

Report on Activities and Plans of MagNetE – the Group for European Repeat Station Surveys

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In February 2003, scientists from 20 European countries followed an invitation to join a novel initiative: the first workshop on European Geomagnetic Repeat Stations, to be held at the Adolf Schmidt-Observatory for Geomagnetism in Niemegk, Germany. The objective of this workshop was to coordinate the effort of more homogeneous surveys in Europe. So far, geomagnetic measurement campaigns in many countries were performed not as a concerted action but differed with respect to the survey time, the interval of repeat measurements, the station density and measurement techniques. In order to perform detailed studies on the European geomagnetic field and its variations and to compile geomagnetic maps on a wider scale, with high accuracy, it was required to homogenize the measurements.

The 2003 workshop resulted in very detailed recommendations for European Magnetic Repeat Station Surveys, aiming at the goal to acquire geomagnetic data of highest possible quality for research purposes. Another outcome of the workshop was to start repeat measurements already in 2004 according to the concept of a common European Survey and to provide a first homogeneous geomagnetic data set at an European scale.

During the IUGG Meeting 2003 in Sapporo, Japan, the new initiative of coordinated European surveys was also well recognized by the IAGA, Division V, leading to IAGA Resolution #4.

The interest in this scientific topic is shared by most of the national geomagnetic institutions in European countries. The second workshop on repeat surveys, this time hosted by the Institute of Geodesy and Cartography in Warsaw, was conducted with an even higher number of participants of 20 countries, in April 2005. Again, reports

on recent measurement activities in their countries were given by the participants and many scientific details were addressed concerning the most appropriate strategy to acquire good repeat measurement results. Another important task was how to make repeat station data available to the scientific community. The option to extend the existing data base at the WDC Edinburgh seemed acceptable to many participants. It was also discussed, that error estimates should be given for any data at the WDC, and possibly an additional classification scheme for the quality of repeat station data should be introduced.

During the workshop 2005 it was also decided to entitle the initiative of common European surveys and data acquisition by the acronym MagNetE – Magnetic Network in Europe – also reminding of William Gilberts famous 17th century latin book “De Magnete”. Finally, the representative of Romania kindly offered to host the next MagNetE workshop in 2007.

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