear and the benthic communities are dominated by the sessile zoobenthos. This diversified filter feeding assemblage is mainly characterised by sponges and anthozoans, while in soft sediments detritus-feeder polychaetes and bivalves dominate. Among sponges, which can reach very high biomass values, *Axociella nidificata, Calyx arcuarius, Gellius rudis, Phorbas glaberrima, Tedania charcoti,* are very abundant (Sarà *et al.*, 1992; 2002; Gaino *et al.*, 1992; Cattaneo-Vietti *et al.*, 1996; 2000c; Bavestrello *et al.*, 2000; Cerrano *et al.*, 2000a). Numerous invertebrates constitute an important component of this assemblage which develops down to 120-140 m depth. These include the epibiont polychaete *Barrukia cristata* on Thouarellid gorgonians, crustacean peracarids, pycnogonids, mollusc opisthobranchs (*Austrodoris kerguelenensis, Tritoniella belli*) (Cattaneo-Vietti, 1991; Gavagnin *et al.*, 1995) and bivalves, ophiuroids and holothuroids, bryozoans, and the endobionts. The conspicuous sponge spicule mats found at these depths underline the important role of sponges in this area, besides the one played by diatoms, in determining the sediment texture and silica content. A peculiar community, dominated by polychaetes and by the bivalve *Limatula hodgsoni*, can be associated with these mats.

Below 130 m the hard substrates become very sparse and are mainly colonised by the polychaete *Serpula narconensis* (Schiaparelli *et al.*, 2000) and several bryozoans (*Arachnopusia decipiens, Ellisina antarctica, Flustra angusta, F. vulgaris* and *Isoschizoporella similis*). The dominant muddy bottoms are instead characterised by tubicolous polychaetes (Gambi *et al.*, 2000b), mainly *Spiophanes*. Much deeper, at about 150-200 m depth, brachiopods and various species of bivalves characterise the environment on small gravels as well as on the soft bottom (Cattaneo-Vietti *et al.*, 2000b). The great heterogeneity of these substrates contributes to the creation of communities with considerable species richness, diversity and biomass.

Finally, the faunal assemblage of the Area includes notothenioid fishes, represented especially by species of the *Trematomus* group, including *T. bernacchi, T. pennelli, T. hansoni* and *T. loennbergii*. These exert an important role in benthic food webs as consumers of many invertebrate species, mainly crustaceans and polychaetes (Vacchi *et al.*, 1991; 1992; 1994a; 1994b; 1995; 1997; 2000b; La Mesa *et al.*, 1996; 1997; 2000; Guglielmo *et al.*, 1998).

Human impacts within the Area are believed to be minimal and confined to those arising from the nearby Terra Nova Bay Station and scientific work conducted within the Area. The station can accommodate approximately 80 people, has facilities for helicopter operations and a jetty for mooring small boats. Fuel used at the station is a light petroleum diesel, stored in three steel tanks with a total capacity of 1.8 million litres. Fuel is transferred to the station annually from resupply ship either via hoses routed across sea ice or via barge when sea ice is not present. Station waste water, purified by a biological plant, is discharged into the sea adjacent to the station on the eastern side of the peninsula on which the station is located, 2.3 km from the northern boundary of the Area. Combustible rubbish generated at the station is incinerated and the smoke washed and filtered with water. This water is discharged to the waste water treatment plant at intervals which vary with incinerator usage. An atmospheric monitoring facility (locally referred to as 'Campo Icaro') is situated approximately 650 m north of the northern boundary of the Area and 150 m from the shore: no wastes are discharged from this facility. A support ship regularly visits Terra Nova Bay Station during the summer, and there are occasional visits from tourist ships. These may station offshore several kilometres to the north of the Area.

6(ii) Restricted zones within the Area
None.

6(iii) Structures within and near the Area
There are no structures within the Area. The nearest structure is the atmospheric monitoring facility (locally referred to as 'Campo Icaro') 650 m north of the northern boundary of the Area, while Terra Nova Bay Station (74°41'42"S, 164°07'23"E) is situated on a small peninsula on the coast adjacent to Tethys Bay, a further 1.65 km to the north.

6(iv) Location of other protected areas within close proximity of the Area
ASPA No. 118, summit of Mount Melbourne, is a terrestrial site situated 45 km to the NE, which is the only other protected area within close proximity.

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 are that:

- it is issued for scientific study of the marine environment in the Area, or for other scientific purposes which cannot be served elsewhere; and/or
- it is issued for essential management purposes consistent with plan objectives such as inspection, maintenance or review;
- the actions permitted will not jeopardise the 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 into the Area shall be by sea, land, over sea ice or by air. There are no specific restrictions on routes of access to and movement within the Area, although movements should be kept to the minimum necessary consistent with the objectives of any permitted activities and every reasonable effort should be made to minimise

disturbance. Anchoring is prohibited within the Area. There are no overflight restrictions within the Area and aircraft may land by Permit when sea ice conditions allow. Ship or small boat crew, or other people on small boats or ships, are prohibited from moving beyond the immediate vicinity of their vessel unless specifically authorized by Permit.

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

- Scientific research or essential operational activities that will not jeopardise the values of the Area;
- Essential management activities, including monitoring;
- Activities that involve trawling, dragging, grabbing, dredging, or deployment of nets within the Area should be undertaken with great care because of the sensitivity of the rich bottom communities to disturbance: before Permits are granted for such activities careful consideration should be given to the impact of such activities on the ecosystem under special protection versus the expected scientific or management benefits, with consideration given to alternative, more selective and less-invasive, sampling methods;
- 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 or scientific equipment shall not be installed within the Area except as specified in a Permit. All markers, structures or scientific equipment installed in the Area shall be clearly identified by country, name of the principal investigator and year of installation. All such items should be made of materials that pose minimal risk of contamination of the Area. Removal of specific equipment for which the Permit has expired shall be a condition of the Permit. Permanent installations are prohibited.

7(iv) Location of field camps

None within the Area. An occasional field camp has been positioned on the beach at Adélie Cove.

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

No living animals, plant material, pathogens or microorganisms shall be deliberately introduced into the Area. Poultry products, including food products containing uncooked dried eggs, shall not be released into the Area. No herbicides or pesticides shall be introduced 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 used in the minimum quantities necessary to achieve the purpose of the activity for which the Permit was granted. Use of such chemicals shall be with due regard for the values of the Area. All materials shall be stored and handled so that risk of their accidental introduction into the environment is minimized. Where practical, materials introduced shall be for a stated period only and shall be removed at or before the conclusion of that stated period. 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*. The appropriate authority should be notified of any materials released that were not included in the authorized Permit.

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 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 and should be limited to the minimum necessary to meet scientific or management needs. Permits shall not be granted if there is a reasonable concern that the sampling proposed would take, remove or damage such quantities of substrate, native flora or fauna that their distribution or abundance within the Area would be significantly affected. All samples collected shall be described in terms of their type, quantity and the location from which they were taken. This information shall held in an archive accessible at Terra Nova Bay Station in order to maintain a record of usage that will assist assessment of the impacts of sampling activities and in the planning of future sampling. 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 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, including all human 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

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 that are vulnerable to inadvertent disturbance should be appropriately marked on site where practical and, as appropriate, on maps of the Area.
3. To help maintain the ecological and scientific values of the marine communities found within the Area, visitors shall take special precautions against marine pollution. Of concern are the release or spillage of hydrocarbons from ships, and biological introductions. To minimize the risk of such pollution, visitors shall ensure that sampling equipment or markers brought into the Area are clean. Vessels that are found to show fuel leakage, or a significant risk of such leakage, are prohibited from entering the Area. If a fuel leak from a vessel is discovered while within the Area, the vessel shall leave the Area unless the leak can be promptly stopped. Handling of fuels and oil within the Area shall be the minimum necessary consistent with meeting the objectives of the permitted activities.

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.

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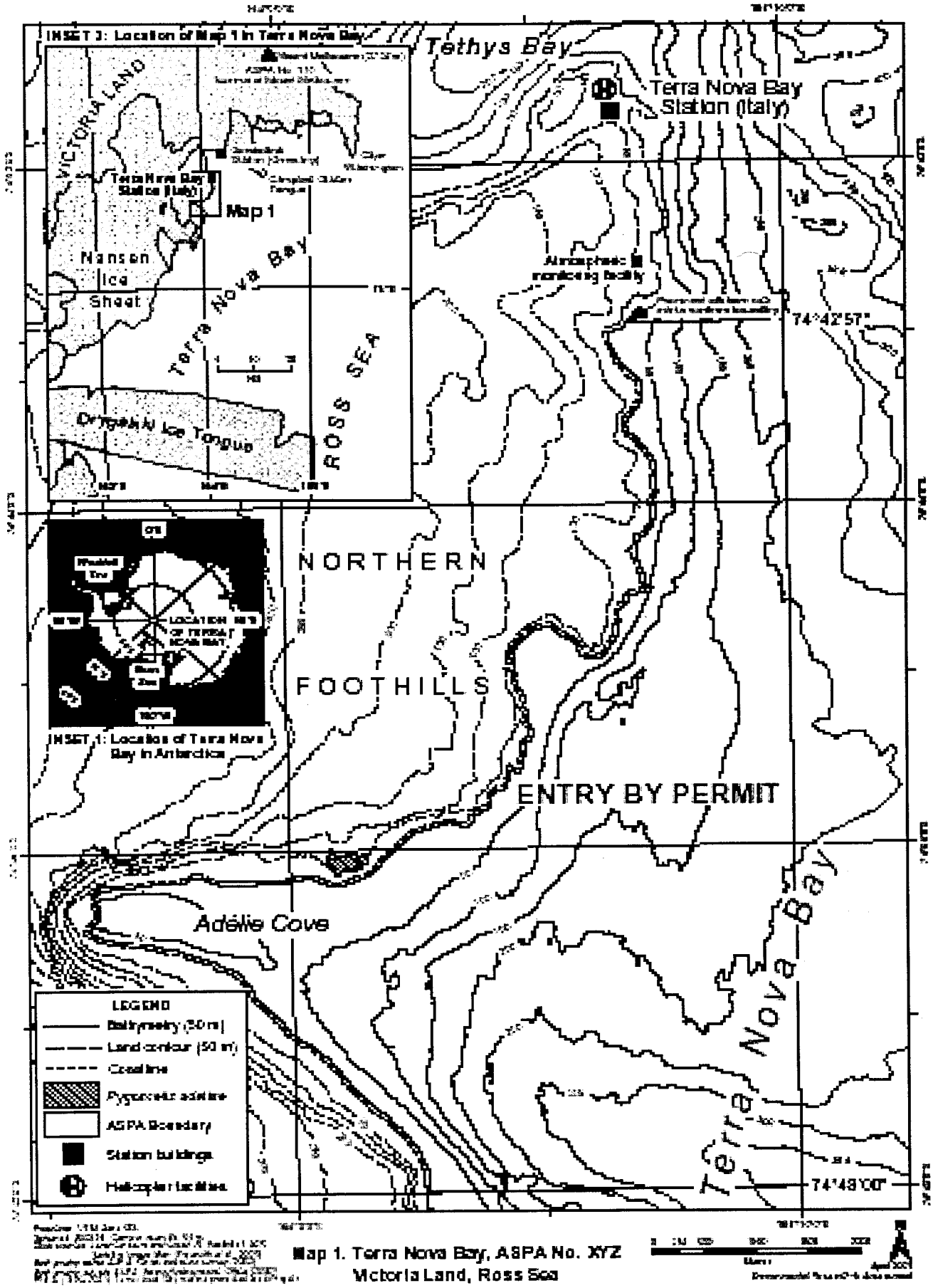

Map 1. Terra Nova Bay, ASPA No. XYZ
Victoria Land, Ross Sea

MEASURE 3 (2003)

ANTARCTIC PROTECTED AREAS SYSTEM: REVISED LIST OF HISTORIC SITES AND MONUMENTS

The Representatives,

Recalling Recommendations I-IX, V-4, VI-14, VII-9, XII-7, XIII-16, XIV-8, XV-12, XVI-11, XVII-3 and Measures 4(1995), 2(1996), 4(1997), 2(1998), 1(2001) and 2(2001);

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;

Desiring to update the descriptions of Historic Site and Monument numbers 5, 14, 15, 16, 17, 18, 19, 21, 22, 23, 27, 28, 30, 32, 33, 34, 35, 36, 37, 38, 39, 42, 43, 44, 48, 50, 53, 56, 57, 59, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 74;

Desiring also to remove from the list those Historic Sites and Monuments numbered 25, 31 and 58, which no longer exist;

Recommend that their Governments, in accordance with paragraph 2 of Article 8 of Annex V to the Protocol on Environmental Protection to the Antarctic Treaty, approve that the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" (annexed to Recommendation VII-9 and modified by the Recommendations and Measures recalled above) be terminated and replaced by the revised and updated "List of Historic Sites and Monuments" annexed to this Measure.

Annex. List of Historic Sites and Monuments approved by the Antarctic Treaty Consultative Meeting

Note: The Antarctic Treaty Consultative Meeting neither approves, nor disapproves of the place names used in the listing below.

No.	Description	Location
1.	Flag mast erected in December 1965 at the South Geographical Pole by the First Argentine Overland Polar Expedition. Original proposing Party: Argentina[1] Party undertaking management: Argentina	90°S
2.	Rock cairn and plaques at Syowa Station in memory of Shin Fukushima, a member of the 4th Japanese Antarctic Research Expedition, who died in October 1960 while performing official duties. The cairn was erected on 11 January 1961, by his colleagues. Some of his ashes repose in the cairn. Original proposing Party: Japan [1] Party undertaking management: Japan	69°00'S, 39°35'E
3.	Rock cairn and plaque on Proclamation Island, Enderby Land, erected in January 1930 by Sir Douglas Mawson. The cairn and plaque commemorate the landing on Proclamation Island of Sir Douglas Mawson with a party from the British, Australian and New Zealand Antarctic Research Expedition of 1929-31. Original proposing Party: Australia [1] Party undertaking management: Australia	65°51'S, 53°41'E
4.	Station building to which a bust of V.I. Lenin is fixed, together with a plaque in memory of the conquest of the Pole of Inaccessibility by Soviet Antarctic explorers in 1958. Original proposing Party: Russia [1] Party undertaking management: Russia	83°06'S, 54°58'E
5.	Rock cairn and plaque at Cape Bruce, Mac. Robertson Land, erected in February 1931 by Sir Douglas Mawson. The cairn and plaque commemorate the landing on Cape Bruce of Sir Douglas Mawson with a party from the British, Australian and New Zealand Antarctic Research Expedition of 1929-31. Original proposing Party: Australia [1] Party undertaking management: Australia	67°25'S, 60°47'E
6.	Rock cairn at Walkabout Rocks, Vestfold Hills, Princess Elizabeth Land, erected in 1939 by Sir Hubert Wilkins. The cairn houses a canister containing a record of his visit.	68°22'S, 78°33'E

[1] Adopted by means of Recommendation VII-9 (1972)

No.	Description	Location
	Original proposing Party: Australia [1] Party undertaking management: Australia	
7.	Stone with inscribed plaque, erected at Mirny Observatory, Mabus Point, in memory of driver-mechanic Ivan Kharma who perished on fast ice in the performance of official duties in 1956. Original proposing Party: Russia [1] Party undertaking management: Russia	66°33'S, 93°01'E
8.	Metal monument-sledge at Mirny Observatory, Mabus Point, with plaque in memory of driver-mechanic Anatoly Shcheglov who perished in the performance of official duties. Original proposing Party: Russia [1] Party undertaking management: Russia	66°33'S, 93°01'E
9.	Cemetery on Buromskiy Island, near Mirny Observatory, in which are buried Soviet, Czechoslovakian and GDR citizens, members of Soviet Antarctic Expeditions, who perished in the performance of official duties on 3 August, 1960. Original proposing Party: Russia [1] Party undertaking management: Russia	66°32'S, 93°01'E
10.	Building (magnetic observatory) at Dobrowolsky Station, Bunger Hills, with plaque in memory of the opening of Oasis Station in 1956. Original proposing Party: Russia [1] Party undertaking management: Russia	66°16'S, 100°45'E
11.	Heavy tractor at Vostok Station with plaque in memory of the opening of the Station in 1957. Original proposing Party: Russia [1] Party undertaking management: Russia	78°28'S, 106°48'E
12.	Cross and plaque at Cape Denison, George V Land, erected in 1913 by Sir Douglas Mawson on a hill situated 300 metres west by south from the main hut of the Australasian Antarctic Expedition of 1911-14. The cross and plaque commemorate Lieutenant B.E.S Ninnis and Dr X. Mertz, members of the expedition, who died in 1913 while engaged in the work of the expedition. Original proposing Party: Australia [1] Party undertaking management: Australia	67°00'S, 142°42'E
13.	Hut at Cape Denison, George V Land, built in January 1912 by Sir Douglas Mawson for the Australasian Antarctic Expedition of 1911-14. This was the main base of the expedition.	67°00'S, 142°42'E

No.	Description	Location
	Original proposing Party: Australia [1] Party undertaking management: Australia	
14.	Site of ice cave at Inexpressible Island, Terra Nova Bay, constructed in March 1912 by Victor Campbell's Northern Party, British Antarctic Expedition, 1910-13. The party spent the winter of 1912 in this ice cave. A wooden sign, plaque and seal bones remain at the site. Original proposing Party: New Zealand [1&2] Parties undertaking management: New Zealand/Italy/UK	74°54'S, 163°43'E
15.	Hut at Cape Royds, Ross Island, built in February 1908 by the British Antarctic Expedition of 1907-09, led by Sir Ernest Shackleton. Restored in January 1961 by the Antarctic Division of New Zealand Department of Scientific and Industrial Research. Site incorporated within ASPA 157 Original proposing Parties: New Zealand/UK [1] Parties undertaking management: New Zealand/UK	77°33'S, 166°10'E
16.	Hut at Cape Evans, Ross Island, built in January 1911 by the British Antarctic Expedition of 1910-1913, led by Captain Robert F. Scott. Restored in January 1961 by the Antarctic Division of New Zealand Department of Scientific and Industrial Research. Site incorporated within ASPA 155 Original proposing Parties: New Zealand /UK [1] Parties undertaking management: New Zealand/UK	77°38'S, 166°24'E
17.	Cross on Wind Vane Hill, Cape Evans, Ross Island, erected by the Ross Sea Party, led by Captain Aeneas Mackintosh, of Sir Ernest Shackleton's Imperial Trans-Antarctic Expedition of 1914-1916, in memory of three members of the party who died in the vicinity in 1916. Site incorporated within ASPA 155 Original proposing Parties: New Zealand/UK [1] Parties undertaking management: New Zealand/UK	77°38'S, 166°24'E
18.	Hut at Hut Point, Ross Island, built in February 1902 by the British Antarctic Expedition of 1901-04, led by Captain Robert F. Scott. Partially restored in January 1964 by the New Zealand Antarctic Society, with assistance from the United States Government. Site incorporated within ASPA 158 Original proposing Parties: New Zealand/UK [1] Parties undertaking management: New Zealand/UK	77°50'S, 166°37'E

[2] Amended by means of Measure 5 (1995)

No.	Description	Location
19.	Cross at Hut Point, Ross Island, erected in February 1904 by the British Antarctic Expedition of 1901-04, in memory of George Vince, a member of the expedition, who died in the vicinity. Original proposing Parties: New Zealand/UK [1] Parties undertaking management: New Zealand/UK	77°50'S, 166°37'E
20.	Cross on Observation Hill, Ross Island, erected in January 1913 by the British Antarctic Expedition of 1910-13, in memory of Captain Robert F. Scott's party which perished on the return journey from the South Pole in March 1912. Original proposing Parties: New Zealand/UK [1] Parties undertaking management: New Zealand/UK	77°51'S, 166°41'E
21.	Remains of stone hut at Cape Crozier, Ross Island, constructed in July 1911 by Edward Wilson's party of the British Antarctic Expedition (1910-13) during the winter journey to collect Emperor penguin eggs. Original proposing Party: New Zealand [1] Parties undertaking management: New Zealand/UK	77°31'S, 169°22'E
22.	Three huts and associated historic relics at Cape Adare. Two were built in February 1899 during the British Antarctic (*Southern Cross*) Expedition, 1898-1900, led by Carsten E. Borchgrevink. The third was built in February 1911 by Robert F. Scott's Northern Party, led by Victor L.A.Campbell. Scott's Northern Party hut has largely collapsed with only the porch standing in 2002. Site incorporated within ASPA 159. Original proposing Parties: New Zealand/UK [1] Parties undertaking management: New Zealand/UK	71°18'S, 170°12'E
23.	Grave at Cape Adare of Norwegian biologist Nicolai Hanson, a member of the British Antarctic (*Southern Cross*) Expedition, 1898-1900, led by Carsten E. Borchgrevink. A large boulder marks the head of the grave with the grave itself outlined in white quartz stones. A cross and plaque are attached to the boulder. Original proposing Parties: New Zealand/ UK [1] Parties undertaking management: New Zealand/Norway	71°17'S, 170°13'E
24.	Rock cairn, known as 'Amundsen's cairn', on Mount Betty, Queen Maud Range erected by Roald Amundsen on 6 January 1912, on his way back to *Framheim* from the South Pole. Original proposing Party: Norway [1] Party undertaking management: Norway	85°11'S, 163°45'W

No.	Description	Location
25.	De-listed	
26.	Abandoned installations of Argentine Station 'General San Martin' on Barry Island, Debenham Islands, Marguerite Bay, with cross, flag mast, and monolith built in 1951. Original proposing Party: Argentina [1] Party undertaking management: Argentina	68°08'S, 67°08'W
27.	Cairn with a replica of a lead plaque erected on Megalestris Hill, Petermann Island, in 1909 by the second French expedition led by Jean-Baptiste E. A. Charcot. The original plaque is in the reserves of the Museum National d'Histoire Naturelle (Paris). Original proposing Parties: Argentina/France/UK [1] Parties undertaking management: France /UK	65°10'S, 64°09'W
28.	Rock cairn at Port Charcot, Booth Island, with wooden pillar and plaque inscribed with the names of the first French expedition led by Jean-Baptiste E. A. Charcot which wintered here in 1904 aboard *Le Français*. Original proposing Party: Argentina [1] Parties undertaking management: Argentina/France	65°03'S, 64°01'W
29.	Lighthouse named 'Primero de Mayo' erected on Lambda Island, Melchior Islands, by Argentina in 1942. This was the first Argentine lighthouse in the Antarctic. Original proposing Party: Argentina [1] Party undertaking management: Argentina	64°18'S, 62°59'W
30.	Shelter at Paradise Harbour erected in 1950 near the Chilean Base 'Gabriel Gonzalez Videla' to honour Gabriel Gonzalez Videla, the first Head of State to visit the Antarctic. The shelter is a representative example of pre-IGY activity and constitutes an important national commemoration. Original proposing Party: Chile [1] Party undertaking management: Chile	64°49'S, 62°51'W
31.	De-listed.	
32.	Concrete monolith erected in 1947, near Capitán Arturo Prat Base on Greenwich Island, South Shetland Islands. Point of reference for Chilean Antarctic hydrographic surveys. The monolith is representative of an important pre-IGY activity and is currently preserved and maintained by personnel from Prat Base. Original proposing Party: Chile [1] Party undertaking management: Chile	62°28'S, 59°40'W

No.	Description	Location
33.	Shelter and cross with plaque near Capitán Arturo Prat Base (Chile), Greenwich Island, South Shetland Islands. Named in memory of Lieutenant-Commander González Pacheco, who died in 1960 while in charge of the station. The monument commemorates events related to a person whose role and the circumstances of his death have a symbolic value and the potential to educate people about significant human activities in Antarctica. Original proposing Party: Chile [1] Party undertaking management: Chile	62°29'S, 59°40'W
34.	Bust at Capitán Arturo Prat Base (Chile), Greenwich Island, South Shetland Islands, of the Chilean naval hero Arturo Prat, erected in 1947. The monument is representative of pre-IGY activities and has symbolic value in the context of Chilean presence in Antarctica. Original proposing Party: Chile [1] Party undertaking management: Chile	62°50'S, 59°41'W
35.	Wooden cross and statue of the Virgin of Carmen erected in 1947 near Capitán Arturo Prat Base (Chile), Greenwich Island, South Shetland Islands. The monument is representative of pre-IGY activities and has a particularly symbolic and architectural value. Original proposing Party: Chile [1] Party undertaking management: Chile	62°29'S, 59°40'W
36.	Replica of a metal plaque erected by Eduard Dallmann at Potter Cove, King George Island, to commemorate the visit of his German expedition on 1 March, 1874 on board *Grönland.* Original proposing Parties: Argentina/UK [1] Parties undertaking management: Argentina/Germany	62°14'S, 58°39'W
37.	Statue erected in 1948 at General Bernardo O'Higgins Base (Chile), Trinity Peninsula, of Bernardo O'Higgins, the first ruler of Chile to envisage the importance of Antarctica. This monument is representative of pre-IGY activities in Antarctica and has a symbolic meaning in the history of Antarctic exploration since it was during O'Higgins' government that the vessel *Dragon* landed on the coast of the Antarctic Peninsula in 1820. Original proposing Party: Chile [1] Party undertaking management: Chile	63°19'S, 57°54'W
38.	Wooden hut on Snow Hill Island built in February 1902 by the main party of the Swedish South Polar Expedition led by Otto Nordenskjöld. Original proposing Parties: Argentina/ UK [1] Parties undertaking management: Argentina/Sweden	64°22'S, 56°59'W

No.	Description	Location
39.	Stone hut at Hope Bay, Trinity Peninsula, built in January 1903 by a party of the Swedish South Polar Expedition. Original proposing Parties: Argentina/UK [1] Parties undertaking management: Argentina/Sweden	63°24'S, 56°59' W
40.	Bust of General San Martin, grotto with a statue of the Virgin of Lujan, and a flag mast at Base 'Esperanza', Hope Bay, erected by Argentina in 1955; together with a graveyard with stele in memory of members of Argentine expeditions who died in the area. Original proposing Party: Argentina [1] Party undertaking management: Argentina	63°24'S, 56°59'W
41.	Stone hut on Paulet Island built in February 1903 by survivors of the wrecked vessel *Antarctic* under Captain Carl A. Larsen, members of the Swedish South Polar Expedition led by Otto Nordenskjöld, together with a grave of a member of the expedition and the rock cairn built by the survivors of the wreck at the highest point of the island to draw the attention of rescue expeditions. Original proposing Parties: Argentina/UK [1 & 2] Parties undertaking management: Argentina/Sweden/Norway	63°34'S, 55°45'W
42.	Area of Scotia Bay, Laurie Island, South Orkney Island, in which are found: stone hut built in 1903 by the Scottish Antarctic Expedition led by William S. Bruce; the Argentine meteorological hut and magnetic observatory, built in 1905 and known as Moneta House; and a graveyard with twelve graves, the earliest of which dates from 1903. Original proposing Party: Argentina [1] Parties undertaking management: Argentina/UK	60°46'S, 44°40'W
43.	Cross erected in 1955, at a distance of 1,300 metres north-east of the Argentine General Belgrano I Station (Argentina) and subsequently moved to Belgrano II Station (Argentina), Nunatak Bertrab, Confin Coast, Coats Land in 1979. Original proposing Party: Argentina [1] Party undertaking management: Argentina	77°52'S, 34°37'W
44.	Plaque erected at the temporary Indian station 'Dakshin Gangotri', Princess Astrid Kyst, Dronning Maud Land, listing the names of the First Indian Antarctic Expedition which landed nearby on 9 January 1982. Original proposing Party: India [3] Party undertaking management: India	70°45'S, 11°38'E

[3] Adopted by means of Recommendation XII-7 (1983)

No.	Description	Location
45.	Plaque on Brabant Island, on Metchnikoff Point, mounted at a height of 70 m on the crest of the moraine separating this point from the glacier and bearing the following inscription: This monument was built by François de Gerlache and other members of the Joint Services Expedition 1983-85 to commemorate the first landing on Brabant Island by the Belgian Antarctic Expedition, 1897-99: Adrien de Gerlache (Belgium) leader, Roald Amundsen (Norway), Henryk Arctowski (Poland), Frederick Cook (USA) and Emile Danco (Belgium) camped nearby from 30 January to 6 February 1898. Original proposing Party: Belgium [4] Party undertaking management: Belgium	64°02'S, 62°34'W
46.	All the buildings and installations of Port-Martin base, Terre Adélie constructed in 1950 by the 3rd French expedition in Terre Adélie and partly destroyed by fire during the night of 23 to 24 January 1952. Original proposing Party: France [3] Party undertaking management: France	66°49'S, 141°24'E
47.	Wooden building called 'Base Marret' on the Ile des Pétrels, Terre Adélie, where seven men under the command of Mario Marret overwintered in 1952 following the fire at Port Martin Base. Original proposing Party: France [3] Party undertaking management: France	66°40'S, 140°01'E
48.	Iron cross on the North-East headland of the Ile des Pétrels, Terre Adélie, dedicated as a memorial to André Prudhomme, head meteorologist in the 3rd International Geophysical Year expedition who disappeared during a blizzard on 7 January 1959. Original proposing Party: France [3] Party undertaking management: France	66°40'S, 140°01'E
49.	The concrete pillar erected by the First Polish Antarctic Expedition at Dobrolowski Station on the Bunger Hill to measure acceleration due to gravity g = 982,439.4 mgal ±0.4 mgal in relation to Warsaw, according to the Potsdam system, in January 1959. Original proposing Party: Poland [3] Party undertaking management: Poland	66°16'S, 100°45'E
50.	A brass plaque bearing the Polish Eagle, the national emblem of Poland, the dates 1975 and 1976, and the following text in Polish, English and Russian: In memory of the landing of members of the first Polish Antarctic	62°12'S, 59°01'W

[4] Adopted by means of Recommendation XIII-16 (1985)

No.	Description	Location
	marine research expedition on the vessels 'Profesor Siedlecki' and 'Tazar' in February 1976. This plaque, south-west of the Chilean and Soviet stations, is mounted on a cliff facing Maxwell Bay, Fildes Peninsula, King George Island. Original proposing Party: Poland [3] Party undertaking management: Poland	
51.	The grave of Wlodzimierz Puchalski, surmounted by an iron cross, on a hill to the south of Arctowski station on King George Island. W. Puchalski was an artist and a producer of documentary nature films, who died on 19 January 1979 whilst working at the station. Original proposing Party: Poland [3] Party undertaking management: Poland	62°13'S, 58°28'W
52.	Monolith erected to commemorate the establishment on 20 February 1985 by the Peoples Republic of China of the 'Great Wall Station' on Fildes Peninsula, King George Island, in the South Shetland Islands. Engraved on the monolith is the following inscription in Chinese: 'Great Wall Station, First Chinese Antarctic Research Expedition, 20 February 1985'. Original proposing Party: China [3] Party undertaking management: China	62°13'S, 58°58'W
53.	Bust of Captain Luis Alberto Pardo, monolith and plaques on Point Wild, Elephant Island, south Shetland Islands, celebrating the rescue of the survivors of the British ship *Endurance* by the Chilean Navy cutter *Yelcho* displaying the following words: " Here on August 30th, 1916, the Chilean Navy cutter *Yelcho* commanded by Pilot Luis Pardo Villalón rescued the 22 men from the Shackleton Expedition who survived the wreck of the 'Endurance' living for four and one half months in this Island". The Monolith and the plaques have been placed on Elephant Island and their replicas on the Chilean bases Capitan Arturo Prat (62°30'S, 59 °49'W) and President Eduardo Frei (62°12'S, 62 °12'W). Bronze busts of the pilot Luis Pardo Villalon were placed on the three above-mentioned monoliths during the XXIVth Chilean Antarctic Scientific Expedition in 1987-88. Original proposing Party: Chile [5] Party undertaking management: Chile	61°03'S, 54°50'W

[5] Adopted by means of Recommendation XIV-8 (1987)

No.	Description	Location
54.	Richard E. Byrd Historic Monument, McMurdo Station, Antarctica. Bronze bust on black marble, 5ft high x 2ft square, on wood platform, bearing inscriptions describing the polar achievements of Richard Evelyn Byrd. Erected at McMurdo Station in 1965. Original proposing Party: USA [6]	77°51'S, 166°40'E
55.	East Base, Antarctica, Stonington Island. Buildings and artefacts at East Base, Stonington Island and their immediate environs. These structures were erected and used during two U.S. wintering expeditions: the Antarctic Service Expedition (1939-1941) and the Ronne Antarctic Research Expedition (1947-1948). The size of the historic area is approximately 1,000 metres in the north-south direction (from the beach to Northeast Glacier adjacent to Back Bay) and approximately 500 metres in the east-west direction. Original proposing Party: USA [5]	68°11'S, 67°00'W
56.	Waterboat Point, Danco Coast, Antarctic Peninsula. The remains and immediate environs of the Waterboat Point hut. It was occupied by the UK two-man expedition of Thomas W. Bagshawe and Maxime C. Lester in 1921-22. Only the base of the boat, foundations of doorposts and an outline of the hut and extension still exist. It is situated close to the Chilean station 'President Gabriel Gonzáles Videla'. Original proposing Party: Chile/UK [7] Parties undertaking management: Chile/UK	64°49'S, 62°51'W
57.	Commemorative plaque at 'Yankee Bay' (Yankee Harbour), MacFarlane Strait, Greenwich Island, South Shetland Islands. Near a Chilean refuge. Erected to the memory of Captain Andrew MacFarlane, who in 1820 explored the Antarctic Peninsula area in the brigantine *Dragon*. Original proposing Parties: Chile/UK [6] Parties undertaking management: Chile/UK	62°32'S, 59°45'W
58.	De-listed.	
59.	A cairn on Half Moon Beach, Cape Shirreff, Livingston Island, South Shetland Islands and a plaque on 'Cerro Gaviota' opposite San Telmo Islets commemorating the officers, soldiers and seamen aboard the Spanish vessel *San Telmo,* which sank in September 1819; possibly the first people to live and die in Antarctica. Site incorporated within ASPA 149. Original proposing Parties: Chile/Spain/Peru [6] Parties undertaking management: Chile/Spain/Peru	62°28'S, 60°46'W

[6] Adopted by means of Recommendation XV-12 (1989)
[7] Adopted by means of Recommendation XV-12 (1989)

No.	Description	Location
60.	Wooden plaque and cairn located at Penguins Bay, southern coast of Seymour Island (Marambio), James Ross Archipelago. This plaque was placed on 10 November 1903 by the crew of a rescue mission of the Argentinian Corvette *Uruguay* in the site where they met the members of the Swedish expedition led by Dr Otto Nordenskjöld. The text of the wooden plaque reads as follows: "10.XI.1903 Uruguay (Argentine Navy) in its journey to give assistance to the Swedish Antarctic expedition." In January 1990, a rock cairn was erected by Argentina in memory of this event in the place where the plaque is located. Original proposing Party: Argentina [8] Parties undertaking management: Argentina/Sweden	64°16'S, 56°39'W
61.	'Base A' at Port Lockroy, Goudier Island, off Wiencke Island, Antarctic Peninsula. Of historic importance as an Operation Tabarin base from 1944 and for scientific research, including the first measurements of the ionosphere, and the first recording of an atmospheric whistler, from Antarctica. Port Lockroy was a key monitoring site during the International Geophysical Year of 1957/58. Original Proposing Party: UK [9] Party undertaking management: UK	64°49'S, 63°29'W
62.	'Base F (Wordie House)' on Winter Island, Argentine Islands. Of historic importance as an example of an early British scientific base. Original proposing Party: UK [9] Parties undertaking management: UK/Ukraine	65°15'S, 64°16'W
63.	'Base Y' on Horseshoe Island, Marguerite Bay, western Graham Land. Noteworthy as a relatively unaltered and completely equipped British scientific base of the late 1950s. 'Blaiklock', the refuge hut nearby, is considered an integral part of the base. Original proposing Party: UK [9] Party undertaking management: UK	67°48'S, 67°18'W
64.	'Base E' on Stonington Island, Marguerite Bay, western Graham Land. Of historical importance in the early period of exploration and later British Antarctic Survey (BAS) history of the 1960s and 1970s. Original proposing Party: UK [9] Party undertaking management: UK	68°11'S, 67°00'W

[8] Adopted by means of Recommendation XVII-3 (1992)

[9] Adopted by means of Measure 4 (1995)

No.	Description	Location
65.	Message post, Svend Foyn Island, Possession Islands. A pole with a box attached was placed on the island on 16 January 1895 during the whaling expedition of Henryk Bull and Captain Leonard Kristensen of the ship *Antarctic*. It was examined and found intact by the British Antarctic Expedition of 1898-1900 and then sighted from the beach by the USS *Edisto* in 1956 and USCGS *Glacier* in 1965. Original proposing Parties: New Zealand/Norway/UK [9] Parties undertaking management: New Zealand/ Norway	71°56'S, 171°05'W
66.	Prestrud's Cairn, Scott Nunataks, Alexandra Mountains, Edward VII Peninsula. The small rock cairn was erected at the foot of the main bluff on the north side of the nunataks by Lieutenant K. Prestrud on 3 December 1911 during the Norwegian Antarctic Expedition of 1910-1912. Original proposing Parties: New Zealand/ Norway/ UK [9] Parties undertaking management: New Zealand/Norway	77°11'S, 154°32'W
67.	Rock shelter, 'Granite House', Cape Geology, Granite Harbour. This shelter was constructed in 1911 for use as a field kitchen by Griffith Taylor's second geological excursion during the British Antarctic Expedition of 1910-1913. It was enclosed on three sides with granite boulder walls and used a sledge to support a seal-skin roof. The stone walls of the shelter have partially collapsed. The shelter contains corroded remnants of tins, a seal skin and some cord. The sledge is now located 50 m seaward of the shelter and consists of a few scattered pieces of wood, straps and buckles. Site incorporated within ASPA 154. Original proposing Parties: New Zealand/Norway/UK [9] Parties undertaking management: New Zealand/UK	77°00'S, 162°32'E
68.	Site of depot at Hells Gate Moraine, Inexpressible Island, Terra Nova Bay.This emergency depot consisted of a sledge loaded with supplies and equipment which was placed on 25 January 1913 by the British Antarctic Expedition, 1910-1913. The sledge and supplies were removed in 1994 in order to stabilize their deteriorating condition. Original proposing Parties: New Zealand/Norway/UK [9] Parties undertaking management: New Zealand/UK	74°52'S, 163°50'E
69.	Message post at Cape Crozier, Ross Island, erected on 22 January 1902 by Captain Robert F. Scott's *Discovery* Expedition of 1901-04. It was to provide information for the expedition's relief ships, and held a metal message cylinder, which has since been removed. Site incorporated within ASPA 124 Original proposing Parties: New Zealand/Norway/UK [9] Parties undertaking management: New Zealand/UK	77°27'S, 169°16'E

No.	Description	Location
70.	Message post at Cape Wadworth, Coulman Island. A metal cylinder nailed to a red pole 8 m above sea level placed by Captain Robert F. Scott on 15 January 1902. He painted the rocks behind the post red and white to make it more conspicuous. Original proposing Parties: New Zealand/Norway/UK [9] Parties undertaking management: New Zealand/UK	73°19'S, 169°47'E
71.	Whalers Bay, Deception Island, South Shetland Islands. The site comprises all pre-1970 remains on the shore of Whalers Bay, including those from the early whaling period (1906-12) initiated by Captain Adolfus Andresen of the Sociedad Ballenera de Magallanes, Chile; the remains of the Norwegian Hektor Whaling Station established in 1912 and all artefacts associated with its operation until 1931; the site of a cemetery with 35 burials and a memorial to ten men lost at sea; and the remains from the period of British scientific and mapping activity (1944-1969). The site also acknowledges and commemorates the historic value of other events that occurred there, from which nothing remains. Original proposing Parties: Chile/ Norway [9] Parties undertaking management: Chile/Norway/UK	62°59'S, 60°34'W
72.	Mikkelsen Cairn, Tryne Islands, Vestfold Hills. A rock cairn and a wooden mast erected by the landing party led by Captain Klarius Mikkelsen of the Norwegian whaling ship *Thorshavn* and including Caroline Mikkelsen, Captain Mikkelsen's wife, the first woman to set foot on East Antarctica. The cairn was discovered by Australian National Antarctic Research Expedition field parties in 1957 and again in 1995. Original proposing Parties: Australia/Norway [10] Parties undertaking management: Australia/Norway	68°22'S 78°24'E
73.	Memorial Cross for the 1979 Mount Erebus crash victims, Lewis Bay, Ross Island. A cross of stainless steel which was erected in January 1987 on a rocky promontory three kilometers from the Mount Erebus crash site in memory of the 257 people of different nationalities who lost their lives when the aircraft in which they were travelling crashed into the lower slopes of Mount Erebus, Ross Island. The cross was erected as a mark of respect and in remembrance of those who died in the tragedy. Original proposing Party: New Zealand [11] Party undertaking management: New Zealand	77°25'S, 167°27'E

[10] Adopted by means of Measure 4 (1995)
[11] Adopted by means of Measure 4 (1997)

No.	Description	Location
74.	The un-named cove on the south-west coast of Elephant Island, including the foreshore and the intertidal area, in which the wreckage of a large wooden sailing vessel is located. Original proposing Party: UK [12] Party undertaking management: UK	61°14'S, 55°22'W
75.	The A Hut of Scott Base, being the only existing Trans Antarctic Expedition 1956/1957 building in Antarctica sited at Pram Point, Ross Island, Ross Sea Region, Antarctica. Original proposing Party: New Zealand [13] Party undertaking management: New Zealand	77°51'S, 166°46'E
76.	The ruins of the Base Pedro Aguirre Cerda Station, being a Chilean meteorological and volcanological center situated at Pendulum Cove, Deception Island, Antarctica, that was destroyed by volcanic eruptions in 1967 and 1969. Original proposing Party: Chile [14] Party undertaking management: Chile	62°59'S, 60°40'W

[12] Adopted by means of Measure 2 (1998)
[13] Adopted by means of Measure 1 (2001)
[14] Adopted by means of Measure 2 (2001))

ANNEX B

DECISIONS

DECISION 1 (200□)

APPORTIONING CONTRIBUTIONS TO THE SECRETARIAT OF THE ANTARCTIC TREATY

The Representatives,

Noting the references in Article 4 of Measure 1 (2003) to the contributions of Parties to the budget of the Secretariat of the Antarctic Treaty;

Noting further that one half of the budget will be financed through equal shares and one half through the Consultative Parties' contributions apportioned on a scale determined by the ATCM;

Decide:

1. That the scale of such apportioned contributions shall be determined in the manner described in the Schedule to this Decision;
2. That the Schedule may be adjusted by further Decisions of the ATCM;
3. That this Decision shall become operative on the date on which Measure 1 (2003) becomes effective.

