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Area Protection: Time for Action

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**Information paper submitted by ASOC to the XXXI ATCM, Kiev, 2-14 June 2008¹
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Summary

This Information Paper reviews the progress made in delivering the objectives of Annex V (Area protection and management) and proposes that the Antarctic Treaty Consultative Meeting (ATCM) move from discussion to concrete action. It suggests that the current rolling annex review process offers an opportunity to both consider the effectiveness of Annex V to deliver best practice area protection for the Antarctic Treaty Area, and to review the barriers to effective implementation of current requirements.

In ASOC's view, to develop an effective matrix of Antarctic Protected Areas, a combination of policy steps and decisions are required. ASOC suggests that the CEP be urgently tasked with providing the ATCM with advice on which parts of Annex V are not yet fully represented with designated Protected Areas, in addition to those parts that no longer represent best-practice or are otherwise outdated, and recommendations on the best new approaches to address the needs of the 21st century. The review and amendment or modification, and any actual drafting of changes to Annex V, can then occur within the ATCM.

1. Introduction

This Information Paper reviews the progress made in delivering the objectives of Annex V (Area protection and management) and proposes that the Antarctic Treaty Consultative Meeting (ATCM) move from discussion to concrete action. It suggests that the current rolling annex review process offers an opportunity to both consider the effectiveness of Annex V to deliver best practice area protection for the Antarctic Treaty Area, and to review the barriers to effective implementation of current requirements.

The Antarctic Treaty Parties have repeatedly committed themselves to developing a systematic framework of protected areas, including:

- a representative range of ecosystems and species, areas of particular scientific interest;
- areas representing the type locality² or only known habitat of any species;
- examples of outstanding geological, glaciological or geomorphological features; and
- areas of outstanding aesthetic and wilderness value and historic sites or monuments.

While work has started, we appear to be many years – and designated areas – from achieving these commitments. ASOC believes that the current annex review process provides an opportunity for urgent attention to focus on the underachievement of Annex V. ASOC suggests that the Committee for Environmental Protection (CEP) be urgently tasked with providing the ATCM with advice on the review and improvement of Annex V.

2. Area Protection - 40 years of Discussion!

More than 40 years ago, SCAR proposed a number of conservation-oriented recommendations including the recognition of ‘*all areas of land and fresh water, including fast ice and ice shelves, and all coastal waters south of 60° S ... as a nature reserve*’ and the ‘*designation of selected areas as sanctuaries within which no form of disturbance should be permitted*’ to protect especially important or vulnerable species or habitats in

¹ Lead authors Lyn Goldsworthy and Alan Hemmings.

² Type locality refers to a typical or representative location and is typically the first example of a newly discovered or described object. Often it is namesake for the term. It applies to both geological and biological elements.

the Antarctic.³ These recommendations formed the basis of the development of the Agreed Measures for the Conservation of Antarctic Fauna and Flora (Agreed Measures), the provisions of which included special protection for ‘*areas of outstanding scientific interestin order to preserve their unique natural ecosystem system[s]*’ as Specially Protected Areas (SPAs).

Ten years later, in 1972, SCAR raised concern⁴ about the lack of representation of many major Antarctic land and freshwater ecological systems within designated SPAs, while also noting that other systems seemed over-represented, particularly coastal bird breeding sites. A Recommendation⁵ was adopted, identifying the need to include examples of areas with values not adequately represented, such as major Antarctic land and freshwater ecological systems, areas with unique complexes of species and ‘*especially interesting breeding colonies of birds or mammals*’, as well as ‘*areas which should be kept inviolate so that in the future they may be used for purposes of comparison with localities that have been disturbed by man*’. Shortly thereafter Sites of Special Scientific Interest (SSSIs) were established to permit protection of both scientific study sites and habitat and/or species sites.⁶

Another 17 years passed before the issue of the omission of non-biological features or values from the Agreed Measures was addressed through the adoption of Specially Reserved Areas (SRAs), to provide a specific mechanism for protecting areas of outstanding geological, glaciological, geomorphological, aesthetic, scenic or wilderness values.⁷ The North side of Dufek Massif was proposed at the following Treaty meeting but never designated⁸.

At the time of the negotiation of the Madrid Protocol there were 19 SPAs, covering a land area of just 102.5 km² and a sea area of 30 km². A further 35 areas had been designated SSSIs, covering a total area of 2685 square kilometres (675 km² land and 2010 km² sea). Thus a total area of only 2817.5 km² within the Antarctic Treaty Area was provided any formal protection, mostly located around the Antarctic Peninsula or McMurdo Sound.

