

Preface

The Széchenyi István Geophysical Observatory of the Hungarian Academy of Sciences is pleased to present the 2005–2006 reports in the Geophysical Observatory Report series.

In 2007 the Geophysical Observatory celebrates the 50th anniversary of its founding.

The anniversary is an opportunity to look back, to evaluate results and also to consider future possibilities. In this special anniversary issue historical papers and photos, a selection of notes from the guestbook and scientific results are also included.

The observatory was founded by the Hungarian Academy of Sciences, as perhaps the first Hungarian establishment dedicated to upper atmosphere and near-Earth space research. The observatory became operational on the beginning of the International Geophysical Year (IGY, between July 1957 and December 1958).

Present-day activity of the observatory is rooted in 240 years history of geophysical observations in Hungary. Measurements of the Earth's magnetic fields started at Nagyszombat University in 1768 and moved to Buda soon with the university. Buda Observatory was put into operation in 1777. It had to be replaced at the end of the 19th century due to industrial development and electrification of the capital. Konkoly Thege Miklós, director of the Central Institute of the Hungarian Kingdom for Meteorology and Earth Magnetism (*Meteorológiai és Földdelejtességi Magyar Királyi Központi Intézet*) established the new geomagnetic observatory at Ógyalla in 1893. With the Treaty of Trianon the territory became a part of Czechoslovakia. After a chaotic period a temporary station was set up at Budakeszi and the final replacement of Ógyalla became fully operational in Tihany in 1955. By that time the importance of solar terrestrial interactions and diagnostics of the ionosphere and magnetosphere had been recognized and the growing interest inspired the Geophysical Research Laboratory of the Sopron University, headed by professor Károly Kántás, to establish a purpose built observatory near Nagycenk. That is why the Széchenyi István Geophysical Observatory became known as Nagycenk Observatory (IAGA code: NCK) worldwide. Foundation of the observatory set in motion the permanent development of instrumentation, continuous international data services and scientific research especially in geomagnetism and aeronomy.

Nagyecenk Geophysical Observatory has been supplying data since 1957. Geophysical Observatory Reports comprise earth current data from 1957 on, geomagnetic data from 1961 on and atmospheric electricity data from 1962 on.

Observatory is networked through the institute (Geodetic and Geophysical Research Institute of the Hungarian Academy of Sciences), data are available in near real time. The institute doesn't charge academic users for data products.

Further information and data including archived data are available by special arrangement at the institute:

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Foundations upon which we stand today were laid by the staff of the Geophysical Research Laboratory. Antal Ádám, Pál Bencze, Ferenc Márcz, József Verő and Ákos Wallner are still with us. We would like to express our admiration and gratefulness for everything that they have done during the 50 years. The patient guidance, scientific accuracy and precision.

On this occasion we acknowledge the assistance and the impact of the international and Hungarian geoscience societies and especially the generous support of the Hungarian Academy of Sciences, and the Hungarian Scientific Research Fund (OTKA, project numbers TS 408048 and NI 61013).

We would like to express our gratitude also to the COST 724 Action "Developing the Scientific Basis for Monitoring, Modelling and Predicting Space Weather" for coordination and outreach efforts.

In addition to our core activity commercial applications are searched for. We thank the collaboration and the revenue received for our space weather related studies to the MAVIR and AB AEGON companies.

Sopron, August 2007

V. Wesztergom