

The Bonn Geodetic VLBI Operation Center

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Abstract

In 2003 the GIUB Operation Center has continued to carry out similar tasks of organizing and scheduling various observing series as in 2002.

1. Center Activities

The GIUB VLBI Operation Center is located at the Geodetic Institute of the University of Bonn, Nussallee 17, D-53115 Bonn, Germany. It has been organizing and scheduling VLBI observing sessions for more than twenty years. The observing series organized and scheduled are the same as in 2002:



Figure 1. Building of the Geodetic Institute

- **Tsukuba - Wettzell UT1-UTC K4 Intensive Series**

The Tsukuba - Wettzell Intensive series for monitoring UT1-UTC has been continued as a joint project of the Bundesamt für Kartographie und Geodäsie (BKG, Germany), the Geographic Survey Institute (GSI, Japan) and the Geodetic Institute of the University of Bonn (GIUB, Germany).

31 single baseline sessions of about 90 minute duration were scheduled between April 12th and December 31th, 2003. Each one was carried out between 7.30 and 9.00 UT and was composed of 20 scans. Taking advantage of unattended observing at Tsukuba the sessions could be scheduled on Saturdays filling the weekend gaps of other series. The K4 system was employed for recording the data. In the scheduling of the individual sessions special emphasis was given to the use of equatorial sources and to the inclusion of sources spanning a wide range of elevations.

BKG and GSI contribute observing time at the Wettzell and Tsukuba radio telescopes. GSI is responsible for the K4 correlation at Tsukuba and GIUB carries out the operation control, scheduling and analysis of the sessions.

- **IVS-T2 series**

This series is observed roughly once per month (10 sessions in 2003) primarily for maintenance and stabilisation of the VLBI terrestrial reference frame as well as for Earth rotation monitoring as a by-product. This series is the follow-on of the International Radio Interferometric Surveying - South (IRIS-S) campaign with varying network configurations.

- **Measurement of Vertical Crustal Motion in Europe by VLBI (EUROPE)**

Four sessions with Ny-Ålesund, Onsala, Wettzell, Simeiz, Madrid (DSS65), Yebes, Medicina, Matera, Noto, Svetloe, and Effelsberg (participated once) have been scheduled for precise station coordinate determination and long term stability tests.

- **Southern Hemisphere and Antarctica Series (OHIG):**

Four sessions with the Antarctic stations Syowa (Japanese) and O'Higgins (German) plus Fortaleza, Hobart, Kokee, HartRAO and DSS45 have been organized for maintenance of the VLBI TRF and Earth rotation monitoring.

2. Staff

Table 1. Personnel at GIUB Operation Center

Dorothee Fischer	++49-228-732623	dorothee.fischer@uni-bonn.de
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Arno Mueskens took care of the T2 and the OHIG sessions, Dorothee Fischer organized the Tsukuba - Wettzell series while Axel Nothnagel was responsible for the EUROPE project.