



Minutes of the IERS Directing Board Meeting No. 32

December 18, 2000
Moscone Centre, San Francisco, California

February 23 , 2000

prepared by B. Richter

IERS Directing Board:

Attendance: C. Reigber (Chairman), C. Boucher, C. Bruyninx, B. Chao, D. Gambis, T. Herring, C. Ma, D.D. McCarthy, B. Melbourne, J. Ray, B. Richter, B. Schutz, P. Shelus, J. Souchay, T. Springer, J. Vondrak, P. Willis, C. Wilson, S.Y. Zhu

Excused: F. Arias, R. Noomen, A. Nothnagel, D. Pugh

Invitees: I. I. Mueller (Chairman of Proposal Review Committee), R. Neilan, G. Petit (on behalf of F. Arias), M. Rothacher

Introduction and approval of agenda

C. Reigber welcomed the participants of the meeting under the new structure of the IERS and transmitted apologies from people not attending. He pointed out that all IERS components are nominated and will start with their business by the end of 2000.

The agenda was accepted with additional presentations to the following items: leap second server, IAU leap second definition (D. McCarthy), Review Core Program (C. Ma), IERS workshop meetings (DB).

Approval of minutes of DB meeting No. 31

The minutes of the IERS DB meeting No. 31 have been approved with the correction that the IERS Technical Note No. 28 contains 13 papers instead of the reported 30.

Major activities since DB meeting No. 31

Election / Nomination of new members

C. Reigber reported that the 8 Combination Research Centres nominated their representative for the IERS Directing Board in November. From the list of 3 candidates (R. Biancale, M. Rothacher, S. Zhu) Sheng Yuan Zhu was elected as representative for the IERS Directing Board.

After C. Reigber had withdrawn his mandate as IAG representative, the IAG nominated C. Wilson as its representative.

Ruth Neilan, director CB IGS, made public that Tim Springer leaves the geodetic community and Robert Weber will replace him in the IGS Technique Centre and as such also in the IERS Directing Board.

IERS Technical Note 28 and Annual Report 1999

D. Gambis reported that Technical Note No. 28 and the annual report are ready and will be distributed in the near future.

Conventions 2000

D. McCarthy reported that the chapter 6 and 7 of the conventions are under review, chapter 10 had been deleted, chapters 11 and 12 are under discussion. All of the recent IAU resolutions regarding reference frames will be published in the Conventions. Chapter 5 is particularly concerned with the implementation of many of them, e.g. IAU resolutions B 1.6 and B 1.8. All conventions being ready are available at Web site <http://maia.usno.navy.mil/conv2000.html> .

Product changes (PC Rapid Service)

J. Ray informed that starting with the 12 December 2000 issue of IERS Bulletin A (Rapid Service and Predictions of Earth Orientation information) -- Vol. XIII, No. 99 -- the following change has been implemented: The data analyses provided by the NASA/GSFC VLBI group have been incorporated into the Bulletin A combination. These include results for both the 24-hour sessions and the short Intensive UT1 sessions. These solutions join those already being used: the IAA analysis of 24-hour data and the St. Petersburg University analysis of Intensives. The VLBI analyses made at USNO („NEOS“) continue to be included also, but they will no longer be updated (14 November 2000 was the last 24-hour session; 04 December 2000 was the last Intensive).

Transition of CB

B. Richter reported about the present status of the CB move from Paris to Frankfurt. There are three main items:

Publications - D. Gambis prepared a list of still available publications. The booklets will be moved from Paris to Frankfurt on December 20 / 21, 2000.

Mailing list - The 2 (postal and email) mailing lists (ASCII –files) were submitted. Currently they are edited and merged together. The lists will be available in a common data base which can be used for emailing and the distribution of hard-copy IERS publications (annual reports, technical notes, bulletins) via the Central Bureau.

WEB-site - A draft version will be ready and public on January 1, 2001. It is based partially on the information from the old IERS WEB pages but in a new structure. The information is quite general yet and for detailed information there are direct links to the TC's and PC's.

WEB address: WWW. IERS.ORG or 141.74.254.122

Election of a new IERS Directing Board Chairperson / Report of the Nomination Committee

I. Mueller as speaker of the Nominating Committee gave a short report about the nomination and election of the IERS DB chairperson. As a result of a call for nominations distributed to the IERS associates and the IERS DB members three candidates were proposed by more than 40 replies: C. Ma, J. Vondrak and C. Wilson. In the electronic polling where only the IERS DB members had the right to vote the majority signed for J. Vondrak.

I. Mueller and C. Reigber congratulated J. Vondrak and gave their best wishes for a successful period as DB chair within the new structured IERS.

The updated organisational chart is given as appendix I.

On the application of C. Reigber the DB gave a release to the old board members who are not represented in the new IERS DB: C. Reigber (Chairman), F. Arias, B. Melbourne, B. Schutz and P. Willis.

The CB was asked to prepare certificates to honour the work done in the DB.

As the IERS representative to the ILRS B. Schutz has been nominated and was accepted by the DB with no abstentions. Consequently B. Schutz will be a permanent guest of the DB.

Changes to the IERS Terms of Reference

I. Mueller proposed some changes in the Terms of Reference due to practical reasons, not precise formulations, extended tasks and new structures.

The following changes were accepted:

TECHNIQUE CENTERS (TC)

Old: The TCs exercise overall control of observations from their specific techniques, archiving, quality control and data processing including combination processing of data and/or products received from their participating organizations. **Primary examples of TCs are the various international technique specific services such as IGS, ILRS, IVS or DORIS.**

New: The TCs exercise overall control of observations from their specific techniques, archiving, quality control and data processing including combination processing of data and/or products received from their participating organizations. **TCs are the various international technique specific services: IGS, ILRS, IVS and possible future TCs e.g. DORIS.**

DB Vote yes: 10 / no: - / abstention: -

PRODUCT CENTERS (PC)

Old: ITRS Center, responsible for the maintenance of the ITRS/ITRF, including network coordination (design collocation, local ties, and site quality).

