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**Report of the SCAR Delegation to
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in Brasilia, Brazil, 28 April – 7 May 2014**



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Report of the SCAR Delegation to ATCM XXXVII and CEP XVII in Brasilia, Brazil, 28 April – 7 May 2014

1. Introduction

The SCAR Delegation consisted of Jerónimo López-Martínez (SCAR President), Michael D Sparrow (SCAR Executive Director) and Carlota Escutia-Dotti (SCAR Lecturer). Steven Chown (CO of SC-ATS) was unable to attend in person but provided comprehensive comments on the Treaty papers of interest to SCAR. Kevin Hughes (deputy CO of SC-ATS) also attended as part of the UK Delegation.

2. SCAR Input

SCAR provided one Working Paper (WP), six Information Papers (IPs) and two Background Papers (BPs). Several were submitted jointly with other Parties, Observers and Experts. SCAR also provided input to intersessional groups, such as the contact group on climate change, and provided focussed effort on the Environments Portal, led by New Zealand. The SCAR Lecture, given by Carlota Escutia-Dotti was on "*Back to the Future: Past Antarctic Climates, Ice Sheet History and their Relevance for Understanding Future Trends*".

Submitted Papers:

- WP010: Antarctic Environments Portal: Progress Report (New Zealand, Australia, Belgium, Norway, SCAR)
- IP011: Antarctic Conservation Strategy: Scoping Workshop on Practical Solutions (COMNAP, SCAR)
- IP013: The Scientific Committee on Antarctic Research (SCAR) - Annual Report for 2013/14 (SCAR)
- IP014: Report on the 2013-2014 activities of the Southern Ocean Observing System (SOOS) (SCAR)
- IP039: SCAR engagement with the United Nations Framework Convention on Climate Change (UNFCCC) (SCAR)
- IP042: Developing general guidelines for operating in geothermal environments (New Zealand, SCAR, United Kingdom, United States)
- IP060: Antarctic Climate Change and the Environment – 2014 Update (SCAR)
- BP006: SCAR Lecture: "Back to the Future: Past Antarctic Climates, Ice Sheet History and their Relevance for Understanding Future Trends" (SCAR)
- BP009: The Scientific Committee on Antarctic Research (SCAR) - Selected Science Highlights for 2013/14 (SCAR)

3. Committee for Environmental Protection and Antarctic Treaty Consultative Meetings

The full reports of the Committee on Environmental Protection (CEP) and Antarctic Treaty Consultative (ATCM) meetings will be available from <http://www.ats.aq>. In this SCAR report, only those items directly relevant to SCAR are presented. IPs were usually only presented if absolutely necessary. Appendices 1 and 2 give additional information on the agenda items covered.

The Environments Portal

(CEP Item 3; ATCM 13)

New Zealand introduced *WP 10: Antarctic Environments Portal: Progress Report*, jointly prepared with Australia, Belgium, Norway and SCAR, which provided an update on the Portal's development. New Zealand noted that the Portal aimed to support the work of the Committee by providing up-to-date scientifically based information on the priority issues being addressed by the Committee. New Zealand emphasised two main aspects of the Portal: the website itself, including information summaries on key issues available in all four Treaty languages; a search facility, an interactive map and a section on "emerging issues"; and the supporting editorial process by which the Portal's content is generated and managed. New Zealand highlighted the planned next steps in the Portal's development including seeking funding to support long-term hosting of the website; the employment of an editor to oversee the development and the management of the Portal's content and completion of the technical development itself. To support this further work and ensure that the Portal meets the needs of the CEP, New Zealand noted its intention to establish a Reference Group for the purposes of exchanging ideas and seeking feedback. For further details see: environments.aq.

Many Parties expressed their support for the Portal initiative and their appreciation for the extent to which New Zealand had responded to the comments provided at CEP XVI.

SCAR reiterated its full support for the Portal initiative and the potential it provides to support SCAR's advisory role to the Antarctic Treaty System. In this regard, SCAR emphasized the importance it placed on guaranteeing the reliability and independence of the Portal's content.