SCHEDULE

METHOD FOR CALCULATING THE SCALE OF CONTRIBUTIONS

1. A Consultative Party's contribution shall consist of an equal part and a variable part.

2. The equal part of a Consultative Party's contribution is the amount obtained by dividing one half of the budget by the number of Consultative Parties.

3. In order to determine the variable part of the Consultative Parties' contributions they will choose a category according to the procedures set out in paragraphs 6 and 7 hereunder. Each category will have a multiplier according to the following table:

Category	*Multiplier*
Category A	3,6
Category B	2,8
Category C	2,2
Category D	1,6
Category E	1

4. The variable part of the contribution shall be calculated according to the following method:

(a) The base rate is calculated as follows:
  (i) identify the size of the half of the budget to be apportioned differentially between the Consultative Parties;
  (ii) add together the multipliers of all Consultative Parties;
  (iii) divide the figure from subparagraph (i) by the figure derived from subparagraph (ii).

(b) The variable part is the amount obtained by multiplying the base rate calculated in paragraph 4(a) by the multiplier listed in paragraph 3.

5. The total contribution of each Consultative Party shall be the sum of the equal part calculated according to paragraph 2 and the variable part calculated according to paragraph 4.

6. Each Consultative Party shall elect to be in one of the categories listed in paragraph 3 above by notification to the Depositary Government within two months of Measure 1 (2003) becoming effective.

7. A Consultative Party may choose to move to a higher category at any time by means of a notification to the Secretariat. This change will be taken into account in the calculation of the budget at the ATCM following the notification. Otherwise, determination of a category shall be valid for at least three years. After three years, a Consultative Party wishing to move to a lower category may do so by notification to the Secretariat at least six months before the ATCM preceding the financial year in which the change is to take effect. Consultative Parties wishing to change their category are recommended to state the circumstances of the change.

DECISION 2 (2003)
PROVISIONAL APPLICATION OF MEASURE 1 (2003)

The Representatives,

Recalling Decision 1 (2001) of the XXIV ATCM on the establishment of the Secretariat of the Antarctic Treaty (the Secretariat) in Buenos Aires, Argentina;

Recalling also Measure 1 (2003) of the XXVI ATCM (the Measure);

Decide:

1. That the Secretariat shall act in accordance with Articles 1, 3, 4 (paragraph 1) and 5 (paragraphs 1, 3 and 4) of the Measure, on a provisional basis, until the Measure becomes effective. This Decision shall be reviewed at each ATCM to assess the status of approvals of the Measure and contributions to the budget of the Secretariat;

2. That the Secretariat shall fulfil, to the fullest extent possible, the functions identified in Article 2 of the Measure prioritising its work in accordance with guidance by the ATCM until the Measure becomes effective;

3. To apply provisionally, to the fullest extent possible, the Staff Regulations and Financial Regulations of the Secretariat of the Antarctic Treaty adopted by Decisions 3 and 4 (2003) respectively of the XXVI ATCM, until the Measure becomes effective;

4. That paragraphs 1, 2 and 3 above shall apply subject to:

   (a) appointment of the first Executive Secretary in accordance with paragraph 5 below;
   (b) notification by the Depositary Government of contributions paid, in accordance with paragraph 8 below; and
   (c) notification, as provided for in paragraph 9 below, by the Argentine Republic that its constitutional requirements for the provisional application of the Headquarters Agreement have been completed;

5. That the first Executive Secretary shall be selected and appointed by the XXVII ATCM from among candidates who are nationals of Consultative Parties. Each candidature shall be submitted to the Depositary Government no later than 15 February 2004 and shall be accompanied by a curriculum vitae setting out the relevant qualifications and experience of the candidate;

6. That, until the Measure becomes effective, the budget of the Secretariat, which shall be approved by Representatives of all Consultative Parties present at the ATCM, shall be financed by assessed voluntary contributions, which should be made on the basis of Article 4 (paragraphs 3 and 4) of the Measure. Consultative Parties are recommended to make their annual contribution on the basis of the initial scale of

contributions annexed to this Decision, which has been calculated according to the Schedule to Decision 1 (2003). Consultative Parties wishing to change the category in which they are listed in this initial scale may do so by notification to the Depositary Government by 22 August 2003. The Depositary Government shall by 12 September 2003 circulate to the Consultative Parties a note confirming the initial scale or revising the scale to reflect any changes made. The ATCM shall review the scale annually to take account of the budget for the following year;

7. That Consultative Parties intending to make voluntary contributions in accordance with paragraph 6 above shall notify the Depositary Government of the amount of such contributions no later than 1 January 2004. The Depositary Government shall inform all Consultative Parties of all such notifications by 21 January 2004. In each subsequent year, until the Measure becomes effective, the same procedure shall apply;

8. That all voluntary contributions notified pursuant to paragraph 7 above should be paid no later than 1 April 2004 to a temporary interest-bearing account, held by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) on behalf of the Consultative Parties and subject to the approval of CCAMLR. Each Consultative Party concerned should notify the Depositary Government at the time of payment of the amount paid to this account. The Depositary Government, by 21 April 2004, shall notify all Consultative Parties of such voluntary contributions paid to this account. After the Secretariat has informed the Depositary Government that the Secretariat has established an account for its funds, the Depositary Government shall request the CCAMLR Secretariat to transfer all such voluntary contributions, with interest accrued thereon, to the Secretariat. In each subsequent year, until the Measure becomes effective, Regulation 5.5 of the Financial Regulations shall be applied provisionally;

9. To accept the offer of the Argentine Republic, annexed to this Decision, to apply provisionally the Headquarters Agreement adopted by the Measure from the date that the Argentine Republic notifies the Depositary Government that its constitutional requirements to this effect have been completed.

Annex 1 to Decision 2 (2003)

Initial Scale of contributions to the Budget of the Secretariat of the Antarctic Treaty

	Cat.	Mult.	Variable	Fixed	Total
Argentina	B	2,8	$22.457	$18.595	$41.052
Australia	A	3,6	$28.873	$18.595	$47.468
Belgium	D	1,6	$12.832	$18.595	$31.427
Brazil	E	1	$8.020	$18.595	$26.615
Bulgaria	E	1	$8.020	$18.595	$26.615
Chile	C	2,2	$17.644	$18.595	$36.239
China	C	2,2	$17.644	$18.595	$36.239
Ecuador	E	1	$8.020	$18.595	$26.615
Finland	D	1,6	$12.832	$18.595	$31.427
France	A	3,6	$28.873	$18.595	$47.468
Germany	B	2,8	$22.457	$18.595	$41.052
India	C	2,2	$17.644	$18.595	$36.239
Italy	B	2,8	$22.457	$18.595	$41.052
Japan	A	3,6	$28.873	$18.595	$47.468
Korea	D	1,6	$12.832	$18.595	$31.427
Netherlands	C	2,2	$17.644	$18.595	$36.239
New Zealand	A	3,6	$28.873	$18.595	$47.468
Norway	A	3,6	$28.873	$18.595	$47.468
Peru	E	1	$8.020	$18.595	$26.615
Poland	D	1,6	$12.832	$18.595	$31.427
Russia	D	1,6	$12.832	$18.595	$31.427
South Africa	C	2,2	$17.644	$18.595	$36.239
Spain	C	2,2	$17.644	$18.595	$36.239
Sweden	C	2,2	$17.644	$18.595	$36.239
United Kingdom	A	3,6	$28.873	$18.595	$47.468
Uruguay	D	1,6	$12.832	$18.595	$31.427
United States	A	3,6	$28.873	$18.595	$47.468
		62,6	$502.065	$502.065	$1.004.130

Annex 2 to Decision 2 (2003)

Letter of commitment of the Argentine Republic

Madrid, June 2003

Dear Sir,

I address you, in your capacity as Chairman of the XXVI Antarctic Treaty Consultative Meeting (ATCM), with reference to Decision 1 (2001) of the XXIV ATCM and recognizing the need to conclude, as soon as possible, the process leading to the establishment of the Secretariat of the Antarctic Treaty in Buenos Aires.

I hereby express the commitment of the Argentine Republic to apply provisionally the "Headquarters Agreement for the Secretariat of the Antarctic Treaty" adopted by Measure 1 (2003) as of the date the Argentine Republic notifies the Depositary Government of the Antarctic Treaty that its constitutional requirements to that effect have been completed.

The Argentine Republic shall consider itself bound by the provisional arrangements proposed in this letter after their acceptance by the ATCM and the fulfilment of the condition referred above.

I avail myself of this opportunity to express the assurances of my highest consideration.

TO THE CHAIRMAN OF THE
XXVI ANTARCTIC TREATY CONSULTATIVE MEETING
Ambassador D. José Antonio de YTURRIAGA
MADRID

DECISION 3 (2003)
STAFF REGULATIONS FOR THE SECRETARIAT OF THE ANTARCTIC TREATY

The Representatives,

Bearing in mind paragraph 3 of Decision 2 (2003) on the provisional application of Measure 1 (2003);

Decide:

1. To adopt the Staff Regulations for the Secretariat of the Antarctic Treaty annexed to this Decision.

2. That the Staff Regulations shall apply fully when Measure 1 (2003) becomes effective.

Annex to Decision 3 (2003)
Staff Regulations for the Secretariat of the Antarctic Treaty

STAFF REGULATIONS

REGULATION 1
PREAMBLE

1.1 These Staff Regulations establish the fundamental principles of employment, regulate the working relationships and establish the rights and duties of members of the staff of the Secretariat of the Antarctic Treaty (the Secretariat), and includes the Staff members who render their services in and receive remuneration from the Antarctic Secretariat.

REGULATION 2
DUTIES, OBLIGATIONS AND PRIVILEGES

2.1 Staff members, upon accepting their appointments, shall pledge themselves to discharge their duties faithfully and to conduct themselves solely with the interests of the ATCM in mind. Their responsibilities as staff members are not national but are exclusively owed to the ATCM.

2.2 Staff members shall at all times conduct themselves in a manner in keeping with the Antarctic Treaty. They shall always bear in mind the loyalty, discretion and tact imposed on them by their responsibilities in the performance of their duties. They shall avoid all actions, statements or public activities which might be detrimental to the ATCM and its aims.

2.3 Staff members are not required to renounce either their national feelings or their political or religious convictions, but must ensure that such views or convictions do not adversely affect their official duties or the interests of the ATCM. Staff members shall uphold the highest standards of efficiency, competence, and integrity. The concept of integrity includes, but is not limited to, probity, impartiality, fairness, honesty, and truthfulness in all matters affecting their work and status.

2.4 In the performance of their duties, staff members may neither seek nor accept instructions from any government or authority other than the ATCM.

2.5 Staff members shall observe maximum discretion regarding official matters and shall abstain from making private use of information they possess by reason of their position. Authorisation for the release of information for official purposes shall lie with the ATCM or the Executive Secretary, as the case may require.

2.6 Staff members shall, in general, have no employment other than with the Secretariat. In special cases, staff members may accept other employment, provided that it does not interfere with their duties in the Secretariat, and that prior authorisation by the Executive Secretary has been obtained. The ATCM's prior authorisation shall be obtained in respect of the Executive Secretary.

2.7 No staff member may be associated in the management of a business, industry or other enterprise, or have a financial interest therein if, as a result of the official position held in the Secretariat, he/she may benefit from such association or interest. Ownership of non-controlling stock in a company shall not be considered to constitute a financial interest within the meaning of this Regulation.

2.8 Staff members shall enjoy the privileges and immunities granted to them under the Headquarters Agreement for the Secretariat of the Antarctic Treaty, pursuant to Article 5 of Measure 1 (2003) of the XXVI ATCM.

REGULATION 3
HOURS OF WORK

3.1 The normal working day shall be eight hours, Monday to Friday, for a total of forty hours per week.

3.2 The Executive Secretary shall establish the working hours, and may alter them for the benefit of the ATCM, as circumstances may require.

REGULATION 4
CLASSIFICATION OF STAFF

4.1 Staff members shall be classified in either of the two following categories:

(a) Executive Category

Positions of high responsibility of an executive nature. These posts will be filled by appropriately qualified professionals, preferably with University qualifications or the equivalent. Staff members in this category will be recruited internationally but only among nationals of Consultative Parties.

(b) General Staff Category

All other staff, such as translators, interpreters, technical, administrative and auxiliary positions. Such staff members shall be recruited in Argentina from among nationals of Consultative Parties.

4.2 Persons employed under Regulation 11 shall not be classified as staff members.

REGULATION 5
SALARIES AND OTHER REMUNERATION

5.1 The scale of salaries for staff members in the executive category is attached in Schedule A. The salaries of staff members in the executive category shall be paid in US currency.

5.2 The scale of salaries for staff members in the general category is attached in Schedule B. The salaries of staff members in the general category shall be paid in US currency.

5.3 For the purposes of these regulations the term 'dependent' means:

(a) any unsalaried child, who is born of, or adopted by, a staff member, his/her spouse, or their children, who is below the age of eighteen years and who is dependent on a staff member for main and continuing support;

(b) any child fulfilling the conditions laid down in paragraph (a) above, but who is between eighteen and twenty-five years of age and is receiving school or university education or vocational training;

(c) any handicapped child who is dependent on a staff member for main and continuing support;

(d) any other child who is given a home by and is dependent on a staff member for main and continuing support;

(e) any member of the family forming part of the household of the staff member, for whose main and continuing support a staff member is legally responsible.

5.4 The salaries of staff members in the executive category shall begin at Step 1 of the level at which they are appointed. They shall remain at that level for at least the first year of employment.

5.5 The promotion of the Executive Secretary and other staff members from one level to another requires the prior approval of the ATCM.

5.6 The Executive Secretary shall seek to make arrangements for any staff member in the executive category whose salary is subject to income tax in his/her home country, to be reimbursed for that tax. Such arrangements shall be made only on the basis that the direct costs of reimbursement are paid by the staff member's home country. Staff members in the general category will be responsible for the payment of income tax, if any on their salaries in their home country.

5.7 Staff members shall receive annual step increases, subject to satisfactory performance of their duties. Step increases shall cease once the staff member has reached the highest step in the level in which he/she is serving.

5.8 Only in very special cases, on the proposal of the Executive Secretary and with the approval of the ATCM, may a staff member in the executive category be appointed at a salary higher than Step 1 of the relevant level.

5.9 Staff members in the executive category are not entitled to overtime pay or compensatory leave.

5.10 Staff members in the general category required to work more than 40 hours during one week will be compensated:

(a) with compensatory leave equivalent to hours of overtime performed; or

(b) by remuneration per overtime hour, to be calculated at the rate of time and a half, or if the additional time is worked on a Sunday, or on holidays listed in Regulation 7.8, at the rate of double time.

5.11 The ATCM shall pay duly justified representation expenses incurred by the Executive Secretary in the performance of his/her duties within the limits prescribed annually in the budget.

REGULATION 6
RECRUITMENT AND APPOINTMENT

6.1 In accordance with Article 3 of Measure 1 (2003), the ATCM shall appoint an Executive Secretary and shall establish the remuneration and such other entitlements as it deems appropriate. The Executive Secretary's term of office shall be for four years unless otherwise decided by the ATCM and the Executive Secretary shall be eligible for reappointment for one additional term. The total length of employment may not exceed eight years.

6.2 In accordance with Article 3 of Measure 1 (2003) the Executive Secretary shall appoint, direct, and supervise other staff members. The paramount consideration in the appointment, transfer or promotion of staff members shall be the need to secure the highest standards of efficiency, competence and integrity. Subject to this, due consideration should be given to recruiting Executive staff on as wide a basis as possible from among the nationals of Consultative Parties.

6.3 Upon selection, each staff member shall receive an offer of appointment stating:

(a) that the appointment is subject to these regulations and to changes which may be made to them from time to time;

(b) the nature of the appointment including a description of the duties of the position;

(c) the date on which the staff member is required to commence duty;

(d) the period of appointment, the notice required to terminate it and the period of probation;

(e) for executive staff the period of appointment, which shall not exceed four years, and which may be renewed in consultation with the ATCM;

(f) the category, level, commencing rate of salary and the scale of steps increases and the maximum salary attainable;

(g) the allowances attached to the appointment;

(h) any special terms and conditions which may be applicable.

6.4 Together with the offer of appointment, staff members shall be provided with a copy of these Regulations. Upon acceptance of the offer staff members shall state in writing that they are familiar with and accept the conditions set out in these Regulations.

REGULATION 7
LEAVE

7.1 Staff members shall be entitled to 25 days annual leave during each working year of service, or for periods of less than a full calendar year at the rate of two work days for each completed month of service. Annual leave is cumulative, but at the end of each calendar year, not more than 15 workdays may be carried over to the following year.

7.2 The taking of leave shall not cause undue disruption to normal Secretariat operations. In accordance with this principle, leave dates shall be subject to the needs of the ATCM. Leave dates shall be approved by the Executive Secretary who shall, as far as possible, bear in mind the personal circumstances, needs and preferences of staff members.

7.3 Annual leave may be taken in one or more periods.

7.4 Any absence not approved within the terms of these Regulations shall be deducted from annual leave.

7.5 Staff members who, upon termination of their appointment, have accumulated annual leave which has not been taken shall receive the cash equivalent estimated on the basis of the last salary received to a limit of 30 days.

7.6 After 18 months of service the Secretariat shall, in accordance with Regulations 9.3 and 9.4, pay fares to the staff member's home country on annual leave for internationally recruited staff members and their dependents. Following this, home leave fares shall be granted at two-year intervals provided that:

(a) dependants who benefit from this grant have resided at Buenos Aires for at least 6 months prior to travel;

(b) it is expected that staff members will return to the Secretariat to continue rendering their services for a minimum additional period of 6 months.

7.7 The possibility of combining travel to home country on leave with official travel in Secretariat service may also be considered provided the functions of the Secretariat are not disadvantaged.

7.8 Staff shall be entitled to the holidays celebrated traditionally in Buenos Aires, i.e.:

Fixed Holidays

1 January	New Year's Day
	Holy Thursday
	Good Friday
	Easter Sunday
01 May	National Holiday
25 May	National Holiday
9 July	National Holiday
8 December	Immaculate Conception
25 December	Christmas Day

Moveable Holidays

02 April	National Holiday
20 June	National Holiday
17 August	National Holiday
12 October	National Holiday

7.9 If under special circumstances members of the staff are required to work on one of the aforementioned days, or if any one of the above holidays falls on a Saturday or Sunday, the holiday shall be observed on another day to be set by the Executive Secretary, who shall take into account the efficient functioning of the Secretariat.

REGULATION 8
SOCIAL SECURITY

8.1 It is a condition of employment that each staff member will contribute to a recognised retirement fund and have adequate medical, hospital, life and disability insurance cover to the satisfaction of the Executive Secretary. Such insurance cover shall include adequate provision for dependents. Staff members shall be responsible for the full payment of contributions to their retirement fund and insurance premiums.

8.2 Staff members shall not be granted sick leave for a period of more than three consecutive days and more than a total of seven working days in any calendar year without producing a medical certificate.

8.3 (a) Staff members shall be granted certified sick leave not exceeding 12 months in any four consecutive years. The first six months shall be on full salary and the second six months on half salary, except that no more than four months on full salary shall normally be granted in any period of 12 consecutive months.

(b) In the event of long term sickness, which prevents a staff member from continuing in their position with the Secretariat, the staff member and dependents shall be entitled to return travel and removal expenses to country of origin or former residence at the expense of the Secretariat.

8.4 After six months of employment in the Secretariat staff members shall be entitled to maternity leave. On the basis of medical advice that the confinement will probably take place within six weeks, staff members shall be entitled to be absent from duty until eight weeks after confinement. During this period staff members shall receive full pay and corresponding allowances.

8.5 In the event of death of a staff member following illness or surgery not resulting from an accident covered by the appropriate insurance, the right to salary, allowances and other corresponding benefits shall cease on the day on which death occurs, unless the deceased leaves dependents, in which case these shall be entitled to mortality allowances and return travel and removal expenses to their country of origin or former residence at the expense of the Secretariat.

8.6 Eligibility of the dependents of a deceased staff member for the payment of return travel and removal expenses shall lapse if the travel is not undertaken within six months of the date of the staff member's death.

8.7 The above mortality allowance for death shall be calculated in accordance with the following scale:

Years of Service	Months of Gross Salary Following Death
Less than 3 years	3 months
3 years and more, but less than 7 years	4 months

7 years and more, but less than 9 years	5 months
9 years and more	6 months

8.8 The Secretariat shall pay for customary and reasonable expenses for shipment of the staff member's body from the place of death to the place designated by the next of kin.

REGULATION 9
TRAVEL

9.1 Staff members may be required to undertake travel, including international travel, on behalf of the Secretariat. All official travel shall be authorised by the Executive Secretary in advance within the limits of the budget, and the itinerary and travelling conditions shall be those best suited for maximum effectiveness in the fulfilment of duties assigned.

9.2 With regard to official travel, a reasonable travel allowance shall be paid in advance for accommodation and daily living expenses.

9.3 Economy class shall be utilised, wherever feasible, for air travel. For journeys over nine hours in flying time, business class may be utilised.

9.4 First class may be utilised for land travel, but not for travel by sea or air.

9.5 Following completion of a journey for official purposes, staff members shall repay any travel allowances to which, in the event, they were not entitled. Where staff members have incurred expenses above and beyond those for which travel allowances have been paid, they shall be reimbursed, against receipts and vouchers, as long as such expenses were necessarily incurred in pursuit of their official duties.

9.6 On taking up an appointment in the Executive Category staff members shall be eligible for:

(a) payment of air fares (or equivalent) and travel allowance for themselves, their spouses and dependents to Buenos Aires;

(b) payment of removal costs, including the shipment of personal effects and household goods from place of residence to Buenos Aires, subject to a maximum volume of 30 cubic metres or one international standard shipping container;

(c) payment or reimbursement of sundry other reasonable expenses related to relocation, including insurance of goods in transit and excess baggage charges. Such payments shall be subject to prior approval by the Executive Secretary.

9.7 Staff members who, in the course of their duty, are required to use private motor vehicles for official travel purposes shall, with the prior authorisation of the Executive Secretary, be entitled to receive a reimbursement of the reasonable costs involved. The costs associated with normal daily travel to and from the place of work shall not be reimbursed.

REGULATION 10
SEPARATION FROM SERVICE

10.1 Staff members may resign at any time upon giving three months notice or such lesser period as may be approved by the Executive Secretary (in the case of staff other than the Executive Secretary) or the ATCM (in the case of the Executive Secretary).

10.2 In the event of a staff member resigning without giving the required notice the Executive Secretary (in the case of staff members other than the Executive Secretary) or the ATCM (in the case of the Executive Secretary) reserves the right to decide whether repatriation expenses or any other allowance shall be paid.

10.3 Appointment of staff members may be terminated upon prior written notice at least three months in advance, by the Executive Secretary (and in the case of the Executive Secretary by the ATCM) when this is deemed to be for the benefit of the efficient functioning of the Secretariat due to restructuring of the Secretariat or if it is considered that the staff member does not give satisfactory service, fails to comply with the duties and obligations set out in these Regulations, or is incapacitated for service.

10.4 In the event of separation from service with the Secretariat, executive staff members shall be compensated at a rate of one month base pay for each year of service, beginning the second year, unless the cause of termination has been gross dereliction of duties imposed in Regulation 2.

10.5 In the event of involuntary termination of the appointment of a general staff member, he/she shall be paid the outstanding amount of his/her appointment except when the Executive Secretary considers that the staff member has not given satisfactory service, fails to comply with the duties and obligations set out in these Regulations, or is incapacitated for service.

10.6 On separation from service, an executive staff member shall be entitled to the following:

(a) payment of economy class air fares (or equivalent) to the staff member's country of origin or former residence, for the staff member and dependent members of his/her family; and

(b) payment of removal costs, including the shipment of personal effects and household goods from place of residence in Buenos Aires to the country of origin or former residence, subject to a maximum volume of 30 cubic metres or one international shipping container.

REGULATION 11
TEMPORARY PERSONNEL UNDER CONTRACT

11.1 The Executive Secretary may contract temporary personnel necessary to discharge special duties of a short term nature in the service of the Secretariat. Short term shall be defined as a contract lasting less than six months. Such personnel shall be classified as additional help and may be paid on an hourly basis.

11.2 Persons in this category may include additional translators, interpreters, typists, and other persons contracted for meetings, as well as those whom the Executive Secretary contracts for a specific task.

REGULATION 12
APPLICATION AND AMENDMENT OF REGULATIONS

12.1 Any doubts arising from application of these Regulations shall be resolved by the Executive Secretary following consultation with the ATCM.

12.2 All matters not foreseen in these Regulations shall be brought to the attention of the ATCM by the Executive Secretary.

12.3 These Regulations including the schedules may be amended by a Decision of the ATCM.

Schedule A

SALARY SCALE FOR THE EXECUTIVE STAFF CATEGORY OF THE SECRETARIAT OF THE ANTARCTIC TREATY
(United States dollars)

Level		STEPS														
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
1	A	88762	90414	92065	93717	95369	97020	98672	100324	101975						
1	B	110952	113017	115081	117146	119211	121275	123340	125405	127469						
2	A	74743	76149	77554	78959	80364	81769	83174	84580	85985	87390	88795	90200	91606		
2	B	93429	95186	96942	98699	100455	102211	103967	105725	107481	109237	110994	112750	114507		
3	A	62327	63683	65039	66395	67751	69107	70463	71819	73175	74530	75886	77242	78598	79954	81310
3	B	77909	79604	81299	82994	84689	86384	88079	89774	91469	93162	94857	96552	98247	99942	101637
4	A	51682	52937	54194	55447	56704	57958	59212	60469	61725	62979	64235	65489	66745	68000	69255
4	B	64603	66171	67743	69309	70880	71198	74015	75586	77156	78724	80294	81861	83431	85000	86569
5	A	42849	43973	45095	46218	47341	48463	49586	50707	51831	52954	54075	55200			
5	B	53561	54966	56369	57773	59176	60579	61983	63384	64789	66193	67594	69000			
6	A	33920	35000	36078	37158	38236	39315	40395	41474	42551	43631					
6	B	42400	43750	45098	46448	47795	49144	50494	51843	53189	54539					

Note: Row B is the base salary (shown in Row 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 for executive staff in accordance with Regulation 5.1.

Schedule B

SALARY SCALE FOR THE GENERAL STAFF CATEGORY OF THE SECRETARIAT OF THE ANTARCTIC TREATY

(United States dollars)

Level		STEPS														
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
1		23187	24321	25455	26588											
2		22393	23438	24483	25527											
3		18660	19531	20402	21273											
4		15551	16276	17002	17727											
5		12846	13446	14045	14645											
6		10530	11021	11512	12004											
7																
8																

DECISION 4 (2003)
FINANCIAL REGULATIONS FOR THE SECRETARIAT OF THE ANTARCTIC TREATY

The Representatives,

Bearing in mind paragraph 3 of Decision 2 (2003) on the provisional application of Measure 1 (2003)

Decide:

1. To adopt the Financial Regulations for the Secretariat of the Antarctic Treaty annexed to this Decision.

2. That the Financial Regulations shall apply fully when Measure 1 (2003) becomes effective.

Annex to Decision 4 (2003)
Financial Regulations for the Secretariat of the Antarctic Treaty

FINANCIAL REGULATIONS

REGULATION 1
APPLICABILITY

1. These Regulations shall govern the financial administration of the Secretariat of the Antarctic Treaty (the Secretariat) established under Measure 1 (2003) of the XXVI ATCM (the Measure).

REGULATION 2
FINANCIAL YEAR

2. The financial year shall be for 12 months commencing 1 April and ending 31 March, both dates inclusive.

REGULATION 3
THE BUDGET

3.1 A draft budget comprising estimates of receipts by the Secretariat and of expenditures by the Secretariat shall be prepared by the Executive Secretary for the ensuing financial year.

3.2 The draft budget shall include a statement of significant financial implications for subsequent financial years in respect of work programs presented by the ATCM in terms of administrative, recurrent and capital expenditure.

3.3 The draft budget shall be divided by functions into items and, where necessary or appropriate, into sub-items.

3.4 The draft budget shall be accompanied by details both of the appropriations made for the previous year and estimated expenditure against those appropriations, together with such supporting documents as may be required by Parties or deemed necessary or desirable by the Executive Secretary. The precise form in which the draft budget is to be presented shall be prescribed by the ATCM.

3.5 The Executive Secretary shall submit the draft budget to all Consultative Parties of the ATCM at least 60 days prior to the ATCM. At the same time, and in the same form as the draft budget, the Executive Secretary he shall prepare and submit to all Consultative Parties a forecast budget for the subsequent financial year.

3.6 The draft budget and the forecast budget shall be presented in United States currency.

3.7 At each annual meeting, the ATCM shall adopt the budget for the Secretariat. The budget shall be treated as a matter of substance and approved by a representative of all Consultative Parties present at the meeting. In determining the size of the budget the ATCM shall adhere to the principle of cost-effectiveness.

REGULATION 4
APPROPRIATIONS

4.1 The appropriations adopted by the ATCM shall constitute an authorisation for the Executive Secretary to incur obligations and make payments for the purposes for which the appropriations were adopted and up to the amounts so adopted.

4.2 All forward commitments shall be identified in annual budgets presented to the ATCM. Unless the ATCM decides otherwise, the Executive Secretary may incur obligations against future years before appropriations are adopted when such obligations are necessary for the continued effective functioning of the Secretariat, provided such obligations are restricted to administrative requirements of a continuing nature not exceeding the scale of such requirements as authorised in the budget of the current financial year. In other circumstances the Executive Secretary may incur obligations against future years only as authorised by the ATCM.

4.3 Appropriations shall be available for the financial year to which they relate. At the end of the financial year all appropriations shall lapse. Commitments remaining undischarged against previous appropriations at the end of a financial year shall be carried over and be included in the budget for the next financial year, unless the ATCM otherwise decides.

4.4 The Executive Secretary may make transfers within each of the main appropriation lines of the approved budget. The Executive Secretary may also make transfers between such appropriation lines up to 15 per cent of the appropriation lines. All such transfers must be reported by the Executive Secretary to the next annual meeting of the ATCM. The transfers authorised under these regulations shall not result in overall increase of the budget above that approved by the ATCM, nor will they result in increased expenditure in future years.

4.5 The ATCM shall prescribe the conditions under which unforeseen and extraordinary expenses may be incurred.

REGULATION 5
PROVISION OF FUNDS

5.1 On approval of the budget for a financial year, the Executive Secretary shall send a copy thereof to all Consultative Parties notifying them of their contributions and the date they are due, and requesting them to remit their contributions due.

5.2 All contributions shall be made in United States currency.

5.3 Contribution from States that become Consultative Parties after the beginning of the financial period shall be made *pro rata temporis* for the balance of the financial period.

5.4 The Executive Secretary shall acknowledge pledges and contributions immediately upon receipt. The Executive Secretary shall report to each meeting of the ATCM on the receipt of contributions and the status of any arrears.

5.5 Contributions shall be due for payment on the first day of the financial year (i.e. the due date) and shall be paid not later than 90 days after that date. However, in the case referred to in Regulation 5.3, contributions by a new Consultative Party shall be made within 60 days following the date on which its accession becomes effective.

REGULATION 6
FUNDS

6.1 (a) There shall be established a General Fund for the purpose of accounting for the income and expenditure of the Secretariat;

(b) Contributions paid by Consultative Parties pursuant to Article 4 of Measure 1 (2003) under and Miscellaneous Income as referred to in Regulation 7.1 shall be credited to the General Fund;

(c) An advance made by a Consultative Party shall be carried to the credit of the Party which has made the advance.

6.2 (a) There shall be established a Working Capital Fund in an amount of not more than one-sixth (1/6) of the budget of that financial year to ensure continuity of operations in the event of a temporary shortfall of cash and for other purposes to be determined by the ATCM from time to time. The Working Capital Fund shall be initially financed up to the specified level by transfers from Miscellaneous Income from the General Fund;

(b) Advances made from the Working Capital Fund to finance budgetary appropriations during a financial year shall be reimbursed as soon as possible, and to the extent that income is available for that purpose;

(c) Income derived from the investment of the Working Capital Fund shall be credited to Miscellaneous Income of the General Fund; and

(d) Trust and Special Funds may be established by the Secretariat at the direction of the ATCM for the purpose of receiving funds and making payments for purposes not covered by the General or Working Capital Fund of the Secretariat. The purposes and limits of each Trust and Special Fund shall be clearly defined by the ATCM. Unless otherwise provided by the ATCM, such Funds shall be administered in accordance with the present regulations.

6.3 The Secretariat shall notify the Consultative Parties of any cash surplus in the General Fund at the close of the financial year that is not required to meet undischarged commitments and of each Consultative Party's proportional share of that surplus. Those Parties that choose not to allow their portion of the surplus to be retained in the General Fund shall notify the Secretariat of that fact and shall have that portion credited against such Consultative Parties' contributions for the following year. Otherwise any cash surplus shall be retained in the General Fund.

6.4. Where contributions are received from new Consultative Parties after the commencement of the financial year and such contributions have not been taken into account in formulating the budget these shall be placed in the General Fund.

REGULATION 7
OTHER INCOME

7.1 All income other than contributions to the budget under Regulation 5, income derived from investment in the Working Capital Fund as provided in Regulation 6.2 (c), and that referred to in Regulation 7.5 below, shall be classified as Miscellaneous Income and credited to the General Fund.

7.2 Profits and losses on exchange shall be credited and debited to Miscellaneous Income.

7.3 The use of Miscellaneous Income shall be subject to the same financial controls as activities financed from regular budget appropriations.

7.4 Voluntary contributions above and beyond Consultative Parties' budget contributions may be accepted by the Executive Secretary provided that the purposes for which the contributions are made are consistent with the policies, aims and activities of the ATCM. Voluntary contributions offered by non-Consultative Parties and non-Parties may be accepted, subject to agreement by the ATCM that the purposes of the contribution are consistent with the policies, aims and activities of the ATCM.

7.5 Voluntary contributions as referred to in Regulation 7.4 above shall be treated as Trust or Special Funds under Regulation 6.2(d).

REGULATION 8
CUSTODY OF FUNDS

8.1 The Executive Secretary shall designate a bank or banks in which the funds of the Secretariat shall be kept and shall report the identity of the bank or banks so designated to the ATCM.

8.2 (a) The Executive Secretary may make short-term investments of moneys not needed for the immediate requirements of the Secretariat. Such investments shall be restricted to securities and other investments issued by institutions or Government bodies with current ratings, provided by a rating body approved by the Secretariat's auditor and indicating a strong capacity to pay. The details of investment transactions and income derived shall be reported in the documents supporting the budget.

(b) With regard to moneys held in Trust or Special Funds for which use is not required for at least 12 months, longer-term investments may be authorised by the ATCM provided such action is consistent with the terms under which the moneys were lodged with the Secretariat. Such investments shall be restricted to securities and other investments issued by institutions or Government bodies with current ratings, provided by a rating body approved by the Secretariat's auditor and indicating a strong capacity to pay.

8.3 Income derived from investments shall be credited to the Fund from which the investment was made.

REGULATION 9
INTERNAL CONTROL

9.1 The Executive Secretary shall:

(a) establish detailed financial rules and procedures after consultation with the external auditor to ensure effective financial administration and the exercise of economy in the use of funds and effective custody of the physical assets of the Secretariat;

(b) cause all payments to be made on the basis of supporting vouchers and other documents which ensure that the goods or services have been received and that payment has not previously been made;

(c) designate officers who may receive moneys, incur obligations and make payments on behalf of the Secretariat; and

(d) maintain and be responsible for internal financial control to ensure:

(i) the regularity of the receipt, custody and disposal of all funds and other financial resources of the Secretariat;

(ii) the conformity of obligations and expenditures with the appropriations adopted by the ATCM; and

(iii) the economic use of the resources of the Secretariat.

9.2 No obligations shall be incurred until allotments or other appropriate authorisations have been made in writing under the authority of the Executive Secretary.

9.3 The Executive Secretary may propose to the ATCM, after full investigation by him/her, the writing off of losses of assets, provided that the external auditor so recommends. Such losses shall be included in the annual accounts.

9.4 Tenders in writing for equipment, supplies and other requirements shall be invited by advertisement, or by direct requests for quotation from at least three persons or firms able to supply the equipment, supplies, or other requirements, if such exist, in connection with all purchases or contracts, the amounts of which exceed USD2,000. For amounts exceeding USD500, but less than USD2,000 competition shall be obtained either by the above means or by telephone or personal enquiry. The foregoing rules, shall, however, not apply in the following cases:

(a) where it has been ascertained that only a single supplier exists and that fact is so certified by the Executive Secretary;

(b) in case of emergency, or where, for any other reason, these rules would not be in the best financial interests of the Secretariat, and that fact is so certified by the Executive Secretary.

REGULATION 10
THE ACCOUNTS

10.1 The Executive Secretary shall ensure that appropriate records and accounts are kept of the transactions and affairs of the Secretariat and shall ensure that all payments out of the Secretariat's moneys are correctly made and properly authorised. The Executive Secretary shall also ensure that adequate control is maintained over the assets of, or in the custody of, the Secretariat and over the incurring of liabilities by the Secretariat.

10.2 The Executive Secretary shall submit to the Consultative Parties, as soon as practicable but not later than 30 June immediately following the end of the financial year, annual financial statements showing, for the financial year to which they relate:

(a) the income and expenditure relating to all funds and accounts;

(b) the situation with regard to budget provisions, including:

(i) the original budget provisions;

(ii) the approved expenditure in excess of the original budget provisions;

(iii) any other income;

(iv) the amounts charged against these provisions and other income;

(c) the financial assets and liabilities of the Secretariat;

(d) details of the performance of the investments; and

(e) writing off of losses of assets proposed in accordance with Regulation 9.3.

10.3 The Executive Secretary shall also give such other information as may be appropriate to indicate the financial position of the Secretariat. These financial statements shall be prepared in a form approved by the ATCM after consultation with the external auditor.

10.4 The accounting transactions of the Secretariat shall be recorded in the currency in which they took place but the annual financial statements shall record all transactions in United States currency.

10.5 Appropriate separate accounts shall be kept for all Working Capital, Special and Trust Funds.

REGULATION 11
EXTERNAL AUDIT

11.1 The ATCM shall appoint an external auditor who shall be the Auditor-General or equivalent statutory authority from a Consultative Party of the ATCM and shall serve for a term of two years with the possibility of re-appointment. The ATCM will ensure the external auditor's independence of the Secretariat, and the Secretariat's staff. The ATCM shall fix the terms of office, appropriate funds to the external auditor and may consult him/her on the introduction or amendment of any financial regulations or detailed accounting methods as well as on all matters affecting auditing procedures and methodology.

11.2 The external auditor or a person or persons authorised by him/her shall be entitled at all reasonable times to full and free access to all accounts and records of the Secretariat relating directly or indirectly to the receipt or payment of moneys by the Secretariat or to the acquisition, receipt, custody or disposal of assets by the Secretariat. This applies also to allowances such as travel and representation expenses. The external auditor or a person or persons authorised by him/her may make copies of or take extracts from any such accounts or records.

11.3 If required by the ATCM to perform a full audit, the external auditor shall conduct his/her examination of the statements in conformity with generally accepted auditing standards and shall report to the ATCM on all relevant matters, including:

(a) whether, in his/her opinion, the statements are based on proper accounts and records;

(b) whether the statements are in agreement with the accounts and records;

(c) whether, in his/her opinion, the income, expenditure and investment of moneys and the acquisition and disposal of assets by the Secretariat during the year have been in accordance with these Regulations; and

(d) observations with respect to the efficiency and economy of the financial procedures and the conduct of business, the accounting system, internal financial controls and the administration and management of the Secretariat.

11.4 If required by the ATCM to perform a review audit, the external auditor shall review the statements and accounting controls in operation. The external auditor shall report to the ATCM whether anything has come to his/her attention which would cause him/her to doubt whether:

(a) the statements are based on proper accounts and records;

(b) the statements are in agreement with the accounts and records; or

(c) the income, expenditure and investment of moneys and the acquisition and disposal of assets by the Secretariat during the year have been in accordance with these Regulations.

11.5 The Executive Secretary shall provide the external auditor with the facilities he/she may require in the performance of the audit.

11.6 The Executive Secretary shall provide to the Parties of the ATCM a copy of the audit report and the audited financial statements within 30 days of their receipt.

11.7 The ATCM shall, if necessary, invite the external auditor to address the Meeting and to attend discussions on any item under scrutiny and consider recommendations arising out of his/her findings.

REGULATION 12
ACCEPTANCE OF ANNUAL FINANCIAL STATEMENTS

12.1 The ATCM shall, following consideration of the audited annual financial statements and audit report submitted to the Consultative Parties under Regulation 11,

signify its acceptance of the audited annual financial statements or take such other action as it may consider appropriate.

REGULATION 13
INSURANCE

13. The Secretariat shall take out suitable insurances with one or more reputable financial institution against normal risks to its assets.

REGULATION 14
GENERAL PROVISION

14.1 These Regulations may be amended by a Decision of the ATCM.

14.2 Where the ATCM is considering matters which may lead to a decision which has financial or administrative implications, it shall have before it an evaluation of those implications from the Executive Secretary.

DECISION 5 (2003)

MEETING OF EXPERTS ON TOURISM AND NON – GOVERNMENTAL ACTIVITIES.

The Representatives,

Decide to:

1. Convene a Meeting of Experts under the provisions of Recommendation IV-24, with the aim of discussing relevant matters related to tourism and non-governmental activities in Artarctica;

2. Request the Meeting of Experts to examine the following topics relevant to the issue of tourism and non-governmental activities in Antarctica:

- Monitoring, cumulative impact and Environmental Impact Assessment;
- Safety and self-sufficiency, including search and rescue and insurance;
- Jurisdiction, industry self-regulation, and an analysis of the existing legal framework and identification of gaps;
- Guidelines;
- Adventure (extreme) tourism and government sponsored tourism;
- Co-ordination amongst national operators.

  Following the ATCM XXVI, an Inter-sessional Contact Group will be established to consider a database on tourism and non-governmental activity and this group should provide an update to the Expert meeting.

3. Encourage attendance at the Meeting by representatives from Consultative Parties, and to invite experts from Non-Consultative Parties, the Council of Managers of National Antarctic Programs (COMNAP), the International Association of Antarctic Tourist Operators (IAATO), the Antarctic and Southern Ocean Coalition (ASOC), the World Tourism Organization (WTO) and the World Conservation Union (IUCN).