New: ITRS Center, responsible for the maintenance of the ITRS/ITRF, including network coordination (design collocation, local ties, and site quality). **For this purpose the Center is also responsible to provide the ITRS Combination Centers (see below) with specifications, and to evaluate their respective results.**

COMBINATION CENTER(S)

Old: Combination Research Center(s) are responsible for the development of combinations from data and/or products emanating from the different techniques (TCs). These research combination solutions are provided to the Analysis Coordinator.

New: Combination Research Center(s) are responsible for the development of combinations from data and/or products emanating from the different techniques (TCs). These research combination solutions are provided to the Analysis Coordinator.

ITRS Combination Center(s) are responsible to provide ITRF products by combining ITRF inputs from the TCs and others. Such products are provided to the ITRS Product Center.

DB Vote yes: 7 / no: 1 / abstention: 2

In addition to the previous discussion the DB decided unanimously that a DORIS representative will be a permanent guest of the DB. The revised version of the ToR is attached in the annex.

Report on the ITRF workshop, November 2-3, 2000 and on the status of the ITRF 2000

C. Boucher reported about results of the workshop held in Paris November 2 – 3, 2000. The minutes of the workshop will be published as IERS Newsletter.

For the definition of ITRF 2000 a no-net-rotation solution is selected with 56 on-plate. The scale is defined by SLR/VLBI and the origin by SLR observations. For the velocities estimates the NUVEL 1A model is used as an a priori information. The transformation parameters 2000 have a small offset compared to the 1997 parameter set, being < 2 cm.

From the geophysical point of view a discussion of a hot spot reference frame vs. the no-net-rotation reference frame is renewed. Details will be discussed in a subgroup within the working group “rotation of reference frame”. At least a hot spot reference frame should be monitored.

In North America the ITRF 2000 will be densified by regional GPS networks and campaign type measurements.

With the revised ToR additional ITRS combination centres are foreseen. One of them is the DGFI, Munich. A Canadian group should be interested as a third ITRS combination centre. The DB Chairman will contact Remi Ferland. In addition Jan Kouba will be asked by the DB chairman to act as an outside advisor for the ITRS combination centres.

Status of network management (site information system)

The IERS / ITRF network management is still open. Regarding an activity from the International Space Geodetic and Gravity Subcommission, chaired by John Bosworth, to classify the various networks / stations the discussion within the DB will be shifted to the next DB meeting.

But there is still a strong demand to check local station ties. The efficient way is to organise a surveying team / groups under the responsibility of IERS. The IERS DB chairperson will write a letter to national surveying organisations to support and to participate in such an activity.

Need for redefinition of SINEX files

T. Herring pointed out that there is a need for additional information (blocks) inside the standardised SINEX format. An updated information about the SINEX structure will be put on the IGS server. He strongly recommended that the original parameter blocks should not be changed. There is a special request by the IVS to integrate additional parameters (as e.g. positions of radio sources) into the SINEX output. The development of an updated SINEX format should be moved to the IERS Analysis Coordinator and should be coordinated by him.

Decision on IERS Data centre

B. Richter gave a summary about the IERS Specialists Meeting on an IERS Data Base in Paris, October 31, 2000. This meeting was organized by the future Central Bureau (CB) on request of the IERS Directing Board (see Minutes of the 31st Meeting, September 14-15, 2000). The goal was to find out 1) how the data flow inside the IERS, as well as between its product centers and the technique/analysis centers on the one hand, and the users on the other hand, works at present and how it should be organized in the future, 2) which data/products should be collected, archived and

displayed at a central place (IERS Data Base/Data Centre). The minutes of the IERS Specialist Meeting on an IERS Data Base will be published as an IERS Newsletter.

After the report the DB decided that the CB should operate a data centre to store and archive all products which are necessary for the IERS products and also those which are necessary to re-compute the products. For safety and practical reasons the data centre should be mirrored at the Observatoire Paris, France, CDDIS NASA and at a server in Asia.

Leap Second Server

D. McCarthy was asked by Judah Levine, U. S. National Institute of Standards and Technology, whether the IERS can provide a computer accessible leap second table that is compatible to the Network Time Protocol changes.

The DB decided unanimously that this service should be provided by the CB.

Furthermore D. McCarthy informed the Directing Board of the status of the ITU action on a leap second working group initiative. The ITU is forming a „Special Rapporteur Group“ to make recommendations on the future of leap seconds. They are supposed to write official letters to the appropriate organizations having an interest in the topic, inviting their participation in the group.

Annual report 2000 (Table of Contents)

B. Richter made a proposal for the Table of Contents for the annual report 2000 which will be a mixture of the previous annual reports and one which is adopted to the new structure of the IERS. A final decision will be made during the next DB meeting.

Organization and responsibilities during the transition phase

The DB decided that between the elected and present IERS chairperson there will be a transition phase for the handling-over till the end of March.

Miscellaneous

The DB asked the PC Conventions to finish the Conventions 2000 as soon as possible. C. Ma gave the information that there will be a CORE technical review organised by NASA on February 16, 2001.

Themes for an IERS workshop should be discussed during the next DB meeting.

Next IERS DB meeting

The next DB meeting (1/2 day) will take place in connection with the EGS Meeting in Nice (March 26 - 30). The exact date has to be confirmed.

Attachment: I. Structure of the new IERS / DB members
II. Revised Terms of Reference