Annex V of the Madrid Protocol – Area protection and management – provides for the designation of an “Antarctic Specially Protected Area” (ASP), incorporating all pre-Protocol protected areas, and an “Antarctic Specially Managed Area” (ASMA), along with associated management plans.

The 1992 SCAR / IUCN workshop⁹ identified a lack of understanding of the extent, diversity and abundance of species’ populations, communities, habitats, ecosystems and biomes within the Treaty Area in the selection of protected area sites. The resultant proposal for the development of a detailed biogeographical framework to classify a range of Antarctic terrestrial, inland waters and inshore marine ecosystems, generated an excellent pathway forward for the Treaty Parties.¹⁰ The workshop also noted the absence of specific reference to the management of tourism in the Protocol and called upon Treaty Parties to address this through conservation principles for assessment and management of all tourist operations as well as research into and monitoring of tourist activities and their impacts.

SCAR and IUCN presented 22 recommendations to the XVII ATCM in Venice, November 1992.¹¹ These included a call for work to start on the development of the Protected Area System immediately prior to the ratification of the Madrid Protocol and its Annexes, for proposals for new protected and managed areas in areas not yet fully represented to be encouraged and for the development of a more comprehensive selection of criteria for assessment of proposals. It also specifically named a number of regions where new ASPAs

3 Scientific Committee for Antarctic Research, SCAR Bulletin 8: 103-115, 1961.

4 Scientific Committee for Antarctic Research, Purposes and Designation of Special Areas. Report of SCAR Working Group on Biology, 1972.

5 VII ATCM, Rec 2. Wellington 30 October – 10 November, 1972.

6 VIII ATCM, Rec 3. Oslo, 9 – 20 June, 1975.

7 XV ATCM, Rec 10. Paris, 9 -20 October, 1989.

8 That proposal was overtaken by the Madrid Protocol negotiations.

9 R.I. Lewis-Smith, D.W.H. Walton and P.R. Dingwall, Developing the Antarctic Protected Area System: Proceedings of the SCAR/IUCN Workshop on Antarctic Protected Areas, Cambridge, UK, 29 June - 2 July 1992.

10 L.K. Kriwoken and P.L. Keage, ‘Identification and Selection of Protected Areas’, in R.I. Lewis-Smith, et al (eds), Proceedings of the SCAR/IUCN Workshop on Antarctic Protected Areas, Cambridge, UK, 1992.

11 Ibid.

might be designated to minimise human impact, or to improve geographical representation of protected areas, particularly wilderness, paleontology, lakes/streams, geomorphology, glaciated terrain and limnological features).¹² While some of these areas have since been designated (Deception Island, Larseman Hills and a Victoria Land nunatak area, all as ASMAs), most of these areas and values remain under-represented.

In 1998, Antarctic Treaty Consultative Parties (ATCPs) responded to these recommendations, with a workshop in Tromsø, Norway, immediately prior to the XXII ATCM. The workshop noted a number of major concerns with (lack of) progress towards full implementation of an effective protected area system for the Antarctic region, including the urgent need for Annex V to be ratified by all the ATCPs; the absence of a strategy to develop a network of protected areas; and an urgent need for the development and updating of management plans for existing SPAs and SSSIs in accordance with Annex V.¹³ The workshop fleshed out a basic framework for the systematic development of a representative protected areas system, based on the Protocol and Annex V, and recommended that ATCPs consider this and other systems for classifying protected areas in Antarctica, and take urgent steps to identify possible new protected areas, particularly for representative examples of ecosystems and areas to be kept inviolate from human interference.¹⁴

The newly constituted CEP decided on a second protected area workshop to develop an overall Antarctic protected areas framework as envisioned in Article 3(2) of Annex V. This workshop, in Lima, Peru, in June 1999, was tasked with considering systems for categorizing protected areas in Antarctica; undertaking a gap analysis based on the values for site protection identified in Article 3 of Annex V¹⁵; preparing possible recommendations for new protected areas; and providing suggestions on how the CEP could best review draft management plans for ASPAs.

