

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. 58, April 27, 2014, at Technical University of Vienna, Austria, and No. 59, December 14, 2014, at Hotel Marriott Marquis, San Francisco, California, USA (see Section 3.1. for minutes of these meetings). It also organized the 4th Unified Analysis Workshop, co-sponsored by GGOS and held on June 27–28, 2014, at California Institute of Technology, Pasadena, California, USA (see Section 4 for a report). Between the meetings the CB coordinated the work of the DB.

Members of the CB took also part in the following meetings: 8th IVS General Meeting, European Geosciences Union General Assembly 2014, ISO TC211 Meeting, IAG Commission 1 Symposium 2014 on Reference Frames for Applications in Geosciences (REFAG2014), 19th International Workshop on Laser Ranging, and AGU 2014 Fall Meeting.

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 2014 the web site was continually updated, several new pages and documents were added. 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. For the 4th Unified Analysis Workshop a web site was created including the programme, all presentations and the recommendations.

IERS Annual Reports 2008–2009, 2010, and 2011 were printed and distributed. The CB finalized the IERS Annual Report 2012, published it online in April 2014, and distributed it in printed form. The IERS Annual Report 2013 was edited and published online in December 2014. 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.

During the year 2014, 21 IERS Messages (Nos. 243–263) 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 2014 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 mainly finished (see below).

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 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 fulfil 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 2014 further developments of the IERS DIS concentrated on the new system for address management, the migration to a new release of the Content Management System, and the development of an interactive plot tool. Some software bugs in the data management system installed in the previous year (see report for 2013) have been fixed throughout the year 2014.

The development of a new system of address management in cooperation with a software company was mainly finished and the software was tested in 2014. 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. The new system went online in November 2014, after all user data had been exported from the old system and imported into the new one. Further tests have been made under live conditions. Some new users created accounts in the new system and subscribed to IERS publications. The address management system allows also to send email messages and newsletters to groups of users. Address data from the database is also used in dynamic IERS web pages.

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. This uses another technology so that the files could not be simply copied, and most scripts which had been developed specifically for IERS had to be rewritten. The main migration process was done by a software company, but many steps had also to be done by IERS personnel.

The IERS Plot Tool, which was developed in previous years and used to create plots of EOP data for the IERS website (Fig.

