

Hanoi - 2001 Minutes

Mioara Manda, the chairperson, called the meeting to order at 19:00
Friday, August 24, 2001.

PRESENTATION OF THE IGRF2000 AND EPS SPECIAL ISSUE

After a brief presentation of the IGRF2000 model (main field and SV), Mioara Mandea showed the work done by the task force, chaired by Frank Lowes, to produce and evaluate the new model. She also underlined the efforts of our working group in publishing the IGRF2000 and the special issue of Earth, Planets and Space, "Geomagnetic Field Modeling and IGRF2000", Vol 52, No 12, 2000. At the end of this first item the chairperson thanked the Danish team for their willingness to share their satellite data, the individuals who produced and evaluated the IGRF2000, the scientists who participated in the EPS special issue, and Susan McLean who helps with our WG web page (<http://www.ngdc.noaa.gov/seg/AGA/wg8/wg8.html>).

PRESENTATION OF IGRF/DGRF MODELS OVER THE XXth CENTURY

A short presentation of the IGRF/DGRF models over the XXth century was given, with respect to the invited paper of Charlie Barton in the session "Main Field and Secular Variation Models at Earth's Surface and CMB".

DATA COLLECTION

The chair presented a brief report on available magnetic data, pointing out the present satellite missions, the available observatory data (one-minute data, hourly means and INTERMAGNET data), and some available marine data. Susan Macmillan presented a brief summary on the status of magnetic vector surveys around the world (summary.doc).

In the ensuing discussion several working group members commented on the need to get the available marine and aeromagnetic data.

NEXT REVISION OF THE IGRF/DGRF MODELS

The need for an internationally agreed model with better continuity in time was discussed. However, as there are already two models widely available which address this issue (from GSFC and Leeds University) it was decided that such a model was not a priority for this group. A task force, assigned with the task of determining the necessity to revise the entire, century-long series of models, was established. Possible members of the task force included Joe Cain, Charlie Barton, Mioara Mandea.

The need for higher degree/order models was then discussed. It was recommended, during future epochs when satellite data were available, to extend the main field IGRF/DGRF models from degree/order 10 to degree/order 13 starting with the epoch

2000, i.e. DGRF2000. For the predictive secular variation the degree/order 8 will be kept. The numerical resolution, for both main field and secular variation, will be 0.1nT. Another point of discussion was the need to consider or not the large-scale external source effects. It was decided that this was important and that candidate models where this source had been correctly accounted for and removed may be given higher weight in the final model determination.

The last point of this item was the call for next IGRF/DGRF models in time for consideration at IUGG in Japan. It was finally accepted to call for main field models DGRF1995 (degree/order 10, with a resolution of 1nT), and DGRF2000 (degree/order 13, with a resolution of 0.1nT).

ANY OTHER BUSINESS

No resolutions were proposed.

Charlie Barton informed the working group about the a) IUGG wish to develop the inter-association activities and for the developing countries ,b) about the young scientist initiative, c) and about the IGY + 50... ``the Electronic Geophysical Year'', in 2007.

Alan Thomson informed the members of our working group about the International Standards Organisation... A magnetospheric magnetic field model has been submitted for consideration and WG V-3 had formed a task force to address this, but there was no need to have an ISO approval for the IGRF model which is a component of the submitted model.

Volodya Papitashvili informed the working group about the proposed re-organisation of Division V.

Sapporo 2003 proposed sessions: (note: actual sessions will be posted on the [IAGA web site](#))

- Modeling the Earth's Magnetic Field on Global and Regional Scales, for 1.5 days, with conveners Richard Holme and Benoit Langlais.

The meeting adjourned at 21:10.

