

JCADM report for SCAR Executive meeting

T.F. de Bruin, JCADM Chief Officer
July 2007

This report covers the period between the SCAR meetings in Hobart (July 2006) and the SCAR Executive meeting in Washington, DC (July 2007).

During this period, JCADM

- held its annual meeting in Hobart,
- participated in the SCAR Cross linkages workshop in Rome
- continued populating the Antarctic Master Directory (AMD)
- advised the Global Change Master Directory (GCMD, the host of the AMD) on future directions of the AMD
- established closer involvement with the SCAR SRPs and SSGs
- started working on the SCAR Data Strategy
- continued to involve more countries in Antarctic data management
- advised the ATS secretariat on data issues
- IPY data management
- started preparing the next JCADM annual meeting, which will be held in conjunction with a JCADM capacity building workshop in Rome, Italy, Sept. 2007

Key outcomes of the JCADM-10 meeting in Hobart (July 2006) (see appendix 1 for the full report).

- JCADM-10 took place in conjunction with SCAR XXIX / COMNAP XVIII conferences. The meeting was attended by a total of 20 representatives from 14 countries.
- Strong emphasis was placed on interaction with other SCAR groups. Presentations outlining JCADM's mandate, activities and facilities were presented at the meetings of all Scientific Research Programs (SRPs), Standing Scientific Groups (SSGs), and other groups associated with SCAR.

To maintain an ongoing link with SRPs, SSGs and other relevant groups, formal and informal have been established as follows:

- SCAR and the SSGs: The Chief Officer (The Netherlands)
- ACE Steering Committee: Robert Bauer (USA)
- AGCS Steering Committee: Helen Campbell (UK)
- EBA Steering Committee: Shulamit Gordon (New Zealand)
- SALE Steering Committee: Manfred Reinke (Germany)
- ICESTAR Steering Committee: Claudio Rafanelli (Italy)
- Experts Group on Geographic Information: Peter Pulsifer (Canada)
- SCAR/SCOR Expert Group on the Southern Ocean: Manfred Reinke (Germany)
- SCAR MarBIN: Bruno Danis
- ATS: The Chief Officer (The Netherlands)

- New terms of reference were developed and subsequently adopted by SCAR and COMNAP delegates (see appendix 2).
- A strategic planning working group was established to develop a SCAR Data Management Strategy and Data Policy
- A request for a resolution addressing adequate resourcing of National Antarctic Data Centres was submitted to the SCAR and COMNAP delegates meetings. This resolution was accepted by the SCAR Delegates meeting
- JCADM will continue to be involved in the IPY process through the development of data policy and the provision of JCADM expertise and infrastructure where feasible and appropriate.
- A new JCADM Website was launched.

SCAR Cross linkages workshop in Rome

- Claudio Rafanelli, the Italian JCADM representative, participated in the Cross linkages workshop in Rome on behalf of JCADM.
- The Cross linkages workshop resulted in several action items for JCADM to follow on.

Populating the Antarctic Master Directory (AMD)

- The number of data set descriptions (DIFs) in the AMD has grown from 3884 in June 2006 to 4309 in June 2007
- The number of countries contributing to the AMD has grown to 25.
- SCAR-MarBIN is also contributing DIFs, as well as are other, globally active organizations.
- The number of retrievals has seen a sudden increase from around 500/month to over 3000/month for the last 4 months.
- The large majority of users come from the United States and Australia.

Advised the GCMD on future directions of the AMD

- An ad hoc meeting of the GCMD Ocean and Polar Science officer and the JCADM CO was held on the fringes of the IODE meeting
- This resulted in some action point for GCMD, to further improve the excellent service GCMD is providing to JCADM, SCAR and the polar community.

Closer involvement with the SCAR SRPs and SSGs

- There are now JCADM representatives active on the Steering Committees of all SRPs.
- SCAR project portals were created within the AMD and are being populated.

- The portals are customized to the needs and data types of each SRP and will assist scientists involved in those SRP with discovering relevant data sets.

The SCAR Data Strategy

- The JCADM Strategy working group, chaired by Kim Finney of Australia is in the process of producing a draft version of the SCAR Data Strategy.
- A pre-draft version is currently circulating among JCADM members for comments and additions. After this, the draft version will be submitted to the SCAR Executive for further refinement, so that the SCAR Delegates can discuss and adopt the SCAR Data Strategy during their meeting in Moscow in 2008.

