

Annual Report of the Joint Committee on Antarctic Data Management (JCADM)

July 2002 – July 2003

This document reports JCADM activities, from JCADM-6 (Shanghai) to JCADM-7 (Brussels). Action items are identified from JCADM-7 and statistics on the Antarctic Master Directory presented for the last seven quarters.

JCADM-6 Shanghai (July 2002) Meeting Outcomes and Accomplishments

The emphasis of the 6th meeting of JCADM was to plan future activities in the light of the restructuring within SCAR. The key outcomes from the meeting and the associated accomplishments over the past year include-

- JCADM will increase the awareness within the Antarctic scientific community of the importance of data management by advertisement of the Antarctic Master Directory (AMD) web site.
 - * This activity has been partially accomplished through the creation of national AMD portals for Belgium and Finland. These new AMD portals provide a customised AMD Web page on national programmes web sites. This provides a national character to their AMD gateway and enables tools suitable for national metadata support (entry and searching).
 - * Argentina, Canada, Estonia, the Netherlands, New Zealand, Switzerland, Ukraine and the USA are also seeking to develop customised AMD portals with the GCMD.
 - * These new AMD portals raise national profiles using minimal resources.
 - * The GCMD will also raise the profile of the AMD by adding it as a direct link to the homepage of the GCMD web site.
- JCADM recognises the need for a measurement of the utility of the AMD.
 - * JCADM is researching the use of dataset citations and downloads as measurement tools in conjunction with recent national governmental obligations related to data set archival and use.
 - * The statistics on AMD usage have shown consistent use of the AMD. Refinement on AMD Web statistics is currently underway.
- Stronger linkages need to be made into the new Scientific Standing Groups (SSGs). Dean Peterson is to liaise with the Physical Sciences SSG, Lee Belbin with the Life Sciences SSG and Taco de Bruin with the Geosciences SSG.
 - * This relationship was welcomed by all three SSGs at the SCAR XXVII meeting and presentations on the AMD were given to each SSG by the JCADM points of contact.
 - * Over the past year the communications between each SSG and each JCADM point of contact have been limited to emails. There is interest in the SSGs about what JCADM can offer, but effective communications within the SSGs of this type of information is yet to be established. Our message is still missing a large number of research scientists. This will be addressed later in the document under the JCADM-7 Outcomes section.

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- A written synopsis to COMNAP of the operational applications available through the AMD was created and presented at the SCAR XXVII meeting.
- A JCADM report to the Steering Committee on Antarctic Data Management (STADM) in response to questions raised and recommendations given in the STADM report was presented to STADM at the SCAR XXVII meeting.
- Election of a new Chief Officer (Dean Peterson, New Zealand) and two Deputy Chief Officers (Lee Belbin, Australia and Taco de Bruin, the Netherlands).

Outcomes and Achievements During the Year

- Recruit National Antarctic Data Centres (NADCs) within SCAR countries.
 - * Over the past year the JCADM executive have invested time in recruiting NADCs. Much to Taco de Bruin's credit JCADM has grown from 16 representatives to a total of 26. This proactive recruitment created the largest JCADM meeting to date, 18 countries were represented, including 8 new member countries at the JCADM-7 meeting in Brussels.
 - * The knowledge and abilities of the new country members varies greatly from data expert to data novice. It is JCADM's duty over the coming year to get everyone up to speed on data management issues, in particular the use of the AMD and how to populate the AMD with new data descriptions.
- To empower those NADCs to collect dataset descriptions of Antarctic scientific data for the Antarctic Master Directory (AMD).
 - * The total number of Directory Interchange Format files (DIFs) in the AMD has increased from 2032 (May 2002) to 2544 (April 2003) a 25% growth in the AMD.
 - * The growth can be attributed to the excellent support received by all NADCs from the GCMD in putting together DIFs and using DIF tools suggested and often supplied by the GCMD.