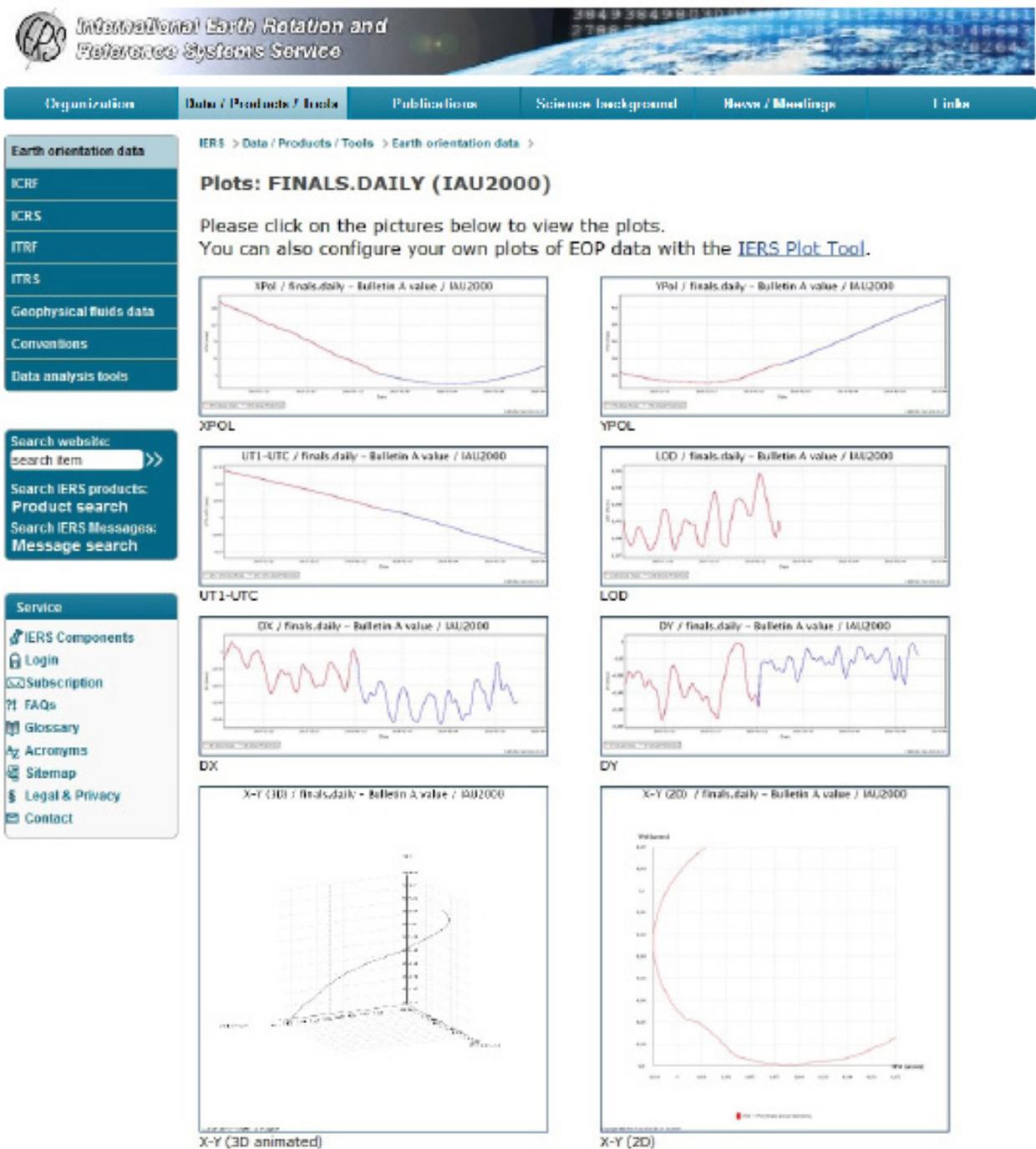


Fig. 1: Page at <www.iers.org> with plots for Bulletin A finals.daily series created with the IERS Plot Tool.

1), was improved and a web interface was created to make the tool interactive for all users. This tool allows users to configure 2D and 3D plots on the basis of IERS EOP data and to compare the different IERS EOP products on the basis of EOP 08 C04 (IAU2000A). The IERS Plot Tool was also expanded to create animated (rotating) 3D plots for the Earth orientation products. Examples are given in Figures 2 and 3.