Involve more countries in Antarctic data management

- There is a continuous effort by the JCADM Executive to involve all SCAR member countries in JCADM.
- Countries which are, for whatever reason, not very active in JCADM and/or Antarctic data management are invited to step up their data management efforts and are offered assistance by JCADM in becoming more involved.
- New SCAR members or associate members (Denmark in 2006) are invited to nominate a JCADM representative.

Advise to ATS secretariat on data issues

- On request of the ATS secretariat, JCADM provided guidance on the science keywords for the ATCM Electronic Information Exchange System and on the status of the 'POGO Planned Cruise Database'.

IPY data management

- All JCADM members are actively involved in IPY data management within their own countries and within the IPY projects funded by their respective countries.
- Several JCADM members are actively involved in the IPY Data and Information Service (IPY-DIS)
- The JCADM CO is one of the co-chairs of the IPY Data Policy and Management Subcommittee.

Next JCADM annual meeting, and JCADM capacity building workshop

- The next JCADM meeting will be held in Rome, Italy, September 5-7, 2007.
- Prior to this meeting, a two-day capacity building workshop will be organized to bring all JCADM partners at the same level of expertise (Sep. 3-4, 2007)
- Funding for this workshop/annual meeting has been secured from the Italian government and from the Partnership for Observing the Global Ocean (POGO).

Appendix 1

Report of the Tenth Joint Committee on Antarctic Data Management Meeting (JCADM-10)

Hobart, July 8 – 11, 2006

The Tenth Meeting of Joint Committee on Antarctic Data Management took place in conjunction with the SCAR XXIX / COMNAP XVIII conferences. The meeting was attended by a total of twenty representatives from 14 countries. Refer to Appendix 1 for a list of participants.

With the objective of improving inter-group interaction, the JCADM meeting was organized in a manner which allowed committee members to participate in the meetings of other SCAR and COMNAP groups.

The business component of the JCADM meeting resulted in a number of important outcomes including new Terms of Reference, the launch of a new Web site and content management system and the establishment of a strategic planning working group.

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1. Proposed new Terms of Reference for JCADM
1. Attendance at JCADM-10
1. JCADM workplan resulting from JCADM-10 (Hobart)
1. List of NADC action items from JCADM-9 (Buenos Aires)

Key outcomes of the Meeting/ JCADM's Mandate and associated outcomes:

During the conference, a strong emphasis was placed on interaction with other SCAR groups. Presentations outlining JCADM's mandate, activities and facilities were presented at the meetings of all Scientific Research Programs (SRPs), Standing Scientific Groups (SSGs), and other groups in or associated with SCAR.

To maintain an ongoing link with SRPs, SSGs and other relevant groups, formal and informal links have been established as follows:

- SCAR and the SSGs: Taco de Bruin (Chief Officer, The Netherlands)
- ACE Steering Committee: Robert Bauer (USA)
- AGCS Steering Committee: Helen Campbell (UK)
- EBA Steering Committee: Shulamit Gordon (New Zealand)
- SALE Steering Committee: Manfred Reinke (Germany)
- ICESAR Steering Committee: Claudio Rafanelli (Italy)
- Experts Group on Geographic Information: Peter Pulsifer (Deputy Chief Officer, Canada)
- SCAR/SCOR Expert Group on the Southern Ocean: Manfred Reinke (Germany)
- SCAR MarBIN: Bruno Danis
- ATS: Taco de Bruin (Chief Officer, The Netherlands)

New Terms of Reference were developed and adopted by the meeting attendees. The Terms of Reference were submitted to be adopted by the SCAR and COMNAP Delegates meetings. Refer to Appendix 1 for the new draft Terms of Reference.

The JCADM executive worked closely with the executive of the EGGI to establish a model for collaboration between the groups including establishing formal executive connection and the development of a partnership to create fundamental datasets of benefit to the Antarctic community.

Meeting attendees started developing a JCADM strategic plan, which will form the basis for a SCAR Strategic Data Plan. This plan will be finalised prior to the 2007 SCAR/COMNAP Executive meetings in 2007. The plan will establish strategic priorities and directions commensurate with the committee's Terms of Reference. Areas of focus with include effective access to scientific data; facilitation of multidisciplinary research; support of scientific programmes in data management; long-term preservation of data; adherence to relevant national and international policy.

The development of this JCADM/SCAR Data Management Strategy and Data Policy was identified as a priority for the strategic planning working group. These documents will support the ongoing work of JCADM while responding to requests from the SCAR Executive and members of the research community.