4. Accept the offer of the Norwegian Government to host the Meeting of Experts in Norway, which should be held in advance of ATCM XXVII.

5. In accordance with Recommendation IV-24, request Norway to submit a report of the Meeting of Experts to ATCM XXVII for consideration.

ANNEX C

RESOLUTIONS

Resolution 1 (2003)

The Representatives,

Conscious of the importance of ensuring that mariners and vessel operators are aware of, and comply with, the obligations set out in the Environmental Protocol-and in particular its Annex IV (Prevention of Marine Pollution);

Desiring to provide clear and easily understood advice to those operating vessels and yachts in the Antarctic Treaty Area; and

Recalling discussions at ATCM XXV that a means to improve compliance with the Protocol's obligations by vessel and yacht operators would be to include details of the Protocol and its Annexes, as appropriate in the Antarctic navigational guides or pilots published by parties.

Recommend that:

- Those Parties that publish advice to marines in the form of, for example, Antarctic "Sailing Directions", "Marine Notices", or "Pilots", should ensure that appropriate detail of the Protocol on Environmental Protection to the Antarctic Treaty (1998) and in particular details of its Annex IV, are included in such publications.

Resolution 2 (2003)

SUPPORT OF THE ATCM FOR THE INTERNATIONAL POLAR YEAR 2007/8

The representatives,

Aware that the Polar Regions are key components of the Earth System;

Considering the important role of the Polar Regions both in driving and responding to Global Climate Change;

Recognising the opportunities afforded by new technological and logistical developments for polar research in the 21st century to develop an understanding of key global phenomena at the frontiers of discovery;

Acknowledging the important contribution to scientific knowledge resulting from international cooperation in scientific investigations in the Polar Regions;

Noting the opportunity offered by the 125th anniversary of the first International Polar Year (IPY), the 75th anniversary of the second IPY, and the 50th anniversary of the International Geophysical Year (IGY), to galvanise an intensive programme of internationally coordinated research in the Polar Regions;

Noting the active commitment to an International Polar Year of the World Meteorological Organisation (WMO) and the interest of other international bodies responsible for the coordination of research in the Arctic.

Noting the establishment by the International Council for Science (ICSU) of an overarching Planning Group to coordinate the planning for and the establishment of the IPY (2007/08) that will encompass a wide range of science issues of global interest;

Recommend that the parties:

- call upon SCAR and COMNAP to work with International Council for Science (ICSU) to pursue actively the planning and implementation by all interested organizations of an International Polar Year (2007/9) to address priority polar science issues of global relevance;
- within the context of their national Anctartic research programmes and capabilities to support science programmes proposed for the IPY (2007/8) to achieve outcomes which would not otherwise be possible if undertaken by national programmes alone;
- make the support of the IPY (2007/8) a priority within their national research activities.

Resolution 3 (2003)

CO-OPERATION IN HYDROGRAPHIC SURVEY AND CHARTING OF ANTARCTIC WATERS

The Representatives,

Noting that, in response to Recommendation XV-19 and Resolution 1 (1995), the International Hydrographic Organisation (IHO) has established, amongst its Member States, a Hydrographic Committee on Antarctica (HCA) with the aim of co-ordinating hydrographic survey in the region and producing international nautical charts within the standards of the IHO;

Welcoming the report introduced by the Director of the IHO on progress that is being made by the HCA in the production of the international (INT) scheme of nautical charts for Antarctic waters, though noting that substantial further works remains to be done;

Recalling that the INT chart scheme for Antarctica has been agreed by IHO Member States and that a number of them have volunteered to assist with chart production;

Recognising that the HCA routinely liaises with SCAR in the support of scientific research requiring hydrographic products;

Noting also the valuable contribution to the INT chart scheme by SCAR, COMNAP and IAATO;

Noting further the entry into force of a revised version of Chapter V of the Convention for the Safety of Life at Sea on 1 July 2002 and in particular its Regulation 9 on Hydrographic Services;

Cognisant of the importance of accurate and up-to-date nautical charts as an essential aid to the safety of navigation in Antarctic waters;

Recommend that:

1. All Consultative Parties with a hydrographic surveying and charting capability in Antarctic waters encourage their national authorities to redouble their efforts to:

    - Co-ordinate their hydrographic surveying and charting activities through the IHO's Hydrographic Committee on Antarctica;
    - Support and contribute to the ongoing development of the INT chart scheme for Antarctic waters agreed by the IHO;
    - Promote the international nature of their Antarctic activities particularly when seeking national support for hydrographic surveying and charting priorities.

2. The IHO Hydrographic Committee on Antarctica continue its endeavours to achieve comprehensive, up-to-date coverage of hydrographic charting and chart production through the INT scheme for Antarctic waters;

3. The item on Co-operation in Hydrographic Surveying and Charting of Antarctic Waters be again included in the agenda of the XXVII ATCM.

Resolution 4 (2003)

SUPPORT FOR THE CONSERVATION OF ALBATROSSES AND PETRELS

The Representatives,

Recalling their responsibilities and the Article IX of the Antarctic Treaty in respect of the preservation and conservation of living resources in Antarctica;

Recognising that Annex II to the Environmental Protocol provides for protection to native birds including Albatrosses and Petrels;

Noting that a number of international instruments have been adopted to enhance the conservation of Albatrosses and Petrels;

Concerned nevertheless that populations of Albatrosses and Petrels are declining, due in large part to the unsustainable mortality of these birds from illegal, unregulated and unreported (IUU) fishing, to the extent that the status of many species of these birds is regarded as threaten, endangered or vulnerable by the IUCN in its Red Data list;

Recommend that:

1. Those Parties to the Antarctic Treaty that have signed, but not yet ratified the Albatross and Petrel Agreement (ACAP), do so as soon as possible; and

2. Furthermore, that other Parties to the Antarctic Treaty that are range states for, or have a particular interest in the conservation of, Albatrosses and Petrels in Antarctica consider acceding to and/or implementing international instruments contributing to the conservation of Albatrosses and Petrels, including the above Agreement.

PART III

OPENING AND CLOSING ADDRESSES AND REPORTS FROM XXVI ATCM

ANNEX D

OPENING AND CLOSING ADDRESSES

Opening Session of the XXVI ATCM

Palacio de Congresos. Madrid, 9 of June of 2003

Address by HRH, the Prince of Asturias

Es para mí una satisfacción, y al mismo tiempo, una grata oportunidad, poder inaugurar esta XXVI Reunión Consultiva del Tratado Antártico, la segunda que se celebra en España.

Una satisfacción, pues conozco el favorable desarrollo de éste Acuerdo único en el mundo, que ha superado ya cuatro decenios de vigencia, así como las múltiples actividades de investigación que bajo su égida se llevan a cabo, y en las que el protocolo al Tratado sobre Protección del Medio Ambiente, firmado en Madrid el 4 de octubre de 1991, ha marcado un hito fundamental.

Me ofrece, además, la oportunidad de acercarme de nuevo a la realidad de ese continente que personalmente tanto me atrae.

Aunque la presencia española en los mares australes fue asidua entre los siglos XVI y XVIII, como sin duda atestigua la pequeña Exposición que vamos a visitar en el vestíbulo de este Palacio de Congresos, España estuvo ausente de la aventura descubridora que culmina a principios del siglo XX con la exploración prácticamente completa de esa vasta tierra.

Sin embargo, en tiempos recientes, mi país se ha incorporado con decisión a la moderna empresa antártica. Firmante del Tratado Antártico en 1982, ya en 1988 accedía a la categoría de parte consultiva, gracias al entusiasmo de un pequeño grupo de geógrafos, geólogos, oceanógrafos, meteorólogos, biólogos y especialistas en otras disciplinas, a cuya capacidad de iniciativa han ido sabiendo responder los gobiernos españoles, aportando los medios necesarios para el desarrollo de su labor, y que hoy se concretan en uno de los mejores buques oceanográficos en servicio, y dos modernas bases, la "Juan Carlos I" y la "Gabriel de Castilla". Al mencionar esta última quisiera dedicar mi recuerdo al que fuera Jefe de la campaña 2001-2002 en esa base el Comandante de Ingenieros José Manuel Ripollés, fallecido en el accidente aéreo de Turquía el 26 de mayo.

En abril del año pasado, en un encuentro organizado en Santander por el Consejo Superior de Investigaciones Científicas, tuve la oportunidad de compartir unas jornadas académicas con un nutrido grupo de científicos españoles que han trabajado en la Antártida, y pude apreciar el alto nivel que han alcanzado ya sus investigaciones, por cierto seguidas con regularidad por nuestros medios de comunicación, en sus programas de divulgación más populares. El Plan Español de Actividades Antárticas que se trasmite cada año, puntualmente, a los Gobiernos del resto de los Estados que son parte del tratado, tiene ya una consistencia de la que nos sentimos muy satisfechos.

Ahora que empiezan a estar lejanos aquellos primeros días en que, apoyados con recursos precarios, los grupos iniciales de nuestros investigadores se trasladaron a aquéllas latitudes, queremos recordar con gratitud la ayuda que entonces recibimos de países con mayor veteranía en aquéllas orillas, como Polonia, a la que, precisamente hoy, sucede España, como anfitriona de esta nueva reunión consultiva del Tratado.

Si bien la Antártida es ya popular en España como lugar de investigación, escenario de hazañas exploratorias, y paraíso ecológico, poco se sabe, en cambio, de su régimen jurídico-político, sin el cual todo lo demás no sería posible. Sin embargo, es difícil encontrar un Acuerdo internacional que haya tenido tanto éxito como el Tratado Antártico. Quizás sea precisamente porque no causa problemas por lo que apenas se habla de él.

Este caso único de administración colectiva de todo un continente tiene la característica, también extraordinaria, de carecer de un órgano administrativo permanente. Pero la utilización cada día mas intensa del territorio antártico viene haciendo urgente la creación de un órgano de este tipo. España se felicita, así pues, de que, finalmente, se haya acordado el establecimiento de una Secretaría Permanente del Tratado con sede en Buenos Aires, y confía en que, en ésta reunión de Madrid, queden concluidos todos los textos que requiere su definitiva instalación.

Si el aspecto político del Tratado estaba pendiente de institucionalización, desde el comienzo éste ha podido contar, en cambio, con un órgano científico, con sede en Cambridge: el Comité Científico para la Investigación en la Antártida, al cual tuve el año pasado la feliz ocasión de entregar, en Oviedo, el premio Príncipe de Asturias de Cooperación Internacional.

En el acta de concesión del Premio, el Jurado dice que la Antártida es "el gran puesto de vigilancia del presente y del futuro del clima mundial". Esta afirmación nos recuerda que al doble carácter, político - construido bajo el signo de la paz - y científico -basado en el principio de la cooperación-, que tiene el Tratado Antártico desde su origen, ha venido a sumarse, con la firma del Protocolo de Madrid, la dimensión medioambiental.

En la cumbre mundial de Johannesburgo, de agosto de 2002, hemos reafirmado los 191 Estados participantes, entre los que se encontraban los 45 firmantes del Tratado Antártico, que sin la protección del medio ambiente no es posible el desarrollo sostenible del planeta. Dado que un adecuado equilibrio medioambiental global no puede asegurarse sin la preservación del ecosistema antártico, si no continuamos protegiendo el medio ambiente de la Antártida no será posible ni el desarrollo económico ni el social de la población humana, que son dos pilares fundamentales del desarrollo sostenible.

De esto son bien conscientes los Delegados aquí presentes. De ahí la importancia de las discusiones que van a tener, y mi sincero deseo de que las concluyan con éxito. Por supuesto, les deseo también una feliz y agradable estancia en Madrid.

Es para mí un honor declarar inaugurada la XXVI Reunión Consultiva del Tratado Antártico.

Opening Session of the XXVI ATCM

Palacio de Congresos. Madrid, 9 of June of 2003

Address by the Spanish Minister of Environment, Exc. Ms. Elvira Rodríguez Herrer.

En primer lugar, quisiera agradecer a Su Alteza Real, el Príncipe de Asturias Don Felipe de Borbón, su presencia hoy aquí con nosotros y su inestimable apoyo a lo que representa el Tratado Antártico que ha sido considerado, desde su entrada en vigor, como uno de los más exitosos modelos de cooperación internacional y de administración conjunta de un territorio.

Es para mí una satisfacción estar hoy aquí con todos ustedes y a su vez una ocasión para brindarles todo mi apoyo en la labor que están desarrollando en el sistema del Tratado Antártico, incluidos los observadores, las Ongs y los países invitados.

Gracias al Tratado, la Antártida es un territorio dedicado a la investigación científica y todo un símbolo en lo que se refiere a la protección medioambiental y a la cooperación internacional.

Una vez más, los países firmantes nos reunimos, en Madrid, para debatir e intercambiar impresiones, efectuar consultas sobre temas comunes y realizar las recomendaciones precisas para que se adopten las medidas necesarias que promuevan los principios y objetivos del Tratado.

Muchos de ustedes recordarán la última vez que se reunieron en Madrid para adoptar el Protocolo sobre Protección del Medio Ambiente Antártico. Desearía manifestar lo orgullosos que nos sentimos los españoles de la firma, en nuestro país, de ese histórico acuerdo.

Como todos ustedes conocen, España ha participado en estos últimos años de forma entusiasta en el proceso para garantizar que todas las actividades que se desarrollen en la Antártida sean compatibles con los propósitos y principios del tratado.

Desde 1988, España está entre los países que contribuyen al progreso del conocimiento, al realizar investigaciones continuadas en la Antártida.

Gracias a la institucionalización y continuidad de la investigación antártica en nuestro país, se puede decir que España se ha integrado en el grupo de los países más comprometidos con los programas internacionales vigentes.

Me gustaría destacar brevemente la importancia que para el Medio Ambiente Global representa el Ecosistema Antártico.

Por múltiples motivos, la Antártida es un lugar especialmente singular de nuestro planeta. Representa aproximadamente el 10% de las tierras emergidas que, junto con los sedimentos de los fondos marinos circundantes, encierran abundante información sobre el pasado geológico.

En la Antártida se encuentra el 90% del hielo existente en la Tierra, la mayor reserva de agua dulce del planeta. Sus fluctuaciones pueden afectar considerablemente al nivel del mar y al clima global y provocar efectos en puntos alejados del globo. Además, ese hielo constituye un "archivo natural" de enorme importancia para

conocer la evolución del clima y las características de la atmósfera durante los últimos cientos de miles de años de la historia de la Tierra.

Esta singularidad de la Antartida hace indispensable que sigamos realizando todos los esfuerzos necesarios para su conservación y para que siga siendo un continente exento de los efectos de la contaminación antropogénica.

Para ello debemos seguir trabajando en el desarrollo de los instrumentos que nos brinda el Protocolo de Madrid, adoptando decisiones que nos conduzcan al mantenimiento de la Antártida como reserva natural.

En este sentido, como Ministra de Medio Ambiente, deseo animarles a que alcancen un acuerdo, lo más pronto posible, para concluir un instrumento jurídico sobre responsabilidad ambiental, que vendría a reforzar la protección jurídica internacional de la Antártida.

Por último, no quisiera finalizar sin referirme a los acontecimientos internacionales acaecidos en el último año, en especial la Cumbre de Johannesburgo sobre desarrollo sostenible.

El Protocolo de Madrid nos brinda la oportunidad de incorporar las decisiones de dicha cumbre al continente de la Antártida y así reforzar su protección medioambiental.

España considera, también, de gran importancia la preservación de la fauna de los mares australes y apoya con decisión la acción de la comisión de conservación de los recursos vivos marinos antárticos.

Tengo la seguridad de que el trabajo a realizar en estos días conducirá a importantes acuerdos y les animo a que disfruten de esta ciudad de Madrid que siempre les acoge cordialmente.

Muchas gracias por su atención y bienvenidos a España.

Opening Session of the XXVI ATCM

Palacio de Congresos. Madrid, 9 of June of 2003

Address by the President of the XXVI ATCM, Ambassador Mr. José Antonio de Yturriaga Barberán.

Señor,

Es para mi un gran honor dar a Vuestra Alteza, en nombre de los participantes en esta Reunión Consultiva del Tratado Antártico, la más cordial bienvenida a este foro, y expresarle nuestro profundo agradecimiento por dignarse inaugurar oficialmente su vigésimo-sexta sesión.

Es de sobra conocido el enorme interés de la Casa Real española por la cooperación internacional en general, y por la cooperación científica en la Antártida en particular. Buena prueba de ello es, verbi-gratia, que la primera base científica de España en la Antártida recibiera el nombre de "Juan Carlos I", o que el prestigioso premio a la cooperación internacional que Vuestra Alteza honra con su nombre haya recaído recientemente sobre uno de los organismos que forman parte del complejo institucional antártico: el Comité Científico de Investigación en la Antártida.

Esta Reunión inicia su XXVI singladura sin alharacas, en la continuidad y el esfuerzo fecundo del trabajo cotidiano, en pro del desarrollo sostenido e integral de la Antártida. y lo hace siguiendo un modelo único de colaboración internacional, en la que todos y cada uno de los Estados partes en el Tratado aporta su contribución bajo la égida del consenso. Su labor no es siempre espectacular, pero sí sólida y eficaz, como el glaciar que, de forma apenas perceptible, avanza inexorablemente hacia su destino.

Acto seguido, tengo el gusto de ofrecer la palabra a la Ministra del Medio Ambiente, Dña María Elvira Rodríguez Herrer, para que intervenga en nombre del Gobierno de España.

Madrid, 9 de junio de 2003

Closing Session of the XXVI ATCM
Palacio de Congresos. Madrid, 20 of June of 2003.
Address by the Spanish Minister of Science and Technology, Excmo. Mr. Josep Piqué i Camps.

Sr. Presidente, Sras. y Sres. Delegados, Queridos amigos:

Es un honor para mí participar en la clausura, en representación del Gobierno español, de la XXVI (Vigésimo sexta) Reunión Consultiva del Tratado Antártico, que ha desarrollado intensos trabajos durante dos semanas en Madrid, y lo hago también como Ministro de Ciencia y Tecnología, puesto que dirijo uno de los departamentos responsables del diseño y ejecución de la política española en relación con la Antártida. En este sentido, quiero agradecer a la Agencia Española de Cooperación Internacional, del Ministerio de Asuntos Exteriores, la labor que ha realizado para la organización de este encuentro.

En efecto, como les recordaba Su Alteza Real el Príncipe de Asturias con ocasión de la inauguración de esta Reunión el pasado día 9, el Tratado Antártico tiene una triple dimensión, política, científica, y medioambiental. La dimensión científica estuvo en el origen mismo del Tratado, que fue posible gracias al grado extraordinario de cooperación internacional alcanzado con motivo del año geofísico internacional de 1957. Ya antes de entrar en vigor el Tratado, en 1961, se había creado el comité científico de investigación en la Antártida, y la actividad investigativa no ha dejado de crecer, desde las 24 estaciones científicas que funcionaban antes de aquel año geofísico, a las casi 80 actuales.

El Comité Polar Español, que gestiona el Subprograma de Investigación Antártica, del Plan Nacional de Investigación Científica, Desarrollo e Innovación Tecnológica, es testigo del continuo crecimiento, también en nuestro país, de esta actividad científica, que involucra hoy a unos 140 investigadores españoles en cada campaña anual. Disponemos ya de una infraestructura, en buques y bases, que nos permite jugar un papel significativo entre los Países Partes Consultivas del Tratado, y nuestro esfuerzo se va a incrementar aún más, pues el Ministerio de Ciencia y Tecnología proyecta la construcción de un nuevo buque oceanográfico con capacidad polar, que se añadirá al ya magnífico y experimentado "Hespérides". Se ha recorrido, pues, un largo camino desde que los primeros investigadores españoles pusieron pie en el continente austral. Permítanme señalar que muchos de ellos eran catalanes, como quien les habla hoy, y podría citar, ante todo, a Antoni Ballester y a Josefina Castellví, pero también a Manuel Puigcerver, Joan Rovira, Oriol Doménech o Agustí Juliá, junto, por supuesto, a otros entusiastas científicos provenientes de otras partes de España, algunos de los cuales siguen formando parte de la delegación española en estas Reuniones Consultivas.

Testimonio de ésta labor investigativa es la publicación "Ciencia Española en la Antártida: Análisis de la producción bibliográfica", en edición bilingüe, que se ha entregado a todas las delegaciones presentes en esta reunión consultiva.

Sé que los debates sobre asuntos científicos han sido en esta reunión fructíferos, destacando el de la perforación del lago Vostok, cuestión ciertamente delicada que merece ser seguida paso a paso, y el del programa ANDRILL.

Si la XI Reunión Especial de Madrid, de 1991, será siempre recordada como la de la aprobación del Protocolo al Tratado sobre Protección del Medio Ambiente, la XXVI Reunión Consultiva que ahora concluye será recordada como la de la Constitución de la Secretaría Permanente del Tratado. El Gobierno español se congratula de que, finalmente, tras diez años de discusiones, este órgano, cada día más necesario, haya quedado finalmente establecido, y que su sede sea Buenos Aires, localización justificada por muchas razones, y que España siempre ha apoyado. Desde este momento, puedo asegurar que mi país estará entre los que aportarán contribuciones de carácter voluntario, para permitir el funcionamiento interino de la nueva Secretaría, hasta que se complete el proceso de ratificación de la Medida 1 (2003), adoptada en esta Reunión.

También se han iniciado aquí las primeras discusiones sustanciales sobre el reciente, y creciente, fenómeno del turismo antártico, cuyo impacto medioambiental es todavía difícil de estimar. En cualquier caso, nos compete a todos proteger el medio ambiente antártico y su desarrollo sostenible como exigencias indispensables del desarrollo humano y socioeconómico. Asimismo se ha progresado en una más estrecha articulación del denominado Sistema del Tratado Antártico, con una mayor claridad en la relación entre estas Reuniones Consultivas, y las de la Comisión de Conservación de Recursos Vivos Marinos Antárticos. Nada más justo que ambos pasos se hayan dado en España, potencia tanto turística como pesquera.

Pero no debemos caer en la autocomplacencia. La Antártida, "nave desbocada sobre la catedral de la blancura", como la llamó el poeta chileno, y premio Nobel, Pablo Neruda, requiere un cuidado y atención permanentes. Por ello, es de esperar que en la Reunión Consultiva de 2004 se pueda, por fin, acordar el Anejo VI (sobre responsabilidad por daños medioambientales), al Protocolo de Protección del Medio Ambiente, que todos denominan "Protocolo de Madrid", y cuya redacción lleva, desde hace años, un ritmo excesivamente lento.

A España le alegrará que, en la Reunión Consultiva que tendrá lugar el año próximo en Ciudad del Cabo, concluya, por fin, la elaboración de éste Anejo VI, y desea que el gobierno de Sudáfrica obtenga ese éxito, y otros, en la XXVII Reunión Consultiva del Tratado Antártico.

Les doy las gracias en nombre del Gobierno, les felicito por los intensos trabajos desarrollados en esta Vigésima Sexta Reunión Consultiva, y declaro oficialmente clausurada la Reunión.

ANNEX E

REPORT OF THE COMMITTEE

FOR ENVIRONMENTAL PROTECTION

(CEP VI)

REPORT OF THE COMMITTEE FOR ENVIRONMENTAL PROTECTION

(CEP VI)

MADRID, SPAIN, 9 – 13 JUNE 2003

Item 1: Opening of the Meeting

(1) The CEP Chair, Dr Tony Press (Australia) opened the meeting on Monday 9 June 2003.

Item 2: Adoption of the Agenda

(2) The provisional agenda, as agreed at CEP V and circulated by the Chair in CEP Circulars 11/2002 and 7/2003 was adopted. 27 Working Papers and 74 Information Papers were considered under the various agenda items (Annex 1 of this report).

Item 3: Operation of the CEP

(3) The United States introduced ATCM XXVI/IP013, noting Romania's ratification of the Protocol on Environmental Protection to the Antarctic Treaty, effective on 5 March 2003.

(4) Romania introduced ATCM XXVI/IP060 on their ratification of the Protocol. The Committee congratulated Romania on its accession to the Protocol and welcomed it to full membership of the CEP.

(5) The Committee welcomed the information from the Czech Republic contained in ATCM XXVI/IP114 and from Canada that acts to ratify the Protocol are before their respective parliaments, and that both Members hoped to complete their notification processes before the end of 2003.

(6) Estonia informed the Committee that it is preparing the legislation necessary for it to accede to the Protocol on Environmental Protection to the Antarctic Treaty.

(7) The Committee noted and welcomed this information and encouraged the Czech Republic, Canada and Estonia towards completing this work.

(8) The list of CEP contact points was updated (Annex 2).

Item 4: Compliance with the Protocol on Environmental Protection

4a) General matters

(9) The Russian Federation introduced ATCM XXVI/IP022 describing the opening of a snow-ice runway at Novolazarevskaya, and its certification by the Russian government for use by heavy aircraft. The Committee noted the importance of air transport to the conduct of national programs. Russia informed the Committee that it had submitted the paper for discussion by the ATCM working group on operational matters under ATCM Agenda Item 13.

(10) Some members raised concerns about the possible use of the runway by tourists. Russia emphasised that this runway was not a new one but a restoration of an existing one intended to better support activities of the Russian Antarctic program. The Chairman noted that, in general, issues of tourism would be discussed under Agenda Item 10 of the ATCM.

(11) Argentina noted that the issue of tourism includes aspects of significance to the CEP, and that including tourism on the agenda of the operational issues working group of the ATCM should not preclude consideration by the CEP of issues within the Committee's competence.

(12) As suggested by the CEP V final report, the USA presented Information Paper XXVI ATCM/IP010 and Japan presented Information Paper ATCM XXVI/IP111 describing their approaches to managing the collection and curation of Antarctic meteorites. Norway informed the Committee that the collection of meteorites other than for scientific research is prohibited in accordance with Norwegian legislation. The Committee agreed that the issue of collecting meteorites and making them available for scientific research is an important issue, and agreed that Article 7 of the Protocol extends to the collection of meteorites. The Committee's advice to the ATCM on the matter is attached as Appendix 1.

(13) Chile presented ATCM XXVI/IP029 describing measures implemented by the Chilean program to maximise energy efficiency at their stations.

(14) Australia presented ATCM XXVI/IP034 on the installation of wind-turbines at Mawson station, noting that an Initial Environmental Evaluation (IEE) had been prepared for the project, and that up to 80% of the average station power load may be supplied from wind generation, with commensurate savings in fuel. The Committee welcomed further information from Australia on the results of this project.

(15) Poland reported (ATCM XXVI/IP083) on the favourable results of a preliminary study of the greenhouse cultivation of vegetables in Antarctic mineral soil enriched with penguin guano, carried out at Arctowski station.

(16) Spain introduced Information Paper ATCM XXVI/IP041 describing measures adopted to implement the Resolutions of XXIV and XXV ATCM.

(17) The following Information Papers giving annual reports were submitted to the Committee, in accordance with Article 17 of the Protocol: ATCM XXVI/IP002-Italy; ATCM XXVI/IP005-Uruguay; ATCM XXVI/IP008-Spain; ATCM XXVI/IP011-

New Zealand; ATCM XXVI/IP016-France; ATCM XXVI/IP021-Russia; ATCM XXVI/IP024-Brazil; ATCM XXVI/IP062-UK; ATCM XXVI/IP079-Japan; ATCM XXVI/IP82-NL; ATCM XXVI/IP084-Sweden; ATCM XXVI/IP086-China; ATCM XXVI/IP89-South Africa; ATCM XXVI/IP090-Finland; ATCM XXVI/IP093-Germany; ATCM XXVI/IP097-Belgium; ATCM XXVI/IP104-Republic of Korea.

(18) Annex 3 provides a list of addresses of websites where members provide annual reporting information electronically.

4b) Consideration of Draft CEEs forwarded to the CEP in accordance with paragraph 4 of Article 3 of Annex I of the Protocol.

i) Lake Vostok.

(19) The Russian Federation introduced its revised draft Comprehensive Environmental Evaluation (CEE) for Water Sampling of the subglacial Lake Vostok ATCM XXVI/WP01, circulated by the Russian Federation on 6 February 2003.

(20) In response to a query from New Zealand on the sterility of the drilling fluid, the Russian Federation explained that there are micro-organisms in the fluid but not in the ice; that it is impossible to produce sterile drilling fluid; and that it is not expected that the drilling technique will allow micro-organisms to penetrate the ice-water interface.

(21) The Russian Federation noted that the penetration theory and technique have been tested under similar but not identical conditions, because the Lake Vostok conditions are unique.

(22) France introduced the report of the Intersessional Contact Group ATCM XXVI/WP36 convened to consider the Lake Vostok draft CEE, noting the ICG's conclusion that the document does not adequately address the description of the activity, the drilling technique, contingency plans for environmental accidents, or alternative solutions including testing the technology in similar but less critical situations.

(23) The Netherlands noted that its review of the draft CEE ATCM XXVI IP092 concluded that the document generally complies with the Annex I requirements but does not analyse worst-case scenarios, including spillage of drilling fluids or the possibility that the lake water is pressurised.

(24) SCAR presented its paper on the Lake Vostok proposal ATCM XXVI/IP94, which advises that the Lake Vostok project is at the current limits of both technology and glaciology, and urging caution on this basis. SCAR suggested that a more rigorous evaluation is required of the potential for chemical and biological contamination, as well as the risk that the lake water is pressurised and could cause hydro-fracturing leading to accidental penetration by drilling fluid.

(25) Norway noted that there are many uncertainties regarding the physical properties of the ice-water system. If sampling was to be limited to frozen lake water rather than free liquid water, this could be undertaken more safely from a new drill hole through ice over rock at the lake margin.

(26) New Zealand noted that a major issue affecting the risk associated with the proposed drilling into Lake Vostok proposed in the draft Russian CEE was the view that abnormally high pressures might exist beneath the ice. NZ drew attention to an alternative view, that hydrostatic pressures could not build up in this setting because the ice over the lake was floating. New Zealand suggested that a body with appropriate expertise, such as SCAR, might review this issue and develop advice to improve the quality of risk assessment. New Zealand also noted the concern from several quarters with regard to the Vostok proposal about the current practice of leaving drilling fluid in deep-ice holes after completion, and suggested that it might be timely for this issue to be addressed also.

(27) Russia noted that comments in Appendix 2 of this Final Report (CEP Advice to ATCM XXVI on the draft CEE contained in ATCM XXVI/WP01) are of a generic nature and do not contain any specific proposals on the use of alternative technologies and methods to take water samples from Lake Vostok. Russia has an established procedure to consider applications for Antarctic activities, which allows it to meet all the requirements of the Protocol. The Russian Interministerial Commission will review the responses of Russian experts to the comments received, and this will occur within the context of deciding about the Permit required for the Lake Vostok water sampling project.

(28) Consistent with the above, the CEP's advice to ATCM XXVI on the draft CEE is attached as Appendix 2.

ii) ANDRILL

(29) New Zealand introduced Working Paper ATCM XXVI/WP002, a draft CEE for the ANDRILL scientific stratagraphic drilling program. New Zealand thanked those members that had provided comments on the draft CEE in accordance with Article 3(3) of Annex I of the Protocol.

(30) New Zealand noted that several other Members are partners to the ANDRILL program including Germany, Italy and the USA, and that the program is essentially an extension of the substantial work that has already been done by previous drilling programs in the area, including the Cape Roberts Project, and is aimed at exploring the climate and tectonic history of the McMurdo Sound Region.

(31) Australia introduced Working Paper ATCM XXVI/WP035 containing the report of the open-ended intersessional contact group set up to consider the draft CEE.

(32) The report noted that while there were some issues that could be further clarified and information that would be useful to include in the final draft, the draft CEE had provided a comprehensive analysis and evaluation of the environmental impacts for Members to consider. The main issues raised concerned the pre-disposal treatment of sewage, establishing contingency plans in case of sea-ice break-up near the drilling operations, and the use of an air gun for the vertical seismic profiling process.

(33) Several members congratulated NZ on producing a high quality draft CEE and provided comments and questions about the draft document. These related to *inter alia*:

- how the impact evaluation criteria at page 111 were weighted and combined to achieve the estimations of impacts described at Table 24 on pages 122 to 125 of the draft CEE;
- clarification of the purpose of the project with reference to Article 7 of the Protocol;
- greater consideration of noise in relation to the activity, in particular the drill rig and the use of explosives and air guns, including mitigation and monitoring of impacts;
- the need for further elaboration of contingency plans in the final document; and
- further consideration of disposal of sewage and whether treatment is practical at the project locations.

(34) Russia stated that, despite the lack of a Russian translation of the draft CEE, it was ready to discuss this document. As a general point, Argentina stressed the importance of having translations of CEEs available in time, due to the complexity these documents usually involve. As a general point on all draft CEEs, Argentina also noted that Annex I requires that CEEs shall be forwarded 120 days before the next ATCM, and the CEP rules of procedure set a deadline of 45 days for submission of WPs. These matters therefore deserve further discussion during the next CEP meeting.

(35) New Zealand thanked the CEP for its comments and acknowledged that the issue of weighting of the criteria for impact assessment is a difficult one, and will endeavour to provide clarification in the final CEE. New Zealand assured the CEP that the purpose and motivation for the proposal is purely scientific: to uncover information about the earth's climatic and tectonic history. New Zealand further noted that the final CEE will provide additional information on contingency plans, the practicality of treatment of human waste at the proposed locations, and noise impacts (recognising that this needs to be tied to the environmental values that might be impacted).

(36) In advising the ATCM on its consideration of the draft CEE, the CEP:

- noted that it had fully considered the draft CEE circulated by New Zealand and had provided comments on specific elements to New Zealand at the meeting;
- considered that, in general, the draft CEE is well structured and provides an appropriate assessment of the impacts of the proposed activity; and
- considered that the draft CEE is consistent with the requirements of Annex I of the Protocol.

(37) The Committee's advice to ATCM XXVI on the draft CEE is attached at Appendix 3.

iii) Czech Scientific Station in Antarctica

(38) The Czech Republic introduced Information Paper ATCM XXVI/IP068 containing a draft CEE for the construction and operation of a scientific station in Antarctica.

(39) The Czech Republic explained the process they had undertaken to locate a satisfactory site for the station and to meet the requirements of the Protocol both in relation to the EIA process and to environmental protection in general.

(40) Australia introduced Information Paper ATCM XXVI/IP106, presenting the report of the ICG convened to consider the draft CEE, noting that the comments were provided on a version of the draft CEE that has since been superceded. The report had concluded that this earlier draft did not meet the requirements of Annex I of the Protocol. Australia suggested that those Members that had assisted the Czech Republic with logistic and scientific support might continue to assist with the development of the CEE.

(41) The Committee welcomed the draft CEE and discussed the concerns raised by some Members that the submission by the Czech Republic in April 2003 of a substantially different second draft CEE meant that the process had not adhered to the requirements of Article 3 of Annex I to the Protocol, in particular the 120 day submission deadline.

(42) It was noted that the Czech Republic is a non-Consultative Party and has not yet ratified the Protocol on Environmental Protection to the Antarctic Treaty, and is therefore not bound by it or by the agreed processes of the CEP. However the Committee commended the Czech Republic on its clear commitment to act "as if" it had ratified the Protocol, and suggested that the draft CEE be revised and resubmitted for consideration by CEP VII.

(43) The Czech Republic thanked Members for their comments on the draft CEE and suggestions on how to move forward. It informed the Committee that there are domestic time and budget constraints on its proposal, and that it would seek approval to extend its project timeline in order to accommodate the work necessary to complete the draft CEE to a satisfactory standard and to meet the process requirements of Annex I of the Protocol. The Czech Republic declared their intent to carry out a baseline environmental monitoring of the selected building site in the season 2003/2004 and will also consider the possibility of transporting a part of the construction material to James Ross Island in this season.

iv) Other matters under Agenda item 4b.

(44) Estonia presented Information Paper ATCM XXVI/IP081 reporting progress towards the establishment of an Estonian station in the Ross Sea region. Estonia drew particular attention to the fact that the proposed station would be able to be removed virtually without trace, and assured the Committee that it would follow appropriate procedures for EIA and other matters required by the Protocol.

(45) Italy expressed a concern about the potential interference of the planned activities with migration routes of the penguins breeding at Edmonson Point, and considered that this impact could be minimised by selecting appropriate transport routes across the fast

(46) ASOC requested Estonia to clarify the location of their proposed scientific station as described in ATCM XXVI/IP081, with respect to the Antarctic Specially Protected Area (ASPA) proposed by Italy in ATCM XXVI/WP19. Estonia stated that the site of their proposed station is approximately four kilometres from the proposed ASPA boundary, and this was confirmed by Italy.

(47) Estonia also indicated that they are conducting an EIA of the proposed project in line with the procedures of the Protocol. Estonia thanked Italy and New Zealand for their logistic support in relation to this project.

(48) In advising Estonia about the appropriate level of environmental impact assessment for their new research station, some Members advised that they considered a CEE to be the appropriate level of assessment given the permanency of the new station in a new location. Others felt that the level of activity proposed could be adequately addressed by an IEE.

(49) Estonia thanked the CEP for its assistance, advised the CEP that it will continue to work with Members intersessionally, and undertook to keep Members and Observers informed about the progress of its EIA.

4c) Other matters covered by Annex I: Environmental Impact Assessment.

(50) The United States introduced Working Paper XXVI ATCM/WP06 presenting results of an intersessional contact group (ICG) that considered a coordinated approach to monitoring cumulative impacts. The paper included an annotated bibliography of past and continuing studies examining cumulative impacts and recommendations to further the understanding of cumulative impacts of human activity.

(51) The Committee thanked the US for coordinating this work and welcomed the comprehensive assessment of ongoing monitoring programs. The Committee noted the recommendations contained within the paper, and in particular that:

* there is a need for more information from all visits to areas of interest, noting that tour operators currently provide such information in the post-visit site reports, but visits by scientists and national program personnel are not being tracked in the same way by all Parties;

* Parties should maintain information on visits to areas similar to that maintained in site visit reports for tourist activities to provide a complete data set of all visits and activities to areas of concern;

* development and maintenance of a database or databases with information on site visitation and other relevant data should be encouraged and the information in the databases should be readily accessible; and

* Parties should continue to conduct research relevant to cumulative impacts, and in particular to study disturbed versus undisturbed areas.

(52) New Zealand noted that a fundamental element in assessing cumulative impacts was the collation of quality information about what activities are being carried out,

where and over what timescale, but that it was equally important to make such data available. New Zealand suggested that the results of the intersessional work should be further considered in connection with advising on the state of the Antarctic environment.

(53) IAATO noted the organisation's progress on the development of a database in order to further address cumulative impacts.

(54) ASOC welcomed the work on cumulative impacts but noted that only six members had participated, and encouraged those which had not to contribute to the database.

(55) COMNAP advised the meeting that its Antarctic Environmental Officers Network (AEON) prepared a report which was published in 1998, summarising environmental monitoring activities and studies in Antarctica. The report may be downloaded from the COMNAP website http://www.comnap.aq via the 'environment' link. The site also has an 'active' copy of the report which can be updated by COMNAP members as further environmental monitoring activities or studies take place.

(56) Spain introduced Working Paper XXVI ATCM/WP34 on noise and anthropogenic acoustic discharges, and their effect on marine mammals. ASOC introduced Information Paper XXVI ATCM/IP073 on marine acoustic technology and the Antarctic environment. SCAR introduced Information Paper XXVI ATCM/IP077 on acoustic technology and the marine ecosystem.

(57) Germany welcomed the growing focus on the environmental effects of marine noise, and expressed its hope that the results of the 2002 Berlin workshop on this matter can be presented to CEP VII.

(58) SCAR noted that it provides a database of existing marine seismic data which may be used by researchers in order to avoid repeating seismic work. SCAR announced it was forming a new acoustics expert working group, and that the Spanish and ASOC papers would be forwarded to the new group. It undertook to present further commentary on marine noise to CEP VII. Dr Press, in his capacity as CEP representative to the Scientific Committee of CCAMLR, agreed also to inform SC-CCAMLR of the Committee's consideration of this matter.

(59) Italy welcomed the ASOC paper and made a comment on the growing interest in the effects on the marine environment of acoustic techniques, expressing the hope that more investigations on this matter would be performed.

(60) The Russian Federation presented an information paper ATCM XXVI/IP023 on its IEE for the additional 50m drilling of a deep ice borehole at Vostok station.

(61) The Chairman tabled Information Paper ATCM XXVI IP063 which collates information on Initial Environmental Evaluations and Comprehensive Environmental Evaluations prepared by Members in the preceding calendar year as per Resolution 6 2001.

(62) COMNAP advised the meeting that it would provide a commentary to CEP VII on the survey undertaken by the Antarctic Environmental Officers' Network in 2002 examining the consistency and completeness of a range of IEEs.

4d) Matters covered by Annex II (Conservation of Antarctic Fauna and Flora)

(63) Argentina introduced Working Paper XXVI ATCM/WP25, Progress Report of the CEP Intersessional Contact Group on Annex II Review. It noted that this was an initial report with further work planned over the next year, and that it was a technical review.

(64) Many members expressed their support of the work of the ICG, and particularly congratulated the convenor, Jose Maria Acero, for his excellent work in coordinating the activities of the ICG.

(65) Several members emphasised that the ongoing review should stay focused on scientific and technical issues only and should make no attempt to revise the Annex such that changes to the main body of the Protocol would be required.

(66) The CEP agreed to consider the ICG report point by point.

(67) The title of the Annex
The ICG recommended the adoption of a new title 'The Conservation of Antarctic Living Organisms'. While most of the Members supported adoption of the new title, one Party expressed the view that the current title, 'Conservation of Antarctic Fauna and Flora' should remain. Other Members suggested other versions of the title including use of the words 'protection' and 'protection and conservation' instead of 'conservation'.

(68) A number of Members stated that from a technical point of view, the new title proposed by the ICG should be adopted. The CEP concluded that the matter of a title change should be brought before the ATCM for its consideration.

(69) Preamble
There was no consensus within the ICG on the matter of a preamble to the Annex.

(70) The CEP concluded that no preamble was required.

(71) Reorganisation of Articles
The CEP concluded that the ICG should work on more substantive technical matters and that consideration of the reorganisation of articles could be taken up in the future.

(72) Scope of Annex II
The CEP noted that the ICG made a link between this issue and the issue of the title of Annex II.

(73) The CEP agreed that the ICG should continue to work on this issue after receiving any advice the ATCM may wish to offer on the issue of the title of Annex II.

(74) Geographic Area of Application of Annex II
The CEP agreed that this matter lies beyond the scope of this review of Annex II.