3 Reports of IERS components

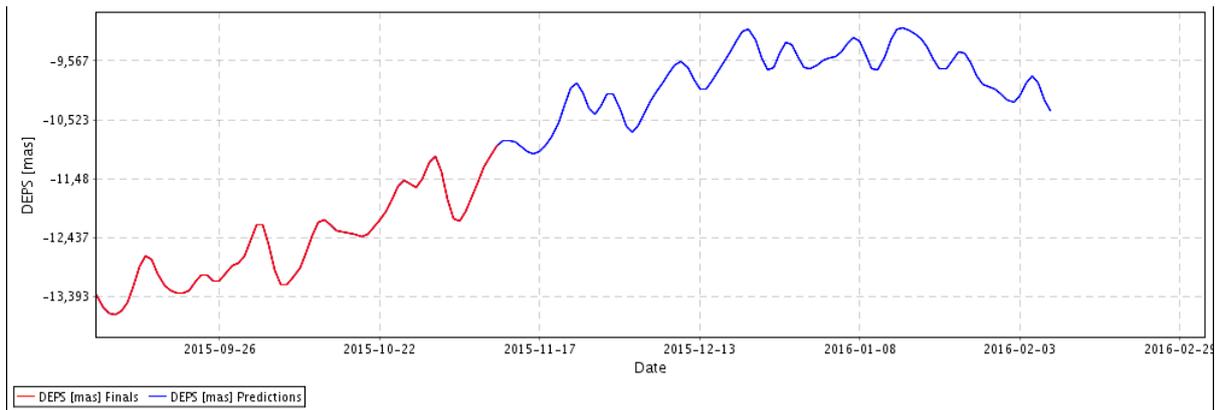


Fig. 2: Example of a plot of observed (red) and predicted (blue) values of $\delta\epsilon$ (IAU 1980 model) from Bulletin A (finals.daily series) created with the IERS Plot Tool.

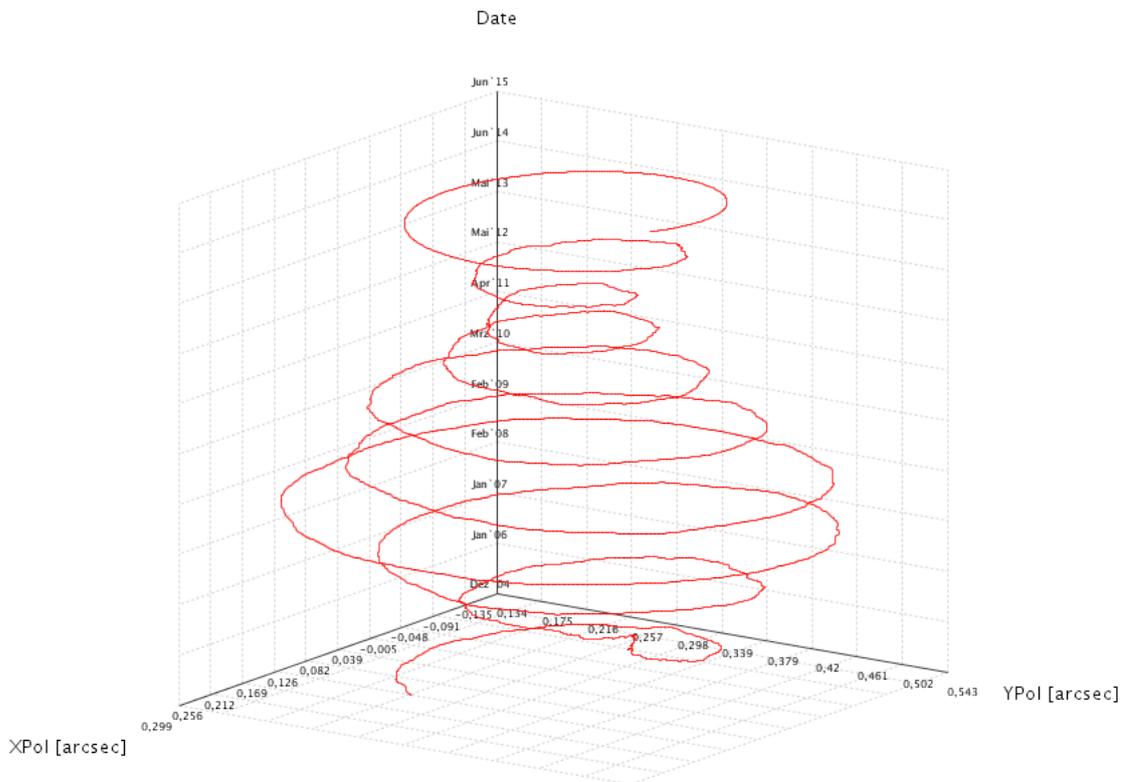


Fig. 3: Example of a 3D plot of pole coordinates x and y from Bulletin A (finals.all series) values created with the IERS Plot Tool. The web browser version of this plot rotates.

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

Wolfgang R. Dick, Daniela Thaller, Sonja Geist