Through interaction with the community, key areas of interest related to new standards, methods and technologies in data management were identified. A plan was established to write information papers on these topics.

A resolution addressing resourcing of National Antarctic Data Centres was reviewed and approved by the delegates for submission to the SCAR and COMNAP delegates meetings.

It was agreed that JCADM will continue to be involved in the IPY process through the development of the IPY data strategy and infrastructure and the provision of JCADM expertise and infrastructure where feasible and appropriate.

A new JCADM Website was launched. The new site includes improved content, a refined graphic design and the ability to support committee work using a 'members only' work area.

In keeping with the goal of improving access to data, it was resolved to work with National Antarctic Data Centres to develop capacity for provision of Internet based data services. The aim of this is to improve data access for the benefit of science programmes and projects.

A work plan was established in accordance with the new Terms of Reference and discussion of priorities.

Key elements of the regular meeting

(Saturday July 8)

- The Chief Officer **welcomed the 14 country representatives and guests** to the JCADM meeting, and cited apologies from 8 countries. The representatives introduced themselves, and the agenda for the meeting was adopted. The JCADM meeting itself was limited to a minimum amount of time, to allow the JCADM members to participate in and contribute to the meetings of the SCAR Scientific Research Programmes and of other groups present at the SCAR XXIX and COMNAP XVIII meetings.
- **Report by the JCADM Chief Officer.**
The Chief Officer presented a report, highlighting the following items:
 - JCADM is actively pursuing liaison and involvement with SCAR Groups and Projects:
JCADM appointed three of its members as liaisons with the three SCAR SSGs. JCADM has nominated members to advice and assist the Steering Committees of the 5 SCAR Scientific Research Programmes on data management issues. JCADM participated in the SCAR Cross Linkages workshop, held in Amsterdam in November 2005.
JCADM is also actively involved in SCAR or SCAR-related data projects such as the SCAR-MarBIN project and the Southern Ocean database project.
 - Currently, 30 nations are involved in JCADM and have nominated a JCADM representative.
 - JCADM is coordinating the development of the Antarctic Master Directory:
The number of data set descriptions (DIFs) has grown from 3503 in July 2005 to 3940 in June 2006
The number of nations contributing their DIFs grew from 19 nations in July 2005 to 23 nations in May 2006.
The AMD is increasingly being used. The number of downloads grew from about 100 per month in July 2003 to about 500 per month in the first quarter of 2006.
 - JCADM will be part of the International Polar Year (IPY) Data Infrastructure. The JCADM Chief Officer is also co-chair of the IPY Subcommittee on Data Policy and Management (SCDPM).
 - JCADM proposes a resolution to be adopted by SCAR and COMNAP at their meetings in Hobart.
This resolution calls on National SCAR and COMNAP Delegates to address the issue of enabling and funding of Antarctic data management at the national level:

“SCAR and COMNAP urge national managers to ensure that NADCs are staffed and equipped to appropriate levels, and that NADC managers have sufficient resources to participate in annual JCADM meetings.”

- **The (updated) JCADM review and recommendations.** The report from STADM was presented, and points noted to follow up in the JCADM work plan.

(Sunday July 9)

- **JCADM Terms of Reference.** A working group met in the morning to finalize a proposal for new JCADM Terms of Reference. The group, consisting of Helen Campbell, Claudio Rafanelli, Peter Pulsifer, Kim Finney, and Stein Tronstad, presented a draft to the JCADM plenary on Monday, and with some further edits they were approved unanimously by JCADM. When approved by SCAR and COMNAP, the terms should form the basis for a new Strategic Plan for JCADM.
- **Progress report on the AMD.** Mélanie Meaux from the Antarctic Master Directory host, the Global Change Master Directory, presented the latest developments to the Directory and to the DIF metadata standard.
- A discussion ensued on harmonization of keyword lists and ontology, and on the potential inclusion of the SCAR Composite Gazetteer of Antarctica in the AMD. Peter Pulsifer and Kim Finney will produce a position paper on the former issue, while the latter will be followed up in a collaboration between JCADM and EGGI.
- **Links between JCADM, SCAR groups and research programmes, the ATS, and other international programmes relating to Antarctica and the Southern Ocean:** This was discussed based on reports from JCADM members who had participated in the meetings of (or relating to) EGGI, the SCAR Standing Scientific Groups, and the IPY.
A separate discussion followed on the collaboration between JCADM and EGGI, with the SCAR Executive Director, Colin Summerhayes and the JCADM and EGGI executives present. It was agreed to propose an “Information Group” in the SCAR structure, consisting of JCADM and EGGI, with EGGI decoupled from the Geosciences SSG and defined as an independent standing committee of SCAR. Mutual executive representation between EGGI and JCADM would facilitate the desired collaboration between these groups.

