

Report of the

FIFTH ANTARCTIC GEODESY SYMPOSIUM 2003

Lviv, Ukraine, 14-17 September, 2003

This fifth SCAR Antarctic Geodesy Symposium (AGS03) was held at the University "Lviv Polytechnic", Lviv. It was attended by 38 participants, which included representatives of nine SCAR countries. (See list of attendees in Appendix 1).

The activities included a welcome reception for participants at the Assembly Hall of the University "Lviv Polytechnic", a walking tour of the University and a symposium dinner held at Oles'ko Castle.

The symposium commenced with opening addresses from the University Administration, SCAR Geosciences SSG, Ukrainian Antarctic Centre and the Public Geodetic Service of Ukraine. They were followed by an overview of the Ukraine National Antarctic Program by Dr Milinevsky from the Ukrainian Antarctic Centre detailing geodesy activity in the Argentine Island archipelago.

The program included 36 presentations and a GIANT Business meeting. It contained a strong focus from Ukraine and Polish scientists on atmospheric studies related to GPS. Dr Milinevsky presented the history and status of the tide gauge at the Faraday/Vernadsky Antarctic station which was installed in 1947 and provides an important record of long term sea level variation due to climate change.

Professor E Dongchen from China confirmed in his paper that Interferometric Synthetic Aperture Radar is potentially a very useful technique to be utilized in Antarctica for measuring ice surface elevation providing it is well controlled with GPS positions.

Australia presented a background paper on the Evolution of the GIANT program, the recent field activity during the very successful Prince Charles Mountains Expedition of Germany and Australia (PCMEGA) and preliminary tectonic motions from their continuous GPS stations in Antarctica

Italy presented activities and impressive results from their Victoria land Deformation network (Prof Alessandro Capra) and Dr Sarti proposed to upgrade local geodetic ties at collocated sites to improve the Antarctic and global reference frames.

Dr Alexander Yuskevitch from Russia summarised the methods of the fundamental astronomic geodetic network (FAGN) and the on going development of the high precision geodetic network (H-PGN).

Dr Mullins presented details of the status of development of continuous remote GPS stations by the United States in the Trans Antarctic Mountains, which are designed to run through the Antarctic winter.

Dr Schenke from the Alfred Wegner Institute, Germany, gave details of the coordination of Antarctic bathymetric data and the IHO project for coordination of data in the Southern ocean.

The symposium concluded with a GIANT business meeting. Dr Capra summarised progress against milestones of the program set during the XXVI SCAR in Shanghai in 2002. A joint proposal from Italy and Australia was endorsed to study and to improve the stability of the Terrestrial Reference Frame over Antarctica as the basis for precise measurement of small tectonic motion. The need to identify suitable projects for the International Polar Year 2007/2008 was noted. A proposal by Italy to host a further symposium in the series (2005) was unanimously endorsed.

It was a most a successful event which was extremely well hosted by the University Lviv Polytechnic and the Ukrainian Antarctic Centre.

Most participants provided final versions of their papers or abstract summaries and these are to be published as a SCAR Report.

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GIANT

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