(75) Taxonomic Definitions
The CEP asked the ICG to continue its work on this matter.

(76) Invertebrates
The CEP recognised that terrestrial and freshwater invertebrates are already protected by Annex II and that their protection needs to be applied in a practical way.

(77) The CEP asked the ICG to continue its work on this issue.

(78) 'Taking' and 'Harmful Interference'
The CEP agreed that these terms applied only to living organisms. The ICG noted the ambiguity of the terms 'taking' and 'harmful interference' in determining the application of permit regulations.

(79) Members agreed to report to CEP VII on the way these terms are interpreted in national legislation. Consequently ICG need not address this issue further in its current work.

(80) Collecting Live Specimens for Educational or Cultural Purposes
The CEP agreed with the ICG proposal to establish specific criteria to guide Members in their assessment of applications to collect Antarctic wildlife for educational or cultural purposes and asked the ICG to discuss the matter further.

(81) SCAR noted that captive facilities were generally developing guidelines for obtaining wildlife and that these guidelines could be helpful to the CEP. SCAR agreed to assist the work of the ICG by obtaining more information on this matter.

(82) The CEP agreed that the ICG should continue with work on both these areas.

(83) Specially Protected Species
Some Members noted that the issue of specially protected species was becoming urgent.

(84) The CEP agreed with the ICG proposals to introduce into the text of Annex II language covering: i) the inclusion of terrestrial and freshwater invertebrates as defined in Annex II as possible candidates for SPS status; ii) the use of lethal techniques on SPS only for compelling scientific reasons relating to conservation; and iii) the ability of the CEP to decide on appropriate protection and management measures for any species designated as a SPS.

(85) The CEP recalled paragraphs 64 to 66 of the Final report of ATCM XXV in which the ATCM agreed to "take early steps to seek the agreement of CCAMLR, CCAS and, where appropriate, other organisations, to establish co-operative working relationships (with those organisations) to seek a common approach as to how special protection for species in the marine environment could be achieved and how proposals under the Protocol for designating Specially Protected Species in the Antarctic marine environment could be addressed".

(86) The CEP recognised that further consideration was required to determine the means by which marine species, not already covered by Annex II of the Protocol, may be given special protection under Article 3 of Annex II to the Protocol. To this end the CEP noted that Annex V requires liaison with CCAMLR, and its approval in respect of protected areas with a marine component, and that this approach might be a useful model when dealing with marine species.

(87) In this regard, the CEP also recalled the derogation to CCAMLR, CCAS and IWC in the Final Act of the XI SATCM.

(88) The CEP therefore agreed to refer back to the ICG the following draft text as part of the proposed technical revisions of Annex II of the Protocol:

"Having regard to the provisions of Articles 4 and 5 of the Protocol, and Article 7 of this Annex, no native marine species shall be designated as a Specially Protected Species without [the prior approval of] [consultation and cooperation with] [, and if required, the prior approval of] 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".

(89) Some Members of the CEP felt that a definition of "native marine species" would need to be included in Article 1 of Annex II and offered the following for consideration:

"Native marine species" means any species of flora and fauna occurring in the maritime waters south of 60° South, or occurring there seasonally through natural migrations".

(90) Other Members proposed a second definition for the CEP's consideration:

"Native marine species" means any species of flora and fauna, other than native mammals, or native birds, occurring in the maritime waters south of 60° South, or occurring there seasonally through natural migrations".

(91) However, on this matter, some Members felt that no definitional term was required, preferring instead to develop criteria, using the model of Decision 4 (1998), to determine the relevant species covered and when liaison with other organisations was required. The CEP was therefore unable to reach agreement on either the need for a definition or what that definition might be.

(92) The CEP agreed that in reporting to the ATCM, the ATCM should be asked to take particular note of these proposed changes to Annex II of the Protocol on Environmental Protection to the Antarctic Treaty, and that the CEP was unable to reach agreement on the issue of a definitional term for native marine species.

(93) The CEP also recognised that further consideration will need to be given to the process of iteration with other organisations that would need to be followed when marine species are proposed for special protection, and agreed that the established practice for dealing with marine protected areas would again provide a useful basis.

(94) Introduction of Non-Native Species
The CEP noted the view of SCAR that as it would be impossible to determine which micro-organisms are native or not, and agreed with the recommendation of the ICG that the words in Article 4.6 'not present in the native flora and fauna' should be deleted.

(95) The CEP agreed that the term 'parasites' should be deleted from Article 4.6 since Members agreed that the term defines a function rather than a taxonomic category and is inconsistent with the remainder of Article 4.6.

(96) The CEP agreed that as dogs are no longer present in the Antarctic, Article 4.2 be deleted.

(97) The CEP agreed that, as it would be impossible to determine the risk from non-native species to native flora and fauna, the clause 'unless it is determined that they pose no risk to native flora and fauna' should be deleted from Article 4.4. However, consideration of the concept of risk assessment should be included in the deliberations of the ICG.

(98) The CEP agreed that the ICG should continue its work to clarify whether or not the present text of Article 4 covers both the need to control deliberate introduction and to minimise inadvertent, unavoidable and unintentional introductions. Several members expressed the view that reasonableness and intent need to be taken into consideration by the ICG.

(99) Inspections of Poultry Products
The CEP agreed that the issue of the utility of inspection of poultry products should be returned to the ICG for further elaboration. Alternative language, consistent with Annex III and elsewhere, such as: 'All reasonable efforts shall be made to ensure that poultry contaminated with disease such as Newcastle's disease, tuberculosis or yeast infection is not imported into Antarctica' should be considered for insertion into Paragraph 1 of Appendix C.

(100) ASOC suggested that the ICG consider the issue of consistency in terms between Annex II (where Appendix C refers to 'poultry') and Annex III (where Article 2 refers to 'introduced avian products).

(101) Parasite Checks
The CEP agreed that advice on parasites should be sought from SCAR, although SCAR acknowledged that listings may be incomplete. The CEP asked the ICG to continue its work on this matter.

(102) Importation of non-sterile Soil
The CEP noted an apparent inconsistency between the terms 'non-sterile soil' in Annexes II and III. The ICG was asked to examine this matter further.

(103) Conditions for Issuing Permits
The CEP agreed that, in some English language versions Article 3.3(c) currently makes reference to the 'Antarctic Treaty' instead of the 'Antarctic Treaty area'. All Members agreed that the text of Article 3.3 (c) in the English language version should refer to 'Antarctic Treaty area'.

(104) The CEP decided to continue the work of the Intersessional Contact Group (ICG) in order to advance the review of Annex II by the CEP in accordance with Article 12(1)(b) of the Protocol. The CEP thanked its Vice Chair, Mr José Maria Acero (Argentina), for agreeing to continue his excellent work coordinating the activities of the ICG. Contact jmacero@dna.gov.ar.

(105) The agreed Terms of Reference for the ICG were taken fully into account in the discussion and decisions made by CEP VI on Annex II and reported in its report to the XXVI ATCM (paragraphs 63 to 104). The ICG should present a Final Report to CEP VII to which should be attached an amended draft text of Annex II with annotations.

(106) Chile introduced Information Paper ATCM XXVI/IP031, Synthesis on Antarctic pinnipeds pathologies at Cape Shirreff, Livingston Island, Antarctica.

(107) Spain presented Information Paper ATCM XXVI/IP056 on Illegal Fishing: International Cooperation to Reinforce Implementation Mechanisms. Spain was congratulated for its leadership role in this matter and the excellent conference, to which this paper referred.

(108) The CEP acknowledged the role of the late Esteban de Salas, former Executive Secretary of CCAMLR, for his work in preparing the conference in Santiago de Compostella, in Spain, and for his significant contribution to combating IUU fishing.

(109) SCAR introduced Information Paper ATCM XXVI/IP100 on Antarctic Specially Protected Species. New Zealand and the United Kingdom reiterated that consideration of the issue of specially protected species is urgent.

(110) The CEP thanked SCAR for this work and noted that procedures and guidelines for designating Specially Protected Species need to be completed by 2005 in time for the first expected detailed proposals for SPS status.

(111) COMNAP noted that the review of the guidelines proposed in ATCM XXV/WP26 (UK) for the operation of aircraft near concentration of birds will be addressed at the next COMNAP meeting and a paper will be presented at CEP VII.

4e) Matters covered by Annex III (Waste Disposal and Waste Management)

(112) The CEP noted Australia's Information Papers XXVI ATCM/IP035 on Prince Charles Mountains Expedition of Germany and Australia (PCMEGA), and Information Paper (XXVI ATCM/IP 36) on clean-up of Thala Valley waste disposal site near Casey.

(113) Argentina introduced Information Paper XXVI ATCM/IP043 Progress on environmental restoration of Marambio station.

(114) The United Kingdom presented Information Paper XXVI ATCM/IP050 on the removal and clean up of abandoned British bases and waste dumps in Antarctica.

(115) China introduced Information Paper XXVI ATCM/IP087 reporting on the cleanup and removal of the old power building at Great Wall station. The Meeting noted that it was pleasing to see that several Parties are cleaning up old abandoned stations and waste dumps as required by Annex III of the Protocol.

4f) Matters covered by Annex IV (Prevention of Marine Pollution)

(116) The United Kingdom introduced Working Paper ATCM XXVI/WP37 on Advice to Mariners and Vessel Operators on the Protocol's obligations.

(117) The United Kingdom made minor amendments following a COMNAP intervention and provided a corrected version ATCM XXVI/WP37 Rev.1. The UK advised that it would take this paper forward to the ATCM XXVI for further consideration.

(118) ASOC introduced Information Paper ATCM XXVI/IP064 on Preventing Marine Pollution in Antarctic Waters and Information Paper ATCM XXVI/IP117 on Coastal Sediment Pollution at Sites Frequently Visited by Tourism Operations. Information Paper ATCM XXVI/IP117 was regarded as a useful demonstration of how Members and Observers can work together. SCAR noted there needed to be a distinction between historical and current hydrocarbons to support any firm conclusions.

(119) IAATO expressed concern over the title referencing tourism and noted that consideration be given to over 100 years of human activity in Port Foster.

4g) Matters covered by Annex V (Area Protection and Management)

(120) The following papers on Antarctic protected areas presented the results from intersessional working groups.

(121) The United States introduced Working Paper XXVI ATCM/WP07 Rev 1 on the review of draft Protected Area Management Plans for Management Plans for ASPA No. 152 Western Bransfield Strait, Antarctic Peninsula and ASPA No. 153 Eastern Dallmann Bay, Antarctic Peninsula.

(122) The Committee noted that ASPA No.152 and ASPA No.153 would be the first solely marine ASPAs designated since Annex V entered into force, and that this was a significant and welcome development in the Antarctic protected area system.

(123) The United Kingdom introduced Working Paper XXVI ATCM/WP10 on the review of the draft Protected Area Management Plan for ASPA No. 114 Northern Coronation Island.

(124) Australia introduced Working Paper XXVI ATCM/WP16 on the review of three draft Protected Area Management Plans for Management Plans for ASPA No.135 North-East Bailey Peninsula, Budd Coast, Wilkes Land; ASPA No.143) Marine Plain, Mule Peninsula, Vestfold Hills, Princess Elizabeth Land; and a proposal for a new ASPA for Frazier Islands, Wilkes Land, East Antarctica.

(125) The United Kingdom, Argentina and CCAMLR expressed concern at the use of an administrative buffer zone outside of the new ASPA for Frazier Islands to control air and ship movements towards the ASPA. Australia made a minor revision to the proposed management plan by removing this administrative proposal XXVI ATCM/WP 16 rev.1.

(126) Italy introduced Working Paper (XXVI ATCM/WP19 Rev 1.), regarding a proposal for a new Antarctic Specially Protected Area in Terra Nova Bay, Ross Sea.

(127) New Zealand presented Working Paper XXVI ATCM/WP32 on the review of the management plan for ASPA 118, Summit of Mt Melbourne, North Victoria Land.

(128) New Zealand introduced Working Paper XXVI ATCM/WP31 containing a five-year review of the management plans for ASPA No. 105 Beaufort Island, Ross Sea; ASPA No. 154 Botany Bay Cape Geology, Victoria Land; and ASPA No. 156 Lewis Bay, Mount Erebus, Ross Island, Ross Sea. Given the minor technical nature of the revisions to these three ASPA management plans, the CEP considered that the plans for ASPAs No. 105, 154, and 156 did not need to go to intersessional review.

(129) The Committee thanked the United States, the United Kingdom, Australia, Italy, and New Zealand for preparing these management plans and other Members for assisting with intersessional reviews and agreed to recommend to the ATCM formal adoption of these management plans by means of the draft Measure at Appendix 4.

(130) The United States introduced Working Paper XXVI ATCM/WP08 draft Protected Area Management Plans for ASPA No. 113 Litchfield Island, Arthur Harbor, Anvers Island; ASPA No. 122 Arrival Heights, Hut Point Peninsula; and ASPA No. 139 Biscoe Point, Anvers Island. An open-ended intersessional contact group led by the United States was established to consider the submitted draft Management Plan and to report back to CEP VII. The United States will advise CEP contact points of their Convenor for this group.

(131) France introduced Working Paper ATCM XXVI/WP30 revising the Protected Area Management Plan for ASPA No. 120, Pointe Geologie Archipelago, Terre Adelie. The CEP agreed to refer the revised Management Plans to an intersessional contact group to be led by France which will report back to CEP VII.

(132) Australia introduced Working Paper ATCM XXVI/WP15 proposing draft management plans for Cape Denison, Commonwealth Bay, George V Land, noting that this proposal includes a nested approach of a central ASPA to protect historic huts, a Historic Site and Monument, and an ASMA for the surrounding valley to manage other values including artefact scatters. Australia sought the assistance of Members to consider this arrangement and the management plans for the areas through an Intersessional Contact Group to be led by Bruce Hull from Australia (bruce.hull@aad.gov.au), which will report back to CEP VII.

(133) The United Kingdom supported this innovative approach to the nesting of ASPAs and ASMAs and agreed to participate in the intersessional contact group on this matter.

(134) The United States presented Working Paper XXVI ATCM/WP27 proposing an Antarctic Specially Managed Area for the McMurdo Dry Valleys, which has been developed with New Zealand. The CEP agreed to refer this draft Management Plan to an Intersessional Contact Group, to be convened by Rebecca Roper-Gee of New Zealand, (r.ropergee@antarcticanz.govt.nz) which would report back to CEP VII.

(135) The United Kingdom introduced Working Paper ATCM XXVI/WP 17 on a Review of the List of Historic Sites and Monuments, noting that the descriptions of many sites had been updated, and that some sites no longer exist and should be removed from the List.

(136) The Committee thanked the United Kingdom for its substantial effort in co-ordinating this review. Several Members expressed various concerns about the use of national attribution for sites. The United Kingdom provided a revised version of the Working Paper ATCM XXVI/WP 17 rev. 1 removing the national attribution.

(137) The CEP agreed to recommend to the ATCM formal adoption of the updated List of Historic Sites and Monuments by means of a draft Measure (Appendix 5).

(138) Norway introduced Working Paper XXVI ATCM/WP 24 on Whalers Bay Historic Site, submitted jointly with Chile and the UK. The paper proposed modifications to HSM No 71, and the removal of HSM Nos 31 and 58 from the HSM list. These changes to the site are reflected in a draft Measure (Appendix 5).

(139) New Zealand introduced Working Paper XXVI ATCM/WP 28 Review of the 'Guidelines for CEP Consideration of New and Revised Management Plans for Protected Areas'. Members noted some minor editorial matters that should be addressed, including making direct reference to the criteria set out in Decision 4 (1998) to determine when draft management plans for protected areas containing a marine component should be forwarded to CCAMLR for its approval. Members agreed that the amendments made to the Guidelines adequately reflected the agreement between the ATCM and CCAMLR.

(140) The CEP agreed to the revised 'Guidelines for CEP Consideration of New and Revised ASPA and ASMA Management Plans' are contained in Annex 4 of this report.

(141) Australia noted that the amended Guidelines need to be reflected in a revision of the 'Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas' particularly in section 4.

(142) New Zealand introduced Working Paper XXVI ATCM/WP 20 on Systematic Environmental Protection in Antarctica, with references to Information Paper XXVI ATCM/IP001 on Environmental Domains for the Ross Sea region, as a pilot approach to a systematic environmental geographic framework as referred to in Article 3.2 of Annex V.

(143) Several Members and Observers congratulated New Zealand on their presentation and on their progress with this work. The Committee noted that the work is a science-based way forward that may have significant synergies with, and benefits for, several aspects of scientific interest and CEP competence under the Protocol, beyond the clear application to protected areas and specially protected species.

(144) It was noted that the work will require ongoing commitment and Members thanked New Zealand for its resolve in pursuing this matter. Interventions raised a number of technical points including the use of GIS, cell size in relation to

geographically small areas of interest, various data issues, and incorporation of aesthetic and wilderness values.

(145) The CEP noted:

- the potential applicability of Environmental Domains Analysis (EDA) for establishing a systematic environmental geographic framework for Antarctica within which areas can be identified for special protection under Annex V of the Protocol;

- the feasibility of creating a SEGF for Antarctica using the EDA framework will depend on data availability and the ability to both access and extrapolate known datasets; and

- New Zealand's request to Members and Observers to identify researchers who may have spatial datasets suitable for Environmental Domains Analysis in Antarctica (especially in initial swaths west to the ice sheet from both McMurdo Sound and Terra Nova Bay) and to forward their contact details to New Zealand (hkeys@doc.govt.nz).

(146) The CEP asked New Zealand to continue with the development of a systematic environmental geographic framework, and to bring back reports of progress on this matter to CEP VII.

(147) The CEP noted that Information Paper XXVI ATCM/IP072 by IAATO on site specific guidelines will be discussed in Agenda Item 10 of the ATCM, and was not considered by the CEP.

(148) The United Kingdom introduced Information Paper XXVI ATCM/IP049, regarding an Information Archive for Antarctic Protected Areas. The UK also provided members with the Information Archive in CD format and noted that the Archive is also available on the Internet at the CEP website www.cep.aq.

(149) France introduced Information Paper XXVI ATCM/IP015 illustrating its work to rehabilitate the historic site Station Baleinere de Port Jeanne D' Arc.

(150) Chile introduced Information Paper XXVI ATCM/IP032 describing its management plan for its research base Gabriel Gonzalez Videla.

(151) Italy introduced Information Paper XXVI ATCM/IP054 indicating that it intends to propose a new protected area at Edmonson Point, Ross Sea. The CEP noted that the proposal will come forward formally to CEP VII. Estonia expressed concern about an option of extending the proposed ASPA to the ice free area south of Edmonson Point, which is the site selected for establishment of Estonian summer only research station. Italy that it had not yet fully formulated its proposal for the protected area, and undertook to ensure consultation with interested members and observers of the CEP.

(152) The United Kingdom introduced Information Paper XXVI ATCM/IP048 "Progress towards a Deception Island ASMA", noting that the development of the management plan has been a co-operative effort by Argentina, Chile, Norway, Spain,

the UK, the USA, ASOC and IAATO. The Committee congratulated the Members, ASOC and IAATO, who participated productively to develop this ASMA management plan, and looks forward to a formal proposal at CEP VI.

(153) Argentina introduced Information Paper XXVI ATCM/IP057, regarding activities associated with the Historic Site and Monument #38, Nordenskjold Hill, Snow Hill Island. Sweden expressed its gratitude towards the Argentine contribution regarding this Historical Site.

(154) IUCN introduced Information Paper XXVI ATCM/IP116, regarding High Seas Marine Protected Areas Workshop held in Malaga, Spain, in 2003. The CEP congratulated IUCN on its work on this matter.

(155) India introduced Working Paper XXVI ATCM/WP38 containing a draft management plan for a proposed ASPA at the Dashkin Gongotri Glacier in the Schirmacher Oasis. India also introduced Working Paper XXVI ATCM/WP39 recommending a site for inclusion in the List of Historic Sites and Monuments, and Information Paper XXVI ATCM/IP115 reviewing the details of– Dakshin Gangotri, site No. 44 on the List of Historic Sites and Monuments. India undertook to submit the Working Papers to CEP VII.

(156) The CEP noted that there has been substantial progress in implementing the provisions of Annex V reflected in the Working and Information papers considered by the meeting.

(157) The CEP noted that there appears to be a typographical error in the Final Report of XXV ATCM in paragraph 72 where it should refer to Appendix 6 rather than Appendix 5 as reported.

Item 5: Environmental Monitoring

(158) Uruguay introduced Information Paper ATCM XXVI/IP006 on a Magnetic Survey in the surroundings of Artigas Station.

(159) Chile introduced Information Paper ATCM XXVI/IP033 providing a summary of its Antarctic coastal environment monitoring program from 1996 to 2001.

(160) The United States introduced Information Paper ATCM XXVI/IP053 in collaboration with the United Kingdom, providing results of the Antarctic Site Inventory: 1994-2003, which has collected biological data and site descriptive information at 82 sites in the Antarctic Peninsula since 1994.

(161) Italy introduced Information Paper ATCM XXVI/IP055 on Environmental Monitoring at Terra Nova Bay and its surroundings.

(162) India presented Information Paper ATCM XXVI/IP113 regarding environmental monitoring and impact assessment of the Indian permanent station Maitri pursuant to the Protocol on Environmental Protection to the Antarctic Treaty.

Item 6: State of the Antarctic environment report

(163) New Zealand introduced Working Paper ATCM XXVI /WP21 submitted jointly with Australia reporting on intersessional discussions and a workshop held to make progress on the issue of State of the Antarctic Environment Reporting.

(164) The joint paper proposed an electronic system based on the Internet for reporting on the state of the Antarctic environment, making use of existing data sources and expertise. The joint paper also proposed a series of recommendations as to how the proposed model might be further developed.

(165) In presenting the paper New Zealand also noted that a substantial amount of discussion had already taken place within the CEP on this issue and noted the body of previous material on state of the Antarctic environment reporting listed in the paper.

(166) COMNAP noted that it collects information on environmental incidents in order to assist national operators in their efforts to minimise environmental harm. COMNAP has developed a system on the 'members' section of its Internet site to record this data. Summary reports have been reported to the CEP at two previous meetings.

(167) The observer from CCAMLR indicated that in CCAMLR's experience, monitoring and collection of data on a variety of environmental and biotic variables should be clearly focused and should take account of potential costs and benefits. As such, the CCAMLR Ecosystem Monitoring Program (initiated in 1985) had been implemented in terms of specific objectives to be addressed, and in light of the intended use of any forthcoming information. In addition, indicators and locations had been chosen to best represent the attributes being addressed.

(168) SCAR noted that in previous discussions two approaches to state of the Antarctic environment reporting had been considered – global and local. SCAR recognised the value of selected and focused environmental indicators as outlined by the ICG and SCAR considered careful selection of these could provide a sound scientific basis for future environmental management decisions.

(169) New Zealand noted in particular the potential for using the proposed reporting system to address at least in part the recommendations on cumulative impacts contained in working paper XXVI ATCM/WP06.

(170) The CEP agreed to establish an Intersessional Contact Group to be jointly convened by New Zealand and Australia on State of the Environment Reporting to continue the work coordinated by these members. New Zealand and Australia will advise the CEP Contact Points of a convenor. The CEP agreed to the following Terms of Reference:

1. Consistent with the CEP's obligations under Article 12(1)(j) of the Protocol, and as a first step, identify a clear purpose (objective) and framework for advising on the state of the Antarctic environment;

2. On the basis of Working Paper ATCM XXVI/WP21 develop, as a proof of concept, an electronic reporting template that might be incorporated into the

CEP website to help achieve this purpose, using one or two example indicators of human impacts;

3. Seek the advice of SCAR, CCAMLR and COMNAP and other expert bodies as appropriate in developing the pilot project , in particular in selecting indicators of human impact that would prove useful to the CEP in decision-making;

4. Prepare a clear framework for categorising and selecting a series of possible indicators for further development of the environmental reporting system;

5. In undertaking this work the ICG shall take into account the outcomes of the CEP's work on cumulative impacts ATCM XXVI/WP06 as well as other ongoing monitoring and reporting programs;

6. Report to CEP VII.

Item 7: Biological Prospecting

(171) The United Kingdom introduced the joint UK/Norway Information Paper XXVI ATCM/IP075 on Bioprospecting, noting that the paper was presented as background material to assist discussion. The United Kingdom stressed that the paper did not necessarily reflect the views of either of the co-sponsoring governments. Nevertheless, Norway and the United Kingdom believed that the paper raised important issues and hoped it would assist discussion on the matter.

(172) New Zealand introduced Information Paper XXVI ACTM/IP047, a report of an academic workshop 'Bioprospecting in Antarctica', hosted by "Gateway Antarctica" in Christchurch in April 2003 as a further contribution to the discussion. New Zealand also noted that the paper did not necessarily represent the views of the NZ government.

(173) The Committee welcomed both papers and thanked the UK/Norway and New Zealand for their work on this issue. There was a wide-ranging debate amongst the Members.

(174) Chile stressed the value of the precautionary ecosystem approach to issues raised by bioprospecting in Antarctic marine areas and recalled that CCAMLR encompassed all living organisms in the Southern Ocean.

(175) Several Members considered that the current environmental impact of bioprospecting in Antarctica was small. One Member noted that the EIA procedures in Annex I of the Protocol could be used to assess bioprospecting proposals.

(176) Several Members said that it was important to differentiate between fundamental scientific research and commercial bioprospecting activities. Others noted that a definition of what is meant by bioprospecting might be useful in further considering the issue.

(177) SCAR noted that bioprospecting could raise important issues of freedom of scientific information if confidentiality required by commercial developments limited opportunities for scientific publication. SCAR also noted their concern that in the

marine realm there could also be potential for harvesting of slow growing species containing compounds of pharmaceutical interest.

(178) The Committee noted that bioprospecting raises many complex legal and political issues, which may require consideration by the ATCM.

(179) The Committee agreed to refer the legal and political issues associated with bioprospecting to a future ATCM for further consideration.

Item 8: Emergency Response and Contingency Planning

(180) COMNAP briefly introduced Working Paper ATCM XXVI/WP09 on "Worst Case" and "Less than Worst Case" Environmental Scenarios. The CEP did not have any comments to provide to the ATCM on this matter. The Working Paper will be provided to the ATCM discussions on liability.

(181) The Chairman noted that the IAATO information papers ATCM XXVI/IP069, IAATO-wide Emergency Contingency Plan 2003/2004, and ATCM XXVI/IP070, Assessment of Environmental Emergencies Arising from Activities in Antarctica 2002-2003 Season, will be discussed in ATCM next week.

Item 9: Data and Exchange of Information

(182) Argentina introduced Information Paper ATCM XXVI/IP42, Progress on the Antarctic Treaty Information Exchange Web Site. Argentina informed the CEP on ways of adding data to the web page.

(183) ASOC sought clarification from the United States about the Environmental Impact Assessment of the proposed South Pole Route, following wide media coverage. ASOC also sought clarification about the reported use of fibre optic cables.

(184) The United States welcomed ASOC raising the issues and noted that a CEE, taking into account wilderness values and methods involved in creating the traverse route, will be prepared for consideration by the CEP. It also noted that some information in the media was not correct, in particular that involving fibre optic cable, for which there are no plans.

(185) The United States confirmed they have completed year one of a three year proof of concept activity involving a traverse route across the Ross Ice Shelf, up the Leverett Glacier, and across the polar plateau to the South Pole. An IEE has been completed and is publicly available. The timetable for the CEE will depend on information gathered during the proof of concept activity.

(186) Several Members noted that traverses across Antarctica are not new.

Item 10: Co-operation with other organisations

(187) Australia introduced Information Paper ATCM XXVI/IP038, Report of the CEP Observer to SC-CCAMLR XXI.

(188) The CEP noted the continuing problems arising from illegal, unregulated and unreported (IUU) fishing in and around the Treaty area, and noted particular concern about the high levels of incidental mortality of seabirds associated with IUU fishing.

(189) The CEP noted the continuing relevance of SC-CCAMLR work to its own deliberations and welcomed the further cooperation between the CEP and SC-CCAMLR.

(190) The CEP noted the Agreement on the Conservation of Albatrosses and Petrels and its relevance to the work of this Committee and the objectives of the Protocol. Spain, Chile, NZ, UK, Australia, South Africa and ASOC noted the importance of the Agreement on the Conservation of Albatrosses and Petrels and urged member countries to sign and ratify the Agreement as soon as possible. Several Members expressed their support for the Agreement and noted the intention of Spain and Chile to present a draft resolution on this matter to the XXVI ATCM.

(191) ASOC and IUCN noted that since their reports XXVI ATCM/IP065 and XXVI ATCM/IP098 respectively had already been introduced in the plenary of the ATCM, there was no need to reintroduce these in the CEP.

Item 11: Election of Officers

(192) The CEP expressed its deep appreciation to Dr Joyce Jatko for her efforts on the Committee including as Vice Chair, and wished her well in her future career. The Committee elected Mr Jose Maria Acero from Argentina, and Ms Anna Carin Thomer from Sweden to the two positions of Vice Chair. The Committee warmly welcomed these elections by acclamation.

Item 12: Preparation for CEP VII

(193) The Committee adopted the agenda from CEP VI as the draft agenda for CEP VII.

Item 13: Adoption of the Report

(194) The Committee adopted the draft final report.

Item 14: Closing of the Meeting

(195) The Chair Dr. Tony Press closed the Meeting, at the same time expressing the CEP's gratitude to the work of the rapporteurs, the secretariat and the interpreters and translators.

Annex 1

CEP VI
Agenda and Final List of Documents

Item 1: Opening of the Meeting

Item 2: Adoption of Agenda

Item 3: Operation of The CEP

Paper No	Title	Submitted by
IP 013	Report of the Depository Government	United States
IP 060	Report of Romania on the Ratification of the Protocol of Madrid	Romania
IP 114	Drafting of Czech Act on the Antarctic	Czech Republic

Item 4: Compliance with the Protocol on Environmental Protection

4 a) General Matters

Paper No	Title	Submitted by
IP 002	Annual Report Pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	Italy
IP 005	Informe Annual de acuerdo al Art. 17 del Protocolo al Tratado Antartico sobre la Proteccion del Medio Ambiente	Uruguay
IP 008	Informe Annual de Espana de Acuerdo con el Afrt. 17 del protocolo al Tratado Antartico sobre Proteccion del Medio Ambiente	Spain
IP 010	Final Rule for Protection of Antarctic Meteorites under US Law	United States
IP 011	Annual Report pursuant to Art. 17 of the Protocol	New Zealand
IP 013	Report of the Depository Government	United States
IP 016	Rapport Annuel Conformement a l'Article 17 du Protocol	France
IP 021	Report pursuant to Article 17 of the Protocol	Russia

IP 022	Snow-Ice Runway at the Russian Novolazarevskaya Station (Queen Maud Land)	Russia
IP 024	Annual Report of the Brazilian Antarctic Programme	Brazil
IP 029	Adaptacion de Infraestructuras y Bases al Medio Ambiente Antartico	Chile
IP 034	Installation of Wind Turbines at Mawson	Australia
IP 041	Acciones realizadas por espana en relacion con las resoluciones de la XXIV y XXV Reuniones Consultivas del Tratado Antartico	Spain
IP 062	Report on the Implementation of the Protocol as Required by Article 17	United Kingdom
IP 079	Annual Report Based on the Article 17 of the Environmental Protection protocol	Japan
IP 082	Annual Report under the Protocol on environmental Protection to the Antarctic Treaty	Norway
IP 083	Greenhouse Cultivation of Vegetables in Antarctic Mineral Soil enriched by Penguin guano	Poland
IP 084	Annual Report Pursuant to the Protocol of Environmental Protection	Sweden
IP 086	Annual Report on the Implementation of the Madrid Protocol (2002/2003)	China
IP 089	Annual Report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	South Africa
IP 090	Annual Report Pursuant to the Protocol on Environmental protection on the Antarctic Treaty Finland (Season 2002-2003)	Finland
IP 093	Annual Report of Germany pursuant Article 17 of the Protocol	Germany
IP 097	Annual Report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	Belgium
IP 104	Annual Report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	Korea
IP 111	Antarctic Meteorites: Status of Research in Japan and their Preservation	Japan

4 b) Consideration of Draft CEEs forwarded to the CEP in accordance with paragraph 4 of article 3 of Annex I of the Protocol

Paper No	Title	Submitted by
WP 01	Water sampling of the subglacial Lake Vostok - Draft Comprehensive Environmental Evaluation	Russian Federation
WP 02	Draft Comprehensive Environmental Evaluation of the ANDRILL Programme	New Zealand
WP 35	The report of the intersessional contact group convened by Australia to consider the ANDRILL CEE	Australia
WP 36	The report of the intersessional contact group convened by France to consider the Lake Vostok CEE	France
IP 018	Russian Studies of the Subglacial lake Vostok in 1995-2002	Russian Federation
IP 068	Czech Scientific Station in Antarctica Construction and Operation	Czech Republic
IP 081	Progress Report of Estonian Antarctic Activities	Estonia
IP 092	Advisory Review of the Draft Comprehensive Environmental evaluation water sampling of the Subglacial Lake Vostok	Norway
IP 094	Comment on the Draft Comprehensive Environmental Evaluation: Water Sampling of the Subglacial Lake Vostok	SCAR
IP 105	Response to the Comments of the ICG Convenors on the Draft Czech Scientific Station CEE	Czech Republic
IP 106	Report of the CEPICG on the Draft Comprehensive Environmental Evaluation for a Czech Scientific Station in Antarctica	Australia

4 c) Other Matters covered by Annex I (Environmental Impact Assessment)

Paper No	Title	Submitted by
WP 06	Final report from the Intersessional Contact Group on Cumulative Environmental Impacts	United States
WP 34	Noise and Anthropogenic acoustic discharges and their effect on marine mammals.	Spain

IP 007	Revision of the Artigas Antarctic Scientific Station IEE	Uruguay
IP 023	Additional 50m drilling of deep borehole at Vostok station Initial Environmental Evaluation	Russian Federation
IP 040	Comparison of EIA processes for Antarctic non government activities	Australia
IP 063	Annual list of Initial Environmental Evaluations (IEE) and Comprehensive Environmental Evaluations (CEE) Calendar Year 2002	Australia
IP 073	Marine acoustic technology and the Antarctic environment	ASOC
IP 077	Acoustic technology and the marine ecosystem	SCAR
IP 113	Environmental Monitoring and Impact Assessment of the Indian Permanent Station – Maitri Pursuant to the Protocol on Environmental Protection of the Antarctic Treaty	India

4 d) Matters covered by Annex II (Conservation of Antarctic Fauna and Flora)

Paper No	Title	Submitted by
WP 25	Progress Report of the CEP Intersessional Contact Group on Annex II	Argentina
WP 34	Noise and anthropogenic acoustic discharges, and their effect on marine mammals	Spain
IP 031	Synthesis on Antarctic pinnipeds pathologies at Cape Shirreff, Livingston Island, Antarctic	Chile
IP 056	La Pesca Ilegal: concertación Internacional para Reforzar los Mecanismos de Actuación	Spain
IP 100	Antarctic Specially Protected Species	SCAR

4 e) Matters covered by Annex III (Waste Disposal and Waste Management)

Paper No	Title	Submitted by
IP 035	Prince Charles Mountains Expedition of Germany and Australia (PCMEGA)	Australia
IP 036	Cleanup of Thala Valley waste disposal site near Casey	Australia
IP 043	Progress on the environmental restoration of Marambio station	Argentina

IP 050	The removal and clean up of abandoned British bases and waste dumps in Antarctica	United Kingdom
IP 087	Report Cleanup and Removal of the Old Power Building at the Great Wall Station	China

4 f) Matters covered by Annex IV (Prevention of Marine Pollution)

Paper No.	Title	Submitted by
WP 37 Rev 1	Advice to Mariners and Vessel Operators on the Protocol's obligations.	UK
IP 064	Preventing marine pollution in Antarctic waters	ASOC
IP 117	Coastal Sediment Pollution at Sites Frequently Visited by Tourism Operations	ASOC

4 g) Matters Covered by Annex V (Area Protection and Management)

Paper No.	Title	Submitted by
WP 07 Rev. 1	Final Revised Management Plans for: ASPA No. 152, Western Bransfield Strait, and ASPA No. 153, Eastern Dallmann Bay	United States
WP 08	Draft Management Plans for: ASPA 113, Litchfield Island, Arthur Harbor Anvers Island ASPA No. 122, Arrival Heights, Hut Point Peninsula and ASPA No. 139, Biscoe Point, Anvers Island	United States
WP 10	Draft Management Plan for Northern Coronation Island	United Kingdom
WP 15	Proposed Management Plans for Cape Denison, Commonwealth Bay, George V Land, east Antarctica	Australia
WP 16 Rev. 1	Review of draft Protected Area Management Plans - Report of the Australia-led Intersessional Contact Group (inc. Management Plans for North-east Bailey Peninsula Marine Plain and Frazier Islands ASPAs)	Australia
WP 17 Rev. 1	Review of the List of Historic Sites and Monuments	United Kingdom
WP 19 Rev. 1	Antarctic Protected Areas System Proposal for a new Antarctic Specially Protected Area Terra Nova Bay, Ross Sea	Italy
WP 20	Systematic Environmental Protection in Antarctica	New Zealand

WP 24	Whalers Bay Historic Site No71	Chile, Norway, United Kingdom
WP 27	Draft ASMA for McMurdo Dry Valleys	United States, New Zealand
WP 28	Review of the guidelines for CEP consideration of new and revised draft management plans for protected areas	New Zealand
WP 30	Antarctic Specially Protected Area No.120, Pointe Geologie Archipelago, Terre Adelie	France
WP 31	Review of ASPAs 105 131 154 155 and 156 (inc. Management plans for Beaufort Island, Botany Bay and Lewis Bay ASPAs)	New Zealand
WP 32	Review of draft Antarctic Specially Protected Area 118 Management Pla: report of intersessional contact group	New Zealand
WP 38	Draft Management Plan for Proposed Antarctic Specially Protected Area (ASPA) (Dashkin Gongotri Glacier, Schirmacher Oasis)	India
WP 39	Site Recommended for Inclusion in the List of Historic Sites and Monuments in Antarctica (India Point, Humboldt Mountains)	India
IP 001	Environmental Domains for the Ross Sea Region	New Zealand
IP 015	Rehabilitation d'un site historique en milieu austral: l'exemple de la restauration de la station baleiniere de Port Jeanne d'Arc a Kerguelen (Terres Australes et Antarctiques Francaises)	France
IP 032	Plan de gestion territorial de la base Gabriel Gonzalez Videla	Chile
IP 048	Progress towards a Deception Island Antarctic Specially Managed Area	Argentina, Chile, Norway, Spain, UK, USA, ASOC, IAATO
IP 049	Information Archive for Antarctic Protected Areas	United Kingdom

IP 054	Proposal for a new Antarctic Protected Area: Edmonson Point, Ross Sea	Italy
IP 057	Activities associated to the Historic Site and Monument No. 38, Nordenskjold Hut, Snow Hill Island	Argentina
IP 072	IAATO Site Specific Guidelines 2003	IAATO
IP 115	Review of the List of Historic Sites and Monuments: No. 44	India
IP 116	IUCN, WCPA and WWF High Seas Marine Protected Areas Workshop 15-17 January 2003, Malaga, Spain	IUCN

Item 5: Environmental Monitoring

Paper No	Title	Submitted by
IP 006	Magnetic Survey in the Surroundings of Artigas Antarctic Scientific Station	Uruguay
IP 033	Resumen Programa Observación Ambiente Litoral Antartico 1996-2001	Chile
IP 053	Antarctic Site Inventory: 1994-2003	United States
IP 055	Environmental Monitoring at Terra Nova Bay and its Surroundings	Italy
IP 113	Environmental Monitoring and Impact Assessment of the Indian Permanent Station Maitri pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	India

Item 6: State of the Antarctic Environment Report

Paper No	Title	Submitted by
WP 21	Report of the Intersessional Discussion Group on State of the Antarctic Environment Reporting	New Zealand, Australia

Item 7: Biological Prospecting

Paper No	Title	Submitted by
IP 047	Bioprospecting in Antarctica – an academic workshop	New Zealand
IP 075	Bioprospecting	UK/Norway

Item 8: Emergency Response and Contingency Planning

Paper No	Title	Submitted by
WP 09	"Worst Case" and "Less than Worst Case" environmental scenarios	COMNAP
IP 069	IAATO-wide emergency contingency plan 2003/04	IAATO
IP 070	An assessment of environmental emergencies arising from activities in Antarctica 2003-2003 season	IAATO

Item 9: Data and Exchange of Information

Paper No	Title	Submitted by
IP 042	Progress on the Antarctic Treaty Information Exchange Web Site www.infoantarctica.org.ar	Argentina

Item 10: Co-operation with other organisations

Paper No	Title	Submitted by
IP 038	Report of the CEP Observer to SC-CCAMLR XXI	Australia
IP 065	Report of the Antarctic and Southern Ocean Coalition	ASOC
IP 098	Report of the World Conservation unit Under Article III	IUCN

Item 11: Election of Officers

Item 12: Preparation for CEP VII

Item 1□: Adoption of the Report

Item 14: Closing of the Meeting

Annex 2

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WMO	Hugh Hutchinson	h.hutchinson@bom.gov.au

Annex 3

Internet addresses (URL) where Annual Report information is published in accordance with Article 17 of the Protocol (as at 20 June 2003)

COUNTRY	Web address for Article 17 information
Argentina	www.infoantarctica.org.ar
Australia	www.infoantarctica.org.ar
Brazil	www.mma.gov.br www.secirm.mar.mil.br
Bulgaria	TBA
Chile	www.inach.cl
Finland	www2.fimr.fi/en/etelamanner/ymparistonsuojelu.html
France	TBA
Germany	http://www.awi-bremerhaven.de/logistics/antarktisvertrag/berichte/index-d.html
India	www.ncaor.org
Italy	www.pnra.it
Japan	www.en.go.jp/earth/nankyoku/kankyohogo/index.html (Japanese only, English version will be built up soon)
Norway	http://npolar.no/AntarcticTreatySystem
Peru	www.rree.gov.pe/inanpe
Poland	www.dab.waw.pol
Republic of Korea	www.sejong.kordi.re.kr
Romania	negoita_antarctic@yahoo.com
Russia	www.aeci.es/26atcmadrid IP021
Spain	www.mcyt.es/cpe
Sweden	www.polar.se
United Kingdom	www.infoantarctica.org.ac
United States	www.nsf.gov/od/opp/antarct/treaty/index.htm
Uruguay	www.antarctic.ian.gub.uy www.infoantarctica.org.ar

Annex 4

Guidelines for CEP Consideration of New and Revised Draft ASPA and ASMA Management Plans.