(Monday July 10)

During the morning session most JCADM members participated in the meetings of other SCAR groups. In the afternoon JCADM reconvened to discuss the following matters.

- **Providing data access:** Presentations were made by Dr. Bruno Danis and Dr. Dave Watts on recent developments in the SCAR MarBIN. It was resolved that

- SCAR MarBIN will provide more specific information to JCADM on needs, as a starting point for JCADM assistance. Input to be provided from Bruno Danis with ideas contributed by Kim Finney.
- Dr. Hendrik Segers made a presentation about the Global Biosphere Information Facility (GBIF)(<http://www.gbif.org>) and potential GBIF - SCAR/JCADM linkages. The suggestion was made that SCAR should become an Associate Partner in GBIF, the key global group for biodiversity information.
 - A presentation was made by Helen Campbell and Taco de Bruin reporting on the ongoing development of a Southern Ocean database - Ocean READER (REference Antarctic Data for Environmental Research)
 - A discussion on developing an Antarctic sea ice thickness database; and on a project to relate ocean productivity to sea ice condition followed.
 - Idea emerging from the discussion: Produce a regular newsletter about JCADM/ADMS to the science community and the ATS.
 - Through the interaction with the other groups within SCAR it became evident that there are at least 4 SCAR or SCAR associated groups plus COMNAP and the ATS Secretariat, which have a need for a database of planned research cruises in the Southern Ocean. Apparently none of these groups is aware of the POGO initiative to build a global database of planned research cruises.
 - Furthermore it was noted that in the past biological and physical oceanographic data from the same cruise were routinely separated from each other. It has now become very difficult and labour intensive, and hence expensive, to reconcile these data into one dataset.
 - **Potential support of CEP activities** (Tito Acero from ATS-Secretariat present during this discussion): Peter Pulsifer made a presentation which encourages discussion on potential JCADM support of CEP activities. Key points made were that SCAR supports CEP on many matters through information and working papers. Form of interaction? Possibly: Establish some form of CEP liaison, evaluate needs and outputs of CEP related activities; develop a strategy for meeting JCADM ToR with respect to CEP. T. Acero suggests that we must recognize the formal nature of CEP and use existing channels.
 - Action item: Shulamit Gordon will make informal contact with Neil Gilbert (CEP Chair, SAER ICG Chair, for opinion about CEP interest in various aspects of data management. The CEP chair, Neil Gilbert, voiced interest and suggests that JCADM informs the ICG through SCAR with an information paper or a working paper.
 - **Report from ICESTAR SRP Meeting:** Claudio Rafanelli reported that a collaboration could be based on ICESTAR/eGy related systems based on the concepts of virtual observatories and the “World Data Fabric” (Papatashvilli, 2006).
 - **Report from PSSG:** Helen Campbell made a presentation on JCADM to the Physical Sciences Standing Scientific Group. Helen reported that the presentation was well received and the group engaged in the form of questions.

- **Reports from LSSSG:** Taco de Bruin made a presentation on JCADM to the Life Sciences Standing Scientific Group. This presentation was well received and the group engaged in the form of several questions on data held by COMNAP and on data from commercial activities (see also recommendation from LSSSG).
- **Reports from GSSSG:** Taco de Bruin made a presentation on JCADM to the Geo Sciences Standing Scientific Group. This presentation was well received and the group engaged in the form of questions.
- **JCADM in the International Polar Year (IPY).** Taco de Bruin presented the work of the IPY data committee, the new IPY Data Policy, and the work towards the establishment of an IPY Data and Information Service. The IPY data committee is undertaking a data survey, to identify gaps in existing infrastructure. The gaps will be addressed with the assistance of ICSU. Management of IPY data from Antarctica and the Southern Ocean will have to rely heavily on the ADMS.

