

3.2 Central Bureau

General activities

The IERS Central Bureau (CB), hosted and funded by Bundesamt für Kartographie und Geodäsie (BKG), organized and documented the IERS Directing Board (DB) Meetings No. 60, April 12, 2015, at Technical University of Vienna, Austria, and No. 61, December 13, 2015, at Hotel Marriott Marquis, San Francisco, California, USA (see Section 3.1. for minutes of these meetings). Between the meetings the CB coordinated the work of the DB.

Members of the CB took also part in the following meetings: European Geosciences Union General Assembly 2015, ISO TC211 Meeting, IUGG XXVI General Assembly, XXIXth IAU General Assembly, ILRS Technical Workshop, GGOS Days, and AGU 2015 Fall Meeting. For the GGOS Geodetic Metadata Workshop a presentation on metadata of IERS products was prepared together with Allison Craddock, who presented it.

IERS components maintain individually about 10 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, as well as link lists for IERS, Earth rotation in general and related fields. Throughout 2015 the web site was continually updated, several new pages and documents were added. New pages include a compilation of IERS' relations to other organizations and a text on "The Foundation Phase and Establishment of the International Latitude Service at the end of the 19th Century", written by a historian of science for IERS. An extended list of meetings related to the work of the IERS was maintained and updated frequently. The CB maintains also the web pages of the IERS working groups and added some new documents to these pages.

IERS Annual Report 2013 was printed and distributed. The IERS Annual Report 2014 was edited and published online in December 2015. Along with the reports of the IERS components, provided by them, the annual reports contain general information on the IERS compiled by the CB. For both reports, the CB provided also summaries of DB meetings and its own reports.

Reports about the activities of the IERS in the period from 2011/12 to 2015 were compiled for IAG and IAU in cooperation with members of the DB.

During the year 2015, 23 IERS Messages (Nos. 264–286) were edited and distributed. They include news from the IERS and of general type as well as announcements of conferences.

Address and subscription information have regularly been updated in the IERS user database. There were about 2500 users

in 2015 with valid addresses who subscribed to IERS publications for e-mail and regular mail distribution. The development of a new system of address management was finished.

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. The major activity with regard to public relations was related to the leap second of June 30, 2015. A large number of interviews on leap second questions were given for newspapers as well as radio and TV stations during the first half of the year.

The Director of the CB, Daniela Thaller, chairs the IERS Working Group on SINEX Format and is *ex officio* member of the other IERS WGs. Wolfgang Dick continued to work in the Control Body for an ISO Geodetic Register Network, which will contain standardized and proved data on reference systems, and is a member of the ISO project 19161 “Geodetic references”.

IERS Data and Information System (DIS)

The IERS Data and Information System (IERS DIS) is continuously being adapted and extended by new components in order to fulfill the requirements for a modern data management and for the access to the data by the users. Besides routine work like maintenance of the data bases of users, products and web pages, in 2015 further developments of the IERS DIS concentrated on the new system for address management and the development and improvement of interactive tools.

The development of a new system of address management in cooperation with a software company was finished in 2015 after a test phase at the end of 2014 and beginning of 2015. This system, which is related to the Content Management System used for the IERS web site, allows easier maintenance and gives access for users to register as well as to check and update their data through the IERS web pages. It allows also to send email messages and newsletters to groups of users. Address data for IERS personnel from the database is also used in dynamic IERS web pages. In February 2015, all users were informed about the new possibility to log in, to check their data and to subscribe or unsubscribe to/from distribution lists of IERS bulletins and publications. Many of them used this to update their data.

Due to new releases of the Content Management System “Government Site Builder” used for the IERS web site and the end of support for the old release, it became necessary to move to a new release in 2014. For the migrated web site and the new address management a number of improvements were introduced by CB personnel in 2015.

Several tools for visualization and analysis of IERS data and products, developed in the framework of the German research unit

“Earth Rotation and Global Dynamic Processes”, were improved and added to the IERS website. These are: Plot tool; Interactive data analysis tool; EOP of today; Timescales; EOP reader.

Further improvements of the IERS DIS included the following:

- For IERS products metadata according to ISO 19115 „Geographic Information – Metadata“ were made available at the IERS ftp server.
- A monitoring procedure for the retrieval of IERS products from external servers was created.
- The search possibility at the IERS web site was optimized.
- The newsletter function of the address management system was improved.
- For the data management system an XML schema validation was introduced and the administration interface was improved.

It became apparent that the internal processes of the data management component of the IERS DIS are in need of improvements. The requirements were formulated and a bidding procedure was initiated in December 2015.

Staff in 2014 Dr. Daniela Thaller, *Director*
Sabine Bachmann, *scientist*
Dr. Wolfgang R. Dick, *scientist*
Sonja Geist, *technician*
Sandra Schneider-Leck, *technician*

Publications Dick, Wolfgang; Ma, Chopo: Report of the IERS to IAU Commission 19 (2009–2012). In: Thierry Montmerle (ed.), Proceedings of the Twenty Eighth General Assembly, Beijing, China, 2012. (Transactions of the International Astronomical Union; Vol. XXVIII B). Cambridge: Cambridge University Press, 2015, p. 99
Thaller, Daniela, Bachmann, Sabine: The IERS Retreat: How to improve Earth Rotation products? N. Capitaine (ed.), Proceedings of the Journées 2013 “Systèmes de Référence Spatio-Temporels”. Paris: Observatoire de Paris, 2015, pp. 175–180, online: <http://syrtre.obspm.fr/jsr/journees2013/pdf/Thaller.pdf>

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