1. Draft management plans (new or revised) shall be submitted by the proponent to the CEP for consideration at its next meeting.

2. Draft management plans for proposed ASPAs or ASMAs shall also be forwarded by the proponent to SCAR for its consideration. For those areas that include a marine component, and which meet the criteria set out in Decision 4 (1998)[25], draft management plans shall also be forwarded by the proponent to CCAMLR for its consideration.

3. Proponents shall submit draft management plans to the CCAMLR Secretariat by mid-June to ensure that CCAMLR has adequate time to review the draft plans and provide comments within the timetable of the CEP's own review. Draft management plan(s) may be submitted to CCAMLR ahead of submission to the CEP depending on the timing of the CEP meeting in any one year.

4. At its meeting, the CEP shall establish, as needed and in accordance with Rule 9 of its Rules of Procedure, an open ended intersessional contact group to consider each draft management plan received.

5. If the CEP agrees at its meeting that the revised management plan has changes of only a minor technical nature, the CEP can decide at its meeting that the revised management plan does not need to go to intersessional review.

6. A coordinator for each contact group shall be appointed by the CEP and should normally be from the Party proposing the draft management plan.

7. The contact group(s) shall operate in accordance with the guidelines noted in paragraph 9 of the Final Report of CEP I.

8. In considering a draft management plan, contact groups shall examine the content, clarity, consistency and likely effectiveness of the draft management plan and for draft ASPA plans should take into account the Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas (Resolution 2 (1998)).

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[25] Decision 4 (1998) states that:

Draft management plans which require the approval of CCAMLR are those which include marine areas:

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

And that:

Proposals for ASPAs and ASMAs which might have implications for CCAMLR Ecosystem Monitoring and Management (CEMP) sites should be submitted to CCAMLR for its consideration before any decision is taken on the proposal.

9. The outcome of each group's deliberations, including any recommendations, and any comments provided by SCAR and CCAMLR shall be reported to the next meeting of the CEP by the coordinator.

Appendix 1

CEP ADVICE TO ATCM XXVI ON METEORITES

The CEP recalled Resolution 3 (2001), which stated that:

"Concerned at the potential loss to scientific research because of unrestricted collection of meteorites in Antarctica;

Urge Members to the Protocol on Environmental Protection to the Antarctic Treaty to take such legal or administrative steps as are necessary to preserve Antarctic meteorites so that they are collected and curated according to accepted scientific standards, and are made available for scientific purposes."

The CEP affirmed its understanding that meteorites are "mineral resources" within the meaning of Article 7 of the Protocol on Environmental Protection to the Antarctic Treaty, and that therefore all Parties to the Protocol have an obligation under Article 7 to prohibit any activity in Antarctica relating to meteorites, other than for scientific research.

The CEP recommends that the ATCM endorse the views of the CEP.

Appendix 2

CEP ADVICE TO ATCM XXVI ON THE DRAFT CEE CONTAINED IN ATCM XXVI/WP01

With regard to the draft Comprehensive Environmental Evaluation for Water Sampling the Subglacial Lake Vostok (XXVI ATCM WP01), the Committee for Environmental Protection:

Having fully considered the draft CEE circulated by the Russian Federation, on February 6, 2003, as reported in paragraphs 19 to 26 in the report of CEP VI, and noting both the comments provided at the meeting by the Russian Federation on specific elements as well as the detailed explanations provided by the Russian Federation on these matters,

Recognising that the Russian Federation posessess considerable practical experience with deep ice drilling and ice coring,

The Committee for Environmental Protection has the following comments and advice:
In general, the Committee was impressed by the information contained in the draft CEE, which was well presented and well structured.
However, the Committee considered that parts of the draft CEE did not meet some of the requirements of Annex 1, Article 3, of the Protocol, specifically:
1. While the Committee recognised the importance of the long term science goals for subglacial lake exploration, the draft CEE provides insufficient consideration to reduce the potential environmental risks posed by the activity.
2. Insufficient information is provided on the special drilling fluid to support the conclusion that it is 'ecologically clean'.
3. The treatment of alternatives to the proposed activity is inadequate and should include alternative solutions.
4. The draft CEE does not adequately identify and discuss gaps in knowledge particularly as related to the question of the ice/water interface conditions and lake chemistry.
5. The draft CEE does not adequately address the risk of accidental release of drilling fluid into the lake and the potential consequences of this release.
6. Consistent with Annex 1, Article 3, paragraph 2(g), contingency plans should be developed to deal promptly and effectively with unforeseen impacts if the activities do not proceed as predicted.

In view of these concerns, the Committee
Recommends that the Russian Federation be urged to consider carefully this advice, and make such revisions in the final CEE as may be necessary to address the above insufficiencies and produce a final CEE that is fully consistent with the requirements of Annex 1 of the Protocol, and
Recommends that the ATCM endorse this view.

Appendix 3

CEP ADVICE TO ATCM XXVI ON THE DRAFT CEE CONTAINED IN ATCM XXVI/WP02

With regards to the draft Comprehensive Environmental Evaluation for ANDRILL Programme (ATCM XXVI/WP02), the Committee for Environmental Protection,

Having fully considered the draft CEE circulated by New Zealand, as reported in paragraphs 29 to 37 of the report of CEP VI, and

Having provided comments at the meeting to New Zealand on specific elements of the draft CEE,

Considered that, in general, the draft CEE was well structured and had provided an appropriate assessment of the impacts of the proposed project; and

Considered that the draft CEE was consistent with the requirements of Annex I of the Protocol.

The CEP therefore recommends that the ATCM endorse these views.

Appendix 4

DRAFT MEASURE

Antarctic Protected Area System: Management Plans for Antarctic Specially Protected Areas

The Representatives,

Recalling Resolution 1 (1998) allocating responsibility among Consultative Members for the revision of Management Plans for protected areas;
Noting that the draft Management Plans appended to this Measure have been endorsed by the Committee for Environmental Protection and the Scientific Committee on Antarctic Research (SCAR);
Recognising that these Areas support outstanding natural features and biota of scientific interest;
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 the following sites:

Antarctic Specially Protected Area No. 105 Beaufort Island, Ross Sea;

Antarctic Specially Protected Area No. 114, Northern Coronation Island, South Orkney Islands;

Antarctic Specially Protected Area No. 118 Cryptogam Ridge, Mt Melbourne, North Victoria Land and summit of Mt Melbourne, North Victoria Land;

Antarctic Specially Protected Area No. 135 North-East Bailey Peninsula, Budd Coast, Wilkes Land;

Antarctic Specially Protected Area No. 143 Marine Plain, Mule Peninsula, Vestfold Hills, Princess Elizabeth Land;

Antarctic Specially Protected Area No. 152 Western Bransfield Strait, Antarctic Peninsula;

Antarctic Specially Protected Area No. 153 Eastern Dallmann Bay, Antarctic Peninsula;

Antarctic Specially Protected Area No. 154 Botany Bay Cape Geology, Victoria Land;

Antarctic Specially Protected Area No. 156 Lewis Bay, Mount Erebus, Ross Island, Ross Sea;

Antarctic Specially Protected Area No. 160 Frazier Islands, Wilkes Land, East Antarctica;

Antarctic Specially Protected Area No. 161 Terra Nova Bay, Ross Sea;
and which are annexed to this Measure, be adopted.

Appendix 5

DRAFT MEASURE

Antarctic Protected Areas System: Revised List of Historic Sites and Monuments.

The Representatives,

Recalling Recommendations I-IX, V-4, VI-14, VII-9, XII-7, XIII-16, XIV-8, XV-12, XVI-11, XVII-3 and Measures 4(1995), 2(1996), 4(1997), 2(1998), 1(2001) and 2(2001);

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;

Desiring to update the descriptions of Historic Site and Monument numbers 5, 14, 15, 16, 17, 18, 19, 21, 22, 23, 27, 28, 30, 32, 33, 34, 35, 36, 37, 38, 39, 42, 43, 44, 48, 50, 53, 56, 57, 59, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 74;

Desiring also to de-list Historic Site and Monument numbers 25, 31 and 58, which no longer exist;

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:

That:

i. the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" annexed to Recommendation VII-9 and modified by the Recommendations and Measures recalled above, be terminated;

ii. the revised and updated "List of Historic Sites and Monuments" annexed to this Measure be adopted.

ANNEX F

REPORTS UNDER

RECOMMENDATION XIII-2 (ATS 5A)

XXVI ATCM
Information Paper IP-13. Rev.2
Agenda Item: ATCM 5(a)
CEP VI 3
UNITED STATES
Original: English

Report of the Depositary Government

The United States submits the annexed report as the Depositary Government of the Antarctic Treaty and its Protocol in accordance with Recommendation XIII-2. It is requested that every Party to the Treaty examine the report carefully and report as soon as possible any errors or omissions.

The United States wishes to remind all Parties of the importance of timely approval of Recommendations/Measures. As the annexed report indicates, a handful of countries have not taken action on Recommendations dating back more than ten years, and in one case as far back as twenty years. The approvals of just a few remaining countries would bring a substantial number of Recommendations into effect. The United States therefore strongly urges all Parties to take the necessary actions within their legal and administrative systems to approve all outstanding Recommendations and Measures as quickly as possible.

The United States also calls the Parties' attention to the list of Arbitrators designated in accordance with Article 2(1) of the Schedule to the Protocol. The Parties are reminded that each of them is entitled to designate up to three Arbitrators and must at all times maintain the name of at least one Arbitrator on the list. An Arbitrator may remain on the list for a period of five years, but may also be redesignated for additional five-year periods. Those Arbitrators listed on last year's report who were designated prior to May 1998 have been removed from this year's list and should either be redesignated or replaced. Others remaining on this year's list who were also designated in 1998, whose terms will expire soon, should similarly be redesignated or replaced.

REPORT OF THE DEPOSITARY GOVERNMENT OF THE ANTARCTIC TREATY AND ITS PROTOCOL (USA) IN ACCORDANCE WITH RECOMMENDATION XIII-2

This report covers events with respect to the Antarctic Treaty and to the Protocol on Environmental Protection.

There have been no new accessions to the Antarctic Treaty in the past year. There are forty-five Parties to the Treaty.

Romania deposited its instrument of ratification of the Protocol on Environmental Protection on February 3, 2003. There are now thirty 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:

Australia	Mr. Bill Campbell	3 July 2000
	Dr. Stuart Kaye	3 July 2000
	Dr. Don Rothwell	3 July 2000
Bulgaria	Dr. Aliosha Nedelchev	21 August 1998
Chile	Amb. José Miguel Barros	May 1999
	Amb. Fernando Zegers	May 1999
	Amb. María Teresa Infante	May 1999
France	Mr. Jean-Marc Lavieille	16 November 2000
	Mr. Gérard Ployette	16 November 2000
	Ms. Marie-Jacqueline Lauriau	16 November 2000
Greece	Mr. Fransiscos Verros	22 May 2003
	Dr. Emmanuel Gounaris	22 May 2003
	Dr. Vassilios Patronas	22 May 2003
Korea, Rep. of	Professor Park Ki-Gab	8 December 1998
New Zealand	Mr. William Mansfield	March 1999
	Mr. Anthony Small	March 1999
United States	Professor Daniel Bodansky	22 April 2003
	Mr. David Colson	22 April 2003

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

State	Date of deposit of instrument of ratification	Date of deposit of instrument of accession	Date of entry into force
Argentina	June 23, 1961		June 23, 1961
Australia	June 23, 1961		June 23, 1961
Austria		Aug. 25, 1987	Aug. 25, 1987
Belgium	July 26, 1960		June 23, 1961
Brazil		May 16, 1975	May 16, 1975
Bulgaria		Sept. 11, 1978	Sept. 11, 1978
Canada		May 4, 1988	May 4, 1988
Chile	June 23, 1961		June 23, 1961
China		June 8, 1983	June 8, 1983
Colombia		Jan. 31, 1989	Jan. 31, 1989
Cuba		Aug. 16, 1984	Aug. 16, 1984
Czech Republic [7]		Jan. 1, 1993	Jan. 1, 1993
Denmark		May 20, 1965	May 20, 1965
Ecuador		Sept. 15, 1987	Sept. 15, 1987
Estonia		May 17, 2001	May 17, 2001
Finland		May 15, 1984	May 15, 1984
France	Sept. 16, 1960		June 23, 1961
Germany [1]		Feb. 5, 1979	Feb. 5, 1979
Greece		Jan. 8, 1987	Jan. 8, 1987
Guatemala		July 31, 1991	July 31, 1991
Hungary		Jan. 27, 1984	Jan. 27, 1984
India		Aug. 19, 1983	Aug. 19, 1983
Italy		Mar. 18, 1981	Mar. 18, 1981
Japan	Aug. 4, 1960		June 23, 1961

Status of the Antarctic Treaty

State	Date of deposit of instrument of ratification	Date of deposit of instrument of accession	Date of entry into force
Korea, DPR of		Jan. 21, 1987	Jan. 21, 1987
Korea, Rep. of		Nov. 28, 1986	Nov. 28, 1986
Netherlands		Mar. 30, 1967 [2]	Mar. 30, 1967
New Zealand	Nov. 1, 1960		June 23, 1961
Norway	Aug. 24, 1960		June 23, 1961
Papua New Guinea		Mar. 16, 1981 [5]	Sept. 16, 1975 [6]
Peru		Apr. 10, 1981	Apr. 10, 1981
Poland		June 8, 1961	June 23, 1961
Romania		Sept. 15, 1971 [3]	Sept. 15, 1971
Russian Federation	Nov. 2, 1960		June 23, 1961
Slovak Republic [7]		Jan. 1, 1993	Jan. 1, 1993
South Africa	June 21, 1960		June 23, 1961
Spain		Mar. 31, 1982	Mar. 31, 1982
Sweden		Apr. 24, 1984	Apr. 24, 1984
Switzerland		Nov. 15, 1990	Nov. 15, 1990
Turkey		Jan. 24, 1996	Jan. 24, 1996
Ukraine		Oct. 28, 1992	Oct. 28, 1992
United Kingdom of Great Britain & Northern Ireland	May 31, 1960		June 23, 1961
United States of America	Aug. 18, 1960		June 23, 1961
Uruguay		Jan. 11, 1980 [4]	Jan. 11, 1980
Venezuela		Mar. 24, 1999	Mar. 24, 1999

1. On October 2, 1990, the Embassy of the Federal Republic of Germany informed the Department of State "that, through the accession of the German Democratic Republic to the Federal Republic of Germany with effect from October 3, 1990, the two German states will unite to form one sovereign state, which, as a contracting party to the Antarctic Treaty, will remain bound by the provisions of the Treaty and subject to those recommendations adopted at the 15 consultative meetings which the Federal Republic of Germany has approved. From the date of German unity, the Federal Republic of Germany will act under the designation of 'Germany' within the framework of the antarctic system....".

   Prior to unification, the German Democratic Republic and the Federal Republic of Germany had acceded to the Treaty on November 19, 1974 and February 5, 1979, respectively.

2. The Netherlands accession is for the Kingdom in Europe, Suriname and the Netherlands Antilles. Aruba as a separate entity as of January 1, 1986.

3. The Romanian instrument of accession was accompanied by a note of the Ambassador of the Socialist Republic of Romania, dated September 15, 1971, containing the following statement of the Council of State of the Socialist Republic of Romania:

   "The Council of State of the Socialist Republic of Romania states that the provisions of the first paragraph of the article XIII of the Antarctic Treaty are not in accordance with the principle according to which the multilateral treaties whose object and purposes are concerning the international community, as a whole, should be opened for universal participation."

4. The instrument of accession by Uruguay accompanied by a Declaration, a copy of which is attached, with translation.

5. Date of deposit of notification of succession.

6. Date of independence.

7. Effective date of succession. Czechoslovakia deposited an instrument of accession to the Treaty on June 14, 1962. On December 31, 1992, at midnight, Czechoslovakia ceased to exist and was succeeded by two separate and independent states, the Czech Republic and the Slovak Republic.

Department of State,
Washington, May 1, 2003.

PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY

Signed at Madrid on October 4, 1991*

State	Date of Signature	Date deposit of Ratification Acceptance or Approval	Date deposit of Accession	Date of entry into force	Date Acceptance ANNEX V**	Date of entry into force of Annex V
			CONSULTATIVE PARTIES			
Argentina	Oct. 4, 1991	Oct. 28, 1993[3]		Jan. 14, 1998	Sept. 8, 2000 (A) Aug. 4, 1995 (B)	May 24, 2002
Australia	Oct. 4, 1991	Apr. 6, 1994		Jan. 14, 1998	Apr. 6, 1994 (A) June 7, 1995 (B)	May 24. 2002
Belgium	Oct. 4, 1991	Apr. 26, 1996		Jan. 14, 1998	Apr. 26, 1996 (A) Oct. 23, 2000 (B)	May 24, 2002
Brazil	Oct. 4, 1991	Aug. 15, 1995		Jan. 14, 1998	May 20, 1998 (B)	May 24, 2002
Bulgaria			April 21, 1998	May 21, 1998	May 5, 1999 (AB)	May 24, 2002
Chile	Oct. 4, 1991	Jan. 11, 1995		Jan. 14, 1998	Mar. 25, 1998 (B)	May 24, 2002
China	Oct. 4, 1991	Aug. 2, 1994		Jan. 14, 1998	Jan. 26, 1995 (AB)	May 24, 2002
Ecuador	Oct. 4, 1991	Jan. 4, 1993		Jan. 14, 1998	May 11, 2001 (A) Nov. 15, 2001 (B)	May 24, 2002
Finland	Oct. 4, 1991	Nov. 1, 1996		Jan. 14, 1998	Nov. 1, 1996 (A) Apr. 2, 1997 (B)	May 24, 2002
France	Oct. 4, 1991	Feb. 5, 1993		Jan. 14, 1998	Apr. 26, 1995 (B) Nov. 18, 1998 (A)	May 24, 2002
Germany	Oct. 4, 1991	Nov. 25, 1994		Jan. 14, 1998	Nov. 25, 1994 (A) Sept. 1, 1998 (B)	May 24, 2002
India	July 2, 1992	Apr. 26, 1996		Jan. 14, 1998	May 24, 2002 (B)	May 24, 2002
Italy	Oct. 4, 1991	Mar. 31, 1995		Jan. 14, 1998	May 31, 1995 (A) Feb. 11, 1998 (B)	May 24, 2002
Japan	Sept. 29, 1992	Dec. 15, 1997		Jan. 14, 1998	Dec. 15, 1997 (AB)	May 24, 2002
Korea, Rep. of	July 2, 1992	Jan. 2, 1996		Jan. 14, 1998	June 5, 1996 (B)	May 24, 2002
Netherlands	Oct. 4, 1991	Apr. 14, 1994		Jan. 14, 1998	Mar. 18, 1998 (B)	May 24, 2002
New Zealand	Oct. 4, 1991	Dec. 22, 1994		Jan. 14, 1998	Oct. 21, 1992 (B)	May 24, 2002
Norway	Oct. 4, 1991	June 16, 1993		Jan. 14, 1998	Oct. 13, 1993 (B)	May 24, 2002
Peru	Oct. 4, 1991	Mar. 8, 1993		Jan. 14, 1998	Mar. 8, 1993 (A) Mar. 17, 1999 (B)	May 24, 2002
Poland	Oct. 4, 1991	Nov. 1, 1995		Jan. 14, 1998	Sept. 20, 1995 (B)	May 24, 2002
Russian Federation	Oct. 4, 1991	Aug. 6, 1997		Jan. 14, 1998	June 19, 2001 (B)	May 24, 2002
South Africa	Oct. 4, 1991	Aug. 3, 1995		Jan. 14, 1998	June 14, 1995 (B)	May 24, 2002
Spain	Oct. 4, 1991	July 1, 1992		Jan. 14, 1998	Dec. 8, 1993 (A) Feb. 18, 2000 (B)	May 24, 2002
Sweden	Oct. 4, 1991	Mar. 30, 1994		Jan. 14, 1998	Mar. 30, 1994 (A) Apr. 7, 1994 (B)	May 24, 2002
United Kingdom	Oct. 4, 1991	Apr. 25, 1995		Jan. 14, 1998	May 21, 1996 (B)	May 24, 2002
United States	Oct. 4, 1991	Apr. 17, 1997		Jan. 14, 1998	Apr. 17, 1997 (A) May 6, 1998 (B)	May 24, 2002
Uruguay	Oct. 4, 1991	Jan. 11, 1995		Jan. 14, 1998	May 15, 1995 (B)	May 24, 2002

State of Annex V	Date of Signature	Ratification Acceptance or Approval	Date deposit of Accession	Date of entry into force	Date Acceptance ANNEX V**	Date of entry into force
			NON-CONSULTATIVE PARTIES			
Austria	Oct. 4, 1991					
Canada	Oct. 4, 1991					
Colombia	Oct. 4, 1991					
Cuba						
Czech Rep.[1,2]	Jan. 1, 1993					
Denmark	July 2, 1992					
Estonia						
Greece	Oct. 4, 1991	May 23, 1995		Jan. 14, 1998		
Guatemala						
Hungary	Oct. 4, 1991					
Korea, DPR of	Oct. 4, 1991					
Papua New Guinea						
Romania	Oct. 4, 1991	Feb. 3, 2003		Mar. 5, 2003	Feb. 3, 2003 (A)	
Slovak Rep.[1,2]	Jan. 1, 1993					
Switzerland	Oct. 4, 1991					
Turkey						
Ukraine			May 25, 2001	June 24, 2001	May 25, 2001 (A)	
Venezuela						

• Signed at Madrid on October 4, 1991; thereafter at Washington until October 3, 1992.
The Protocol will enter into force initially on the thirtieth day following the date of deposit of instruments of ratification, acceptance, approval or accession by all States which were Antarctic Treaty Consultative Parties at the date on which this Protocol was adopted. (Article 23)

**Adopted at Bonn on October 17, 1991 at XVIth Antarctic Consultative Meeting.

1. Signed for Czech & Slovak Federal Republic on Oct. 2, 1992 - Czechoslovakia accepts the jurisdiction of the International Court of Justice and Arbitral Tribunal for the settlement of disputes according to Article 19, paragraph 1. On December 31, 1992, at midnight, Czechoslovakia ceased to exist and was succeeded by two separate and independent states, the Czech Republic and the Slovak Republic.
2. Effective date of succession in respect of signature by Czechoslovakia which is subject to ratification by the Czech Republic and the Slovak Republic.
3. Accompanied by declaration with informal translation, copy of which is attached at Tab A.

Department of State,

Washington, May 1, 2003.

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

	6 Recommendations adopted at First Meeting (Canberra 1961)	10 Recommendations adopted at Second Meeting (Buenos Aires 1962)	11 Recommendations adopted at Third Meeting (Brussels 1964)	28 Recommendations adopted at Fourth Meeting (Santiago 1966)	9 Recommendations adopted at Fifth Meeting (Paris 1968)	15 Recommendations adopted at Sixth Meeting (Tokyo 1970)
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina	ALL	ALL	ALL	ALL	ALL	ALL
Australia	ALL	ALL	ALL	ALL	ALL	ALL
Belgium	ALL	ALL	ALL	ALL	ALL	ALL
Brazil (1983)+	ALL	ALL	ALL	ALL	ALL	ALL (except 10)
Bulgaria (1998)+						
Chile	ALL	ALL	ALL	ALL	ALL	ALL
China (1985)+	ALL	ALL	ALL	ALL	ALL	ALL (except 10)
Ecuador (1990)+						
Finland (1989)+						
France	ALL	ALL	ALL	ALL	ALL	ALL
Germany (1981)+	ALL	ALL	ALL (except 8)	ALL (except 1-11 & 13-19)	ALL (except 5* & 6)	ALL (except 9 & 10)
India (1983)+	ALL	ALL	ALL (except 8***)	ALL (except 18)	ALL	ALL (except 9 & 10)
Italy (1987)+	ALL	ALL	ALL	ALL	ALL	ALL
Japan	ALL	ALL	ALL	ALL	ALL	ALL
Korea, Rep. (1989)+	ALL	ALL	ALL	ALL	ALL	ALL
Netherlands (1990)+						
New Zealand	ALL	ALL	ALL	ALL	ALL	ALL
Norway	ALL	ALL	ALL	ALL	ALL	ALL
Peru (1989)+	ALL	ALL	ALL	ALL	ALL	ALL
Poland (1977)+	ALL	ALL	ALL	ALL	ALL	ALL
Russia	ALL	ALL	ALL	ALL	ALL	ALL
South Africa	ALL	ALL	ALL	ALL	ALL	ALL
Spain (1988)+	ALL	ALL	ALL	ALL	ALL	ALL
Sweden (1988)+						
U.K.	ALL	ALL	ALL	ALL	ALL	ALL
Uruguay (1985)+	ALL	ALL	ALL	ALL	ALL	ALL
U.S.A.	ALL	ALL	ALL	ALL	ALL	ALL

* IV-6, IV-10, IV-12, and V-5 terminated by VIII-2

*** Accepted as interim guideline

+ Year attained Consultative Status. Acceptance by that State required to bring into force Recommendations or Measures of meetings from that year forward.

Approval, as notified to the Government of the United States of America, of measures relating to the furtherance of the principles and objectives of the Antarctic Treaty

	9 Recommendations adopted at Seventh Meeting (Wellington 1972)	14 Recommendations adopted at Eighth Meeting (Oslo 1975)	6 Recommendations Recommendations adopted at Ninth Meeting Meeting (London 1977)	9 Recommendations adopted at Tenth Meeting (Washington 1979)	3 Recommendations adopted at Eleventh Meeting (Buenos Aires 1981)	8 adopted at Twelfth (Canberra 1983)
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina	ALL	ALL	ALL	ALL	ALL	ALL
Australia	ALL	ALL	ALL	ALL	ALL	ALL
Belgium	ALL	ALL	ALL	ALL	ALL	ALL
Brazil (1983)+	ALL (except 5)	ALL	ALL	ALL	ALL	ALL
Bulgaria (1998)+						
Chile	ALL	ALL	ALL	ALL	ALL	ALL
China (1985)+	ALL (except 5)	ALL	ALL	ALL	ALL	ALL
Ecuador (1990)+						
Finland (1989)+						
France	ALL	ALL	ALL	ALL	ALL	ALL
Germany (1981)+	ALL (except 5)	ALL (except 1, 2, & 5)	ALL	ALL	ALL	ALL
India (1983)+	ALL	ALL	ALL	ALL (except 1 & 9)		
Italy (1987)+	ALL (except 5)	ALL	ALL	ALL (except 1 & 9)		
Japan	ALL	ALL	ALL	ALL	ALL	ALL
Korea, Rep. (1989)+	ALL	ALL	ALL	ALL	ALL	ALL
Netherlands (1990)+						
New Zealand	ALL	ALL	ALL	ALL	ALL	ALL
Norway	ALL	ALL	ALL	ALL	ALL	ALL
Peru (1989)+	ALL	ALL	ALL	ALL	ALL	
Poland (1977)+	ALL	ALL	ALL	ALL	ALL	ALL
Russia	ALL	ALL	ALL	ALL	ALL	ALL
South Africa	ALL	ALL	ALL	ALL	ALL	ALL
Spain (1988)+	ALL	ALL	ALL	ALL (except 1 & 9)	ALL (except 1)	ALL
Sweden (1988)+						
U.K.	ALL	ALL	ALL	ALL	ALL	ALL
Uruguay (1985)+	ALL	ALL	ALL	ALL	ALL	ALL
U.S.A.	ALL	ALL	ALL	ALL	ALL	ALL

* IV-6, IV-10, IV-12, and V-5 terminated by VIII-2
*** Accepted as interim guideline
+ Year attained Consultative Status. Acceptance by that State required to bring into force Recommendations or Measures of meetings from that year forward.

Approval, as notified to the Government of the United States of America, of measures relating to the furtherance of the principles and objectives of the Antarctic Treaty

	16 Recommendations adopted at Thirteenth Meeting (Brussels 1985)	10 Recommendations adopted at Fourteenth Meeting (Rio de Janeiro 1987)	22 Recommendations adopted at Fifteenth Meeting (Paris 1989)	13 Recommendations adopted at Sixteenth Meeting (Bonn 1991)	4 Recommendations adopted at Seventeenth Meeting (Venice 1992)	1 Recommendation adopted at Eighteenth Meeting (Kyoto 1994)
	Approved	Approved	Approved	Approved	Approved	Approved
Argentina	ALL	ALL	ALL	ALL	ALL	ALL
Australia	ALL	ALL	ALL	ALL	ALL	ALL
Belgium	ALL	ALL		XVI-10		
Brazil (1983)+	ALL	ALL	ALL	ALL	ALL	ALL
Bulgaria (1998)+				XVI-10		
Chile	ALL	ALL	ALL	ALL	ALL	ALL
China (1985)+	ALL	ALL	ALL	ALL		
Ecuador (1990)+				XVI-10		
Finland (1989)+			ALL	ALL	ALL	ALL
France	ALL	ALL	ALL	ALL	ALL	ALL
Germany (1981)+	ALL (except 10-13)	ALL	ALL (except 3,4,8,10,11,22)	ALL (except 4,6,7,8 & 9)	ALL (except 2 & 3)	ALL
India (1983)+				XVI-10		
Italy (1987)+		ALL	ALL	ALL	ALL	ALL
Japan	ALL	ALL	ALL (except 1, 3-13, 17)	XVI-10		ALL
Korea, Rep. (1989)+	ALL	ALL	ALL (except 1-11, 16, 18, 19)	ALL (except 12)	ALL (except 1)	
Netherlands (1990)+				XVI-10		
New Zealand	ALL	ALL	ALL	ALL	ALL	ALL
Norway	ALL	ALL	ALL	ALL	ALL	ALL
Peru (1989)+				XVI-10		
Poland (1977)+	ALL	ALL	ALL	XVI-10		
Russia	ALL	ALL	ALL	ALL	ALL	ALL
South Africa	ALL	ALL	ALL	ALL	ALL	ALL
Spain (1988)+	ALL	ALL	ALL	ALL	ALL	ALL
Sweden (1988)+			ALL	ALL	ALL	ALL
U.K.	ALL	ALL (except 2)	ALL (except 3, 4, 8, 10, 11)	ALL (except 4, 6, 8, & 9)	ALL	ALL
Uruguay (1985)+	ALL	ALL	ALL	ALL	ALL	
U.S.A.	ALL	ALL	ALL (except 1-4, 10, 11)	ALL	ALL	ALL

* IV-6, IV-10, IV-12, and V-5 terminated by VIII-2

*** Accepted as interim guideline

\+ Year attained Consultative Status. Acceptance by that State required to bring into force Recommendations or Measures of meetings from that year forward.

Approval, as notified to the Government of the United States of America, of measures relating to the furtherance of the principles and objectives of the Antarctic Treaty

	5 Measures adopted at Nineteenth Meeting (Seoul 1995)	2 Measures adopted at Twentieth Meeting (Utrecht 1996)	5 Measure adopted at Twenty-First Meeting (Christchurch 1997)	2 Measures adopted at Twenty-Second Meeting (Tromso 1998)	1 Measure adopted at Twenty-Third Meeting (Lima 1999)
	Approved	Approved	Approved	Approved	Approved
Argentina	ALL	ALL			
Australia	ALL	ALL	ALL	ALL	ALL
Belgium					
Brazil (1983)+	ALL				
Bulgaria (1998)+					
Chile	ALL	ALL	ALL	ALL	ALL
China (1985)+					
Ecuador (1990)+					
Finland (1989)+	ALL				
France					
Germany (1981)+					
India (1983)+					
Italy (1987)+	ALL	ALL			
Japan					
Korea, Rep. (1989)+	ALL				
Netherlands (1990)+					
New Zealand	ALL	ALL	ALL	ALL	ALL
Norway	ALL	ALL	ALL		
Peru (1989)+					
Poland (1977)+					
Russia	ALL	ALL	ALL		
South Africa	ALL	ALL	ALL	ALL	ALL
Spain (1988)+	ALL	ALL	ALL	ALL	ALL
Sweden (1988)+	ALL	ALL	ALL	ALL	ALL
U.K.	ALL	ALL	ALL	ALL	ALL
Uruguay (1985)+					
U.S.A.	ALL	ALL	ALL	ALL	ALL

"+Year attained Consultative Status. Acceptance by that state required to bring into force Recommendations or Measures of meetings from that Year forward."

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

	2 Measures adopted at Twelfth Special Meeting (The Hague 2000)	3 Measures adopted at Twenty-Fourth Meeting (St. Petersburg 2001)	1 Measure adopted at Twenty-Fifth Meeting (Warsaw 2002)
	Approved	Approved	Approved
Argentina			*
Australia	ALL	ALL	ALL
Belgium			*
Brazil (1983)+			*
Bulgaria (1998)+			*
Chile			*
China (1985)+			*
Ecuador (1990)+			*
Finland (1989)+			*
France			*
Germany (1981)+			*
India (1983)+			*
Italy (1987)+			*
Japan			*
Korea, Rep. (1989)+			*
Netherlands (1990)+			*
New Zealand	ALL	ALL	ALL
Norway		ALL	*
Peru (1989)+			*
Poland (1977)+			*
Russia			*
South Africa			*
Spain (1988)+			*
Sweden (1988)+	ALL	ALL	*
U.K.	ALL (except 2)	ALL (except 3)	ALL
Uruguay (1985)+			*
U.S.A.	ALL	ALL	*

"+Year attained Consultative Status. Acceptance by that state required to bring into force Recommendations or Measures of meetings from that Year forward."
* 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.

Office of the Assistant Legal Adviser for Treaty Affairs
Department of State

ATCM XXVI
Information Paper **IP-091**
Agenda Item ATCM 5
AUSTRALIA

REPORT BY THE HEAD OF THE AUSTRALIAN DELEGATION IN HIS CAPACITY AS REPRESENTATIVE OF THE DEPOSITORY GOVERNMENT FOR THE CONVENTION ON THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES TO THE TWENTY-SIXTH ANTARCTIC TREATY CONSULTATIVE MEETING

Australia, as depository Government to the Convention for the Conservation of Antarctic Marine Living Resources 1980 (the Convention) is pleased to report to the Twenty-Sixth Antarctic Treaty Consultative Meeting on the status of the Convention.

Australia advises the Antarctic Treaty Parties that, since the Twenty-Fifth 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.

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:

http://www.austlii.edu.au/au/other/dfat/treaty_list/deposity/camlr.html

ATCM XXVI
Information Paper IP-088
Agenda Item ATCM 5a
UNITED KINGDOM

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

1. This report covers events regarding the Convention for the Conservation of Antarctic Seals (CCAS) for the reporting year 1 March 2001 to 29 February 2002. As the Antarctic Treaty Consultative Meeting XXVI is being held before the close of the 2003 reporting year, on 30 June 2003, it has not been possible to report for this year. However an update of activities during the 2001/2002 year is reproduced at Annex A. Events prior to 1 March 2001 were reported to Antarctic Treaty Consultative Meetings XVIII, XIX, XX, XXI, XXII, XXIII, XXIV and XXV (see respective Annexes in each report).

2. 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 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.

3. 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.

4. 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 (Annex B) to this report.

ANNEX A

CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS (CCAS)

Synopsis of reporting in accordance with Article 5 and the Annex of the Convention: Capture and killing of seals during the period 1 March 2001 to 29 February 2002.

Contracting Party	Captured	Killed
Argentina ✞	164	Nil
Australia	Nil	Nil
Belgium	*	*
Brazil	Nil	Nil
Canada	Nil	Nil
Chile	*	*
France	Nil	Nil
Germany	Nil	Nil
Italy	*	*
Japan✞✞	2	Nil
Norway	Nil	Nil
Poland	*	*
Russia	Nil	Nil
South Africa	Nil	Nil
UK	Nil	Nil
USA	Nil	Nil

* No report returned

✞ These were captured on King George Island and comprised 164 *Mirounga leonina* species.

✞✞ These were captured for tagging on Syowa Station and comprised 2 *Leptonychotes weddelli* species.

ANNEX B

CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS (CCAS)

LONDON, 1 JUNE – 31 DECEMBER 1972

(The Convention entered into force on 11 March 1978)

State	Date of Signature	Date of deposit Ratification or Acceptance
Argentina[1]	9 June 1972	7 March 1978
Belgium	9 June 1972	9 February 1978
New Zealand	9 June 1972	Not ratified
Norway	9 June 1972	10 December 1973
South Africa	9 June 1972	15 August 1972
Russia[1,2,4]	9 June 1972	8 February 1978
United Kingdom[2]	9 June 1972	10 September 1974[3]
United States of America[2]	28 June 1972	19 January 1977
Australia	5 October 1972	1 July 1987
France[2]	19 December 1972	19 February 1975
Chile[1]	28 December 1972	7 February 1980
Japan	28 December 1972	28 August 1980

ACCESSIONS

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

1. Declaration or Reservation
2. Objection
3. The instrument of ratification included the Channel Islands and the Isle of Man
4. Former USSR

Polar Regions Unit
Overseas Territories Department
Foreign and Commonwealth Office
London SW1A 2AH, United Kingdom

REPORT OF THE CCAMLR OBSERVER TO THE TWENTY SIXTH MEETING OF THE ATCM (ATCM-XXVI)

REPORT OF CCAMLR TO ATCM XXVI

1. Introduction

1.1 In accordance with the regular overview of the Antarctic Treaty System (ATS) conducted under ATCM Recommendation XIII-2, CCAMLR is pleased to report on various developments since ATCM-XXV.

1.2 During its Twenty-First Meeting (October to November 2002), the Commission for the Conservation Antarctic Marine Living Resources addressed a wide range of issues, most notably:

- Illegal, unregulated and unreported fishing in the Convention Area;
- Implementation of the Catch Documentation Scheme (CDS) for *Dissostichus* spp.;
- Development of an electronic-based catch document system;
- Possible CITES listing for Toothfish;
- Development of an integrated fisheries management framework;
- Development of an institutional Plan of Action to address Illegal, Unregulated and Unreported (IUU) fishing;
- Management of the krill fishery in the Atlantic sector of the Southern Ocean, including the development of small-scale management units;
- Development of ecosystem management, including decision making;
- Elimination of seabird by-catch in longline fisheries, and
- Impact of marine debris.

1.3. These issues are relevant to several items on the agendas of ATCM-25 and CEP-VI.

2. CCAMLR Membership

2.1 CCAMLR's membership currently stands at 24 countries with an additional seven States being party to the Convention, but not Members of the Commission.

3. Management of Antarctic Marine Living Resources

3.1 Fisheries in the CCAMLR Convention Area during 2001/02 mainly targeted Patagonian and Antarctic Toothfish (*Dissostichus eleginoides* and *D. mawsoni*), mackerel icefish (*Champsocephalus gunnari*) and krill (*Euphausia superba*).

3.2 The reported finfish catch was 15 473 tonnes in 2001/2002, compared to 16 284 tonnes in 2000/2001. *Dissostichus* spp. (Toothfish), predominantly from longlining, accounted for 12 817 tonnes in 2001/2002, compared to 13 725 tonnes in the previous season. It is believed that, in addition to reported catches, some 10 898 tonnes of *Dissostichus* spp were taken as a result of illegal, unregulated and unreported (IUU) fishing in the Convention Area during 2001/2002, compared with 8 802 tonnes in 2000/2001.

3.3. The reported catch of krill in 2001/2002 was 118 705 tonnes, compared to 93 572 tonnes in the previous season. The annual krill catch has remained relatively stable since 1992/93 ranging from 80 000 to 120 000 tonnes.

3.4 The Commission has adopted conservation measures for all fisheries being conducted in the 2002/03 season, as well as general measures for regulating fishing activities and reporting fisheries information from the Convention Area. These are published annually the *Schedule of Conservation Measures in Force – 2002/2003.*

3.4 The Commission continues to receive notifications from Member States intending to conduct new and exploratory fisheries.

3.5 The Conservation Measures adopted at CCAMLR-XXI address all fisheries to be conducted in the Convention Area during the 2002/03 season. They also include general measures for regulating fishing activities and reporting fisheries information from the Area. In particular, five new Measures and two new Resolutions were adopted to promote compliance with CCAMLR Conservation Measures (by both Contracting and non-Contracting Parties) and to improve implementation of the *Toothfish Catch Documentation Scheme* (CDS).

3.6 The Conservation Measures and Resolutions for 2001/02 are published in the *Schedule of Conservation Measures in Force, 2001/02.*

4. <u>Illegal, Unregulated and Unreported (IUU) Fishing in the Convention Area</u>

4.1 The IUU fishery for Toothfish (especially Patagonian Toothfish) in the Convention Area, as well as in closely adjacent areas, has been a major discussion item for CCAMLR for the past five years (1997–2002). The Commission considers information submitted by Members to evaluate IUU fishing activities in the Convention Area. This includes reports of sightings, and on apprehension, of IUU fishing vessels, factual data on sightings of vessels by scientific observers, port inspections of vessels and instances of fraudulent use of Toothfish catch documents under the CDS.

4.2 The revised estimates for IUU catch in the Convention Area in 2001/02 were 11 812 tonnes, compared with 8802 tonnes in 2000/01, 7 644 tonnes in 1999/00 and 5 868 tonnes in 1998/99. Catches of Patagonian Toothfish continue to be reported *via* the CDS from areas adjacent to, and to the north of, the Convention Area. The level of reported catches from just outside the Convention Area in FAO Statistical Area 51 (Indian Ocean) may not be credible. In the light of this uncertainty, CCAMLR is faced with determining what proportion of the catches reported from Area 51 actually originate from that area, or are a product of IUU fishing inside the Convention Area.

4.3 Although there has been a noticeable reduction in IUU fishing in the Convention Area since 1996/97, CCAMLR continues to afford the matter high priority since it profoundly compromises the Convention's primary objectives. In the light of information received in 2002, the Commission reinforced its integrated administrative and political measures aimed at eliminating IUU fishing in the Convention Area. Particular initiatives are outlined in the following paragraphs.

4.4 CCAMLR annually reviews its Members' implementation of enforcement-related measures

4.5 To promote best fishing practices amongst its Members, CCAMLR has begun developing a *Plan of Action to Combat IUU Fishing in the CCAMLR Convention Area* (CPOA-IUU). The CPOA-IUU will incorporate all existing CCAMLR measures in force, as well as activities, to address IUU fishing. It will also identifies topics for future development. This initiative has taken place against a background of vigorous action by individual CCAMLR Contracting Parties to combat IUU fishing in areas under their national jurisdiction.