(Tuesday July 11)

- **Capacity building workshop.** A small capacity building workshop was held for representatives of new NADCs in the morning, while other JCADM members attended other meetings. Taco de Bruin (JCADM CO) presented the Antarctic Data Management System, JCADM, and the relations with SCAR, COMNAP, and the ATS. Mélanie Meaux (GCMD) gave a hands-on demonstration of the DocBuilder data entry software and the functionality of the Antarctic Master Directory (AMD).
- **The JCADM website** has been redeveloped by the Australian Antarctic Data Centre, and the new website was launched by Kim Finney. Shulamit Gordon of Antarctica New Zealand will be the coordinating editor of the new website. Peter Pulsifer will take the lead in developing a FAQ section, to respond to common questions from data managers and scientists on the benefits and workings of the ADMS.
- **SCAR Data Management Plan and Data Policy.** JCADM has been requested to draft such a document and present it to the SCAR executive. A SCAR-MarBIN data policy is established. Particular note: Article III-1c of the Antarctic Treaty (“scientific data [...] shall be exchanged and made freely available”) does not provide a timeframe in which the data should be made available.
- **JCADM/SCAR Strategic Plan.** A Strategic Plan should be developed for JCADM and SCAR, to outline in more detail how JCADM should meet its new Terms of Reference. The plan should be finalized within June 1st 2007, to be presented to the SCAR & COMNAP Executive meetings in July 2007. Kim Finney and Taco de Bruin will lead the process. They will circulate a specific

outline for comments by October 1st 2006, and a draft strategic plan by January 1st 2007. Everybody else is free to give input at any time.

- **Work plan and action items for JCADM (Appendix 1).** The JCADM work plan was updated and revised. The available time did not allow for revision of the NADC action items from JCADM-9 (Appendix 2).
- The offer by Claudio Rafanelli (Italy) to host the next JCADM meeting was gratefully accepted.
- **The next meeting, JCADM-11,** will be hosted by the ISAC/CNR in Rome, Italy. Dates are September 3 – 7, 2007.

Appendix 1: Proposed new Terms of Reference for JCADM

JCADM was established to assist National Antarctic Programmes to meet their obligations with regards to the Antarctic Treaty (section III.1.c):

"Scientific observations and results from Antarctica shall be exchanged and made freely available."

JCADM is founded on the understanding that scientific and operational data are core assets of the Antarctic community, and are valuable in their own right. When these data are well-managed, they provide vital resources for the future, and facilitate the development of interdisciplinary research and international collaborations.

JCADM is responsible for the Antarctic Data Management System (ADMS) which provides:

- A single portal for recording information about data holdings - the Antarctic Master Directory (AMD), and;
- A distributed system for storing and providing access to that data – the National Antarctic Data Centres (NADC).

For the reasons described above, the draft Terms of Reference for JCADM are:

1. To promote long-term preservation and accessibility of data relating to Antarctica and the Southern Ocean in sustainable repositories,
1. To assist in establishing Antarctic data management policies, priorities and best practices,
1. To support the establishment and ongoing work of National Antarctic Data Centres, in accordance with ATCM XXII Resolution 4.1 (1998),
1. To encourage submission of metadata and data to the Antarctic Data Management System,

1. To further improve and populate the AMD and provide guidance to the AMD host,
1. To provide linkages to other relevant data management systems and thereby enhance the ADMS,
1. In partnership with EGGI to work with SCAR SSGs, COMNAP and the Antarctic Treaty Secretariat to identify and develop fundamental datasets of value to the Antarctic Community.

Appendix 2: Attendance at JCADM-10

JCADM Executive:

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| 1. Taco de Bruin, | Chief Officer | The Netherlands |
| 2. Stein Tronstad, | Deputy Chief Officer | Norway |
| 3. Peter Pulsifer | Deputy Chief Officer | Canada |

National Antarctic Data Centre (NADC) representatives:

- | | |
|------------------------------|----------------------------------|
| 4. Sergio Marensi, Argentina | 5. Kim Finney, Australia |
| 6. Zhu Jiangang, China | 7. Thierry Lemaire, France |
| 8. Manfred Reinke, Germany | 9. Claudio Rafanelli, Italy |
| 10. Mitsuo Fukuchi, Japan | 11. Shulamit Gordon, New Zealand |
| 12. Talha Al Hadi, Malaysia | 13. Oscar Bermudez, Spain |
| 14. Helen Campbell, UK | |

There were also representatives from associated groups during the relevant sessions:

