

ANTARCTIC DIGITAL MAGNETIC ANOMALY PROJECT (ADMAP)

M.A. Ghidella

Instituto Antartico Argentino, Ciencias de la Tierra, Buenos Aires, Argentina

mghidella@dna.gov.ar

The Antarctic Digital Magnetic Anomaly Project (ADMAP) aims to map Antarctica's magnetic anomaly field to aid in understanding geological processes. It is managed jointly with IAGA (International Association of Geomagnetism and Aeronomy). ADMAP contributes data to the World Magnetic Anomaly Map (for details see: <http://www.geology.ohio-state.edu/geophys/admap>). During 2007, ADMAP updated a DVD of the compilation of data up to year 1999 for release to the World Data Centers; developed and promoted regional and continental scale interpretation of the ADMAP data; updated near-surface anomaly predictions; continued the compilation of a rock magnetic properties database in support of geological applications of the Antarctic magnetic anomalies; developed an Antarctic Reference Model (ARM) for improved magnetic anomaly determination in the Antarctic; and worked on establishing a spherical harmonic cap (SHC) model for the database to facilitate analytical manipulations of the Antarctic magnetic anomaly grid for geological applications.

In year 2008, ADMAP continues compiling all available terrestrial, marine, and satellite magnetic survey data collected since the IGY 1957-58 for the region south of 60°S into the ADMAP digital database. However, as magnetic surveys since the 2001 compilation have nearly doubled the amount of magnetic anomaly data for inclusion into the database, ADMAP is in need of acquiring the services of a database manager to monitor these activities and incorporate the new data into the database as they become available. SCAR will help sponsor a workshop to formally release the updated database to the World Data Centers. ADMAP will continue developing and promoting regional and continental scale interpretation efforts and help identify areas for new collaborative magnetic surveys.