JCADM-7 Brussels Meeting (July 2003)

JCADM is extremely grateful to the Belgian Federal Public Planning Service Science Policy offices for their generous travel support and for the facilities of the meeting. The 7th meeting of JCADM was structured to: educate emerging countries on populating and using the AMD and general data management protocol; to plan future strategies to better align to SCAR and COMNAP needs; and to discuss issues arising over the past year.

Key elements of the meeting and associated outcomes were:

- The Chief Officer welcomed eight new representatives of NADCs at the meeting and began a series of presentations on data management and the position of JCADM within the Antarctic Treaty System (ATS)
(see <http://www.jcadm.scar.org/Meetings.html>).
- * It was realised when planning the meeting that there would be a large number of new NADC representatives attending creating a large range of knowledge levels of data management and the ATS within JCADM.
- * The presentations and discussions led to the dissemination of information on guidelines to the new NADCs.
- * The GCMD personnel and Australia have volunteered to help the emerging countries with data set protocols, data portals and DIF creation.

- Reports were given by the national delegates and the Chief Officer on the 2002/03 achievements
 - * Creation of a detailed NADC task list for the coming year, to be added to by countries not present at the discussion.
 - * Creation of list of data catalogues associated with the Antarctic and Southern Ocean.
- David Kendig from the GCMD presented a report on the status and recent developments of the AMD and the associated toolkit.
 - * Identified the need for a modified Antarctic specific MD-9 (MD-9 lite).
 - * Identified the need for an official representative of JCADM to be on the metadata voting committee (INTEROP). Lee Belbin offered to fill this role for the next year.
- Taco de Bruin presented the existing JCADM starter kit and a half-day associated workshop on using the AMD was facilitated by David Kendig.
 - * Identified the need for an update of starter kit and examples NADC structures and associated costs posted on the JCADM web site.
 - * Two national data management workshops in the coming year will be held in Ukraine and Estonia.
- Lee Belbin and Dean Peterson led a discussion around ways JCADM and the NADCs could support SCAR and COMNAP activities better.
 - * Linkages into the Scientific Standing Groups need to be rejuvenated. Assignment of all JCADM members into SSG, COMNAP and CEP.
 - * Acknowledgement of a need for clear communications between COMNAP, SCAR and JCADM.
 - * Identified the need for Project DIFs to assist SCAR, COMNAP and other ATCM parties with information on activities within past and current international programmes and national projects.
 - * Identified that more direct links between JCADM and the CEP and CCAMLR may also be needed.
 - * As a first step to increase the exchange of information, make the JCADM web site a portal for Antarctic information and other databases for Antarctic researchers.
- Claude de Broyer gave a presentation on Belgium's biodiversity project, Glenn Johnstone presented an update on GIG activities and Peter Pulsifer presented Canada's initiative on an Antarctic Cybercartographic atlas.
 - * Acknowledgement that a close connection between JCADM and GIG through dual membership needs to be maintained.
 - * JCADM will cooperate closely in the future with the biodiversity project of Belgium and the Cybercartographic atlas.
- Maaïke Vancauwenberghe and Dean Peterson gave updates on SCAR and COMNAP activities.
 - * Creation of two presentations: one for Belgium to COMNAP and one for the Chief Officer to the SCAR / COMNAP executive.
- Manfred Reinke gave a report on SCAR XXVIII 2004 meeting in Bremen.

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- * JCADM will increase the awareness within the Antarctic scientific community of the importance of data management by advertisement of the AMD web site, brochure and getting involved earlier with future science projects.
- * JCADM will ask for a three-block session during the SCAR meeting titled “eAntarctica: From data management to information portals”.
- * JCADM will ask for a key note presentation time on Tuesday morning at the SCAR meeting
- Mark Thorley presented an overview of the UK Data GRID and gave an “Ex-Chief Officer perspective” to JCADM.
 - * JCADM needs to ensure its focus is on the NADCs and it should identify and acknowledge new technologies when they arise.
- Plenary discussion on agreed action items for JCADM listed below.