Mélanie Meaux	NASA's Global Change Master Directory (GCMD)
Colin Summerhayes	SCAR Executive Director
Bruno Danis	SCAR MarBIN
Jose Maria Acero	Antarctic Treaty Secretariat
David Watts	Australia Antarctic Data Centre - Australian Antarctic Division
David Connell	Australia Antarctic Data Centre - Australian Antarctic Division
Rebecca Gorton	Australia Antarctic Data Centre - Australian Antarctic Division
Jessica Benjamin	Australia Antarctic Data Centre - Australian Antarctic Division
Lee Belbin	TDWG/GBIF
Hendrik Segers	Belgian Biodiversity Platform

Apologies

Celia Izquierdo	Argentina
Maaïke Vancauwenberghe	Belgium
Patricia Vicuna	Chile
Arto Vitikka	Finland
Toru Hirawase	Japan
Chung Hosung	Korea
Marc Rolli	Switzerland
Greg Scharfen & Rob Bauer	U.S.A.

Appendix 3: JCADM workplan resulting from JCADM-10 (Hobart)

JCADM Work Plan

The workplan presented was developed based on the recognition that the role of the Joint Committee on Antarctic Data Management is to facilitate the achievement of JCADM Goals and Objectives through dissemination of knowledge related to data management, policy development and support of National Antarctic Data Centres. Specific objectives related to development of data and data related services of interest to the broader Antarctic community will be achieved through appropriate partnerships with NADCs, academia, non-governmental organizations and other bodies. JCADM will work within these partnerships to establish the resources necessary to support these projects.

1. To promote long-term preservation and accessibility of data relating to Antarctica and the Southern Ocean in sustainable repositories,

Item	Remarks		Who / Due
Facilitate the provision of links to Internet accessible data through the development of Data Interchange Format (DIF) directory records	1. Link to data in the DIFs 2. Urge funding agencies to provide additional funding for online access to datasets. DIF to DATA ratio in the statistics	R	1. Individual NADCs 2. All NADCs, with the COMNAP delegates
Review capacity of NADCs with respect to hosting project specific data managers and/or data management services for SCAR programmes & other NADCs			
IPY: Further follow-up on linkage with the IPY DIS.	If IPY DIS is not funded, the GCMD will effectively become the IPY data portal		C.O.
IPY: To be further developed through the strategic planning process			Kim Finney
Research emerging approaches for archiving digital data. Report to JCADM and Antarctic Science, Policy and Operations communities.	Liaise with archiving community Develop information paper		Peter Pulsifer
Create information paper outlining new approaches to data management and	Include reference to Semantic Web and virtual observatory initiatives		Peter Pulsifer

knowledge representation			
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2. To assist in establishing Antarctic data management policies, priorities and best practices,

Item	Remarks		Who / Due
Establish new terms of reference for JCADM	Follow-up with SCAR and COMNAP	R	Taco de Bruin
Propose SCAR Data Management Strategy and Data Policy			
Propose joint JCADM-EGGI-SCAR resolution on the follow-up of Article III.1c	Target National Antarctic Programmes (i.e. explain that data exchange requires data description and metadata submission) Also evaluate JCADM leaflet.		Executive
Report to the SCAR and COMNAP Executive Committees (one year) and the Delegates (intervening year).	Report as required Post reports on the JCADM website	O R	1. Taco de Bruin 2. Taco de Bruin
Interact with the steering groups of the 5 SCAR SRPs.	Through JCADM representatives in the SRP Steering Committees	R	
Liaise with the Chief Officers of the SCAR Standing Scientific Groups	Intersessional meetings followed by information to the rest of JCADM	R	Taco de Bruin
Liaise with the AT Secretariat			Chief Officer
ATS: Collect and circulate information to JCADM on the status of the work on the (CEP) SAER reporting system, maintain contact with the ICG. Inform CEP about JCADM activities and facilities.	Neil Gilbert of CEP suggests input through a working paper or information paper via SCAR	N	JCADM executive
IPY: Contribute to further discussions on the IPY data policy, and provide expertise on international organization based on JCADM experience	Through the IPY Data Policy and Management Sub-Committee	N	Taco de Bruin
IPY: Establish contact with Arctic counterparts.	1. Send list of counterparts to all JCADM members 2. Complete the list 3. Contact IASC through	O	1. Taco de Bruin 2. All 3. Taco de Bruin

	SCAR, to make sure that data management is adequately covered in the upcoming MoU		
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3. To support the establishment and ongoing work of National Antarctic Data Centres, in accordance with ATCM XXII Resolution 4.1 (1998),

