

# World Digital Magnetic Anomaly Map (WDMAM2005)

## Task Force meeting

### Notes from Meeting Number 3

by Juha V. Korhonen, Marta Ghidella, Glenn Johnstone

Where: Potsdam  
When: September 7, 2003  
During: SCAR Geosciences SSG meeting at ISAES 2003  
Present: Juha Korhonen (co-chair), Marta Ghidella, and members of the SSG and ADMAP project.

### Summary

*The relationship between WDMAM and the Antarctic Digital Magnetic Anomaly Project (ADMAM) was discussed during a meeting of the SCAR Geoscience Scientific Standing Group (GSSG).*

*The creation of an ADMAM Action Group within GSSG was welcomed and agreed to by members at the meeting. The formalisation of ADMAM as an Expert Group will take place at XXVIII SCAR (Bremen) and will begin work immediately - with Dr Marta Ghidella being nominated and appointed as the interim Chairperson for the group.*

### Background

The International Symposium on Antarctic Earth Sciences (ISAES) is held every four years at different places in the world. The 9<sup>th</sup> meeting was held this year at the University of Potsdam, Germany, between 8-12<sup>th</sup> September. There were many 'out of hours' workshops and side meetings, and one of them was an informal gathering of the GSSG on September 7<sup>th</sup> (GeoReach 2.4, the GSSG newsletter, available at [www.geoscience.scar.org/actiongroups/cog/](http://www.geoscience.scar.org/actiongroups/cog/))

Prior to the venue, the GSSG Chief Officer, Phil O'Brien (Australia) had circulated a tentative agenda between the GSSG members and asked for suggestions of other topics to be included. M. Ghidella (who had recently become a member of WDMAM) proposed the inclusion of the relationship between WDMAM and ADMAM in the agenda, and was accepted. M. Ghidella then circulated an invitation to both ADMAM and WDMAM members to attend.

The meeting was finally held, chaired by Phil O'Brien (Australia) and Alessandro Capra (Italy). In addition to the SSG members (not all) Juha Korhonen from WDMAM and four members of ADMAM were present. Glenn Johnstone, Chairman of the Communication & Outreach Group of the GSSG, was also present.

ADMAP as a group had been quiet for the last few years, since the publication of a magnetic anomaly map of Antarctica in 2001, therefore there were two important issues to deal with:

1. *to revise the ADMAP status; and*
2. *to define its relation with WDMAM.*

## Notes from meetings

### ADMAP

The latest results of ADMAP had been the publication a map (Golynsky et al., 2001) and the production a special issue of *Tectonophysics* with related papers (Magnetic Anomalies of the Antarctic, Vol. 347, 2002). The map, in digital form, as well as the corresponding grid, are available from the Internet, but are password protected. These can be found at [www.geology.ohio-state.edu/geophys/](http://www.geology.ohio-state.edu/geophys/).

Further information about ADMAP and its members can be found on the GSSG web site set up by Glenn Johnstone in 2002: [www.geoscience.scar.org/admap/](http://www.geoscience.scar.org/admap/)

Several issues were pending, first regarding *if* and *how* ADMAP was going to continue. If it was not, there were some pending tasks, such as the production of a CD or a DVD with the line data, as well as metadata. One case for continuation of the project was that there were many new data sets that had to be incorporated to the compilation - as the existing version only contains data up to the year 1997.

Concern was voiced that the location of some of the datasets already used was unknown by the attendees, as well as poor or non-existent metadata records for the line data. To locate the line data, and to re-organize the production of metadata records was recognized as a necessary immediate task to address.

The importance of the availability of line data was discussed. They will be needed for further modification of the compilation with the addition of new data, for planning new surveys and to address the task of examination of the long wavelengths.

Alexander Golynsky (Russia), the most hard working ADMAP member regarding compilation work, gave a talk in which he explained the work he had done and also showed further work he produced with data that are not in the compilation yet.

### WDMAM

Juha Korhonen gave a presentation on the current status of the project. In summary, he made the ADMAP and GSSG people know the following (from [GeoReach 2.4](#)):

*WDMAM is being undertaken by the [International Association of Geophysics and Aeronomy \(IAGA\) Division 5](#). The aim of the project is to source, collate and integrate magnetic anomaly data from around the globe. Some work has already been done by ITC Delft in*

*compiling a global index of aeromagnetic data. There is, however, much more to be done. Dr. Korhonen is interested in working with the ADMAP group to provide the Antarctic component of the WDMAM.*

*J. Korhonen noted that there are many issues surrounding access to data, data quality and data storage. These are exactly the type of issues that have been identified by a number of SCAR groups including GIANT, Geographic Information and JCADM.*

*Glenn Johnstone mentioned there are a number of other international groups such as the Global Mapping initiative (Japan) and the Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP) which have developed policies - particularly in relation to the sharing or access to data. Glenn undertook to email Juha Korhonen information about data sharing policies adopted by these groups.*

*Outcome: That ADMAP becomes an Expert Group of SCAR GSSG - chaired, in the interim, by Dr Marta Ghidella (Argentina). This will be formalized at XXVIII SCAR and start work immediately.*

## Outcome

In addition to the formal outcome published in GeoReach, the result is that ADMAP acquired new life. During the rest of the week, while ISAES was evolving, there were several encounters between the ADMAP members, now including people that had not yet arrived in Potsdam on Sunday 7<sup>th</sup>.

The news that ADMAP was in action again was thus spread, and one on site result was the planning for the production of a CD with the line data and metadata.

Carol Finn has provided a summary of a discussion of ADMAP people on September 10 in Potsdam:

*To re-start progress on compiling a master ASCII database, we revisited a variety of issues discussed over the years. In accordance with the original ADMAP protocols, we agreed that all ASCII point data for magnetic surveys > 5 years old should be submitted to a master database in a consistent format. We also agreed to include metadata.*

## References

Golynsky, A., M. Chiappini, D. Damaske, F. Ferraccioli, J. Ferris, C. Finn, M. Ghidella, T. Isihara, A. Johnson, H.R. Kim, L. Kovacs, J. LaBrecque, V. Masolov, Y. Nogi, M. Purucker, P. Taylor, and M. Torta, 2001: *ADMAP - Magnetic Anomaly Map of the Antarctic, 1:10 000 000 scale map*, in Morris, P., and R. von Frese, eds., BAS (Misc.) 10, Cambridge, British Antarctic Survey.