4.6 In addition to the Catch Documentation Scheme (CDS) for *Dissostichus* spp. (see Section 5 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;
    - 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 on – (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 Acceding 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".

4.7 Pursuant to Articles 19 to 23 of the *1995 United Nations Implementing Agreement for Highly Migratory Stocks and Straddling Stocks* (UNFSA)(which entered into force in December 2001), the Commission maintains a vessel database to facilitate the exchange of information between CCAMLR Members on vessels known to have fished in contravention of CCAMLR Conservation Measures. It has also agreed to compile a list of non-compliant vessels and to develop a consistent procedure to identify thier flags.

4.8 CCAMLR continues to encourage Members to ratify, and promote the entry into force of, such international instruments as UNFSA, the *1993 FAO Compliance Agreement* and the *1995 FAO Code of Conduct for Responsible Fisheries*. It has also noted the importance of the recent (February 2001) *FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing* (IPOA-IUU). The *IPOA□IUU* should constitute a useful tool in efforts to address IUU fishing in the Convention Area. The Commission has encouraged all its Members to

participate in the *IPOA□IUU* to ensure development of a comprehensive, integrated and global approach to combat IUU fishing.

4.9 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, as well as other matters relevant to CCAMLR (e.g. seabird by-catch).

5. CCAMLR Catch Documentation Scheme (CDS) for *Dissostichus* spp.

General

5.1 Adoption and 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 Convention Area and, where possible, adjacent waters. The CDS's main purpose is to identify the origin of Toothfish entering the markets of all Parties to the Scheme to help determine whether catches in the Convention Area have been taken in a manner consistent with CCAMLR's Conservation Measures. As such, the CDS contains a number of trade related provisions.

5.2 During 2002 the Commission continued the CDS's development through:

- A policy to enhance cooperation between CCAMLR and Non-Contracting Parties, including relevant measures;
- Explanatory memoranda on implementation of the CDS;
- Initiation of a pilot scheme to develop an electronically-based CDS, and
- Various other measures (again refer to relevant measures in paragraph 11).

5.3 Non-Contracting Parties implementing the CDS include the People's Republic of China, Republic of Seychelles and the Republic of Singapore. The Republic of Mauritius has taken positive steps to prohibit landings in its ports of Toothfish without Catch Documents. Positive contacts continue with a number of other Non-Contracting Parties, most of which participate in Toothfish trade.

5.4 On an on-going basis, CCAMLR promotes 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, SPC, I-ATTC, WTO, ASOC, IUCN and UNEP.

5.5 The CDS has attracted the attention of the *World Trade Organization* (WTO), particularly its *Committee on Trade and the Environment* (CTE) and the *FAO Committee on Fisheries. (COFI)*. CCAMLR fully endorses the development of uniform catch documentation and reporting measures which make use of appropriate technologies (as demonstrated by CCAMLR's development of an electronic CDS noted 5.2 in above). CCAMLR has agreed to improve co-operation with the WTO and

World Customs Organization (WCO), particularly the latter, in order to develop a harmonized customs code for Toothfish products.

5.6 At CCAMLR-XXI, there was vigorous debate on a proposal to list Toothfish under CITES as a means to augment the CDS and to combat IUU fishing. The Commission unanimously concluded that:

- CCAMLR has primary competency for the conservation and rational use of Toothfish in the Convention Area;
- The CCAMLR Scientific Committee is the pre-eminent scientific body with respect to the Toothfish biology, the species' role in the Antarctic marine ecosystem and assessment of sustainable harvest levels;
- CCAMLR will continue to enhance its measures to address IUU fishing;
- The CDS is recognized as the appropriate documentation for Toothfish trade;
- CCAMLR will continue to encourage adoption and use of the CDS by Non-CAMLR Members and, to this effect, would urge CITES parties to require a CCAMLR CDS document for all Toothfish imports;
- Further co-operation between CCAMLR and CITES would be welcome, and
- CCAMLR welcomed CITES interest in the CDS and will invite the CITES Secretariat to send a representative to CCAMLR's next meeting in late 2003.

Operation of the CDS

5.7 By January 2003, about 5600 *Dissostichus* Catch Documents (DCDs) had been issued by CCAMLR Flag States. Copies of these are produced and verified whenever a shipment of Toothfish is traded to allow all Contracting Parties (fishing or not fishing for Toothfish) to track such trade across their borders.

5.8 Many CCAMLR Members have adopted the necessary legal and administrative instruments to give full effect to the CDS while others pursue these.

5.9 CDS information is processed and analysed to assess the volume and location of Toothfish trade. It also provides some indication of fish taken legally and provides a barrier to fish taken illegally entering the marketplace.

5.10 The system developed by the CCAMLR Secretariat to process, store and access CDS information 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. Consequently, such information is available in close to real-time on the CCAMLR Website to allow CDS participants to assess the veracity of reported Toothfish landings. As already indicated, the initiation of an electronic-based CDS system

clearly illustrates CCAMLR's efforts to improve the Scheme's effective implementation (see paragraph 17).

5.11 Application of the CDS has prevented a number of Toothfish landings and transshipments in the absence of valid DCDs, particularly through barring landings in the absence of a DCD as well as through the identification of fraudulent Documents. There is also some evidence to indicate that introduction of the CDS has made trading in illegally-caught fish less profitable since such trade generally attracts much lower prices than fish accompanied by valid DCDs..

5.12 Finally, attention is again drawn to CCAMLR's various resolutions which strive to improve the CDS's broader application.

6. Development of an Integrated Fisheries Management Framework

6.1 CCAMLR continues to pursue the development of an integrated fisheries management framework. *Fishery Plans* have been produced for a number of key fisheries in the Convention Area, particularly the krill, Toothfish and icefish fisheries.

6.2 CCAMLR has also revised the way in which it numbers and presents its Conservation Measures. The *Schedule of Conservation Measures in Force - 2002/03* applies the new numbering system for the first time and also provides clear documentation of the history behind specific measures.

7. Ecosystem Management and Decision Making

7.1 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 an annual assessment of ecosystem status. Advice on long-term ecosystem trends and changes can then be incorporated into management advice. It is anticipated that the experience gained through the implementation of CEMP will provide a positive contribution to the CEP's development of a *State of the Antarctic Environment Report.*

7.2. The CCAMLR scientific community continues to explore ways in which ecosystem advice can be formally incorporated into management decisions. In this respect two key initiatives are currently under development. These include:

(a) A full review of CEMP in 2003 in order to ensure that its nature, along with the use of its data, remains appropriate in addressing the original objectives, namely:

> "To detect and record significant changes in critical components of the ecosystem to serve as a basis for the conservation of Antarctic marine living resources by distinguishing changes due the harvesting of commercial species and changes due to environmental variability, both physical and biological".

(b) On-going examination of applying small-scale management units as a means to approach and study relationships between krill, krill predators and the fishery.

8. Seabird By-catch in Longline Fisheries

8.1 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 25-02 (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 already developed and implemented national plans of action to address the seabird by catch issue.

8.2 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 surrounding the levels of such by-catch attributable to the IUU fishery and 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 urged its Members to support the entry into force of the *Agreement on the Conservation of Albatrosses and Petrels* (ACAP) recently negotiated under the *Convention on Migratory Species* (CMS).

8.3 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 including suitable line weighting, and
- Continuing development of underwater longline setting devices.

8.4 CCAMLR exchanges information with various international fisheries and conservation organizations on the prevention of seabird incidental mortality during fishing operations, on the state of Antarctic seabird populations, incidental catches of seabirds in these fisheries, and on 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 managed by CCAMLR. 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.**

9. Co-Operation with the Antarctic Treaty System & Other International Organizations

9.1 CCAMLR continues to subscribe to the view that links between CCAMLR and the ATCM, particularly in respect of the *Madrid Protocol*, constitute a unique system of environmental protection for the Antarctic as a whole.

9.2 In accordance with Article 6(2) of Annex V of the *Protocol,* no marine area can be designated as an Antarctic Specially Protected Area (ASPA) or Specially Managed Area (ASMA) without CCAMLR's approval.

9.3 CCAMLR-XXI considered and approved management plans for four protected sites containing marine areas which had been submitted for consideration under the ASPA scheme.

9.4 CCAMLR continues to support its undertakings to:

- Strengthen cooperation with the ATCM and CEP, especially on issues such as monitoring and protection of the environment, preparation of the *State of the Antarctic Environment Report* (SAER), protected species and areas, environmental pollution and other common responsibilities;

- Maintain contact with the ATCM Secretariat, once established, and provide it with assistance as required. The CCAMLR Secretariat has provided input in to, and shared its experience with, the process of setting up the Treaty Secretariat. In this connection, the *CCAMLR Administration and Finance Officer* took part the informal meeting held in early April 2003 to consider setting up the Treaty Secretariat;

- Co-ordinate activities relevant to the *Protocol's* implementation and, in particular, in respect of its Article 8. One of CCAMLR's key concerns relates to the issue of whether a Party to the *Protocol* has a right to require activities by another Party falling within CCAMLR's competence to be subject to an environmental impact assessment; and

- Maintain CCAMLR's distinct identity and responsibility in light of potential overlaps in competence between CCAMLR and the ATCM, especially taking into account that not all Members of CCAMLR are now parties to the Antarctic Treaty or *Protocol*.

9.5 Various tasks were identified for those Members representing CCAMLR at meetings of other international organizations in 2002/03 and a schedule of such attendance was drawn up.

10. Future Work

10.1 CCAMLR-XXI reaffirmed that future work will focus on:

- Enhancing the effectiveness of CCAMLR's multilateral nature and expanding, if appropriate, current co-operation with conservation initiatives in areas adjacent to the Convention Area;

- Continuing close cooperation with other ATS instruments, as well as other agreements applicable to the Convention Area;

- Developing a more extensive network of international contacts among fisheries and other relevant organizations;

- Co-sponsoring a conference to be held in Queenstown, New Zealand in December 2003 to address issues relating to the governance on fisheries on the high seas, and

- Increasing efforts to preserve the Antarctic marine ecosystem, so as to contribute to ecological "health", the sustainable use of marine living resources and, in particular, for the benefit of future generations.

THE INTERNATIONAL COUNCIL FOR SCIENCE

SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH

SCAR REPORT TO XXVI ATCM
MADRID, SPAIN
2003

XXVI ANTARCTIC TREATY CONSULTATIVE MEETING
Madrid, Spain, 9–20 June 2003

SCAR Report to XXV ATCM
Warsaw, Poland
10–20 September 2002

Report under Recommendation XIII-2

EXECUTIVE SUMMARY

The Twenty-seventh Meeting of the Scientific Committee on Antarctic Research (XXVII SCAR), held in Shanghai, China, 15–26 July 2002, was a landmark meeting at which the major work of re-structuring SCAR was achieved. The process of re-organization will continue during the next two years, as the new Scientific Standing Groups refine their *modi operandi,* and will be completed at XXVIII SCAR in 2004 with the new style of SCAR meeting.

The first week began with the meetings of the SCAR Working Groups, followed on Wednesday by a successful symposium on "The Antarctic sea ice zone: physical and biological processes and interactions". On Thursday and Friday three new Scientific Standing Groups on Geosciences, Life Sciences and Physical Sciences were formed. This new structure will enable SCAR to address inter-disciplinary science more efficiently and integrate more effectively with other international and global programmes. Each group elected three officers and established sub-groups to accommodate their various activities. During the week the Executive Committees of SCAR and COMNAP held a joint meeting. On Saturday morning there was a SCAR–COMNAP discussion forum with presentations on: Subglacial Lakes, Antarctic Neotectonics, the Cybercartographic Atlas, and the Southern Ocean.

At the SCAR Delegates Meeting, Delegates accepted Peru as a Full Member of SCAR and noted, with regret, the withdrawal of Estonia from Associate Membership. Two Delegate Committees were formed to discuss scientific and organizational matters and two. new Standing Committees were established on the Antarctic Treaty System, and on SCAR Finance. The arrangements for the XXVIII SCAR meeting in Germany during 2004 were confirmed to provide a SCAR Science week in July followed by the Delegates meeting about 3 months later, thereby allowing more adequate consideration of the reports from the Scientific Standing Groups. A new President, Professor Dr Jörn Thiede (Germany), and two new Vice–Presidents were elected. Delegates also agreed that an Executive Director should be appointed to reinforce the staffing of the SCAR Secretariat.

The highlight of the year was the award to SCAR of the Prince of Asturias Prize for International Cooperation 2002 in recognition of SCAR's role in international cooperation in Antarctica. Delegates agreed that the Prize should be used to establish a SCAR Fellowship Programme to fund five young scientists to undertake Antarctic research in a country other than their own.

SCAR Report to XXVI ATCM
Madrid, Spain
9–20 June 2003

Report under Recommendation XIII-2

INTRODUCTION

Since XXV ATCM in Warsaw, Poland, September 2002, the principal event for SCAR was the award to SCAR of the Prince of Asturias Prize for International Cooperation 2002. This prestigious Spanish prize was awarded in recognition of SCAR's role in international cooperation in Antarctica. Dr R H Rutford (Past President), Dr R Schlich and Professor J López-Martínez (Vice Presidents) and Dr P D Clarkson (Executive Secretary) represented SCAR at the magnificent award ceremony in Oviedo during October 2002. The cash prize of € 50,000 has been used to establish a SCAR Fellowship Programme. Five young Antarctic scientists will each receive a $10,000 bursary to pursue a research project in a country other than their own. SCAR wishes to continue the Fellowship Programme and will be seeking additional sources of income to fund the Programme in future years.

As reported to XXV ATCM, SCAR implemented many of the recommendations of the *ad hoc* Group on SCAR Organization and Structure at the biennial XXVII SCAR meeting in Shanghai during July 2002 with the re-organization of the former Working Groups and Groups of Specialists into three Standing Scientific Groups with subordinate Action Groups and Expert Groups, and a Standing Committee on the Antarctic Treaty System to co-ordinate activities and input from across SCAR. One outstanding recommendation was the appointment of an Executive Director for SCAR. In May this year the position was widely advertised in the leading scientific journals and on many Antarctic websites. Interviews for the post will be held shortly and it is expected that the successful candidate will take up the position later this year.

During the past 10 months the new Standing Scientific Groups and their subordinate groups have been establishing themselves and developing new modes of operation. In addition, proposals have been prepared for establishing a limited number of major new research programmes within SCAR. These will be assessed by the SCAR Executive Committee and those approved will develop scientific and imple-mentation plans for presentation to the XXVIII SCAR Delegates Meeting to be held in Bremerhaven, Germany in October 2004. Three months prior to that, the SCAR Science Meeting will be held in Bremen, Germany. During this week the Standing Scientific Groups will hold their business meetings around a 2-day symposium on "Antarctica and the Southern Ocean - Processes of Interaction in Time and Space".

The International Council for Science (ICSU) is planning a Fourth International Polar Year (IPY4) 2007–08 to commemorate the 50th anniversary of the International Geophysical Year (IGY) 1957–58 and highlight the key role that the polar regions now play in our understanding of the Earth System. SCAR is considering various proposals for Antarctic research programmes that will contribute to IPY4.

PRINCIPAL SCIENTIFIC ACTIVITIES

Geosciences

An Antarctic Geodesy Symposium was held in Wellington, New Zealand in November 2002. A major focus of the symposium was the status of regional geodetic networks in Antarctica and their future integration. Tide gauge operation and calibration were discussed at length, as were the new advances in remote GPS operational technology for Antarctic sites. The 5th Antarctic Geodesy Symposium will be held in Lviv, Ukraine, during September 2003.

The International Permafrost Association (IPA) will hold a workshop in July 2003 to review current permafrost and periglacial science activities; to formulate where attention should be focused; and to consider how permafrost and periglacial science be organised within IPA and linked to other groups and programmes. A specific aim will be to achieve consensus within the Antarctic permafrost community to identify the key research questions for the next 10 years; to develop a strategy to answer them; and to establish a basis for an organisational structure to foster these activities and their linkages to other scientific groups and activities.

The second international Antarctic GIS workshop on was held in Freiburg, Germany, during April 2003. The workshop focused on GIS applications in Antarctica; Internet GIS;Web Portals; and Antarctic GIS Standards. A meeting on the SCAR Composite Gazetteer of Antarctica was also held in conjunction with the workshop.

The Antarctic Neotectonics (ANTEC) programme is preparing a set of papers on "Ice Sheets and Neotectonics" that will be published during the coming year in a special volume of the Elsevier Journal *"Global and Planetary Change"*. It is hoped also that the ISMASS programme scientific plan and recommendations will also be published in full in this special volume.

Antarctic Climate Evolution (ACE) is a new international research initiative to study the climate and glacial history of Antarctica through palaeoclimate and ice-sheet modelling integrated with the geological record by promoting the exchange of data and ideas between research groups focusing on the evolution of Antarctica's climate system and ice sheet. ACE will exist to facilitate scientific exchange between the modelling and data acquisition communities for the purposes of project development and hypothesis testing. The broad outcomes of the programme will be: (1) quantitative assessment of the climate and glacial history of Antarctica; (2) identification of the processes which govern Antarctic change, and those which feed back this change around the globe; (3) improvements in our technical ability to model past changes in Antarctica; and (4) precisely documented case studies of past changes, against which models of future change in Antarctica can be tested. The ACE initiative will be presented to SCAR for adoption as a major SCAR research programme.

The 9th International Symposium on Antarctic Earth Sciences will be held in Potsdam, Germany, during September 2003.

Life Sciences

The planning group for the "Evolution and Biodiversity in Antarctica (EBA): the Response of Life to Change" held a meeting in February to prepare a draft outline of the proposed programme. The proposal is to amalgamate the existing programmes on Ecology of the Antarctic Sea-Ice Zone (EASIZ), Evolutionary Biology of Antarctic Organisms (EVOLANTA) and Regional Sensitivity to Climate Change in Antarctic Terrestrial and

Limnetic Ecosystems (RiSCC). The programme also aims to collaborate closely with the climatic research programmes being proposed.

SCAR has been invited to provide the Antarctic regional component to the Global International Waters Assessment (GIWA) being undertaken by the United Nations Environment Program. A workshop is being planned for Brazil to collate the relevant data and prepare the text for inclusion in the global report.

The Expert Group on Human Biology and Medicine held its inaugural meeting in May 2003 to establish its working procedures and review its current and future research priorities. It also reviewed Antarctic healthcare practices in SCAR member countries, particularly with respect to developing minimum standards for medical screening procedures. The meeting was followed by a very successful 2-day symposium on "Extreme Medicine and Antarctica" with presentations under the following themes: Antarctica and Space Medicine; Psychology; Living in the Dark; How useful is Telemedicine?; Physiology; Current and Past Research.
The Antarctic Pack Ice Seals (APIS) programme is in the process of completing the analysis of the collected data and is expected to publish a final report providing reliable population statistics for Antarctic seal species. These figures will be essential for determining the required protection status for each of the species and also provide valuable data for any State of the Antarctic Environment Report.
Selected papers from the VIII SCAR Biology Symposium held in Amsterdam in 2001 have now been published under the title *"Antarctic biology in a global context"*. The 50 contributions provide topical coverage of the effects of climate change, evolution and adaptation, biodiversity and human impacts.
SCAR recognizes that it is now some time since the publication of *"A strategy for Antarctic Conservation"* by IUCN in 1991. Conservation and environmental management are actively developing fields and during the past 12 years new thinking and new objectives have been developed. In order to bring the key elements of best practice into the Antarctic arena, SCAR intends to hold a workshop on "Antarctic conservation in the 21st century".
Together with COMNAP, SCAR produced the manual for environmental monitoring in 2000. This was based on workshops in Norway (1995) and the USA (1996) and deals with chemical and physical measurements. It is clear that scientific progress since this time has provided considerable new information on the biology of a range of species. It is therefore intended to hold a workshop in the United States, within the next twelve months, on biological monitoring.

Physical Sciences

The SCAR Expert Group on Antarctic Astronomy and Astrophysics (AAA) will hold its first meeting at a special session on Antarctic Astronomy to be held at the International Astronomical Union (IAU) General Assembly in Sydney in July 2003. The related Action Group on Plateau Astronomy Site Testing in Antarctica (PASTA) will also meet here, prior to establishing a more formal structure for interchange of ideas and data.

The collection of the surface meteorological data for the Reference Antarctic Data for Environmental Research (READER) project is almost complete and the final Russian observations should be received by the end of January. All the READER monthly mean data are online at http://www.antarctica.ac.uk/met/READER/ . A paper on the first results of the project entitled "Climate Change over the Antarctic During the Last 100 Years From Station data: Results from the SCAR READER Project" has been submitted to the Journal of Climate.

Under the Antarctic Katabatic Winds (MOSAK) project the individual meteorological reports, collected as part of the READER project, are being assembled into a comprehensive

data set of the Antarctic near-surface wind field. This will also be used to validate numerical model runs. A high-resolution model run has been carried out and has produced what is believed to be the best field of Antarctic winds created to date.

SCAR was represented at the WMO Executive Council Working Group on Antarctic Meteorology in November 2002. The International Antarctic Weather Forecasting Handbook, which has been compiled with input from members of SCAR, ICPM, members of the working group and scientists in many countries active in Antarctic, was well received. WMO has provided financial assistance to have a hardcopy version of the handbook printed by Cambridge University Press.

The Antarctic Sea-Ice Processes and Climate (ASPeCt) committee met in New Zealand in December 2002 in conjunction with the 16th International Symposium on Ice. Substantial progress has been made on both the sea ice thickness and ice core data bases. These are compilations of field data from numerous national programs for use by the broader scientific community and it is expected they will be online by the end of 2003. A number of cruises to the Antarctic are planned which will directly address the goals of ASPeCt, including the Ice Station *Polarstern* (ISPOL) in 2004–05 and a remote sensing validation experiment aboard *Aurora Australis* in 2003.
Climate is the mean state of the physical and chemical attributes of the atmosphere over a period of time, concerning the troposphere, stratosphere and higher levels, where they affect the conditions near the surface. The proposed Antarctica and the Global Climate System (AGCS) programme will focus primarily on the last 2000 years and out to 100 years in the future, but will extend back several glacial cycles where necessary to several hundred thousand years. The programme will study a variety of parameters including: mechanisms controlling Antarctic climate variability; ice sheet and ice shelf responses to and affects on climate; the Antarctic ozone layer; oceanic reactions to changes in the sea ice/ice shelves/ice sheet and vice versa; and solar activity.

The proposed Inter-hemispheric Conjugacy on Environmental, Solar–Terrestrial and Atmospheric Research (ICESTAR) programme will establish a five-year international research programme for coordinated bi-polar research in the field of solar-terrestrial physics and polar aeronomy. The uniqueness of the new programme is that it 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. These bi-polar or interhemispherically conjugate features might be intrinsic to the polar ionosphere and upper atmosphere or be caused by the long-term or abrupt changes in the near-Earth electromagnetic environment forced by solar activity (i.e., geo-magnetic storms and substorms). It is proposed that SCAR will lead this new programme in collaboration with the International Arctic Science Committee (IASC).

The 7th International Symposium on Antarctic Glaciology will be held in Milan, Italy, during August 2003. Here there will be presentations by and meetings of the SCAR groups on the International Trans-Antarctic Scientific Expedition (ITASE) and Ice Sheet Mass Balance and Sea Level (ISMASS)

Multi-disciplinary research

The Group of Specialists on Subglacial Antarctic Lake Exploration (SALEGOS) held its fourth meeting in April 2003. Progress on further remote-sensing studies of Vostok Subglacial Lake were discussed, including the underlying sedimentary sequences, dynamic processes of ancient lake systems and the modelling of subglacial systems. Further studies

on the accreted ice were also reported, including its physical properties, its history and chemistry and those of its inclusions, and investigations of its microbial content. An exciting development was the identification of a possible second giant Antarctic subglacial lake towards the southern end of the extensive rift system occupied in part by Jutulstraumen Glacier in Dronning Maud Land. This was identified from RADARSAT images where a large area (about 200 km long by 50 km wide) of remarkably smooth ice centred on 82.5°S, 18°E that has a surface expression similar to Vostok Subglacial Lake. The Group also determined a set of site selection criteria for investigating a subglacial lake and provided comments on the Russian draft CEE for water sampling at Lake Vostok. These comments have been submitted to XXVI ATCM as an Information Paper.

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.

Appendix 1

MEMBERSHIP OF SCAR

Full members:	*Date of admission to Associate Membership*	*Date of admission to Full Membership*
Argentina		3 February 1958
Australia		3 February 1958
Belgium		3 February 1958
Chile		3 February 1958
France		3 February 1958
Japan		3 February 1958
New Zealand		3 February 1958
Norway		3 February 1958
South Africa		3 February 1958
Russia (formerly Union of Soviet Socialist Republics)		3 February 1958
United Kingdom		3 February 1958
United States of America		3 February 1958
Germany (including former German Democratic Republic)		22 May 1978
Poland		22 May 1978
India		1 October 1984
Brazil		1 October 1984
China		23 June 1986
Sweden	(24 March 1987)	12 September 1988
Italy	(19 May 1987)	12 September 1988
Uruguay	(29 July 1987)	12 September 1988
Spain	(15 January 1987)	23 July 1990
Netherlands	(20 May 1987)	23 July 1990
Korea, Republic of	(18 December 1987)	23 July 1990
Finland	(1 July 1988)	23 July 1990
Ecuador	(12 September 1988)	15 June 1992
Canada	(5 September 1994)	27 July 1999
Peru	(14 April 1987)	22 July 2002

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

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Appendix 3

SCAR CHIEF OFFICERS
STANDING SCIENTIFIC GROUPS

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Appendix 4

LIST OF ACRONYMS AND ABBREVIATIONS

AAA	Antarctic Astronomy and Astrophysics
ACE	Antarctic Climate Evolution
AGCS	Antarctica and the Global Climate System
AMD	Antarctic Master Directory
ANTEC	Antarctic Neotectonics
APIS	Antarctic Pack Ice Seals
ASPeCt	Antarctic Sea-Ice Processes and Climate
ATCM	Antarctic Treaty Consultative Meeting
CEE	Comprehensive Environmental Evaluation
COMNAP	Council of Managers of National Antarctic Programmes
EASIZ	Ecology of the Antarctic Sea-Ice Zone
EBA	Evolution and Biodiversity in Antarctica: the Response of Life to Change
EVOLANTA	Evolutionary Biology of Antarctic Organisms
GCMD	Global Change Master Directory
GIS	Geographic Information Systems
GIWA	Global International Waters Assessment
IASC	International Arctic Science Committee.
IAU	International Astronomical Union
ICESTAR	Inter-hemispheric Conjugacy on Environmental, Solar–Terrestrial and Atmospheric Research
ICPM	International Commission on Polar Meteorology
ICSU	International Council for Science
IGY	International Geophysical Year
IPA	International Permafrost
IPY4	Fourth International Polar Year
ISMASS	Ice Sheet Mass Balance and Sea Level
ISPOL	Ice Station Polarstern
ITASE	International Trans-Antarctic Scientific Expedition
IUCN	The World Conservation Union
MOSAK	Antarctic Katabatic Winds
PASTA	Plateau Astronomy Site Testing in Antarctica
READER	Reference Antarctic Data for Environmental Research
RiSCC	Regional Sensitivity to Climate Change in Antarctic Terrestrial and Limnetic Ecosystems
SALEGOS	Group of Specialists on Subglacial Antarctic Lake Exploration
SCAR	Scientific Committee on Antarctic Research
WMO	World Meteorological Organization

Appendix 5

PAPERS SCHEDULED TO BE PRESENTED TO XXVI ATCM
INFORMATION PAPERS

SCAR Report to XXV ATCM
Antarctic Specially Protected Species
Acoustics Technology and the marine ecosystem
Comments on the Lake Vostok CEE
Biological responses to temperature change in Antarctic marine systems.
Predicting the state of the Southern Ocean during the 21st century

COMNAP
COUNCIL OF MANAGERS
OF NATIONAL ANTARCTIC PROGRAMS

ATCM XXVI
Madrid Spain
9-20 June 2003

COMNAP Report to XXVI ATCM

ANNUAL COMNAP MEETINGS

1. The 2002 COMNAP annual meeting was held in Shanghai during July 2002 and a summary of the outcomes was reported by to the Warsaw XXV ATCM in September 2002. The 2003 COMNAP annual meeting is to be held after the XXVI ATCM in Brest, France from 8-11 July. As a result of the scheduling of these meetings, it has not been possible for COMNAP to meet in plenary and discuss proposed responses to the tasks allocated to COMNAP at the Warsaw ATCM. As a consequence, some tasks have yet to be finalised and are not available to be presented to ATCM XXVI/CEP VI.

STATUS OF ATCM/CEP RELATED TASKS

"Worst Case" and "Less that Worst Case" Environmental Scenarios

2. COMNAP presented an interim paper to the XXV ATCM in Warsaw on the work that had been done up to that time towards answering the questions posed by the ATCM that would assist in determining limits on financial liability, compensation, and insurability of activities in Antarctica. This paper noted the difficulty of estimating the probabilities and costs of incidents because of the relatively short history of Antarctic activities. Furthermore risk assessment for actuarial purposes is not within COMNAP's area of competence. Nevertheless, COMNAP agreed to provide to the XXVI ATCM with an updated paper of historical data on accidents that may assist in this process.

3. COMNAP established a specialist ad hoc working group to meet and work on a revised paper inter-sessionally. To assist with the analysis, data were collected from COMNAP-member programs on the number of incidents that had occurred during shipping and air operations and the number of these that had resulted in an environmental impact. These data are given in the latest paper, which is available to ATCM XXVI. It is stressed that COMNAP does not have the competence to assess the probability of these events in a manner suitable for actuarial calculations however the data may provide the basis for more expert analysis.

4. The paper identifies six "worst case scenarios" and fourteen "less than worse case scenarios". A simple numerical ranking process of "environmental significance" was used to help assess the relative seriousness of the various incidents. This resulted in an overlap

between some "less than worse case" and "worst case" incidents, which illustrates that the analysis is not wholly quantitative and the results should not therefore be over-interpreted.

5. Because of limited number of serious environmental incidents in Antarctica and the consequent lack of experience and data on clean-up activities it has proved difficult to determine the cost of such activities. The paper provides some examples and costs in order to arrive at an order of magnitude of cost that might be incurred following a major environmental incident. Based on this data it is estimated that the likely costs are in the order of US10 million dollars.

An Analysis of Initial Environmental Evaluations (IEEs)

6. COMNAP submitted Working Paper to CEP V (XXV ATCM/WP??) summarising the outcomes of a review of IEE's for various Antarctic activities. The activities selected were scientific core ice-drilling, station living facilities and fuel storage facilities. COMNAP's "Antarctic Environmental Officers Network" (AEON) undertook the analysis.

7. The IEEs for bulk storage facilities were rated as being the most complete by the review team, followed by scientific core ice-drilling and station living facilities. With respect to the sample of IEEs examined it was concluded that some aspects of the IEE process were being done very well while other aspects could be improved. It was noted that those IEEs prepared since 1999 all ranked at least an "acceptable" average total ranking. It was recommended that when initiating an IEE process, the proponents should make use of accepted methodologies laid out in past IEEs completed for similar types of activities and in similar environments.

8. Following discussion of the COMNAP working paper, several Members requested that a more detailed analysis of the IEEs be provided which clearly identifies strengths and weaknesses and gaps in past IEEs. It was noted that the identification of impacts was often a weakness in many IEEs. COMNAP noted its continuing interest in this topic and confirmed that it would provide additional details of its analysis to CEP VI. Following a further review of the paper COMNAP has decided that additional work needs to be undertaken on the report and the revised version will be available for CEP VII.

The Interaction Between National Operators, Tourists and Tourism Operators

9. COMNAP submitted an Information Paper to the Warsaw ATCM (XXV ATCM/IP27) on the interaction between national programs and tourist operations. Because of the interest shown by delegates in the report a similar survey was conducted on activities in the 2002/03 season and is presented in another Information Paper.

10. The report indicates that some 6,900 tourists visited Antarctic stations during the 2002/03 season (cf 9,300 in 2001/02). Three stations, all in the Peninsula region, had 20 or more visits by tourists whereas four stations were visited only once. A typical tourist visit to a station lasted three hours with an average of 50 (cf. 67) persons per visit. It is noted that some national programs are using tourist operations to supplement their logistics operations, albeit usually on a small scale.

11. COMNAP reiterates two issues that continue to be of concern to national operators. Firstly, adventure tourism usually involves a high safety risk but low environmental impact and cannot usually be regulated under the domestic legal environmental frameworks that Parties have enacted to implement the requirements of the Madrid Protocol. This can result in inadequate contingency planning or lack of insurance to reimburse national operators for emergency search and rescue costs. Secondly, with moves to increase inter-continental air access to Antarctica there is a risk that this may open up more opportunities for air-based tourist activities.

OPERATION OF AIRCRAFT NEAR WILDLIFE

12. At the CEP V meeting in Warsaw, the United Kingdom introduced Working Paper (XXV ATCM/WP26) containing proposed guidelines for the operation of aircraft near concentrations of birds in Antarctica. The CEP welcomed the guidelines, which would be useful to aircrew operating aircraft in areas where site-specific plans or guidelines did not apply. The Committee invited COMNAP, in consultation with SCAR, to review the guidelines and provide an interim report to CEP VI and a final report to CEP VII with their views.

13. COMNAP has received several suggestions from members that do not detract from the intent of the guidelines but take into consideration practical constraints in particular circumstances. The amended guidelines will be considered at the COMNAP annual meeting in July 2003 and a report will be submitted to CEP VII as earlier indicated.

Use of Navigational Notes to Advise Mariners of Protocol Obligations

14. ASOC submitted Information Paper XXV ATCM/IP76 to the Warsaw ATCM that suggested one mechanism to improve compliance with Protocol obligations by yacht operators would be to include such information the navigational guides or pilots produced by Parties. COMNAP advised that one of its member organisations had produced a comprehensive navigational note in conjunction with its national maritime safety authority that included information on the Protocol. COMNAP offered to provide a paper to ATCM XXVI with the navigational note that could be used as a "model" by other Parties if they so wished.

15. As COMNAP members have not had the opportunity of discussing the proposed "model" navigation the proposed paper has not been provided to ATCM XXVI. COMNAP has, however, has written to ASOC providing the reference to the navigational note that may be accessed on the Web.

COMNAP Objectives

- To review, on a regular basis, operational matters and to facilitate regular exchanges of information;
- to examine, discuss and seek possible solutions to common operational problems;
- to provide a forum for discussion in order to frame in a timely, efficient and harmonious manner;
    - responses to common issues directed to Antarctic Operators, in particular requests from and Recommendations of the ATCM, and
    - appropriate input to SCAR responses to questions involving science and operations/logistics; and
- to provide, in conjunction with the Scientific Committee on Antarctic Research (SCAR), the appropriate forum for discussions on international collaboration in operations and logistics.

COMNAP Executive Committee (EXCOM)

Dr Karl Erb (USA)	Chairman
Dr Gerard Jugie (FR)	Member
Dr Okitsugu Watanabe (JP)	Member
Mr Kim Pitt (AU)	SCALOP Chairman
Mr Jack Sayers	Executive Secretary

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Committees

Executive Committee	EXCOM
Standing Committee on Antarctic Logistics and Operations	SCALOP
Steering Committee on the Antarctic Master Directory	STADM
Environmental Coordinating Group	ECG
Coordinating Group on Education and Training	CEDAT

Working Groups

Air Operations WG	AIROPS
WG to Monitor the Liability Annex	MOLIBA
Ship Operations WG	SHIPOPS
Symposium WG	SYMP
Tourism and NGOs WG	TANGO

Networks

Antarctic Environmental Managers Network	AEON
Energy Management Network	ENMANET
Information Officers Network	INFONET
Training Officers Network	TRAINET

Note:
A list of COMNAP and SCALOP members and the membership and objectives of the various committees, working groups and networks may be found on the COMNAP Home Page at URL: http//:www.comnap.aq via the link "ABOUT COMNAP".

ANNEX G

REPORTS IN RELATION TO ARTICLE III (2) (ATS 5B)

The Antarctic and Southern Ocean Coalition

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XXVI ATCM
Information Paper IP-65
Agenda Item: ATCM 5(b)
CEP VI 10
ASOC
Original: English

Report of the Antarctic and Southern Ocean Coalition

(ASOC)

to the

XXVI Antarctic Treaty Consultative Meeting

9-20 June 2003
Madrid, Spain

Report pursuant to Article III (2) of the Antarctic Treaty, under Agenda Item 5(b)

The Antarctic and Southern Ocean Coalition

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(ASOC)

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9-20 June 2003
Madrid, Spain

Report pursuant to Article III (2) of the Antarctic Treaty, under Agenda Item 5 (b)

ASOC is delighted to return to Madrid for this XXVI Antarctic Treaty Consultative Meeting, 12 years after Antarctic Treaty Parties adopted the Protocol on Environmental Protection here.

We trust that this meeting will not only see a conclusion of the outstanding formal commitments in the Final Act and Protocol adopted here – namely rules and procedures for liability for damage to the Antarctic environment and dependent and associated ecosystems – but the final establishment of that mechanism we have been discussing for even longer, the Secretariat in Buenos Aires.

ASOC calls upon all Parties, Observers and Experts at XXVI 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 one of the great splendours of our common home.

ASOC maintains a Secretariat in Washington DC – and a central website: http://www.asoc.org.

- ASOC member groups and individuals are present in most ATCPs.
- ASOC Regional Offices 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), Russia (Moscow), and Ukraine (Kiev)

KEY ISSUES FOR XXVI ATCM

1) ANTARCTIC TOURISM:

ASOC has identified regulation of Antarctic tourism by the ATCM as a priority issue for Parties, so that this steeply growing industry does not result in damage to the Antarctic environment or undermine the stability of the Antarctic Treaty System. An Information Paper on tourism policy issues is tabled at this meeting.

ASOC has tabled a revision of its 2002 Information Paper on Port State Jurisdiction, addressing mechanisms open to Parties to regulate vessels engaged in non-governmental activities. This paper includes a draft Memorandum of Understanding.

A further short Information Paper is provided on mechanisms for improving yacht compliance.

2) LIABILITY:

Completion of at least a first Annex on Liability for damage to the Antarctic environment is a priority for this ATCM.

3) SECRETARIAT:

Conclusion of the Headquarters Agreement, funding arrangements and other establishment issues to allow the operation of the Antarctic Treaty Secretariat in Buenos Aires to commence before the next Antarctic operational season.

4) CONSISTENT PROTOCOL IMPLEMENTATION:

Since the XXV ATCM, ASOC has continued its research on the potential application of SEA (Strategic Environmental Assessment) to Antarctic activities and institutions, to complement existing EIA tools under the Protocol and as a better way to meet the requirements of Article 2. Further documentation on SEA will be made available to Parties as appropriate.

5) REVIEW OF PROTOCOL ANNEXES:

ASOC participated in the Intersessional Contact Group on Annex II review lead by Argentina. ASOC congratulates Argentina and the other participants for the valuable effort they have made despite the short intersessional period. ASOC supports the Progress Report on the ICG to be tabled at this CEP and looks forward to continuing these valuable discussions in the near future.

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 depth of participation from so many Parties.

7) LAKE VOSTOK:

ASOC has participated in the Lake Vostok intersessional CEE review coordinated by France. ASOC is encouraged by the active participation of so many Parties, which bodes well for the future of the CEE review process. ASOC urges Russia to accept the recommendations of this Working Group, and to refrain from penetrating Lake Vostok until technology is available that will prevent contamination.

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. Recent events in the Southern Ocean continue to highlight CCAMLR's inability to effectively combat IUU fishing. Everyone seems to acknowledge this, yet CCAMLR continues to approve further fishing permits, and CCAMLR Parties continue to import IUU 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 present debacle surrounding Antarctic fishing. It is therefore both appropriate and necessary for this meeting in Spain – one of the world's premier distant-water fishing states, after all – to seriously address this threat, and mechanisms of response.

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 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 scrutinising vessels that may be involved in IUU fishing in the Southern Ocean. ASOC also applauds the creation of the Coalition of Legal Toothfish Operators (COLTO) in May of this year by several of the companies involved in the legal toothfish trade. COLTO has also created a list of suspected IUU vessels and offers a reward for the apprehension of pirate fishers.

ASOC notes that four members of the Antarctic Treaty System have ratified the Agreement on the Conservation of albatross and Petrels (ACAP) - Australia, New Zealand, Ecuador and South Africa. This agreement requires one more ratification to come into force. ASOC recommends that the ATS considers how co-operation will occur with the ACAP Secretariat once that has been established.

2) CLIMATE CHANGE:

ASOC looks forward to early entry into force of the Kyoto Protocol, which all honest observers acknowledge is only the first step toward doing what is in the long-term best interests of the planet. ASOC also calls upon those few states that so far have not indicated support for the Kyoto Protocol to reverse course and begin doing their share to fight global climate change. ASOC regrets the failure of the WSSD meeting last year in South Africa to make targeted commitments to invest in renewable energy, as well as the continuing refusal of key states such as the U.S. and Australia to ratify the Kyoto Protocol. ASOC welcomes Russia's announcement that it will ratify the Kyoto Protocol soon thereby allowing it to enter into force and begin functioning.

ASOC looks forwards to working with delegates at this XXVI ATCM and to the successful resolution of the important issues identified above.

XXVI ATCM
Information Paper
IP - 98
Agenda Item ATCM 5b
CEP VI 10
IUCN
Original: English

REPORT OF THE WORLD CONSERVATION UNION (IUCN)

Under Article III (2) of the Antarctic Treaty
XXVI Antarctic Treaty Consultative Meeting

9-20 June 2003
Madrid, Spain

XXVI ATCM
Information Paper
IP-98
Agenda Item ATCM 5b
CEP VI 10
IUCN
Original: English

REPORT OF THE WORLD CONSERVATION UNION[26] (IUCN) Under Article III (2) of the Antarctic Treaty XXVI Antarctic Treaty Consultative Meeting

Summary

The World Summit on Sustainable Development in September 2002 drew global attention to the importance of high seas biodiversity and called for coordinated efforts to maintain the biodiversity and productivity of important and vulnerable marine areas beyond national jurisdiction. IUCN would encourage the ATCM, particularly the CEP, in conjunction with CCAMLR, to consider further action to: 1) develop guiding principles to assist with the selection and designation of a network of Antarctic marine protected areas; 2) extend the systematic environmental geographic framework to the offshore marine environment; and 3) begin considering potential areas for new Antarctic Specially Protected Areas to protect examples of major marine ecosystems; areas with important or unusual assemblages of species; and other special areas deserving of protection.