Item	Remarks		Who / Due
Urge NADC funding support	SCAR & COMNAP resolutions		
All NADCs will establish national portals to the AMD	Taco may ask Melanie to ask all NADCs not having portals to have one set up. (Send logo, header and background image.)	O	GCMD and Taco de Bruin, send emails to NADCs not yet having portals
Further develop the JCADM website as a tool for NADCs and for the Antarctic community	1. Edit the website 2. Keep the content updated		1. Shulamit Gordon 2. All
Develop a FAQ section on the website	Eg. "How does the AMD relate to other search engines like Google?"		Peter Pulsifer
Establish internal mentoring system, whereby the experienced NADCs can support the less experienced			Shulamit Gordon Peter Pulsifer
Review performance indicators	To be discussed in the SP	R	

4. To encourage submission of metadata and data to the Antarctic Data Management System,

Item	Remarks		Who / Due
Make the scientific communities more aware of opportunities offered by and benefits of the ADMS	1. Poster template to the website (pp) 2. Flyer to the website (pdf) 3. Use the material 4. Write articles to the ATS bulletin	R	1. Taco de Bruin 2. Robert Bauer 3. All 4. Taco de Bruin

5. To further improve and populate the AMD and provide guidance to the AMD host,

Item	Remarks		Who / Due
All NADCs will contribute new DIFs to the AMD	Continuing process	O R	All NADC
Liaise with all SCAR projects,	Remains to be done	O	Helen Campbell - Physical

including the creation of project DIFs			Sciences SSG, Taco de Bruin - Life Sciences SSG, Peter Pulsifer – Geo Sciences SSG
Creation of project DIFs for all national and international non-SCAR projects.	Continuing process. When new projects are discovered, information should be e-mailed to the GCMD, the relevant NADCs, and the project PI(s)	O	All NADC
Review and check existing AMD entries periodically	Continuing process - Exchange information at JCADM meetings.	R	All NADC
Update JCADM website with quarterly statistics on AMD	To be posted quarterly on the website by GCMD as soon as the new CMS is running.	O	GCMD, when informed about the procedure by the AADC
1. Add additional key words where appropriate (e.g. sea surface temperature) - or subtract 2. Review keyword governance model	1. Analyse new AMD keywords to identify trends 2. Provide more information on how to add/modify keywords 3. Append this to the docBuilder guidelines	R	1. GCMD 2. Robert Bauer, Gregory Scharfen

6. To provide linkages to other relevant data management systems and thereby enhance the ADMS,

Item	Remarks		Who / Due
Harvest external Antarctic datasets to the AMD	1) Pangaea, 2) EDMED, 3) MEDI 4) IODE?	O	GCMD Manfred Reinke 4. Taco deBruin
Make a list of: 1. Global in situ data collection programs 2. Directories 3. Online, global, indexed datasets - with an Antarctic component, that should be either harvested or referred to as a DIF in the AMD	1. Send the list to GCMD 2. Check which programs that are already in the GCMD 3. “Flag” those relevant to Antarctica in the AMD	R	1. JCADM 2. GCMD 3. GCMD
Follow-up Ocean READER, and links with SCAR MarBIN, SCOR, AGCS, POGO	1. Work with EGGI if appropriate		Helen Campbell, Kim Finney, Taco de Bruin
Liaise with GBIF to inform JCADM on GBIF developments	1. Continuing activity 2. Investigate an Antarctic node for GBIF, and set up a joint	O	Helen Campbell and Kim Finney

	AADC/BAS webpage / portal to GBIF data, which can be used as a template.		
Become an observer to GBIF	Through SCAR exec. All NADC to identify data relevant to GBIF and MarBIN		Taco de Bruin

7. In partnership with EGGI to work with SCAR SSGs, COMNAP and the Antarctic Treaty Secretariat to identify and develop fundamental datasets of value to the Antarctic Community.

Establish communications and collaboration with EGGI	1. Ongoing task 2. Check that the EGGI CO is on the list server	O	1. Peter Pulsifer 2. Taco de Bruin
Development of which datasets?	1. See OceanREADER etc above 2. Bathymetry?		Helen Campbell
Ref. liaison activities listed under term no 2.			