***Agreement:* SCAR will continue to play an active role in supporting the Environments Portal project and developing and reviewing the content.**

The SCAR Annual Report

(CEP Item 5; ATCM 13)

SCAR presented *IP 13: The Scientific Committee on Antarctic Research (SCAR) Annual Report 2013/14* and highlighted several examples of its activities. In the presentation of this paper, the SCAR President highlighted the initiation in 2013 of the new five Scientific Research Programmes, in particular State of the Antarctic Ecosystem (AntEco), Antarctic Thresholds - Ecosystem Resilience and Adaptation (AnT-ERA), and Antarctic Climate Change in the 21st Century (AntClim²¹). Several other SCAR Groups are also of interest to the work of the CEP, such as Southern

Ocean Acidification, which will publish a report on this matter in August 2014; Geoheritage Values; Environmental Contamination in Antarctica; and Remote Sensing to monitor birds and animal populations. SCAR also provides an annual update to the Antarctic Climate Change and the Environment Report. SCAR held a Science Horizon Scan in New Zealand in April 2014, following the crowdsourcing of over 850 unique questions and the nomination of almost 500 scientists by the SCAR community. The selected 70 participants have identified a list of the 80 most important scientific questions that should be addressed by research in Antarctica and the Southern Ocean beyond the next 20 years (<http://www.scar.org/horizonsscanning/>). SCAR, in collaboration with several partners, is developing a strategy entitled Antarctic Conservation in the 21st Century. A Scoping Workshop on Practical Solutions was held in September 2013 and a symposium will be held in August 2014. The 33rd SCAR Meetings and Open Science Conference will be held in Auckland New Zealand on 22 August - 3 September 2014.

SCAR also submitted: *BP 9: The Scientific Committee on Antarctic Research (SCAR) Selected Science Highlights for 2013/14* under this item.

Climate Change

(CEP Item 7; ATCM 13)

SCAR presented *IP 39: SCAR engagement with the United Nations Framework Convention on Climate Change (UNFCCC)* and *IP 60: Antarctic Climate Change and the Environment – 2014 Update (ACCE)*. SCAR noted that in 2013 it had attended the UNFCCC meeting in Bonn and the UNFCCC Conference of the Parties in Warsaw where it promoted the ACCE Executive Summary update. It also reported that the ACCE group would launch a “wiki” version of their report in 2014.

Australia welcomed SCAR’s involvement in UNFCCC, noting that it was consistent with Recommendations 1, 2 and 3 of the 2010 ATME on Climate Change, and thanked Norway for the support it provided to facilitate SCAR’s participation. Such actions were consistent with Recommendations 1 – 3 from the 2010 ATME on Climate Change, and were also consistent with Australia’s views regarding the benefits of enhancing the ATCM’s engagement with the UNFCCC. Accordingly, Australia would welcome on-going involvement by SCAR in future UNFCCC events, including at the 2015 Conference of Parties, if funding was available, and efforts to keep the ATCM informed of this involvement.

Agreement: SCAR to continue to provide updates to its ACCE report and to engage with other bodies, such as the UNFCCC, as funds allow.

The United States introduced *WP 40: Fostering Coordinated Antarctic Climate Change Monitoring*, jointly prepared with the United Kingdom and Norway. Given the importance of climate change-related issues and the on-going attention being paid by the ATCM, CEP and SC-CAMLR to these matters, the paper proposed that the ATCM continue to develop new observational systems to understand climate processes better. In particular, it recommended that the ATCM promote efforts to (1) strengthen coordination for addressing climate research priorities as a means to improve existing observing efforts and understanding of observing system requirements, particularly those requirements that would lead to improved understanding of the Antarctic on a system-wide scale and (2) continue to support

cooperation between the CEP and SC-CAMLR in areas of mutual interest, which included ecosystem and environmental monitoring, through periodic joint workshops.

SCAR highlighted that there was also an Antarctic observing system under development that aimed to provide a terrestrial version of the SOOS. They also reported on the International Polar Partnership Initiative led by WMO that aimed to improve scientific coordination between polar organisations, although noted that this activity was still under discussion.

SCAR Science Horizon Scan

(ATCM Item 7)

The results of the SCAR Science Horizon Scan were identified as a matter of interest for the ATCM and included on the ATCM Multi-Year Strategic Work Plan (Decision 3-2014) that SCAR will present a report about the results of the SCAR Science Horizon Scan in 2015.

Agreement: SCAR to present a paper on the outcomes of its Horizon Scan to Treaty Parties.