Part I. Antarctic and Southern Ocean Marine Protected Areas

The World Summit on Sustainable Development in September 2002 called for efforts to maintain the productivity of important and vulnerable marine areas beyond national jurisdiction. It set target dates of 2012 for the completion of an effectively managed, ecologically representative network of Marine and Coastal Protected Areas and 2010 for application of the ecosystem approach to the marine environment. The UN General Assembly last year supported urgent consideration of means to integrate and improve the management of risk to marine biodiversity of seamounts and certain other underwater features within the framework of the United Nations Convention on Oceans and Law of the Sea (UNCLOS). The

[26] 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

Convention on Biological Diversity's advisory body (the Subsidiary Body on Scientific, Technical and Technological Advice) has recently agreed that there is an urgent need to establish marine protected areas (MPAs) beyond national jurisdiction, consistent with international law and based on scientific information, and recommended collaborative efforts among international institutions to identify appropriate mechanisms..."(UNEP/CBD.SBSTTA.8/L.11). It specifically mentions seamounts, hydrothermal vents, cold-water corals, and the open ocean – features which all occur within the Antarctic Treaty Area.

IUCN notes that the Antarctic Treaty System demonstrated an early awareness of the value of protected areas through the 'Agreed Measures for the Conservation of Antarctic Fauna and Flora' in 1964. This was continued through expansion of this system to form Annex V on 'Area Protection and Management' in the Protocol on Environmental Protection to the Antarctic Treaty of 1991. The Antarctic Treaty System is again well positioned to lead global protected areas thinking in implementing this widely recognized imperative of protecting marine areas.

At the XXVth ATCM in September 2002, the United Kingdom introduced a paper (ATCM XXV/ WP 9) on implications of the May 2002 entry into force of the Environmental Protocol's Annex V on Area Protection and Management. It recalled that Article 3 of Annex V calls for parties to seek to identify, within a systematic environmental-geographical framework, and to include in a series of Antarctic Specially Protected Areas (ASPAs):

1) Areas kept inviolate from human interference;
2) Representative examples of major terrestrial, aquatic and marine ecosystems;
3) Areas with important or unusual assemblages of species, including major colonies of breeding native birds or mammals;
4) The type locality or only known habitat of any species; and
5) Other areas that may be appropriate to protect for their outstanding environmental, scientific, historic, aesthetic or wilderness values, or ongoing or planned scientific research.

Among the general observations put forward in the United Kingdom paper was that the Committee for Environmental Protection (CEP), in cooperation with the Commission for the Conservation of Antarctic Living Marine Resources may wish to give consideration to developing some guiding principles to assist with the selection and designation of a network of Antarctic marine protected areas.

In a similar vein, New Zealand introduced a paper on developing a systematic environmental-geographic framework for protected areas (ATCM XXV/ WP 13). This paper noted work on terrestrial and coastal models, and invited CEP to use specialists to further refine the suggested criteria, possibly under the auspices of SCAR. It also noted that the framework might need to be extended to incorporate the offshore marine environment.

At the XXIst Meeting of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) (Hobart Tasmania, Australia 21 October-1 November 2002) IUCN put forward some recommendations regarding Marine Protected Areas in Antarctica. Noting that MPAs may enhance both fisheries productivity and conservation of marine biodiversity, IUCN encouraged CCAMLR Members to consider developing, in conjunction with the

Committee for Environmental Protection, guiding principles to assist with the selection and designation of a network of Antarctic marine protected areas and extending the systematic environmental geographic framework to the offshore marine environment. IUCN further urged CCAMLR to consider the development of a system of protected areas for the wider Southern Ocean and developing criteria for review of proposed MPAs 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

Annex V of the Madrid Protocol in conjunction with Articles IX.1(f) and IX.2 (g) of the Convention on Conservation of Antarctic Living Marine Resources provide an opportunity for CEP and CCAMLR to develop a system of marine protected areas that can protect ecosystem services, biodiversity and productivity in the greater marine environment.

IUCN would encourage the ATCM, particularly the CEP, in conjunction with CCAMLR, to consider further action to:

1) develop guiding principles to assist with the selection and designation of a network of Antarctic marine protected areas;
2) extend the systematic environmental geographic framework to the offshore marine environment; and
3) begin considering potential areas for new Antarctic Specially Protected Areas to protect examples of major marine ecosystems; areas with important or unusual assemblages of species and other special areas deserving of protection.

In order to gain experience with the practicalities of site selection, management and enforcement of Antarctic Specially Protected Areas critical for the conservation of marine biological diversity, it is important to begin considering potential areas now, rather than awaiting final completion of the theoretical framework.

The preliminary work might be started, for example, though an expert Antarctic Marine Protected Areas Workshop involving CEP, CCAMLR, SCAR, SCOR, IUCN, and others with pertinent interest and expertise prior to XXVII ATCM in 2004. This would build on the valuable work done at the generic Antarctic Protected Areas Workshops previously held in Tromso in 1998 and Lima in 1999, prior to the XXII and XXIII ATCMs respectively. IUCN looks forward to discussing the possibility of co-hosting such a workshop with participants at this meeting, and particularly with the hosts of XXVII ATCM.

Part II. Relevant IUCN Activities

IUCN has been concerned with Antarctic conservation issues for over 40 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.

IUCN Antarctic Advisory Committee

IUCN's Antarctic Advisory Committee was re-established in 1994 to provide a focal point for IUCN's involvement with Antarctic conservation activities. It consists of a Chair appointed by the Director-General and eleven further members appointed for their expertise

in matters relating to the conservation of Antarctica, the Sub-Antarctic Islands and the Southern Ocean. Antarctic Advisory Committee activities include efforts to promote the establishment and management of new forms of Antarctic protected areas, with particular emphasis on marine sites; steps to insure that cumulative environmental impacts are understood and taken into account in decision–making within the Antarctic Treaty System; and efforts to stop IUU fishing in the Southern Ocean while improving CCAMLR's legal and enforcement systems. IUCN has also participated in intercessional discussions on revision of Annex II regarding protection of species of flora and fauna.

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.

In January of 2003, IUCN, WCPA and WWF jointly convened an experts' workshop on High Seas Marine Protected Areas (HSMPAs) in Malaga, Spain. Invited international lawyers, scientists, marine managers, NGOs and ocean governance experts developed elements of an action plan to stimulate international action to halt biodiversity loss, protect vulnerable ecosystems and ensure sustainable use of living resources through high seas marine protected areas.

The Malaga Experts Workshop on HSMPAs identified the clear need to use and build upon existing legal regimes, in particular UNCLOS and the CBD, as well as the creation of new agreements to supplement this framework where necessary. Any legal framework for HSMPAs, whether at the regional or global level, should have the effect of strengthening the linkages and co-operation between states and international institutions; it should facilitate conservation and management of high seas biodiversity and ensure that these measures are enforced. The workshop concluded further that immediate action was essential to protect seamounts and other vulnerable deep-sea ecosystems and improve implementation of the existing legal framework for oceans governance.

The Malaga Workshop experts highlighted the opportunities for developing systematic and representative marine protected areas systems; for example, in Antarctica and the Southern Ocean through Annex V of the Environmental Protocol and utilizing the scope for complementary conservation measures under CCAMLR. The full proceedings: *Towards a Strategy for High Seas Marine Protected Areas-- Proceedings of the IUCN, WCPA and WWF Experts Workshop 15-17 January 2003, Malaga Spain* are available upon request. Contact information is provided below.

IUCN and partners are now developing 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.

At the World Parks Congress a special season on high seas governance issues will further inform and carry forward action by the international community. The session will discuss with a view to adoption a ten-year Strategy for development of the representative network of HSMPAs and a set of recommendations for global action to conserve and maintain high seas

biodiversity and productivity both within and beyond protected areas. IUCN and partners will also recommend 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 will be 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. Interested Committee members are welcome to attend. More information about the World Parks Congress is provided below and at www.wcpa.iucn.org.

World Commission on Protected Areas

Established in 1959, the World Commission of Protected Areas (WCPA) is the world's leading body of parks and protected areas experts. WCPA's 1,300 plus members promote the establishment and effective management of a worldwide representative network of terrestrial and marine protected areas, as an integral contribution to IUCN's mission. WCPA's structure includes global regions – and Antarctica is one of these regions. Antarctic and sub-Antarctic issues are thus also fed into thematic groups such as WCPA Marine. The WCPA Marine aims to increase the capacity of management institutions and practitioners while building a sustainable network of globally representative marine protected areas. WCPA-Marine is developing mechanisms and global standards for improving management effectiveness of marine protected areas. 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 and Greenpeace, 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. The Congress program seeks to balance vigorous debate on these issues with a technical focus that will deliver useful outputs for those working in the field. The key outputs expected are a new UN List of Protected Areas, updating the last global census of 1997, and the Durban Accord, a strategic, collective vision for the future of protected areas. In addition, an array of practical tools, policies, and recommendations aimed at professionals and decision-makers will be developed. The Congress will feature development of formalized alliances in support of protected areas with resource and tourism sectors, among others.

The marine component of the World Parks Congress aims to mobilize action to implement the target set by the World Summit on Sustainable Development (WSSD) of establishing representative networks of marine protected areas (MPAs) by 2012. It will contribute to meeting WSSD targets for sustainable fisheries and help realize the application of the ecosystem approach to ocean and fisheries management by 2010. Efforts will be made to relate inventory and assessment to relevant regional and global policy processes so as to scale up national designations into ecologically coherent networks and a global network. The

World Parks Congress will strengthen the application of coastal and ocean governance to MPAs through developing a new guidance tool, "Integrating Marine Protected Area Management with Coastal and Ocean Governance." Protecting biodiversity in areas beyond national jurisdiction is another important focus, ensuring that a globally representative system of MPAs includes the high seas.

On the practical side, the marine program will evaluate tools and approaches to halt the loss of marine biodiversity, including coral reefs and wetlands, maintain important habitats for marine biodiversity and sustainable fisheries, and make MPA management more effective. Other goals are the development of a working alliance with the tourism and fisheries sector and identifying sustainable financing mechanisms for national MPA systems.

IUCN Environmental Law Centre
Genetic Resources of the Oceans: Access and Benefit-sharing and "Bioprospecting"

IUCN's Environmental Law Centre (ELC) has long been involved in the difficult work of actualising the concept of Access and Benefit-sharing ("ABS") as originally promulgated under the Convention on Biological Diversity and as it has spread across global and national law and policy. Currently, in conjunction with many other sectors of IUCN, the ELC is undertaking an in-depth examination of several key legal issues affecting the implementation of the ABS concept. One specific area addressed is the rights and obligations of countries and private entities with regard to marine genetic resources, including especially resources of areas beyond national jurisdiction.

This project extends to the full range of ABS issues, from the so-called "access" issues (rights of entry and sampling, sometimes also called "bioprospecting") through the full range of legal issues regarding the use of genetic resources, sharing of its benefits, protecting the rights of users and suppliers (including Intellectual Property Rights). The project is also focusing on finding possible solutions to the difficult issues of how compliance with ABS agreements and obligations will be assured.

Key elements of this work that are relevant to the current work under the Antarctic Treaty System include –

(1) efforts to promote the use of existing voluntary codes regarding genetic sampling and collection processes in marine areas, and to recommend amendments or annexes to those codes to improve their applicability to marine "bioprospecting" activities; and

(2) efforts to improve the knowledge and capacity of professionals and negotiators who are expert in either marine issues or biodiversity (ABS) issues, so that both have a clearer and more comprehensive understanding of the nexus between their respective areas and can work together to address the full range of marine ABS issues.

The latter includes the development of better factual information concerning the extent and nature of bioprospecting activities in marine areas, as well as the legal and practical difficulties arising in the application ABS concepts to marine biodiversity.

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.

For further information on the High Seas MPA project and the full report of the Malaga High Seas MPA Workshop, please contact:

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Annex 1. Summary of IUCN World Conservation Congress (2000) Resolutions and Recommendations relevant to IUCN Antarctic Policies (attached)

Annex 1.

Summary of IUCN World Conservation Congress (2000) Resolutions and Recommendations Relevant to IUCN Antarctic Policies

The elements of IUCN's policy and programme are agreed by the World Conservation Congress of members and their execution is coordinated by an international Secretariat. The most recent World Conservation Congress, in Amman, Jordan in 2000, agreed three resolutions and two recommendations pertinent to the deliberations of this body. These are summarized below.

1) Resolution 2.20 on the conservation of marine biodiversity.

Resolution 2.20 arose out of concern for human impacts on biodiversity and productivity in areas beyond national jurisdiction and the need to protect areas as part of a representative system of marine protected areas at regional and global scales. It calls for action based on the framework of the UN Convention on the Law of the Sea, the Convention on Biological Diversity, the FAO Code of Conduct for Responsible Fisheries, and past decisions of the UN Commission on Sustainable Development. In Resolution 2.20 the Congress calls for IUCN members and multilateral agencies to explore an appropriate range of tools including high seas MPAs, with the objective of implementing effective protection, restoration and sustainable use of biodiversity and ecosystem processes on the high seas. It also calls on national governments, NGOs and international agencies to better integrate with established multilateral agencies and existing legal mechanisms to identify areas of the high seas suitable for collaborative management action and to reach agreement by consensus on regimes for their conservation and management.

2) Resolution 2.54 on Antarctica and the Southern Ocean

Resolution 2.54 stresses, inter alia, the importance of the conservation of the ocean ecosystem around Antarctica and the urgent need to ensure that all use of living resources is sustainable according to the 'ecosystem as a whole' conservation standards contained in Article II of the CCAMLR. It further calls for the development of a comprehensive network of protected areas pursuant to Annex V of the Protocol, which includes appropriate representation of the principal habitats and biological diversity of the region as well as other values, and consideration of new forms of Antarctic protected areas, with special emphasis on marine sites.

3) Resolution 2.66 on pirate fishing and seabird mortality from longlining in the Southern Ocean and adjacent waters.

In Resolution 2.66, the Congress called on States and fishery bodies to combat pirate fishing for toothfish in the Southern Ocean by all practical means, including by 1) undertaking at-sea patrols, 2) removal of economic incentives that lead to the re-flagging of vessels to non-CCAMLR nations, 3) adoption of strict port and trade controls, by passage of domestic regulations, 4) the documentation and certification of international trade in toothfish, including the implementation of the CCAMLR Catch Documentation Scheme, and 5) the adoption and implementation of the FAO International Plan of Action on IUU fishing. The Congress also called on States to consider other national and international measures to address the problem of IUU fishing for toothfish.

4) Recommendation 2.75 on Southern Hemisphere albatross and petrel conservation.

This recommendation stems from concern over the major threat that longline fishing activities pose to populations of Southern Hemisphere albatrosses and petrels, but also considers ecosystem issues such as "pollution introduced predators...and the effects of climate change." It requests, inter alia, that all Members whose vessels are undertaking fishing activities within the waters covered by CCAMLR implement the Commission's conservation measures and encourages all relevant Members and Range States to participate in the Agreement for the Conservation of Southern Hemisphere albatrosses and petrels ("Albatross Agreement") under the Convention on Migratory Species and to implement the FAO International Plan of Action for Reduction of Incidental Catch of Seabirds in Longline Fisheries. Since the Congress's adoption of this recommendation, the Albatross Agreement has been concluded. When it enters into force, it will mandate parties to address the two primary threats to the conservation status of albatrosses and petrels: 1) non-sustainable fishing methods; and 2) habitat factors ("degradation and disturbance... pollution, reduction of food resources.")

5) Recommendation 2.78 on promoting sustainable fisheries

Recommendation 2.78 recommends inter alia, that States take appropriate measures to identify critical or endangered zones for the reproduction of marine species and the creation of protected areas within these zones for biological diversity conservation at the local, national and global levels.

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IP-78
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CEP VI 10
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REPORT OF THE INTERNATIONAL ASSOCIATION OF ANTARCTICA TOUR OPERATORS (IAATO) 2002-2003

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 XXVI, Madrid, Spain, 9-20 June 2003 in relation to Article III (2) of the Antarctic Treaty.

IAATO is a member organization founded in 1991 to advocate, promote and practice safe and environmentally responsible private-sector travel to the Antarctic. IAATO has succeeded in developing a successful working relationship with most commercial tour operators, has established best practices in order to minimize environmental impacts and maintain the wilderness aesthetic quality of Antarctica. IAATO has been effective in setting self-imposed limits on its members. IAATO is an accreditation organization whereby all companies are voted in by Full Members based on their commitment and responsible practices. IAATO seeks to raise the operational standards of all members and the industry as a whole. IAATO's agreed objectives are listed in Appendix E. All Members are business competitors of one another and therefore striving for excellence is of particular importance for most companies.

Over the last year IAATO has continued to focus its activities in several key areas:

- Improved data collection and exchange of information among its members,
- Outreach to non members,
- Improved vessel communication methods via the GMDSS and INM-C system for safety and itinerary planning purposes,
- Development of Site Specific Guidelines to address impacts and concern towards growth in the tourism industry,
- Stressed the concern towards the potential spreading of Antarctic diseases and prevention methods,
- Enhancement of operating instructions,
- Participation in Intersessional Working groups,
- Furthering the development of the IAATO-Wide Contingency Planning,
- Addressed specific issues of Antarctic tourism, including high-risk ventures,
- Participation in international meetings and liaison with National Antarctic programs, government agencies of the sub-Antarctic island groups, and scientific and environmental organizations.

New Discoveries

In the Antarctic Peninsula Region a new discovery was made by the officers on the MV *"Bremen"* on February 2, 2003. Omega Island (64°20'S, 62°56'W) in the Melchior Islands group, thought to be one island but it is actually two islands split by a channel of water. IAATO Member Company Hapag Lloyd's personnel provided this information to the Geodaesie and Cartographie in Germany and to the Alfred Wegener Institute. Detailed information will be provided to the IHO/IHB.

On November 26, 2002, during *Shokalskiy's* first voyage to the Sub-Antarctic Islands, Heritage Expeditions team found that significant recent volcanic activity at McDonald Island in the Indian Ocean had completely changed the shape and nature of the Island. Heritage Expeditions permit did not allow the group to land, however the changes were photographed, sketched and recorded in detail. This information was reported to the Australian Antarctic Division.

1 IAATO Membership and Activities

1.2 Founded by seven private tour operators in 1991, the International Association of Antarctica Tour Operators has 48 members from Argentina, Australia, Belgium, Canada, Chile, Germany, Netherlands, New Zealand, Norway, United Kingdom, and the United States and the overseas territory Falkland Islands (Islas Malvinas). A current Membership Directory can be found on the IAATO website at www.iaato.org.

1.3 IAATO Member Companies During the 2002-2003 Season

21 Full Member Companies: Abercrombie and Kent/Explorer Shipping Corporation, Adventure Associates, Adventure Network International, Aurora Expeditions, Cheesemans' Ecology Safaris, Golden Fleece Expeditions, Hapag Lloyd Kreuzfahrten, Heritage Expeditions, Holland America Line, Lindblad Expeditions, Mountain Travel Sobek, New World Shipping Co./Clipper Cruise Line, Oceanwide Expeditions, Pelagic Expeditions, Peregrine Expeditions, Polar Star Expeditions, Quark Expeditions, Society Expeditions, Victor Emanuel Nature Tours, WildWings, and Zegrahm Expeditions.

Full Members included one land-based operator, ship operators, companies that charter ships and or organize their own groups to Antarctica and companies that reserve space from existing ship operators programs. Each Full Member has one vote.

7 Provisional Member Companies: Antarctic Horizons, Antarctica 21/Turismo y Hoteles Josë Nogueira S.A., Crystal Cruises Inc., Expeditions Inc., Oceanfrontiers, Ofotens og Vesteraalens Dampskibsselskab, and plantours and Partner.

Provisional Members included one land/sea based operator, one large cruise vessel operator, three small ship operators and one company that charters vessels from existing members.

20 Associate Member Companies: Agencia Maritima International SA, Amazing Cruises and Travel Inc., Beluga Expeditions & Adventures BV, Expeditiontrips.com, Falkland Islands Company Ltd Shipping Agency, Fathom Expeditions, Galapagos Travel, Helicopters New Zealand, La Tour, Life Long Learning, Mission Antarctica, Natural Habitat Adventures, Navalia s.r.l. Port Agents and Ship Suppliers, Office of Antarctic Affairs, Radisson Seven

Seas Cruises, Sintec Tur, Students On Ice, Sullivan Shipping Services Ltd., Tauck World Discovery, and World Expeditions.

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 2003-2004 season IAATO membership is anticipated to include 59 members. (The IAATO fiscal year runs July 1-June 30.)

1.4 IAATO Membership Categories

During the 2002-03 season IAATO had 20 ships or sailing vessels in Category 1, 1 ship in Category 2 and 3 ships in Category 3. The Membership Categories are as follows:

1. Organizers of Expedition Ships that carry less than 200 passengers or sailing vessels that carry less than 12 passengers. The limit of 100 passengers ashore at one site at one time remains in force.
2. Organizers of Vessels carrying 200-500 passengers making passenger landings. Stringent restrictions on landing activities of time and place apply. The limit of 100 passengers ashore at one site at one time also applies.
3. Organizers of Cruise Ships making no landings (cruise only). Cruise Ships carrying more than 500 passengers are not permitted to make any landings.
4. Organizers of Land Based operations.
5. Organizers of Air Operations with Over Flights only.
6. Organizers of Air Cruise Operations.
7. Associate Members.

*Note Full, Provisional, and Probational status still occurs within categories 1-6

1.5 Bylaws Changes: There were no Bylaws Changes since inclusion in ATCM XXVIP74. IAATO Bylaws can be found on line at www.iaato.org.

2 2002-2003 Tourism Statistics

2.1 From November 2002 to March 2003, a total of 10,592 tourists landed in the Antarctic by privately organized IAATO Member companies, including passengers aboard 20 commercially organized small expedition vessels and 180 land-based visitors. In addition, 2424 tourists travelled on 3 IAATO-Member large cruise vessels (3 departures) that did not land tourists and spent approximately 72 hours each trip south of 60°S in Antarctica.

Non-Member activities include approximately 2,799 tourists who landed in Antarctica on three non-member vessels and one company operating a land based-aircraft fly-in program.

2.2 Tourism numbers have increased some since the 2001-2002 season but have not reached the millennium peak from the 1999-2000 season. Tourism activities and actual numbers of non-members, however have become more available over the years and therefore overall numbers are somewhat higher this year. A detailed "Overview of Antarctic Tourism" paper is presented as a separate information paper to ATCM XXVI under Agenda Item 10.

3 IAATO's Participation in Organized Meetings during 2002-2003

3.1 IAATO held its 14th General Meeting from May 5-9, 2003, in Seattle, Washington, USA. Some 80 people from 41 member companies of IAATO including the new Provisional and Associate Member applicants, 1 non-member tour operator plus 15 government, conservation and private organizations attended the meeting. The complete agenda can be found on IAATO's website at www.iaato.org. Several companies 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 the Arctic and enhanced coordination of Arctic activities in areas such as Svalbard where tourism similarities exist.

Attending this meeting were representatives from the United Kingdom (Foreign and Commonwealth Office-Polar Regions Section, United Kingdom Overseas Territories, British Antarctic Survey), United States Antarctic Program/National Science Foundation, Raytheon Polar Services, Umwelt Bundesamt (Federal Environmental Agency-Germany), Antarctica New Zealand, New Zealand Antarctic Heritage Trust, Antarctic Non Governmental Activity News (ANAN), World Wildlife Fund Arctic, Lakehead University, The Hong Kong Polytechnic University and University of Tasmania. In addition, expedition staff and private individuals attended.

3.2 IAATO will hold its 15th General Meeting in Christchurch, New Zealand in 2004. (The final dates will be decided upon notification of dates for ATCM XXVII.) The 16th General Meeting is currently planned for Ushuaia in 2005. Interested parties that would like to participate should contact the IAATO Secretariat at iaato@iaato.org.

3.3 An IAATO representative from IAATO Member Company-Aurora Expeditions attended the State of the Environment Workshop, Sydney, 2003.

3.4 Several IAATO members met with their various governments during the last year to discuss tourism issues in the Antarctic and Arctic. Feedback from members felt that these meetings proved useful for the tour operators to hear about their government concerns or issues. 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. This also helps dissipate the overwhelming amount of misinformation found in various news sources worldwide.

4 Field Coordination

4.1 Provided IAATO receives the information, aircraft, vessel call data and schedules from any tour company will probably be included in IAATO's yearly exchange of information consisting of: vessel contact information, overall ship schedules, emergency contact information and yearly Antarctic tourism reports.

4.2 Vessel Call Data and ship schedules are shared with COMNAP for purposes of updating COMNAP's MINIATOM. The MINIATOM is extremely useful for tour operators when trying to contact stations or other vessels. IAATO transports numerous scientists 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.

4.3 Preliminary detailed cruise itineraries are compiled by the IAATO Secretariat and distributed to Antarctic tour operators, national Antarctic programs where appropriate, COMNAP, SCAR and In.Fue.Tur in advance of the season.

4.4 Expedition leaders and ship's officers circulate advance 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 and the same time. An example of the annual instructions to ships' captains, radio officers and expedition leaders is included as Appendix A.

4.5 Routine contact between vessels and with Adventure Network's Emergency and Medical Evacuation Response office in Punta Arenas (EMER) is a key component of effective emergency response and self-sufficiency. Details on IAATO's EMER have been presented at previous ATCMs. One ship operating company used Chilean airlines DAP for their emergency back up plan.

5 Environmental Impact Assessment

5.1 Argentina, Australia, Chile, New Zealand, United Kingdom, United States, Germany, the Netherlands, and Norway all received Environmental Impact Assessments (EIA's) from IAATO members operating vessels or land-based programs. All IAATO members conducting activities that required an EIA submitted sufficient documentation.

5.2 IAATO urges Contracting Parties to ensure that obligations of the Environmental Protocol are being met and Environmental Impact Assessments from non-members of IAATO are being submitted. IAATO is concerned about non-member activities. During the 2002-2003 season several member vessels observed non-member sailing vessels with tourists walking through penguin colonies and trampling moss beds.

5.3 IAATO would like to request that when non-member companies submit EIA's that governments be wary of reference statements such as "We follow all IAATO Guidelines." It isn't possible for non-members to have the breadth or understanding of the numerous operating strategies IAATO has developed over the years. This statement appeared in some non-member IEE's during the 2002-2003 season and actually proved problematic. Non-members do not receive regular updates and briefings from IAATO. Some non-members are copied in on Vessel Call Data, itinerary sharing and some other impromptu issues. Governments permitting and or assessing non-member companies may need to provide additional information on suggested operating procedures or an observer to monitor environmental concerns.

6 Procedures to Prevent the Introduction of Alien Organisms

6.1 For four seasons, IAATO's Boot and Clothing Decontamination Recommended Guidelines have proved to be effective. These guidelines unofficially have been operative for the last ten years by most companies.

6.2 For three 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 and ATCM XXV in IAATO's annual report.

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 ATCM XXIV. Prior to moving ahead on the IAATO database we wanted to see how this form would work and if the data would be easily transferred into a database. IAATO anticipates the direct input capability to be operational for the 2003-2004 season. However we will probably need to make additional amendments to the Post Visit Site Report to reflect the increased number of activities and in order to "code" it properly. IAATO will propose changes to ATCM XXVII if everything proceeds as planned. Some Contracting Parties are still referencing forms agreed to at ATCM XXI in discussion with non-members of IAATO. The ATCM approved form is attached as Annex J to the Final Report at ATCM XXIV and can be found electronically on the IAATO website. New sites will be added each year to the drop down menus prior to November 2003. There is both a MAC and PC compatible form.

7.2 IAATO continues to support the continued use of this single form, which reduces the burden of paperwork and can facilitate 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 member operators in order for the data to be incorporated into the "Overview of Tourism." This will provide for greater transparency of all tourist activities and will further the ability to address cumulative impact issues. This request was also made to ATCM XXV.

7.3 Overall IAATO supports the development of a relevant and effective tourism data-base. IAATO will develop this independently and would be interested in working with the Antarctic Treaty Secretariat if appropriate should the ATS decide to further work in this area. Regardless compiling the information is very time consuming and assuring that all activities are reported will be challenging no matter what system is invented.

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)

8.1 IAATO's standard operating procedures for implementing Recommendation XVIII-1 include:

- Mandatory briefings take place 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 experienced Expedition Leaders will however enhance the presentation with additional slides.
- Tourists, 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 its pre-season materials in advance of departure, some once on board the tourist ship. Regardless all tourists are required to attend the briefing. Those not in attendance are talked to privately. Crew Members are also supposed to be fully briefed.

- These guidelines are available to members from IAATO in English, Chinese (Mandarin), French, German, Italian, Japanese, Russian and Spanish. Should any Antarctic Treaty Parties have translated this document into languages not listed above please submit copies to the IAATO Secretariat in order to better educate our traveling public. IAATO has committed time and resources to update the appearance of these guidelines and probably the slide show for the 2003-2004 season.

8.2 Recommendation XVIII-1, "Guidance for Those Organising and Conducting Tourism and Non-Governmental Activities in the Antarctic" is provided to all IAATO tour operators to inform members of key obligations and procedures to be followed.

9 Emergency Response Action and Contingency Planning

9.1 During the IAATO 14th General Meeting the IAATO-Wide Emergency Contingency Plan was agreed upon. This plan has been submitted as a separate paper to ATCM XXVI. The shared vessel information in this 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 list is updated yearly and can be used in coordination with COMNAP if needed.

9.3 All IAATO member companies have Shipboard Oil Pollution Emergency Plans (SOPEP) in place that satisfies regulation 26 of Annex I of MARPOL. A "Special Antarctic Addendum" to the SOPEP was developed by IAATO and distributed to Antarctic tour operators for implementation and comment in 1998 (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. The above-mentioned IAATO-Wide Emergency Contingency Planning will be an additional document under the SOPEP.

9.4 The IAATO-wide EMER (Emergency Medical Evacuation Response) plan has been in place for at least 5 seasons in order to reduce the need to impact scientific stations in the Antarctic Peninsula with medical-related tourist problems. A standard medical information checklist has been provided to new Members upon request in order to assure adequate medical supplies are available.

10 2002-2003 Scientific and Information Support

10.1 IAATO member companies continue to provide logistic and scientific support to national Antarctic programs and to the Sub-Antarctic Islands. Tour vessels provide a cost-effective resource for the scientific community. During the 2002-03 season at least 150 scientists, gear and other personnel from various National Antarctic programs were provided transport to and from stations, field sites and gateway ports. Antarctic Treaty Parties chartered or used at least five IAATO member vessels for station resupply during the 2002-2003 season. A partial list of support is included as Appendix D. Further descriptions are noted below.

Quark Expeditions (United States) operating the Icebreaker vessel *Kapitan Khlebnikov* provided the following support:

- *Kapitan Khlebnikov* was chartered by the Australian Antarctic Division prior to the tourist season
- *Kapitan Khlebnikov* assisted Italian Antarctic Programme's vessel *Italica* which was beset in ice near Terra Nova Bay on January 23, 2003. The *Italica* was then able to reach open water and sail
- 3 Scientists were transported to Casey Station
- 6 Scientists or personnel were transported to Macquarie Island plus gear
- 14 Field Personnel were transported for Antarctica New Zealand either to or from New Zealand or McMurdo to Cape Adare plus 3 tons of gear
- 1 Scientist was transported on behalf of US-NSF from McMurdo to New Zealand

Hapag Lloyd (Germany) transported 27 Scientists or Field 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 fuer Luft- und Raumfahrt (DLR) from / to O'Higgins
- Individual Science Personnel were transported from Port Stanley to South Georgia

Heritage Expeditions (New Zealand) operating the vessel *Shokalskiy* assisted in the following scientific projects:

- Deployed approximately 30 "Argo" buoys through the South Indian and Southern Ocean for the University of Washington
- Deployed 2 weather buoys for New Zealand Meteorological Service
- Worked on a project with University of Tasmania assessing the wash/wake of tourist vessels transiting the "Narrows" in Bathhurst Harbour Wilderness area of Southern Tasmania
- Worked with the New Zealand Ministry of Fisheries on a reporting/recording scheme for fishing vessels in the Southern Ocean
- Transported 11 scientists to/from the NZ Sub-Antarctic Islands of Campbell, Snares, and Auckland Islands to service the automatic meteorological stations

Peregrine Shipping (Australia)

- Worked with the Shirshov Institute of Russia and transported 34 scientists on the repositioning voyage from Russia to Ushuaia and 3 scientists on the return voyage
- Three oceanographers sailed on board and undertook temperature and salinity probes enroute to Ushuaia and through the Drake Passage and in Antarctic waters.

Lindblad Expeditions continued its support of the Oceanites Antarctic Site Inventory Project whose personnel were again provided with accommodations, transport and access to visitor sites.

Polar Star Expeditions carried two teams of Ukrainian scientists to and or from Vernadskiy and a group of Bulgarian scientists and government representatives (Foreign Ministry) to the Bulgarian St. Kliment Ohridski station.

10.2 Specific requests for logistic or other support should be made to individual members or the IAATO Secretariat. For a complete membership directory, please refer to the IAATO website at www.iaato.org.

10.3 Numerous companies update the IHO/IHB yearly with chart information. IAATO is planning on attending the IHO meeting in September 2003. An IHB representative attended the 2002 IAATO meeting and IAATO looks forward to a productive exchange of information. Several companies who operate ships in polar regions send chart updates and corrections yearly to the IHO.

11 Conservation Research, Academic and Political Support

Antarctic tour operators and passengers continued their tradition of direct financial contributions to many organizations active in Antarctica. See Appendix C.

Peregrine Adventures/Shipping provided passage and airfare on *Ioffe* for a postgraduate student to assist in studies of tourism and impacts.

Peregrine Adventures/Shipping provided 5 cabins for auction to various Australian charities (e.g. Cancer Research, Children's Foundations etc).

Abercrombie and Kent/Explorer Shipping has provided continued support to the College of the Atlantic (Allied Whale Campaign) for numerous years. Lakehead University (Canada) students periodically travel on board the *Explorer* to further their Polar Studies and gain actual experience.

Canadian company 'Students on Ice' organized 70 teachers and students in December 2002 on board the *Polar Star*. Several of the students paused at the edge of an Antarctic glacier to call the Canadian Minister of the Environment by satellite phone to urge him to ratify the Environmental Protocol. Students on Ice (SOI) has been working closely with the Canadian government for many years to ratify the Protocol and is proving to be influential in their efforts. SOI has completed its third season taking 250 students, teachers and scientists from over 14 different countries on educational expeditions to both Polar Regions.

Quark Expeditions sponsored an academic competition amongst High School students in Ushuaia. The three top students along with a chaperone were taken on a free trip to Antarctica.

Polar Star Expeditions sponsored at least 2 youths during the season. Upon return from Antarctica, South Georgia and Falklands (Malvinas), presentations were given by the participants to their respective schools.

As part of the Kershaw Kids Program, Adventure Network International took 6 children from 3 different continents to Patriot Hills.

12 With Thanks---Assistance by National Programs

The following countries or personnel provided assistance and operational guidelines to IAATO during the 2002-2003 season for which IAATO companies are grateful:

- To ALL Antarctic and Sub-Antarctic station and island personnel who have welcomed our groups and provided a friendly, educational and rewarding experience for tourists.
- Argentina: In.Fue.Tur for assisting all Companies and Expedition Leaders in schedule coordination and acting as an information source for IAATO vessels during the Antarctic season.
- Brazil: Vessel *Ary Rongel* for assisting Oceanwide Expeditions with the incident involving the death of the scuba diver.
- Chile: Vessel *Oscar Viel* for assisting the Clipper Adventurer at Deception Island.
- Chile: Assisting Oceanwide Expeditions in searching for the 'missing" man-overboard passenger off Cape Horn.
- Chile: For the use of the Runway at Marsh/Frei for medical emergencies
- Russia: Bellingshausen for assisting with logistics and support for the above mentioned scuba diving incident.
- United Kingdom: UKFCO, BAS, Port Lockroy and South Georgia Museum Staff and officers for making visits to both places an extremely educational and enjoyable experience and for providing members with comprehensive guidelines for visits to BAS stations. Station guidelines are extremely useful to Expedition Leaders and staff so they know how to organize the passenger visit and minimize impacts (science and environmental) at the station. IAATO is grateful for the U.K's support in limiting visits to stations to IAATO Members.
- United States: National Science Foundation-Nadene Kennedy for compiling tourism data for the last 14 years, participating in IAATO meetings and coordinating US station visits.
- And any others who we mistakenly missed on this list.

13 Observers on board IAATO member vessels

IAATO requires that any Provisional or Probational Member companies are required to carry an observer before they are eligible to apply for Full Membership. IAATO prefers to use a qualified National Program Observer from the country in which the company is registered. When no national program observer is available, IAATO will appoint an appropriate person with experience in Antarctic matters, shipboard and or ecotourism related fields. IAATO has a checklist for observers. This checklist has been tabled at ATCM XXIV and ATCM XXV. In addition, Resolution 5 (1995) Antarctic Treaty Inspection Checklist is also provided to the appointed observer. It is IAATO's understanding that any observers appointed by National Programs would not be acting in an official capacity according to Article VII of the Antarctic Treaty but would simply be appointed as National Program representatives. IAATO vessels have been carrying observers since 1991. During the 2003-2004 season numerous observers will be required to sail on board IAATO Provisional Member vessels.

Appendices

A. IAATO Annual Instructions
B. IAATO Preseason Checklist
C. Partial List of Donations
D. Partial List Scientific Support
E. IAATO's Objectives

Appendix A

Expedition Leader And Ship's Officers Seasonal Instructions

TO All Antarctic Captains, Expedition Leaders and Radio Officers
FROM IAATO
RE 2002-2003 Season

We updated the following information at the IAATO annual meeting to help guide the exchange of information among vessels, co-ordination of itineraries and reporting for the season.

Exchange of Itineraries

- IAATO members agree to exchange itineraries and coordinate schedules. This is a key factor in self-regulation, monitoring of activities and also in effective emergency response.
- Consult the IAATO preliminary schedule (and updates circulated by In.Fue.Tur) to determine which vessels will be in your cruising area.
- Circulate your proposed final itinerary via GMDSS, telex by broadcast mode or radio (preferred) or fax or e-mail. (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 print out the incoming message immediately.
- Itineraries must be first communicated amongst vessels directly and secondarily circulated via In.Fue.Tur but this is a method of last resort. Not all ships call at Ushuaia and the responsibility to circulate information is between individual vessels.
- Be sure to also exchange environmental information and management recommendations for individual landing sites or other notices with your colleagues as the season progresses.

Itinerary Changes

- To avoid conflicts, notify vessels in the region of any changes in planned itinerary as soon as practicable.
- Notification should be by GMDSS first, then 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 the first vessel that has made its intentions known.
- 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 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 in your voyage report to the home office.
- No visits to Palmer Station are 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.
- Visits to BAS Stations need to be pre-arranged through IAATO as per instructions by BAS.

Channel 16

- Channel 16 is used for hailing purposes only, NOT general communication.
- After making contact, immediately switch to another channel to continue conversation.
- Expedition Leaders should periodically review radio etiquette with staff. The airwaves during the height of the season in the Peninsula have been crowded, an issue with IAATO members and potentially with research stations. Take care to follow standard international procedures.

IAATO Radio Schedule

- IAATO members have agreed to implement a once daily radio schedule at 1930.
- All ships should report in with their position/destination at 1230 and 1930 daily using the GMDSS system (Ushuaia local time). Each radio officer should record this information.
- 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.
- Please 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 please make yourselves known. Sort all itinerary business first and reschedule any other discussions for a later time. Non-IAATO members who simply want 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.

Radio Log On, GMDSS and INM-C Communication

- 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 Post Visit Site Reports for evaluation.
- GMDSS is the only reliable means of communication and it should be used daily by all ships.
- Each vessel should report the noon position to each other via GMDSS or INM-C.
- 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 (INMC-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.

EMER (Emergency and Medical Evacuation Response)

- Review the IAATO Emergency Contingency Plan included in your briefing package.
- The reporting scheme indicated above is an integral part of emergency response. Please insure that it is followed and report any difficulties to your home office.

Post-Visit Reporting

- Following Antarctic Treaty recommendations, complete Part 1 and Part 2 of the standard Post-Visit Site Report for every expedition. The 2002-2003 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. In order to input this information into the database, always submit a computer version 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. Copies of all completed forms must be submitted to the National Science Foundation and other relevant national programs and a copy sent to IAATO via the home office.
- The form is in EXCEL Format. After each trip both an Electronic Copy (on disc) and a hard copy needs to be filled out. 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. It 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 Antarctica. South Georgia forms need to be sent to the Government of South Georgia at the end of each voyage.
- 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" 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. Any new sites, type in the name of the site, latitude and longitude at the bottom. It may mean that chronologically from a "date" standpoint your landing sites may not be in order.
- If you are visiting new sites then they will need to appear at the bottom of the list and will not necessarily appear in chronological order by date.
- Make additions to the list of landing sites as necessary -- taking note of the standard procedures included in your briefing packet for assessing new or rarely visited sites.
- EL's, please note that this information is used for statistics that are tabled worldwide. Please do not hastily fill this out. If you have questions, consult your home office.
- If possible type the forms rather than hand write.
- Please do not wait until the end of the season to send forms to IAATO and NSF. The earlier we get reports, the sooner we can compile the data.

Have a safe and successful Antarctic season.