The Lima Workshop proposed a protected areas framework based on a schema combining the values identified in Article 3 of Annex V, six protection categories (ecosystems, habitat, species, landscape, environmental features and cultural/historic features) and five use categories (science, conservation, economic, recreation/tourism, and intrinsic) for the CEP to adopt. It further recommended that the CEP elaborate a conservation strategy to deal with gaps in current protected area categories and coverage, and also identified a range of existing tools such as environmental risk analysis and complementarity analysis to assist in selecting new protected areas.¹⁶

Both the Tromsø and Lima workshops were limited, by their terms of reference, to ASPAs. For example, Treaty nations have consistently chosen to limit ASPAs in size so that in practical terms the only option considered available for management or protection of larger areas has been through the application of ASMAs.

In 2000, the Treaty Parties adopted a detailed Resolution entitled *Guidelines for the Implementation of Article 3, Annex V*,¹⁷ which aimed to provide guidance on criteria and procedures for identifying and proposing new ASPAs drawing from the concept of environmental risk. The Resolution describes itself as ‘a set of tools to enable more systematic assessment, selection, definition and proposal of areas that might require greater protection in accordance with the provisions of Annex V of the Environmental Protocol’. While a significant advance in encouraging Treaty Parties to consider ASPA designations, the guidelines have no legal status and do not extend to ASMAs.

12 R.I. Lewis-Smith, D.W.H. Walton and P.R. Dingwall, op cit, p33.

13 See: M. Prebble and A.D. Hemmings. The identification of possible new protected areas. In B. Njåstad (ed) Antarctic Protected Areas Workshop. Report No. 110, Norwegian Polar Institute, Tromsø. 1998.

14 XXII ATCM, Summary Report of the Antarctic Protected Areas Workshop, held 23rd May, Tromsø (XXII ATCM/WP26), Tromsø, 25 May-5 June 1998.

15 See J. Acero, New areas, gap analysis and conservation values. In J. Valencia (ed) Second Antarctic Protected Areas Workshop. Ministerio de Relaciones Exteriores and Instituto Antartico Chileno, Santiago. 2000.

16 XXIII ATCM, Report of the Second Workshop On Antarctic Protected Areas, 22 – 23 May 1999, Lima (XXIII ATCM/WP37), Lima, 24 May- 4 June 1999.

17 SXII ATCM, Resolution 1 (2000), Guidelines for implementation of the Framework for Protected Areas set forth in Article 3, Annex V of the Environmental Protocol. The Hague, 14 -18 September, 2000.

Five years later, no significant changes were evident. In 2005, New Zealand reviewed the status of the Antarctic Protected Area system. They reported 62 ASPAs, protecting approximately a total of 2741 km² of Antarctica (1780 km² of sea area and 960 km² of land area), representing just 0.008% of the total Antarctic Treaty Area.¹⁸ Their review also noted that little progress appeared to have been made in extending the representative coverage of under-represented categories.

New Zealand noted that sites appear to be nominated because they harbor a number of ‘values’ rather than for a single significant ‘value’. For instance, while birds are the most protected fauna, few sites have been established primarily or exclusively to protect birds or a particular bird species. Similarly few sites have been nominated to protect a particularly species or type of vegetation; plant protection is generally achieved through protection of a general area of vegetation that may include several plant species. In addition to an extent to there was no evidence of an extension of geographic coverage – sites remained exclusively on the coastal fringes, they were primarily clustered on and around the Antarctic Peninsula or around Ross Sea/Victoria Land regions and no sites had been adopted in the Marie Byrd Land area of Western Antarctica. This reflects the inability of Treaty Parties to extend their thinking beyond interests or areas of specific national interest or the restrictive approaches applied to protected areas in some other parts of the world.

New Zealand made several recommendations, many of which had been put on the table for discussion before, sometimes repeatedly. For instance, they again called for active nomination of sites in under-represented geographical areas and for under-represented environmental values, and for a more systematic approach to the development of the protected areas network.

The exhortations in 2005 thus far appear to have had little impact on proposals for new designations of ASPAs. Only three new ASPAs have been adopted since that meeting, totaling an area of less than 8 km², located similarly to other ASPAs on the coastal fringes, near other ASPAs, and protecting, respectively, a colony of Southern Giant Petrels, a terrestrial and freshwater habitat and some historic buildings. The New Zealand review did however open the way for a more focused debate on the importance of marine areas as part of the Treaty’s development of a ‘systematic environmental-geographic framework’ for Antarctic Protected Areas. In spite of this, few MPAs have been designated within the Antarctic Treaty Area either as marine ASPAs or as part of ASMAs, and those that have been identified have occurred largely on an *ad hoc* basis.

