

**Reports of the Finnish Geodetic Institute**

**99:4**      **Leihgabe**  
**der Seismologischen Natur-**  
**forschenden Gesellschaft**

**Final results of the Baltic Sea Level 1997 GPS campaign**

Research works of the SSC 8.1 of the International Association of Geodesy

Edited by Markku Poutanen and Juhani Kakkuri

**ISBN 951-711-229-7**

**ISSN 0355-1962**

**Kirkkonummi 1999**

# Contents

Activity Report of the Sub-Commission SSC 8.1 for the Period of 1995-1999. <i>Juhani Kakkuri, President of the IAG SSC 8.1</i> .....	5
Minutes of the second workshop of the subcommission, Pulkovo Observatory, June 15.–16. 1998 .....	7
Combined solution of the Baltic Sea Level 1997 GPS campaign. <i>Markku Poutanen, Zinovy Malkin, Alexander Voinov, Gunter Liebsch, Ming Pan</i> .....	9
The FGI computation of the EUVN/BSL 1997 GPS campaign. <i>Markku Poutanen</i> .....	41
Preliminary results of the BSL 1993 and 1997 GPS campaigns. <i>A. V. Voinov and Z. M. Malkin</i> .....	51
On BSL'93 combined solution. <i>Zinovy Malkin</i> .....	69
GPS data processing automation with the use of Python scripting language. <i>A. V. Voinov</i> .....	75
Estimating present-day postglacial rebound and horizontal movements in Fennoscandia by repeated GPS campaigns in 1993 and 1997. <i>Ming Pan and Lars E. Sjöberg</i> .....	85
A first test for $\dot{W}$ the time variation of $W_0$ based on three GPS campaigns of the Baltic Sea Level Project. <i>A. Ardalan and E. W. Grafarend</i> .....	93
Geodetic activities in Estonia. <i>Artu Ellmann</i> .....	113
Report on participation of Russia in the third Baltic Sea Level GPS campaign 1997 and on activity of the NWG "Baltica". <i>V. K. Abalakin and V. I. Bogdanov</i> .....	117
Participation of the Central Research Institute of Geodesy, Aerial Surveying and Cartography in the third Baltic Sea Level GPS campaign. <i>G. V. Demianov, V. I. Kaftan, V. I. Zubinsky</i> .....	127
Some aspects of studies of the gravity field, geoid and phenomenon of Fennoscandia. <i>V. I. Bogdanov, A.V. Kulinich, N. I. Nikolaev, L. E. Shustova</i> .....	133
Some results and prospects of geodetic works in the Baltic – Ladoga region. <i>V. I. Bogdanov and V. I. Mikerov</i> .....	141
Non-stationarity of the long-period Baltic Sea level variations. <i>V. I. Bogdanov., M. Yu. Medvedev and G. A. Troshkov</i> ..	143
Low frequency floods of river Neva. <i>A. V. Boukhanovsky, and V. A. Rozhkov</i> .....	149
Complex study of human health's and environmental parameters. <i>E. G. Golovina, O. F. Misura, O. M. Stupishina and M. A. Trubina</i> .....	157
Determination of heights and height changes in the Baltic Sea region using the Baltic Sea Level GPS Campaigns 1993 and 1997. <i>G. Liebsch, R. Dietrich and S. Halbfaß</i> .....	159
The EUVN project – First results. <i>J. Ihde, J. Adam, W. Gurtner, B.G. Harsson, W. Schlüter, G. Wöppelmann</i> .....	177