Other Issues

(CEP Items 8b, 9f, 10c, 11; ATCM 11, 13, 14)

Unmanned Aerial Vehicles:

Germany introduced *WP 5: UAVs and their possible environmental impacts*, jointly prepared with Poland, and drew Members' attention to the possible environmental impacts of using Unmanned Aerial Vehicles (UAVs) in light of their significantly increased use for scientific and non-scientific purposes in the Antarctic. It encouraged Members to: (1) recognise this issue; (2) exchange information and share experience on the use of UAVs and linked possible environmental impacts; (3) facilitate research on the possible environmental impacts of UAVs and; (4) establish an ICG to discuss and further work on this proposal during the 2014/15 intersessional period. It further suggested that these recommendations be merged with the recommendations in WP 51.

The United States also introduced *WP 51: Considerations for the use of unmanned aircraft systems (UAS) for research, monitoring, and observation in Antarctica*. The United States encouraged the CEP and ATCM to: (1) note the potential value of UAS (UAV) to scientific research and environmental monitoring in Antarctica; (2) ask SCAR to review the risks of UAS operations to the environment; (3) ask COMNAP to review the risks of UAS operations to other aircraft and on station operations; and (4) invite COMNAP, SCAR and external experts to discuss the possible establishment of guidelines for the use of these platforms in Antarctica.

With a view to holding in-depth discussions on UAVs at the next CEP, the Committee requested that the following be prepared for CEP XVIII: reports by SCAR and COMNAP on the utility and risks of UAV operation in Antarctica; a paper from IAATO on its experiences and current practices relating to UAVs; and additional papers referring to Members' experiences on this matter. The Committee also agreed to include UAVs on its Five-Year Work Plan.

Agreement: SCAR and COMNAP to produce a report (or reports) on the utility and risks of UAV operation in the Antarctic.

Outstanding Geological Features:

The United Kingdom introduced *WP 35: The Antarctic Protected Area system: protection of outstanding geological features*, jointly prepared with Argentina, Australia and Spain, and referred to its *IP 22: Antarctic Specially Protected Areas protecting geological features: a review*. It highlighted that few ASPAs had been designated to protect geological features as required by Annex V. It further recommended that Members and SCAR identify outstanding geological features and consider requirements for their protection, including ASPA designation, use of zoning within ASMAs and/or the inclusion of specific considerations for protection in other developed management tools such as the Site Guidelines for Visitors. SCAR noted that it might not be evident when removing rocks and minerals that fossils were included. SCAR therefore suggested that protection and collection of geological elements should be addressed in a broad context.

Agreement: SCAR to consider identification of outstanding geological features and consider requirements for their protection.

SCAR co-submitted, but did not present, the following two papers:

IP 11: Antarctic Conservation Strategy: Scoping Workshop on Practical Solutions (COMNAP & SCAR)

IP 42: Developing general guidelines for operating in geothermal environments (New Zealand, SCAR, United Kingdom & United States)

The Southern Ocean Observing System

SCAR presented *IP 14: Report on the 2013-2014 Activities of the Southern Ocean Observing System (SOOS)*, which reported on SOOS achievements in 2013 and planned activities for 2014, and thanked Australia for hosting the SOOS office and New Zealand for its support.

Education and Outreach Matters

Brazil introduced *WP 9: Education and Outreach Activities Associated with Antarctic Treaty Consultative Meetings (ATCM)*, jointly prepared with Belgium, Bulgaria, Portugal and the United Kingdom. It recommended that the ATCM endorsed the organisation of a workshop to be held during ATCM XXXVIII to facilitate discussion of education and outreach activities that could convey the work of the Antarctic Treaty to a wider audience, and in particular, those activities that occurred in association with ATCMs.

Agreement: SCAR to participate in discussions on a possible workshop on Education and Outreach activities to be held in association with ATCM XXXVII in Bulgaria 2015.

Tourism and Non-Governmental Activities in the Antarctic Treaty Area

The United States introduced *WP 13: Coastal Camping Activities Conducted by Non-Governmental Organizations*, jointly prepared with Norway. It summarised

information collected on the experiences and responses of competent authorities in approaches taken to address issues related to non-governmental camping activities. It also highlighted that most competent authorities had received few or no applications for coastal camping activities, and there is variability in the approaches used to address these issues. The United States commented that the increasing trend in both frequency and intensity of coastal camping activities suggested further discussion may be warranted.

The United States stated that many Members had supported continued information exchange on coastal camping activities in Antarctica, especially with a view to harmonising the different approaches taken by Parties. It welcomed SCAR's agreement to include coastal camping as part of its consideration of appropriate distances from wildlife.