Appendix 4: List of NADC action items from JCADM-9 (Buenos Aires)

All:

1. Describe data center in DIF/SERF (under discussion)
1. Brief the COMNAP national reps on JCADM's position on data management before October 2005

Argentina

1. Establish a data policy
1. Establish contact with other Argentinean institutions about Antarctic research
1. Establish contact with other South American nations about Antarctic research
1. Continue adding DIFs to AMD (30 more by July 2006)
1. Update old DIFs

Australia

1. Making the new JCADM website operational
1. Continue to develop Antarctic Biodiversity database in accordance with emerging GBIF standards collaborating with Claude de Broyer
1. Continue to submit project DIFs to the AMD (80 more by July 2006)
1. Improve data/metadata ratio
1. Create SERFs covering AADC services
1. Create an Australian AMD portal
1. Send the GCMD Australia's metadata statistics

France

1. Create a French polar metadatabase
1. Add new DIFs (130 more by July 2006)
1. Establish a data policy

Germany

1. Antarctic contents from PANGAEA into the AMD (see separate action item on GCMD harvesting the Pangaea)
1. Create DIFs/SERFs documenting active projects

Italy

1. Add new DIFs (70 more by July 2006)
1. To open an online viewer for the national data center
1. To start a review of old DIFs
1. To diffuse the data policy philosophy

Japan

1. Continue work on new metadatabase
1. Encourage scientists to submit (more) DIFs (10 more by July 2006)
1. Create tutorial for DIF entry in Japanese
1. Discuss development of a data policy

Korea

1. Establish data policy
1. Database update and forwarding DIFs to AMD (10 more by July 2006)
1. Establish Korean AMD portal
1. Tutorial seminar for domestic scientists

Netherlands

1. 10 new DIFs
1. Redesign web site
1. AMD portal
1. Data policy / reorganize national Antarctic data structure

Malaysia

1. Establish a national data policy
1. Add a web link to the GCMD website
1. Create DIFs in the AMD (10 more by July 2006)
1. Create a Malaysian AMD portal

Norway

1. 20 new DIFs into AMD
1. 1 dataset online
1. Set up NADC website
1. Create an AMD portal for Norway
1. Raise awareness within Antarctic scientific community about AMD

Spain

1. Establish a data policy
1. Add new DIFs (50 more by July 2006)
1. Redesign website and add English version

UK

1. Publish the data policy
1. Link the metadata system to the AMD
1. Improve links with Ocean, Atmosphere, and the Arctic
1. Identify new DIFs (25 more by July 2006)
1. Update existing DIFs
1. Improve biodiversity data access

US

1. Continue DIF collection and outreach (60 more by July 2006)
1. Continue project DIFs/SERFs
1. Coordinate with new Antarctic Biological Sciences Programme Manager
1. Expand the advertisement of the AMD at new venues
1. Reinstate the reminder project to contact scientists regularly

GCMD:

1. Assist NADCs in creating portals
1. Evaluate the content of the AMD and create an “AMD International” node
1. Put the AMD statistics on the JCADM website quarterly
1. Emailing Antarctic data centers
1. ISO compliance

Appendix 2

JCADM Terms of Reference

September 2006

JCADM was established to assist in the fulfilment of the data management obligations imposed by the Antarctic Treaty (section III.1.c):

"Scientific observations and results from Antarctica shall be exchanged and made freely available."

JCADM is founded on the understanding that scientific data are core assets of the Antarctic science community, and are valuable in their own right. When these data are well-managed, they provide vital resources for the future, and facilitate the development of interdisciplinary research and international collaborations.

JCADM is responsible for the Antarctic Data Management System (ADMS) which provides:

- A single portal for recording information about data holdings - the Antarctic Master Directory (AMD), and;
- A distributed system for storing and providing access to that data – the National Antarctic Data Centres (NADC).

For the reasons described above, the Terms of Reference for JCADM are:

1. To promote long-term preservation and accessibility of scientific data relating to Antarctica and the Southern Ocean in sustainable repositories,
2. To assist in establishing Antarctic scientific data management policies, priorities and best practices,
3. To support the establishment and ongoing work of National Antarctic Data Centres, in accordance with ATCM XXII Resolution 4.1 (1998),
4. To encourage submission of scientific metadata and data to the Antarctic Data Management System,
5. To further improve and populate the AMD and provide guidance to the AMD host,
6. To provide linkages to other relevant data management systems and thereby enhance the ADMS,
7. In partnership with EGGI to work with SCAR SSGs, COMNAP and the Antarctic Treaty Secretariat to identify and develop fundamental scientific datasets of value to the Antarctic Community.