In 2006, the UK introduced a paper,¹⁹ noting that MPAs are considered increasingly important in other parts of the world as relevant tools for conservation of marine biodiversity and habitat, maintenance of healthy ecosystems in concert with sustainable fisheries, and for coordination of activities in multiple-use areas. The paper also suggested that MPAs would provide a useful means to provide scientific reference areas as well as protect and conserve Antarctic marine areas of particularly high value or sensitivity. ASOC endorses that view.

3. Present Situation

Annex V of the Madrid Protocol allows for any area to be nominated for ASPA status to protect outstanding environmental, scientific, historic, aesthetic or wilderness values or any combination of those values, or to protect ongoing or planned scientific research. ASOC notes that the ATCM remain very far from achieving these commitments. In particular, Treaty Parties continue to have difficulties in declaring any significant wilderness sites for ASPA level protection, in declaring any meaningful marine areas, and have balked at restrictive protection for any large geographic areas. They can, and must, do better.

There are currently 67 ASPAs, totaling less than 2760 km² total area. The six ASMAs provide a considerably larger area (in total, approximately 42,000 km²) with a lesser level of protection, although three of the ASMAs also contain ASPAs. The purpose of an ASMA is to provide coordination of activities (to minimise physical disturbance or cumulative impact for instance) rather restriction or prohibition of activities.

18 XXVIII ATCM, A Review of the Antarctic Protected Areas System (XXVIII ATCM/WP 11). Stockholm, 6 - 17 June, 2005.

19 XXIX ATCM, Marine Protected Areas (MPAs) – Tools for Protection and Management (XXIX ATCM/WP 4). Edinburgh, 12 - 23 June, 2006.

Of the areas protected, only six are fully marine ASPAs, a further nine ASPAs contain small marine components, and three ASMAs contain marine components, covering a total of 1780 km² or 0.012% of marine area south of 60°S.

While much work has been done to develop standardised processes to apply to existing protected areas, tangible developments with respect to the creation of a logical and consistent network of protected areas have yet to emerge. The existing SPA sites have arisen primarily from national interests rather than any attempt to achieve systematic or representative coverage of Antarctic ecosystems. As a result, there are significant gaps in coverage, particularly with respect to MPAs and inland areas, and few areas are kept intentionally free of human activity.

It is also difficult to understand why Lake Vostok has not attracted special protection status. As the world's largest known sub glacial lake, it has been hidden beneath kilometers of ice for more than 16 million years, and may harbor early life forms. ASOC believes that Lake Vostok should be afforded ASPA status, and that the current research plans focused on Lake Vostok should be shifted to a smaller and more isolated lake.

Treaty Parties also have broader international obligations with respect to developing effective area protection for the Antarctic Treaty Area. For instance, many Antarctic Treaty Parties participated in the agreement reached at the World Summit on Sustainable Development (Johannesburg, South Africa, 2002) to implement representative networks of MPAs by 2012 with the aim of conserving marine biodiversity and allowing sustainable use of marine resources. Parties to the Convention on Biological Diversity (CBD) have also called for urgent action to address the under-representation of marine and coastal biodiversity in the global protected area system, particularly in areas beyond national jurisdiction. The Eighth Meeting of the Conference of the Parties to the CBD (Curitiba, Brazil, 2006) specifically considered MPA discussions and decisions for marine areas outside of national jurisdiction²⁰. Most recently, the G8 2007 Environment Ministers' Meeting (Potsdam, Germany, 15-17 March 2007) agreed to '*intensify our research and enhance our cooperation regarding the high seas in order to identify those habitats that merit protection and to ensure their protection.*'²¹

The effective management of the impacts of tourism is also becoming a major issue in terms of systematic or representative protection of values and areas in Antarctica. Tourism is growing in the Antarctic region, both in terms of the total numbers and the range of activities undertaken.²² The key question to be tackled is how to minimise the cumulative impacts at sites regularly used for tourism purposes, and to do this prior to disturbance or deterioration of areas that may qualify for protected status. Tourism demands directly compete with area protection needs, for example, the desire of tourists to view certain colonies of seabirds which equally deserve special protection. Without a framework for the development of tourism that integrates Protocol objectives, increased tourist activities run the risk of taking precedence over area protection. And without a fully represented area protection network in place, tourist activity may generate environmental impact in areas deserving of protection but as yet not protected, and in fact determine which areas remain as additional and supplementary tools available for such protection.