Related to:	Item	Deadline	who
SCAR Conference	Obtain approval for a separate session	14/7/03	Manfred Reinke Convener: Dean Peterson
SCAR Conference	Submit Poster and presentation to session	15/01/04	All Review Committee: (Dean Peterson, Greg Scharfen, Rob Bauer, Stein Tronstad)
SCAR Conference	Submit a presentation to plenary on Tuesday	15/01/04	Manfred Reinke with Lee Belbin to present talk
SCAR Conference	Submit proposals for presentations to SSGs	15/01/04	Dean Peterson Taco de Bruin Lee Belbin
SCAR Conference	Create brochure and poster	11/01/04	Rob Bauer and Marc Rolli
Supporting new NADCs	Redesign/ Update Starter Kit	10/01/04	Taco de Bruin, David Hyett, Maaik Van. and GCMD
Supporting new NADCs	Create a range of examples of NADCs	10/01/04	Taco de Bruin
Supporting new NADCs	Create a status matrix of all NADCs	10/01/04	Lee Belbin
Supporting new NADCs	Write an official letter of support to emerging NADCs	10/01/04	Dean Peterson
Supporting new NADCs	Recruit new NADCs	7/7/04	Taco de Bruin
Supporting new NADCs	Create an internet / email workshop for new NADCs	15/01/04	Gennadi Milinevsky and GCMD
Supporting new NADCs	Hold an evening workshop for new NADCs at SCAR	15/01/04	Dean Peterson and GCMD
Supporting new NADCs	Develop new portals to AMD	7/7/04	All GCMD
JCADM Business	Write an update on the financial situation of AMD	10/01/04	Dean Peterson Lee Belbin
Supporting SCAR and COMNAP	Create project DIFs for all national programmes / projects	7/7/04	All
Supporting SCAR and COMNAP	Create project DIFs for all SCAR programmes	7/7/04	Dean Peterson, Taco de Bruin and Lee Belbin
Supporting SCAR and COMNAP	Generate SSG subgroups of NADCs	10/01/04	Dean Peterson, Taco de Bruin and Lee Belbin
Supporting SCAR and COMNAP	Create a complete list of database catalogues related to Antarctica	7/7/04	Peter Pulsifer

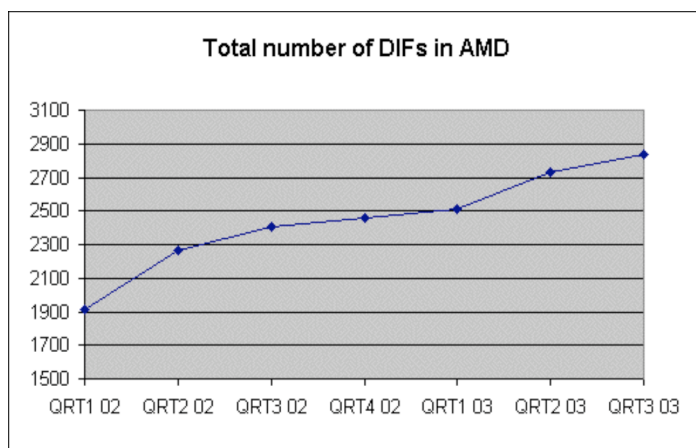
Antarctic Master Directory Statistical Information

Statistics are given to represent the AMD’s growth since January 2002. The two indicators used are: Number of DIFs and Number of Retrievals from the AMD. Each indicator is defined below.

Number of DIFs

The number of Directory Interchange Format files (DIFs) where each DIF contains descriptive information about a group of measurements, a data file, a database or set of data files pertaining to a specific Antarctic research project. The number of DIFs is separated into countries to show individual trends. The table and graph below show a growth (49% during this period) of DIFs populating the AMD.