Agreement: SCAR agreed to include coastal camping as part of its consideration of appropriate approach distances from wildlife.

4. The SCAR Lecture

The SCAR Lecture was given by Carlota Escutia Dotti, co-chair of the SCAR PAIS (Past Antarctic Ice Sheet dynamics) Scientific Research Programme. The title was *"Back to the Future: Past Antarctic Climates, Ice Sheet History and their Relevance for Understanding Future Trends"*. The lecture was introduced by the SCAR President, Jerónimo Lopez-Martínez, and the session chaired by the Brazilian SCAR Delegate, Jefferson Simões. The lecture was very well received by the audience.

The final Report of the ATCM included that "Taking into account the valuable series of lectures given by SCAR at a number of ATCMs, the Meeting decided to invite SCAR to give another lecture on scientific issues relevant to ATCM XXXVIII".

For further details, see the following paper:

BP006: SCAR Lecture: "Back to the Future: Past Antarctic Climates, Ice Sheet History and their Relevance for Understanding Future Trends"

Appendix 1

Preliminary Agenda for ATCM XXXVII

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: General Matters
6. Operation of the Antarctic Treaty System: Matters related to the Secretariat
7. Multi-Year Strategic Work Plan
8. Report of the Committee for Environmental Protection
9. Liability: Implementation of Decision 4 (2010)
10. Safety and Operations in Antarctica
11. Tourism and Non-Governmental Activities in the Antarctic Treaty Area
12. Inspections under the Antarctic Treaty and the Environment Protocol
13. Science Issues, Scientific Cooperation and Facilitation
14. Implications of Climate Change for Management of the Antarctic Treaty Area
15. Education Issues
16. Exchange of Information
17. Biological Prospecting in Antarctica
18. Preparation of the XXXVIII Meeting
19. Any Other Business
20. Adoption of the Final Report
21. Close of the Meeting

Appendix 2

Provisional Agenda for CEP XVII

1. Opening of the Meeting
2. Adoption of the Agenda
3. Strategic Discussions on the Future Work of the CEP
4. Operation of the CEP
5. Cooperation with other Organisations
6. Repair and Remediation of Environment Damage
7. Climate Change Implications for the Environment: Strategic approach
8. Environmental Impact Assessment (EIA)
 - a. Draft Comprehensive Environmental Evaluations
 - b. Other EIA Matters
9. Area Protection and Management Plans
 - a. Management Plans
 - b. Historic Sites and Monuments
 - c. Site Guidelines
 - d. Human footprint and wilderness values
 - e. Marine Spatial Protection and Management
 - f. Other Annex V Matters
10. Conservation of Antarctic Flora and Fauna
 - a. Quarantine and Non-native Species
 - b. Specially Protected Species
 - c. Other Annex II Matters
11. Environmental Monitoring and Reporting
12. Inspection Reports
13. General Matters
14. Election of Officers
15. Preparation for Next Meeting
16. Adoption of the Report
17. Closing of the Meeting

Appendix 3

List of Acronyms

ACCE	Antarctic Climate Change and the Environment
AntClim ²¹	Antarctic Climate Change in the 21st Century
AntEco	State of the Antarctic Ecosystem
AnT-ERA	Antarctic Thresholds - Ecosystem Resilience and Adaptation
ASMA	Antarctic Specially Managed Area
ASPA	Antarctic Specially Protected Area
ATCM	Antarctic Treaty Consultative Meeting
ATME	Antarctic Treaty Meeting of Experts
BP	Background Paper
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CEP	Committee for Environmental Protection (Antarctic Treaty)
CO	Chief Officer
COMNAP	Council of Managers of National Antarctic Programs
IAATO	International Association of Antarctica Tour Operators
IP	Information Paper
PAIS	Past Antarctic Ice Sheet dynamics
SC-ATS	Standing Committee on the Antarctic Treaty System
SC-CAMLR	Scientific Committee on the Conservation of Antarctic Marine Living Resources
SCAR	Scientific Committee on Antarctic Research
SOOS	Southern Ocean Observing System
SRP	Scientific Research Programme
UAS	Unmanned Aircraft System
UAV	Unmanned Aerial Vehicle
UK	United Kingdom
UNFCCC	United National Framework Convention on Climate Change
WMO	World Meteorological Organisation
WP	Working Paper