

3.2 Central Bureau

General activities

The IERS Central Bureau (CB), hosted and funded by Bundesamt für Kartographie and Geodäsie (BKG), organized and documented the IERS Directing Board (DB) Meeting No. 39, September 23, 2004, at BIPM, Sèvres, France. Between the meetings the CB coordinated the work of the DB.

The CB prepared an IERS Workshop on the Combination Pilot Project, held December 11, 2004, in Napa, CA, USA. 23 specialists took part in this workshop. The presentations were published at the IERS web site. For a summary see Section 4.

The CB presented the activities of the IERS and the CB with oral and poster presentations at the IERS Workshop, at the FGS Workshop, at GeoLeipzig, and at Geotechnologien project meetings. A contribution on the IERS and its relation to astronomy was published in the book "Organizations and strategies in astronomy", vol. 5. The CB prepared an IERS report for 2003 to FAGS.

IERS components maintain individually about 20 separate web sites. The central IERS site <www.iers.org>, established by the CB, gives access to all other sites, offers information on the structure of the IERS, its products and publications and provides contact addresses as well as general facts on Earth rotation studies. It contains also electronic versions of IERS publications, a list of meetings related to the work of the IERS, and a large link list for IERS, Earth rotation in general and related fields. Throughout 2004 the web site was regularly enlarged and updated.

IERS Technical Notes (TN) No. 30, containing the Proceedings of the IERS Workshop on Combination Research and Global Geophysical Fluids (edited by the Central Bureau), and No. 31 (The ITRF2000, by C. Boucher, Z. Altamimi, P. Sillard, and M. Feissel-Vernier) appeared as printed versions. The IERS Conventions (2003), edited by Dennis D. McCarthy and Gérard Petit, were published as TN No. 32 in online and in printed forms. Work started on editing the Proceedings of the Workshop on site co-location as TN No. 33.

The CB published also the IERS Annual Report 2003 in online form. It appeared in November 2004 in the form of PDF files for download from the web site. Besides the reports of the IERS components, it contains information on the IERS compiled by the CB.

During the year 2004, 16 IERS Messages (Nos. 51 – 66) were edited and distributed by the CB. They contain news from the IERS and from related services as well as announcements of conferences.

The CB continued to maintain its address database of IERS users. There were about 2500 users in 2004 with valid addresses who subscribed to IERS publications for e-mail and regular mail distribution. Address and subscription information has regularly been updated.

Several questions from IERS users concerning IERS publications and products as well as Earth rotation and reference frames in general were answered or forwarded to other specialists. Also requests from journalists concerning the basics and the future of the UTC timescale were answered.

IERS Data and Information System

The new IERS Data and Information System is a dynamic and database-driven system and allows to maintain the data and information flow between the participating institutions and the users of the IERS. The IERS Data Centre will store and archive all IERS products as well as all data which are necessary for the IERS products and also those which are necessary to re-compute the IERS products (cf. Minutes of DB Meeting No. 32). Also information related to the IERS and its products will be presented. The new system provides the central access point to search within the data, to work with the data and to download the data. Therefore, all products are converted into a general format using the eXtensible Markup Language (XML) that can be regarded as the future standard format for data and information exchange over the Web. From the transformed data files extended meta information are extracted and stored in the database for search. Using XML the heterogeneous products of the IERS in their various formats can be easily described. Aside the original standard file output, the data and information can be presented multiformly.

The technical implementation of the new IERS Data and Information System has been finished and the work has been started to import all products, data and information into the system. Routines have been created to automatically download and process new data from the IERS Product Centres and to import them into the new system. The information from the old Web pages have been introduced without changes and work has been started to transform them into the XML-based format of the new information system. A solution has been worked out to automatically forward calls to URLs of old web pages to the respective URLs within the new system.

Publications

Dick, W. R.; Richter, B.: The International Earth Rotation and Reference Systems Service (IERS). In: André Heck (ed.), *Organizations and Strategies in Astronomy*, Vol. 5. (Astrophysics and Space Science Library; vol. 310) Dordrecht 2004, p. 159–168.

Dick, W. R.; Richter, B. (eds.): *IERS Annual Report 2003*. Frankfurt am Main: Verlag des BKG, 2004. 163 p.

Richter, B; Schwegmann, W.; Dick, W. R. (eds.): *Proceedings of the IERS Workshop on Combination Research and Global Geophysical Fluids*. (IERS Technical Note; No. 30) Frankfurt am Main: Verlag des BKG, 2003. 235 p.

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