Appendix B

IAATO Pre-Season Checklist 2002-2003 Season

Season Documents

- ❑ Expedition Leader and Ship's Officers Season Instructions: Memorandum to Antarctic Captains, Expedition Leaders and Radio Officers
- ❑ Antarctic Communications Directory (COMNAP MINI-ATOM-Available October 2002)
- ❑ IAATO Vessel Call Data, 2002-2003 (available October 2002)
- ❑ Preliminary Ship Schedules
- ❑ Approved 2002-2003 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)
- ❑ Antarctic Peninsula Region Landing Sites (with Longitude and Latitude)
- ❑ IAATO Emergency and Medical Response Contingency Plan
- ❑ 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
- ❑ Boot and Clothing Decontamination: IAATO Recommended Guidelines
- ❑ 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
- ❑ IAATO Annual report to the ATCM and other relevant papers
- ❑ Compendium of Antarctic Peninsula Visitor Sites (Can be obtained from Oceanites)
- ❑ "Behold Antarctica" Video (produced by U.S. National Science Foundation)
- ❑ Handbook of the Antarctic Treaty System (Currently out of Print-there is a CD rom in process)
- ❑ List of Protected Areas
- ❑ Relevant Management Plans for specific Antarctic tourist landing sites
- ❑ Appropriate and Relevant Legislation per company per country (for example, the US Antarctic Conservation Act 1978, public law 95-541) necessary for vessels carrying US citizens, German, Australian, New Zealand, United Kingdom Antarctic Acts, Norway, Japan etc).
- ❑ Convention on the Conservation of Antarctic Marine Living Resources (1980)
- ❑ Convention on the Conservation of Antarctic Seals
- ❑ Protocol on Environmental Protection of the Antarctic Treaty (1991)
- ❑ Copy of all relevant permits
- ❑ Copy of all relevant management plans for individual landing sites
- ❑ 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
- ❑ Up to date version of the Management Strategy for Deception Island (available October 2002)
- ❑ Pendulum Cove boundary information for landings and visit to historic site
- ❑ General Medical Information, Parts I, II and III
- ❑ COMNAP Incident Reporting Form
- ❑ Whale Collision Reporting Form
- ❑ Resolution 5, Antarctic Treaty Inspection Checklist for Tourist Ships
- ❑ Procedures for Tourist or Non-Governmental Expeditions Requesting a Visit to BAS Research Stations or Historic Sites

Appendix C

2002-2003 Donations

THE FOLLOWING CHART IS A PARTIAL LIST OF DONATIONS THAT WERE GIVEN BY THE COMPANY 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 COMPANIES PROVIDED A LIST PRIOR TO THIS REPORT BEING SUBMITTED.

Company	Birdlife International-Albatross	Save the Albatross-Australia	American Bird Conservancy-Albatross	Scott Polar Research Institute	Antarctic Heritage Trust and Donation to Huts	Other
Zegrahm Expeditions	$125,075 usd					Falkland Islands Conservation $5000 usd
Quark Expeditions	$1,380 usd			$11,200 usd	$21,559 usd	World Wildlife Fund $2150 usd
Hapag Lloyd	$1422.50 plus € 2965				$390 usd plus € 3247.04	South Georgia Museum Trust € 420
Peregrine Shipping		$8100 usd				
Polar Star Expeditions		$2,161.52 usd				
Cheeseman's Ecology Safaris			$2,750 usd			
Lindblad Expeditions						Oceanites + donations
Heritage Expeditions					$3500 usd	

Total	
Albatross:	$140,890.02 USD
	€ 2465 Euros
Scott Polar Research Institute:	11,200 USD
Antarctic Heritage Trust	25,449 USD
	€ 3247.04 Euros
Falkland Islands Conservation	$5000 USD
World Wildlife Fund	$2150 USD
South Georgia Museum Trust:	€ 420 Euros

Total-pending the USD-Euro Conversion is over $211,000 USD plus all the logistic support and additional donations to Oceanites.

*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 2002-2003

Company	Poland	Bulgaria	Russia	Germany	Australia	New Zealand	Other
Adventure Network International							Chile: flew 3 representatives to the Chilean camp close to Patriot Hills, and return
Aurora Expeditions	Resupply Arctowski in November and February Transport of 2 Scientists from Penguin Island to Arctowski						Republic of Czech: 2 scientists were transported from Ushuaia to Vernadskiy
Hapag Lloyd				Transported 27 Scientists or personnel to Jubany or nearby			
Heritage Expeditions					Transported 5 scientific personnel to Macquarie Island	Transport of 11 scientists to/from the NZ Sub Antarctic Islands, Campbell, Snares, Auckland Isl	
Oceanwide Expeditions			Resupply of Bellingshausen				
Peregrine Shipping		Scientists were transported from the station. Antarctica back to Ushuaia	A total of 40 Scientists were transported to or from Russia to Antarctica				
Polar Star Expeditions		Numerous Scientists and government personnel from Ushuaia to Antarctica					Ukraine: 2 groups of scientists were transported to and from Vernadskiy

Quark Expeditions				1 Scientist was transported from Neumayer to Ushuaia	3 Scientists plus gear to Casey Station 6 Scientists from New Zealand to Macquarie *See Additional notes in Section 10	14 Science personnel plus gear between New Zealand and the Ross Sea Region	United States: 1 scientist from McMurdo to New Zealand

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 Protocol on the Environment 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 people 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.

XXVI ATCM
Information Paper
IP-076
AGENDA ITEM: ATCM 5
IHO
Original: Spanish

XXVI ANTARCTIC TREATY CONSULTATIVE MEETING
Madrid, ESPANA, 16th June 2003

STATUS OF HYDROGRAPHY AND NAUTICAL CARTOGRAPHY IN ANTARCTIC and PROPOSALS FOR ITS IMPROVEMENT

Submitted by the International Hydrographic Organization

I.- Introduction.

According to its Convention, the International Hydrographic Organization (IHO), was established as an Intergovernmental Organization of a consultative and purely technical character.

The International Hydrographic Conference, integrated by 73 Member States that meets each 5 years, and the International Hydrographic Bureau (IHB), managed by a Directing Committee that has the responsibility of its administration, composes the Organization. The IHB has 20 persons, including the three Directors, and has its headquarters in the Principality of Monaco.

The Mission of the Organization is: " to facilitate the provision of adequate and timely hydrographic information for world-wide marine navigation and other purposes, through the co-ordination of the endeavours of national hydrographic offices."

The IHO Strategic Plan in force was approved by Member States at the Second Extraordinary Hydrographic Conference that took place in 2000, specially held for that purpose. The XVIth Conference approved the IHO Work Program 2003-2007 in April 2002. Both documents constitute the guides leading the Organization's effort towards the achievement of its objectives that are provided below:

- promote the use of hydrography for the safety of navigation and all other marine purposes and to raise global awareness of the importance of hydrography;
- improve global coverage, availability, quality and access to hydrographic data, information, products and services;
- improve global hydrographic capability, capacity, science and techniques.

- establish and support the development of international standards for the quality and formats of hydrographic data, information, products, services and techniques and to achieve the greatest possible uniformity in the use of these standards;
- give authoritative and timely guidance on all hydrographic matters to governments and international organisations;
- facilitate coordination of hydrographic activities among Member States;
- enhance cooperation on hydrographic activities amongst States on a regional basis.

The Organization's Budget is mainly constituted by the contributions of Member States, in function of the tonnages of their fleets. This annual budget does not exceed 2.5 million euros. This situation demands the Organization an intense and creative work, aiming to solve Member States' growing hydrographic products demand, vital to support national, regional and global priority problems.

To accomplish the above, the Organization has developed a structure to provide a centralized attention on technical matters related to hydrography, through the work of Committees, Commissions and Working Groups, established to deal with particular topics. On the other side, operates de-centralized to provide a much better attention to problems and specific activities of regional interest, through the Regional Hydrographic Commissions.

II.- The IHO Antarctic Hydrographic Committee

The XIVth International Hydrographic Conference in 1992, decided to establish a Permanent Working Group on Cooperation in the Antarctic, mainly to:

- Development of an International Chart Scheme, covering all Antarctic waters, acting as a regional cartographic group coordinated by the IHB.
- Examine the status and quality of hydrographic surveying
- Identify the needs to improve surveys and charts

This Working Group met 4 times and its main two outcomes were the Cartographic Scheme (Annex A, Appendixes 1 and 2) and a compendium of symbols particularly developed for the Antarctic, nowadays in force.

The XVth International Hydrographic Conference in 1997, decided to grant the Group the hierarchy of Regional Hydrographic Commission, establishing the IHO Antarctic Hydrographic Committee, changing its Terms of Reference by Statutes. With this action, the IHO had wanted to give a preferential treatment to the necessary coordination for the execution of hydrographic surveys and the production of nautical charts, essential to provide safety to navigation and contribute with other activities in the maritime field.

This committee has had 2 meeting, in 1998 and 2001, to define the Statutes today in force; consider the progress had in the nautical chart production according to the scheme, and coordinate the hydrographic surveys.

Next meeting of the Committee will take place 8 to 10 September 2003 at the IHB headquarters in Monaco. (Annex B provides the Draft Agenda for this meeting, in English).

III.- Status of Hydrographic Surveying

It should be noted that National Hydrographic Office survey programs would, in general, be prioritised according to the following criteria.

- Areas around ports and port approaches.
- Offshore coastal areas including offshore banks, shoals and areas where vessel traffic may be restricted as a result of the geographical nature of the area.
- Areas of specific National or International interest.

These areas are usually surveyed using equipment and techniques that result in high accuracy surveys with thorough bottom coverage. Ideally the surveys will conform to the Standards laid down in IHB publication S44, 'Standards for Hydrographic Surveys', 4th Edition, April 1998.

The cost of conducting high order controlled surveys is high, and these costs escalate rapidly when the area has a hostile environment and is distant from logistical support. This is, of course, the situation in the Antarctic. However whilst many navigable areas in high latitudes might not have been covered by controlled high order surveys they may well have been the focus of scientific research programs. This has resulted in a considerable amount of single track-line hydrographic information becoming available. Given that the widespread use of Global Navigation Satellite Systems (GNSS) has improved the positional accuracy of these data, they could become an important source of information for charts covering remote areas such as the Antarctic, understanding that the acceptation or not of that data is responsibility of the appropriate cartographic institution.

In the recent past there has been an important progress on the capability to gather hydrographic data to dress INT charts of the agreed scheme. That capability has allowed a significant improvement as reflected in the number of new nautical charts edited in the last 5 years, as we will see later in the presentation.

Considering that IHO S-59 publication "Status of Hydrographic Surveying and Nautical Cartography on Antarctic" dates 1998, the IHO Work Programme approved by Member States in 2002, has considered the updating of this publication, and IHB is developing this activity. It is expected that the result would be a real digital database, to facilitate the updating process with the participation of Member States, serving as a valuable source of information to identify priorities and coordinate hydrographic surveys.

The next meeting of the Antarctic Hydrography Committee will constitute an excellent opportunity to precisely define the coverage accomplished since the 3rd edition of the publication just mentioned.

IV.- Status of Nautical Cartography.

Until early the 90's the nautical chart coverage of the Antarctic was limited to those produced by Member State's Hydrographic Offices, following their own interest. The coverage was non consistent and there was much duplicity. The Russian Federation, United Kingdom and the United States of America shown a global cartographic coverage.

As already mentioned, in order to harmonize the coverage, to lower the production and to provide a better service to the mariner, the IHO adopted in 1994, the INT Scheme for international nautical charts for Antarctic waters (South of 60o S.), based on the following criteria:

- adequate coverage for the international shipping
- following IHO cartographic specifications
- with the minimum number of charts
- special coverage for the access to the permanent scientific bases and those areas mostly visited by tourist cruisers
- a shared responsibility of IHO Member States over a voluntary based chart production
- adoption of WGS-84 as a common geodesic datum

COMNAP cooperated and assisted in achieving the fourth bullet.

The result is the INT Scheme consisting in over 70 charts with nearly half of hem covering the Antarctic Peninsula. The maintenance of the scheme is supervised by the IHB through the Committee, with the valuable contribution from COMNAP, SCAR and IAATO.

The production of these INT charts is shared by the following 17 IHO Member States: Argentine, Australia, Brazil, Chile, France, Germany, India, Italy, Japan, Norway, New Zealand, Peru, Russian Federation, South Africa, Spain, United Kingdom and USA.

The forcing strength for the progress in the production of INT charts is the availability of high quality hydrographic data for the area of interest. In several areas there is no data or the existing are old with a non satisfying quality. Any significant progress towards the improvement of the production would depend on the capability to execute hydrographic surveys following modern standards.

The following table provides information on the INT chart status. Today it is estimated that 30 INT charts has been published.

INT/Year	1998	1999	2000	2001	2002
Projected	74	74	74	85	85
Published	5	7	16	16	25

Again we can highlight the importance of attending the next IHO Meeting of the Antarctic Hydrographic Committee, as in that event the progress would be precisely identified and future activities been projected.

V.- ATCM and IHO Relations

On the light of the elements provided, to keep smooth communications and cooperation with the Antarctic Treaty Consultative Parties (ATCP) is a high priority for the IHO. Following there are some indications that sustain this position:

a) **Membership:** Out of the 45 countries that through one or another way are related with the Antarctic Treaty, only 8 are not members of the IHO, constituting a motivation for the 73 IHO Member States. This situation has been interpreted as an Organization strength, contributing to improve the hydrographic activity and therefore to a safer navigation in the Antarctic.

b) **XIX ATCM, Resolution 1 (1995):** The desires expressed by the Parties through the mentioned Resolution, strongly invites IHO to exercise its best for cooperation and strengthening of the hydrographic and nautical cartography activities in the Antarctic. Its text is still valid, nevertheless, it might be convenient to update it and launched again, as a way to keep active the interest of both organizations on the matter, including at least one subject not considered in the initial text, I refer to the SOLAS Convention.

c) **New SOLAS Chapter V:** On the 1st of July 2002 entered in force an amended SOLAS Convention of which Regulation 9 of Chapter V is provided next, as an example:

Hydrographic services

1 Contracting Governments undertake to arrange for the collection and compilation of hydrographic data and the publication, dissemination and keeping up to date of all nautical information necessary for safe navigation.

2 In particular, Contracting Governments undertake to co□operate in carrying out, as far as possible, the following nautical and hydrographic services, in the manner most suitable for the purpose of aiding navigation:

.1 to ensure that hydrographic surveying is carried out, as far as possible, adequate to the requirements of safe navigation;
.2 to prepare and issue nautical charts, sailing directions, lists of lights, tide tables and other nautical publications, where applicable, satisfying the needs of safe navigation;
.3 to promulgate notices to mariners in order that nautical charts and publications are kept, as far as possible, up to date.
.4 to provide data management arrangements to support these services.

3 Contracting Governments undertake to ensure the greatest possible uniformity in charts and nautical publications and to take into account, whenever possible, relevant international resolutions and recommendations.•

4 Contracting Governments undertake to co□ordinate their activities to the greatest possible degree in order to ensure that hydrographic and nautical information is made available on a world□wide scale as timely, reliably, and unambiguously as possible.

• Refer to the appropriate resolutions and recommendations adopted by the International Hydrographic Organization.

All countries related to the Antarctic Treaty are members of the International Maritime Organization (IMO) and therefore likely to adopt the necessary measures to implement SOLAS and in particular this Regulation. In this respect, the IHO in its role of recognized technical intergovernmental organization is ready to provide support in achieving the identified obligations.

d) **Capacity Building**: IHO sees that several of its Member States related to the Antarctic Treaty, have an outstanding potential for the execution of hydrographic activities in the Antarctic. This condition would allow these States to go in support to strengthen the capabilities of others that require that support. Then, through the exchange of experiences of different nature: administrative, technique, methodological, business, etc., it could be possible to facilitate the coordination and cooperation, as mechanisms to enhance hydrography in the Antarctic.

VI.- Conclusions.

1.- IHO assigns priorities, among others, to an effective worldwide coverage by hydrographic services, with emphasis on those weak areas such as the Antarctic, believing that international cooperation and between Hydrographic Services is vital. For the precise treatment of the subject, the IHO has established the Antarctic Hydrographic Committee.

2.- The IHO Work Programme for the period 2003-2007 considers diverse activities to raise worldwide awareness on the importance of hydrography, highlighting the responsibilities of National Hydrographic Offices and the own, regional and global benefits associated to the development of this activity. This presentation is in line with that initiative.

3.- Within the IHO activities for the period 2003-2007, the studies aiming to identify the way to improve the Organization as well as to provide attention to the Capacity Building issues constitute the highest priorities of the IHO. In that sense, the hydrographic knowledge of the Southern Ocean, its seas and coastal waters constitute a challenge to the existing mechanisms to go in support of the hydrographic capacity building activities.

4.- The Antarctic Treaty Consultative Meeting constitutes an important tribune for the IHO through which could receive proposals and indications that would allow improving the IHO Strategy and Work Programme, with focus on the Antarctic. The expected result is to facilitate the supply of hydrographic information for safe to navigation of Antarctic waters, contributing to preserve the marine environment and support other relevant activities of priority to the Parties of the Antarctic Treaty.

VII.- Proposals for Improvement.

1.- It is proposed to the ATCM to invite Consultative Parties to raise their national priorities and degree of hidro-cartographic activities in the Antarctic, as a measure to speed the availability of the nautical charts identified in the international cartographic scheme in the Antarctic.

2.- It is proposed to the ATCM to invite Consultative parties to consider with special attention the importance of the participation of their National Hydrographic services at the next Antarctic Hydrographic Committee meeting to be held in Monaco, 8 to 10 September 2003.

3.- It is proposed to the ATCM to update Resolution 1 (1995) adopted at the XIX ATCM in conformity to the changes occurred within the IHO and the SOLAS Convention. Annex C attached is a draft of this proposal in English.

Thank you.

PART IV

ADDITIONAL DOCUMENTS FROM XXVI ATCM

ANNEX H

LETTER OF COMMITMENT OF THE ARGENTINE REPUBLIC TO APPLY PROVISIONALLY THE HEADQUARTERS AGREEMENT

Ministerio de Relaciones Exteriores, Comercio Internacional y Culto

Traducción no oficial

Buenos Aires, 16 JUN. 2003

Dear Sir,

I address you, in your capacity as Chairman of the XXVI Antarctic Treaty Consultative Meeting (ATCM), with reference to Decision 1 (2001) of the XXIV ATCM and recognizing the need to conclude, as soon as possible, the process leading to the establishment of the Secretariat of the Antarctic Treaty in Buenos Aires.

I hereby express the commitment of the Argentine Republic to apply provisionally the "Headquarters Agreement for the Secretariat of the Antarctic Treaty" adopted by Measure 1 (2003) as of the date the Argentine Republic notifies the Depositary Government of the Antarctic Treaty that its constitutional requirements to that effect have been completed.

The Argentine Republic shall consider itself bound by the provisional arrangements proposed in this letter after their acceptance by the ATCM and the fulfilment of the condition referred above.

I avail myself of this opportunity to express the assurances of my highest consideration.

TO THE CHAIRMAN OF THE
XXVI ANTARCTIC TREATY CONSULTATIVE MEETING
AMBASSADOR D. JOSÉ ANTONIO DE YTURRIAGA
MADRID

ANNEX I

MESSAGE FROM THE XXVI ANTARCTIC TREATY CONSULTATIVE MEETING TO STATIONS IN THE ANTARCTIC

MESSAGE FROM THE XXVI ANTARCTIC TREATY CONSULTATIVE MEETING TO STATIONS IN THE ANTARCTIC

The XXVI Antarctic Treaty Consultative Meeting was hosted by the Spanish government in the city of Madrid between 9 and 20 June.

The inaugural speech was delivered by His Royal Highness the Prince of Asturias Don Felipe de Borbón, heir to the throne of Spain. He stressed the relevance of Antarctica as a symbol for mankind and its importance for scientific research, international peaceful coexistence, and the preservation of the global environment.

The VI CEP discussed several reports on comprehensive environmental evaluations relating to the Lake Vostok drilling program, the ANDRILL Program, and the establishment of a new Czech Antarctic station in Brandy Bay, James Ross Island, among others, to ensure that they are in full compliance with the requirements of the Antarctic Treaty, the Protocol and its Annexes. The CEP gave special attention to the important issue of a review of Annex 2 to the Protocol on the Conservation of Antarctic Fauna and Flora, taking into account the experience that has accumulated since its adoption.

An important issue discussed at the XXVI Consultative Meeting was the problem of illegal, unreported, and unregulated fishing, as well as the growth of tourism in Antarctica and the need to regulate it so as to minimize its potential impact on the Antarctic environment.

We are particularly pleased to report that a historic decision was made at this Consultative Meeting to finally approve the establishment of a permanent Antarctic Treaty Secretariat in Buenos Aires, which is essential for the operation of the Antarctic Treaty system.

We have made progress on the complex issue of liability for environmental damage, which was discussed in previous meetings, in order to achieve the objectives under Article 16 of the Madrid Protocol.

Ukraine has recently asked to become a Consultative Party of the Antarctic Treaty. Ukraine's request will be considered by the XXVII ATCM to be held next year in South Africa.

To all our friends in Antarctic stations, the delegations participating in the XXVI Consultative Meeting send their warmest greetings and wish you every success in your important scientific endeavours. We are certain they will help achieve the historic mission set out by the Antarctic Treaty 44 years ago, at the conclusion of the International Geophysical Year.

ANNEX J

LIST OF DOCUMENTS FROM ATCM XXVI

List of Documents from ATCM XXVI

Working Papers

WP N°	Submitted by	Title	Item N°	Orig. Lang.	Transl.
001	**RUSSIA, FEDERATION OF**	Water Sampling of the Subglacial Lake Vostok (draft revised of CEE)	CEP VI 4b	English	F-R-S
002	**NEW ZEALAND**	Draft Comprehensive Environmental Evaluation (CEE) for Andrill	CEP VI 4B	English	
003	**UNITED KINGDOM**	Proposed Amendments to the Rules of Procedures of the ATCM	4a	English	F-R-S
004	**UNITED KINGDOM**	Arctic Shipping Guidelines	8	English	F-R-S
005	**ITALY**	Establishment of the Antarctic Treaty Secretariat (report of the second informal meeting)	4b	English	F-R-S
006	**UNITED STATES OF AMERICA**	Final Report from the ICG on Cumulative Environmental Impacts	CEP VI 4c	English	F-R-S
007	**UNITED STATES OF AMERICA**	Final Plans Bransfield and Dallman	CEP VI 4g	English	F-R-S
007 REV1	"	"	"	"	F-R
007 REV2	"	"	"	"	F-R-S
008	**UNITED STATES OF AMERICA**	3 Draft Revised ASPAs-US	CEP VI 4g	English	F-S-R
009	**COMNAP**	Worst Case & Less Than Worse Case Environmental Scenarios	7 CEP VI 8	English	F-R-S

WP N°	Submitted by	Title	Item N°	Orig. Lang.	Transl.
010	**UNITED KINGDOM**	Review of Draft Management Plan for ASPA 114 North Coronation Island	CEP VI 4g	English	F-R-S
011	**AUSTRALIA ARGENTINA**	Draft Financial Regulations for the Antarctic Treaty Secretariat	4b	English	F-R-S
012	**AUSTRALIA ARGENTINA**	Draft Staff Regulations for the Antarctic Treaty Secretariat	4b	English	R-S
013	**AUSTRALIA**	Management of Antarctic Non Government Activities	10	English	F-R-S
014	**AUSTRALIA NETHERLANDS**	Review of Measures (ATCM XIX to ATCM XXIV)	4a	English	F-R-S
015	**AUSTRALIA**	Antarctic Protected Areas System	CEP 4g	English	F-R-S
016	**AUSTRALIA**	ICG report Australia ASPAs	CEP 4g	English	F-R-S
016 REV1	"	"	"		F-R-S
017	**UNITED KINGDOM**	Review of the List of Historic Sites and Monuments	CEP 4g	English	F
017 REV1	"	"	"	"	F-R
018	**UNITED KINGDOM**	Amendment to Rules of Procedure	4a	English	F-R-S
019	**ITALY**	Proposal for a New Antarctic Specially Protected Area	CEP VI 4g	English	F-R-S
019 REV1	"	"	"	"	F-R
019 REV2	"	"	"	"	F

WP N°	Submitted by	Title	Item N°	Orig. Lang.	Transl.
020	NEW ZEALAND	Systematic Enviromental Protection in Antarctica (SEPIA)	CEP VI 4g	English	F-R-S
021	AUSTRALIA NEW ZEALAND	State on the Antarctic Environmental Reporting	CEP VI 6	English	F-R-S
022	UK/AR/IT/NL/ NO/ZA/SW	Approval of Measures under Article IX	4a	English	F-R-S
023	UNITED KINGDOM	Proposal to Improve the Management and Regulation of Antarctic Tourism	10	English	F-R-S
024	NO/CL/UK	Whalers Bay Historic Site No. 71	CEP VI 4g	English	F-S-R
025	ARGENTINA	Progress Report of the CEP Intersesional Contact Group on Annex II review	CEP VI 4d	English	F-R-S
026	UNITED KINGDOM	Proposed Amendment of Recommendation XVIII-1 (1994)	10	English	F
027	UNITED STATES OF AMERICA/ NEW ZEALAND	Asma Plan for Mcmurdo Dry Valleys	CEP 4g	English	F
028	NEW ZEALAND	Revised Guidelines for Consideration of ASPAASMA Managenent Plans	CEP 4g	ENGLISH	F-R-S
029	FRANCE	L'utilité d'un Groupe de Travail Intersessionel Consacrée á l'adoption d'une Reglamentation sur les Activités Touristiques en Antarctique	10	French	E-R-S
030	FRANCE	Plan de Gestion Mis a Jour. Zone Spécialement Protégée n° 120, Archipel de Pointe-Géologie	CEP VI 4g	French	F-R-S
031	NEW ZEALAND	Review Antarctic Specially Protected Area (ASPA) N° 105, 131, 154, 155, 156	CEP 4g	English	F-R-S

WP N°	Submitted by	Title	Item N°	Orig. Lang.	Transl.
032	**NEW ZEALAND**	Review of ASPA 118 Management Plan: Report of ICG	CEP 4g	English	F-R-S
033	**NEW ZEALAND**	Chairman's draft Annex VI "Liability Arising from Environmental Emergencies"	7	English	F-R-S
034	**SPAIN**	Ruidos y Descargas Sónicas Antropogénicas. Impacto en Mamíferos Marinos	CEP VI 4c	Spanish	E-F-R
035	**AUSTRALIA**	ICG Report on Andrill Program	CEP VI 4b	English	F-R-S
036	**FRANCE**	Rapport Final ICG Projet Evaluation Globale d'Impact presentée par la Federation de Russie Lac Vostok	CEP VI 4b	French	E-R-S
037	**UNITED KINGDOM**	Advice to Mariners and Vessel Operators on the Environmental Protocol's Obligations	10 CEP VI 4f	English	F-R-S
037 REV1	"	"	"	"	F-R-S
038	**INDIA**	Draft Management Plan for Proposed Antarctic Specially Protected Area (ASPA)	CEP VI 4g	English	
039	**INDIA**	Site Recommended for Inclusion in the List of Historical Sites and Monuments in Antarctica	CEP VI 4g	English	
040	**AUSTRALIA**	Amended Rules of Procedure of Antarctic Treaty Consultative Meetings: Establishment of the Secretariat	4a	English	
041	**AUSTRALIA**	Procedure for the Appointment of the Executive Secretary of the Secretariat of the Antarctic Treaty	4a	English	
042	**G/IT/SW/AU/NL/FN/S/F**	Amendment to the Chairman's Draft Annex VI "Liability Arising from Environmental Emergencies": Art. 14	7	English	

List of Documents from ATCM XXVI

Information Papers

IP Nº	Submitted by	Title	Item Nº	Orig. Lang.	Transl.
001	**NEW ZEALAND**	Enviromental Domains for the Ross Sea Region	CEP VI 4g	English	
002	**ITALY**	Annual Report Pursuant to the Protocol on Enviromental Protection to the Antarctic Treaty	CEP VI 4a	English	
003	**URUGUAY**	Propuesta de Cooperación para Relevamiento de Emisiones Electromagnéticas	12	Spanish	
004	**URUGUAY**	Intercambio de Información según la Resolución 6 (2001) de la XXIV ATCM	15	Spanish	
005	**URUGUAY**	Informe Anual de acuerdo al Art. 17 del Protocolo al Tratado Antártico sobre la Protección del Medio Ambiente	CEP VI 4a	Spanish	
006	**URUGUAY**	Relevamiento Magnético en las Inmediaciones de la Base Científica Antártica Artigas	CEP VI 5	Spanish	
007	**URUGUAY**	Revisión de la evaluación medioambiental de la Base Científica Artigas	CEP VI 4c	Spanish	
008	**SPAIN**	Informe anual de españa de acuerdo con el art. 17 del Protocolo al Tratado Antártico sobre protección del medio ambiente	CEP VI 4a	Spanish	
009	**CCAMLR**	Report of the CCAMLR Observer to the XXVI ATCM	5a	English	
010	**UNITED STATES OF AMERICA**	Final Rule for Protection of Antarctic Meteorites under U.S. Law	CEP VI 4a	English	
011	**NEW ZEALAND**	Annual Report Pursuant to Art.17 of the Protocol	CEP VI 4a	English	

IP N°	Submitted by	Title	Item N°	Orig. Lang.	Trans
012	**FRANCE**	Rapport Groupe Discussion Intersessionnelle et Informelle Activités Touristiques en Antarctique	10	French	E-R-S
013 REV 2	**UNITED STATES OF AMERICA**	Report of the Depositary Government	5a CEP VI 3	English	
014	**SPAIN**	La Antártida y el Desarrollo Sostenible: Posición Española	9	Spanish	E-F
015	**FRANCE**	Rehabilitation d'un Site Historique en Milieu Austral (Station Baleinere de Port Jeanne D'Arc)	CEP VI 4g	French	
016	**FRANCE**	Rapport Annuel Conformement a l'Article 17 du Protocol	CEP VI 4a	French	
017	**FRANCE**	(WP 036)			
018	**RUSSIA, FEDERATION OF**	Russian Studies of the Subglacial Lake Vostok in 1995-2002	12 CEP VI 4b	Russian	E
019	**RUSSIA, FEDERATION OF**	Relevance of Developments in the Arctic and the Antarctic	9	Russian	E
020	**RUSSIA, FEDERATION OF**	Main Results Subprogram "Study and Research in the Antarctic" (Program "World Ocean")	12	Russian	E
021	**RUSSIA, FEDERATION OF**	Report pursuant to Article 17 of the Protocole	CEP VI 4a	Russian	E
022	**RUSSIA, FEDERATION OF**	Snow-Ice Runway at the Russian N. Station (Queen Maud Land)	13	Russian	E
023	**RUSSIA, FEDERATION OF**	Additional 50 m. Drilling of Deep Borehole at Vostok Station	CEP VI 4c	Russian	E
024	**BRAZIL**	Annual Report of the Brazilian Antarctic Programme	15 CEP VI 4a	English	

IP N°	Submitted by	Title	Item N°	Orig. Lang.	Transl.
025	**BRAZIL**	Permanent Information on the Brazilian Antarctic Programme	15	English	
026	**ARGENTINA/ CHILE**	Patrulla Antártica Naval Combinada 2002-2003	8	Spanish	
027	**CHILE**	Integración de los Ejércitos Chileno-Argentino en Materias Antárticas	8	Spanish	
028	**CHILE**	Remodelación Base O'Higgins	12	Spanish	
029	**CHILE**	Adaptación de Infraestructuras y Bases al Medio Ambiente Antártico	13 CEP VI 4a	Spanish	
030	**CHILE**	Efectos Económicos en las Operaciones de Rescate	13	Spanish	
031	**CHILE**	Síntesis de Patologías en Pinnipedia Antárticos	CEP VI 4d	Spanish	E
032	**CHILE**	Plan de Gestión Territorial Base Gabriel González Videla	CEP VI 4g	Spanish	
033	**CHILE**	Resumen Programa Observación Ambiente Litoral Antártico 1996-2001	CEP VI 5	Spanish	
034	**AUSTRALIA**	Installation of Wind Turbines at Mawson	13 CEP VI 4a	English	
035	**AUSTRALIA**	Prince Charles Mountain Expedition of Germany and Australia (PCMEGA)	12/13 CEP VI 4e	English	
036	**AUSTRALIA**	Clean Up of Thala Valley Waste Disposal Site Near Casey	CEP VI 4b	English	
037	**COMNAP**	Interaction Between National Operators, Tourists and Tourism Operators	10	English	

IP N°	Submitted by	Title	Item N°	Orig. Lang.	Trans.
038	**AUSTRALIA**	Report of the CEP Observer to SC-CCAMLR XXI	CEP VI 10	English	
039	**COMNAP**	COMNAP Report to ATCM XXVI	5a	English	
040	**AUSTRALIA**	EIA Processes for Non Government Activities	10 CEP VI 4c	English	
040 REV1	"	"	"	"	
041	**SPAIN**	Acciones Realizadas por España en relación a las Resoluciones XXVI y XXV ATCMs	CEP VI 4 a	Spanish	F-E
042	**ARGENTINA**	Avances en la Información de la Página Web de la ATCM	15 CEP VI 9	Spanish	E
043	**ARGENTINA**	Avances en la Recuperación Ambiental Base Marambio	15 CEP VI 4e	Spanish	E
044	**ASOC**	Port State Control	10	English	
045	**PERU**	Actividades Realizadas por Perú en Temática Antártica 2002-2003	15	Spanish	E
046	**BULGARY**	Visit to the Bulgarian Polar Station	15	English	
047	**NEW ZEALAND**	Bioprospecting in Antarctica	CEP VI 7	English	
048	**ARG/ CL / NO / E UK / USA / ASOC/ IAATO**	Progress towards Deception Island (ASMA)	CEP VI 4g	English	
049	**UNITED KINGDOM**	Information Archive for Antarctic Protected Areas	CEP VI 4g	English	

IP N°	Submitted by	Title	Item N°	Orig. Lang.	Transl.
050	UNITED KINGDOM	Waste Disposal and Waste Management	CEP VI 4e	English	
051	UNITED KINGDOM	Antarctic Waves	14	English	
052	ARGENTINA	Establecimiento de un Sitio Web para el Secretariado del Tratado Antártico	4	English	
053	UNITED STATES OF AMERICA / UNITED KINGDOM	Antarctic Site Directory:1994-2003	CEP VI 5	English	
054	ITALY	Proposal for a New Antarctic Protected Area: Edmonson Point- Ross Sea	CEP VI 4g	English	
055	ITALY	Environmental Monitoring at Terra Nova Bay and its Surroundings	CEP VI 5	English	
056	SPAIN	La Pesca Ilegal: Concertación Internacional para Reforzar los Mecanismos de Actuación	CEP VI 4d	Spanish	F
057	ARGENTINA	Actividades Asociadas al Sitio y Monumento Histórico Nro 38: Cabaña Cerro Nevado	CEP VI 4g	Spanish	E
058	ARGENTINA	Report on Antarctic Tourism Numbers through the Port of Ushuaia (2002-2003 Season)	10	English	
059	ROMANIA	Statement of the Delegation of Romania	1	English	
060	ROMANIA	Report of Romania on the Ratification of the Protocol of Madrid	CEP VI 3	English	
061	ROMANIA	Romanian Scientific Antarctic Activities in Cooperatioon with China	12	English	
062	UNITED KINGDOM	Report on the Implementation of the Protocol as Required by Article 17	CEP VI 4a	English	

IP N°	Submitted by	Title	Item N°	Orig. Lang.	Trans.
063	**AUSTRALIA**	Annual List of IEEs and CEPs. Calender Year 2002	CEP VI 4c	English	
064	**ASOC**	Preventing Marine Pollution in Antarctic Waters	10 CEP VI 4f	English	
065	**ASOC**	Report of the ASOC to the XXVI ATCM	5b CEP VI 10	English	
066	**SPAIN**	Aplicación del Plan de Acción de la Cumbre Mundial sobre Desarrollo Sostenible en el Ámbito del Tratado Antártico y del Protocolo de Madrid	4a	Spanish	F
067	**ASOC**	Regulating Commercial Tourism in Antarctica: The Policy Issues	10	English	S-R-F
068	**CZECH REPUBLIC**	Czech Scientific Station in Antarctica Construction and Operation	CEP VI 4b	English	
069	**IAATO**	IAATO-Wide Emergency Contingency Plan 2003/2004	10 CEP VI 8	English	
070	**IAATO**	Assesman of Environmental Emergencies Arising from Activities in Antarctica 2002-2003 Season	CEP VI 7	English	
071	**IAATO**	IAATO Overview of Antarctic Tourism	10	English	
072	**IAATO**	IAATO Site Specific Guidelines2003	10 CEP VI 4g	English	
073	**ASOC**	Marine Acoustic Technology and the Antarctic Environment	CEP VI 4c	English	
074	**UKRAINE**	Ukraine Antarctic Scientific Research (1996-2003)	4 a	English	
075	**UNITED KINGDOM/ NORWAY**	Bioprospecting	CEP VI 7	English	

IP N°	Submitted by	Title	Item N°	Orig. Lang.	Transl.
076	**IHO**	Estado de la Hidrografía y Cartografía Náutica en la Antártica y Propuestas para su Mejoramiento	5b	Spanish	E
077	**SCAR**	Acoustic Technology and the Marine Ecosystem	CEP VI 4c	English	
078	**IAATO**	Annual Report of the IAATO Under Article III (2) of the Antarctic Treaty	10 / 5b	English	
079	**JAPAN**	Annual Report Based on the Article 17 of Environmental Protection Protocol	CEP VI 4a	English	
080	**AUSTRALIA**	Review of ATCM Measures	4a	English	
081	**ESTONIA**	Progress Report of Estonian Antarctic Activities	CEP VI 4a	English	
082	**NETHERLANDS**	Annual Report under the Protocol on Environmental Protection to the Antarctic Treaty	CEP VI 4a	English	
083	**POLAND**	Greenhouse Cultivation of Vegetables in Antarctic Mineral Soil Enriched by Penguin Guano	CEP VI 4d	English	
084	**SWEDEN**	Annual Report Pursuant to the Protocol of Environmental Protection	CEP VI 4a	English	
085	**IAATO**	Insurance Amounts For IAATO Tourists Vessels	10	English	
086	**CHINA**	Annual Report on the Implementation of the Madrid Protocol (2002/2003)	CEP VI 4a	English	
087	**CHINA**	Report Clean-Up and Removal of the Old Power Building at the Great Wall Station	CEP VI 4e	English	
088	**UNITED KINGDOM**	Report to the Depositary Government for the Convention for the Conservation of Antarctic Seals	5a	English	

IP N°	Submitted by	Title	Item N°	Orig. Lang.	Trans
089	SOUTH AFRICA	Annual Report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	CEP VI 4a	English	
090	FINLAND	Annual Report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	CEP VI 4a	English	
091	AUSTRALIA	Report of CCAMLR Depositary	5a	English	
092	NETHERLANDS	Advisory Review of the Draft Comprehensive Environmental Evaluation water samplingof the Subglacial Lake Vostok	CEP VI 4b	English	
093	GERMANY	Annual Report of Germany pursuant Article 17 of the Protocol	CEP VI 4a	English	
094	SCAR	Comment on the Draft Comprehensive Environmental Evaluation: Water Sampling of the Subglacial Lake Vostok	CEP VI 4b	English	
095	IAATO	Tourism Issues	10	English	
096	IAATO	Adventure Tourism in Antarctica	10	English	
097	BELGIUM	Annual Report Pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	CEP VI 4a	English	
098	IUCN	Report of the World Conservation Unit Under Article III	5b CEP VI 10	English	
099	ITALIA	Opening Address by the Head of the Italian Delegation	1	English	
100	SCAR	Antarctic Specially Protected Species	CEP VI 4d	English	
101	SCAR	Biological Responses to Temperature Change in Antarctic Marine Systems	12	English	

IP N°	Submitted by	Title	Item N°	Orig. Lang.	Transl.
102	**SCAR**	Predicting the State of the Southern Ocean during the 21st Century	12	English	
103	**SCAR**	SCAR Report to the XXVI ATCM	5a	English	
104	**KOREA**	Annual Report pursuant to the Protocol on Environmental Protection to the Antarctic Treaty	CEP VI 4a	English	
105	**CZECH REPUBLIC**	Response to the Comments of the ICG Convenors on the Draft Czech Scientific Station CEE	CEP VI 4b	English	
106	**AUSTRALIA**	Report of the CEP ICG on the Draft Comprehensive Environmental Evaluation for a Czech Scientific Station in Antarctica	CEP VI 4b	English	
107	**POLAND**	Report on the 26th Expedition to H. Arctowski Station in 2001/2002	15	English	
108	**KOREA REPUBLIC OF**	The First Field Activities at the Korean Arctic Facility.	9	English	
109	**KOREA REPUBLIC OF**	Cooperation with Other Parties in Science and Related Activities during the 2002/2003	12	English	
110	**INDIA**	Cost Sharing Mechanism in Relation to Establishment of ATCM Secretariat at Buenos Aires	4b	English	
111	**JAPAN**	Antarctic Meteorites; Status of Research In Japan and their Preservation	CEP VI 4a	English	
112	**JAPAN**	The Arctic Studies by National Institute of Polar Research	9	English	
113	**INDIA**	Environmental Monitoring and Impact Assessment of the Indian Permanent Station-Maitri Pursuant to the Protocol On Env. P. Of the Antarctic Treaty	CEP VI 4c / 5	English	
114	**CZECH REPUBLIC**	Drafting of Czech Act on the Antarctic	CEP VI 4a	English	

IP N°	Submitted by	Title	Item N°	Orig. Lang.	Trans
115	**INDIA**	Review of the List of Historic Sites and Monuments	CEP VI 4g	English	
116	**IUCN**	IUCN, WCPA and WWF High Seas Marine Protected Areas Workshop 15-17 January 2003, Málaga, Spain	CEP VI 4g	English	
117	**ASOC**	Coastal Sediment Pollution at Sites Frequently Viseted by Tourism Operations	CEP VI 4f	English	
118	**ASOC/ UNEP**	A Review of Inspections under Article 7 of the Antarctic Treaty and Article 14 of its Protocol on Environmental Protection 1959-2001	11	English	
118 REV 1	"	"	"	"	
119	**CHILE**	Exploración Aérea de los Glaciares del Mar de Amundsen y la Península Antártica.	12	Spanish	
120	**SCAR**	International Polar Year 2007-08	9	English	
121	**NORWAY**	Norway establishes year-round research activities at Troll Station, Dronning Maud Land	13	English	
122	**GREECE**	Statement by the delegation of Greece	1	English	
123	**RUSSIA, FEDERATION OF**	Third International Polar Year Initiative	9	English	
124	**JAPAN**	Scoping Paper on Intersessional Consultation Process between the Secretariat and ATCM	4b	English	
125	**ITALY**	Report of the Chairman of Working Group 1 on the Secretariat of the Antarctic Treaty	4b	English	

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Ambassador Mr. Gabriel Ferrán de Alfaro	Chief Rapporteur. Responsible of the exhibition: "*Presence and History of Spain in Antarctica*".
Mr. Federico Díaz Suarez	Assembly of room furniture.
Ms. Isabel Díaz Blanco	Documentation and Reprography.
Mr. Fernando Castilla	Delegations and Accreditations. Follow-up of the programme.
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ANNEX L

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ANNEX M

PRELIMINARY AGENDA FOR ATCM XXVII

Preliminary Agenda for ATCM XXVII

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

a) General matters
b) Ukraine's request to become Consultative Party

6.-Operation of the Antarctic Treaty System: Antarctic Treaty Secretariat

a) Review of the Secretariat's situation
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 Artic 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