Country	QRT1 02	QRT2 02	QRT3 02	QRT4 02	QRT1 03	QRT2 03	QRT3 03
Argentina	31	77	79	87	87	92	95
Australia	1427	1714	1714	1712	1712	1791	1793
Belgium	0	0	7	7	7	7	7
Chile	0	0	0	0	0	1	1
China	30	30	30	30	30	29	29
Estonia	0	0	0	0	0	0	1
Germany	0	0	0	0	0	10	10
Spain	20	20	20	20	20	34	48
Finland	0	0	0	1	1	1	1
Italy	1	1	1	1	1	1	1
Japan	58	58	58	58	58	58	58
The Netherlands	9	11	11	11	11	11	11
Norway	0	1	3	3	3	3	3
New Zealand	14	15	16	16	16	16	74
United Kingdom	41	41	41	43	43	44	44
United States	281	293	426	471	521	637	664
Total	1912	2261	2406	2460	2510	2735	2840



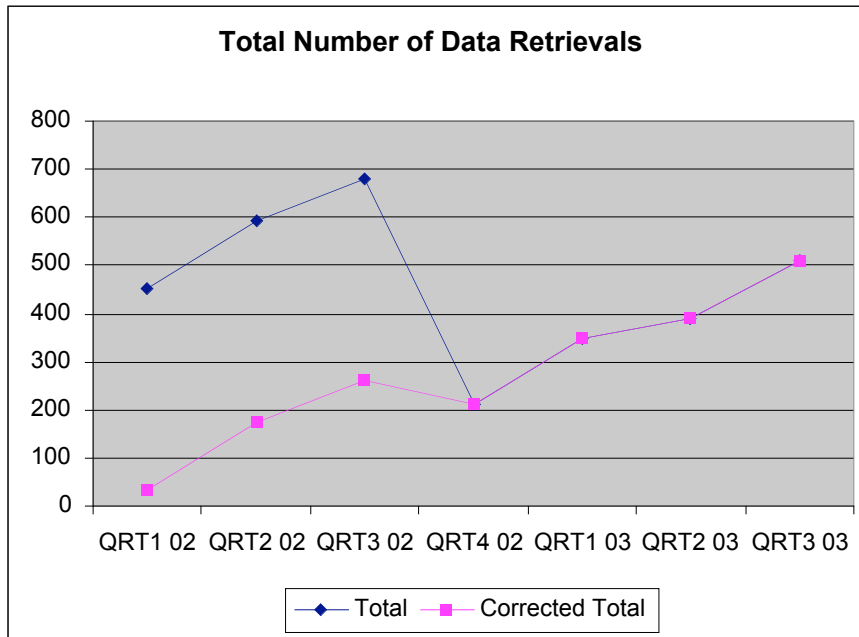
Number of DIF Retrievals

The number of DIF retrievals is defined as either downloading the information on a DIF after doing a search or going directly to a particular DIF of interest and downloading the data. During the fourth quarter of 2002, a new filter was introduced to reduce automated robot sweeps through the system. This had an affect of reducing the number of retrievals by approx. 420 per quarter. This statistic is an underestimate of the use of Antarctic metadata as

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scientists will often search local NADC repositories before needing to search the AMD. If we look at the “Corrected Total” there is an obvious trend towards more retrievals taking place.

	QRT1 02	QRT2 02	QRT3 02	QRT4 02	QRT1 03	QRT2 03	QRT3 03
Total	453	594	681	212	347	390	508
Corrected Total	33	174	261	212	347	390	508



Conclusions from AMD Statistics

The two AMD indicators show an increase in metadata population and in the number of retrievals. The AMD is beginning to be a useful tool for scientists and Antarctic Officials. There is however a question of the added value of a focused metadata catalogue (like the AMD) over a powerful search engine (like Google). JCADM and the GCMD have agreed that search engines should be better supported by the AMD so that results embedded in the AMD can be shown by a search done by a good web search engine. This will in turn, increase the exposure of the AMD. The argument to keep populating the AMD still holds in that for a focused search for particular data products or experts a metadata catalogue is extremely useful and efficient.