In addition to measures required to address and constrain the particularly negative forms of tourism currently emerging,²³ existing tools such as EIAs, ASPAs, ASMAs and site-specific guidelines should be applied on a standard basis. In particular, an ASMA approach could be used to manage tourism in relatively large areas²⁴ and within discrete regions.

²⁰ See <http://www.cbd.int/doc/meetings/cop/cop-08/official/cop-08-31-en.pdf>

²¹ 'Potsdam Initiative – Biological Diversity 2010', G8 2007 Environment Ministers Meeting, Potsdam, 15-17 March 2007 - available at http://www.bmu.de/files/pdfs/allgemein/application/pdf/potsdam_initiative_en.pdf.

²² IAATO, IAATO Overview of Antarctic Tourism 2006-2007 Antarctic Season (XXX ATCM/IP 121). XXX ATCM, New Delhi, 30 April – 11 May, 2007.

²³ ASOC, Tourism and the duty for ATCP Action, XXX ATCM IP 85, 2007.

²⁴ The intention here would be to use ASMAs as additional and supplementary tools, not as alternatives to ASPAs, which is a worrying trend in current Antarctic environmental management.

4. Conclusions

In ASOC's view, to develop an effective Antarctic Protected Areas, the following combination of policy steps and decisions are required:

1. A recognition that the historic remoteness of Antarctica and the general declaratory commitment towards the environment in the Antarctic Treaty, along with provisions included in CCAMLR and the Protocol, are a significant but not sufficient means of protection. Further tangible steps are required, and these include various forms of area protection.
2. A recognition that Antarctica's marine environment is under increasing pressure from fishing, tourism, whaling, shipping activities, potentially from some sorts of research (such as iron-seeding and acoustic/air-gun equipment), possibly soon from bioprospecting, and the unfolding and profound consequences of climate change. A strong commitment to establish in the near term a cohesive and representative network of marine protected areas and marine reserves in the Antarctic. A range of MPAs and Marine Reserves are required, from small and coastal areas (a continuation of established ATS practice) to large open ocean areas.
3. While sub-Antarctic islands (many of which lay outside the Antarctic Treaty Area) are increasingly designated as protected areas under national legislation (and in the case of the Australian, New Zealand and South African islands, further designated as World Heritage Sites), no equivalent island or archipelago protection (of land and its surrounding marine area) has yet been achieved in Antarctica. Perceptions of sovereignty interests²⁵ must be set aside and groups such as the Ballenys, Peter I and the South Sandwich Islands seriously and objectively need to be considered for protection.
4. The ATCM should re-acquire leadership of the designation of MPAs in ASPAs and ASMAs and initiate the further development of effective mechanisms for cooperation between the ATCM and CCAMLR in relation to MPAs, on an urgent basis, and project a joint vision of where progress must be made, establishing a timeline to meet the 2012 commitment made at the World Summit for Sustainable Development.²⁶
5. The system of land-based protected areas remains poorly developed. The underpinnings for the mandatory systemic environmental-geographic framework have been provided by New Zealand²⁷ but we are still a long way from realizing its potential. There are, for instance, still no ASPAS designated for that most typical Antarctic environment, the high polar plateau, and only one ASMA (ASMA N^o 5). The distribution and size of designated areas are still issues to be discussed, and the values recognized under the Protocol are not yet well represented in protected land areas in Antarctica.

ASOC suggests that the CEP be urgently tasked with providing the ATCM with advice on which parts of Annex V are not yet fully represented with designated Protected Areas, in addition to those parts that no longer represent best-practice or are otherwise outdated, and best new approaches to address the needs of the 21st century. The review and amendment or modification, and any actual drafting of changes to Annex V can then occur within the ATCM.

25 J. Burgess, E. Waterhouse, A.D. Hemmings and P. Wilson, Declaration of Marine Protected Areas – the case of the Balleny Islands, Antarctica'. pp 196-202 in J.P. Breumer; A. Grant and D.C. Smith (eds). Aquatic Protected Areas: What works best and how do we know? Proceedings of the World Congress on Aquatic Protected Areas. Cairns, Australia – August 2002. Australian Society for Fish Biology, Australia, 2003.

26 See: S.M. Grant, Challenges of marine protected area development in Antarctica, Parks 15: 40-47. 2005.

27 New Zealand, Systematic Environmental Protection in Antarctica – First Progress Report, XXVII ATCM IP 24, 2004.