

I. Forewords

The IERS in 2000

As in previous years the IERS routinely provided in 2000 homogeneous celestial and terrestrial reference frame and Earth orientation parameter information with a precision approaching the few centimeters level. This information provided to the users through various media is derived from observations of near Earth orbiting satellites, the moon and extragalactic radio sources, involving Satellite Laser Ranging (SLR), Lunar Laser Ranging (LLR), DORIS Doppler Positioning and Very Long Baseline Interferometry (VLBI). The daily monitoring of the Earth orientation parameters and the estimation of the celestial and terrestrial reference frame parameters are the result of the international tracking efforts coordinated by the International GPS Service (IGS), the International Laser Ranging Service (ILRS) and the International VLBI Service (IVS) as well as of the joint analysis efforts of more than 30 expert groups. Besides the provision of these routine IERS products, the IERS Global Geophysical Fluids Product Center (GGFC) provided data and products related to the atmosphere, the oceans, the hydrological cycle and the Earth core through the data bases of its Special Bureaus and a mirror site in Strasbourg. The ITRF section of the service came up with a considerably improved preliminary solution for the terrestrial reference frame (ITRF2000) which will improve all research and application activities requiring the link to the global terrestrial reference frame.

Apart from the routine processing, the continuing activities for the delivery of a final ITRF2000 and the preparations for the draft version of the Conventions 2000, the major focus of the service was the finalization of its own reorganization.

After having received 24 individual proposals from 13 different institutions until March 23, 2000 as a response to the 1999 Call for Participation, the Proposal Review Board (RB) under the leadership of Prof. Ivan I. Mueller immediately resumed its evaluation work. After two RB meetings in April (Nice) and June (Washington) the RB chairman presented the board's recommendations to the IERS Directing Board (DB) at its 30th meeting in Washington D.C. on June 3/4, 2000. The Directing Board voted separately on each recommendation for the various components of the new service. The DB chairman informed all parties on the outcome of the voting and asked the International GPS, VLBI and SLR Services to nominate two representatives each as members in the new IERS DB.

After a special DB meeting in September 2000 in Frankfurt, where representatives of all components of the new service were present and where the Review Board chairman presented the board's final recommendations, the transition phase from the old to the new

IERS was initiated with an extended board membership for the interim.

Daniel Gambis as director of the old Central Bureau (CB) and Bernd Richter as the designated director of the new CB managed a smooth transfer of the Central Bureau from the Paris Observatory to the Bundesamt für Kartographie und Geodäsie (BKG) in Frankfurt in this period. At the 32nd DB meeting in San Francisco on December 18, 2000, the new Directing Board elected – as one of its very first important duties – a new chairman out of the candidates provided by the Nominating Committee. Jan Vondrak got the majority vote and will lead the new IERS into its new phase of operation.

Many organisations and experts all over the world contributed to the successful operation of the IERS in this very eventful year 2000. Their contributions are highly appreciated.

In appreciation of their help in making the transformation of the IERS into a more efficient service possible, I would like to mention namely the directors of the Central Bureau during the transition period from 1996 to 2000 Martine Feissel (until end of 1997) and Daniel Gambis (until end of 2000), the members of the old Directing Board Felicitas Arias, Claude Boucher, Dennis McCarthy, Ben Chao, Chopo Ma, William Melbourne, Jim Ray, Bob Schutz, Peter Shelus, Pascal Willis, the members of the Proposal Review Committee Gerhard Beutler, Francoise Barlier, Erwin Groten, Tom Herring, Jan Kouba, Chopo Ma, William Melbourne, Paul Paquet, Harald Schuh, Bob Schutz, Pascal Willis, Clark Wilson. In particular, Ivan Mueller, as facilitator in various planning meetings, as chairman of the Proposal Review Committee, and as chairman of the Nominating Committee, has demonstrated extraordinary skills in ensuring that all the discussed targets for the IERS in its new structure were met and realized in the new Terms of Reference.

It was difficult to introduce a new order of things, but it was worth the efforts for the benefit of Earth Sciences.

Christoph Reigber
(until December 2000 Chairman, IERS Directing Board)

Prospects for IERS

The IERS Annual report for 2000 is the last one prepared in the ‘old’ format, or at least formally resembling its structure; the volumes to come will necessarily reflect all changes in the organizational structure of the service that have recently been implemented. The year 2000 concludes the first, very important stage in more than one decade old history of the International Earth Rotation Service. Since 1988 when it was created the IERS evolved into one of the most complex services supported by the IAU and IUGG, and become a

real multidisciplinary international service. The year 2000 was the year of transition from the 'old' to the 'new' IERS, during which it was substantially reorganized into a sort of 'federation' of decentralized components like Product Centers, Combination Research Centers and Technique Centers (International VLBI Service – IVS, International GPS Service – IGS, International Laser Ranging Service – ILRS, and hopefully also International DORIS Service in the future) having well defined and distributed responsibilities. Newly formulated Terms of Reference (<http://www.iers.org/iers/about/tor>) reflect all these changes.

Probably the most important changes are the new Central Bureau (located at BKG, Frankfurt a.M. and directed by Bernd Richter) that became administrative center organizationally separated from other components, the Analysis Coordinator (Markus Rothacher) who is responsible for internal consistency of the products, ten Research Combination Centers (represented and coordinated by Sheng Yuan Zhu) that are supposed to do the research and propose new methods of combining the observations by different techniques, and Global Geophysical Fluids Center (under the guidance of Ben Chao), responsible for monitoring the changes of fluid layers of the Earth and their relations with Earth dynamics. Novelty is also that the ITRF Product Center will be supported in its work by (hopefully more than) two ITRF Combination Centers, in order to ensure competition and independent comparisons.

Although the new structure promises positive results, only the time will show to which extent these changes will help increase the effectiveness of the whole service and the accuracy/mutual consistency of all IERS products. I would like to take this opportunity to thank all members of the IERS Directing Board who concluded their functions in 2000, and namely to my predecessor in the chair, Chris Reigber, for all excellent work they have done during the difficult period of reorganization of the IERS. A special gratitude should go to Ivan Mueller who helped the IERS to go smoothly through this period by his efficient chairmanship of different meetings and bodies that were responsible for implementing the changes.

Jan Vondrák
(Chairman, IERS Directing Board)