



INTERNATIONAL EARTH ROTATION SERVICE (IERS)
SERVICE INTERNATIONAL DE LA ROTATION TERRESTRE
WWW: <http://hpiers.obspm.fr>

REPORT ON THE IERS DIRECTING BOARD MEETING No 28

**Tuesday 27 July 1999
IUGG General Assembly
Birmingham**

prepared by D. Gambis, Central Bureau

Attendance: C. Reigber (Chairman), D. Gambis, C. Ma, P. Shelus, B. Melbourne, B. Schutz,
P. Willis, R. Gross (GGFC representative), D.D. McCarthy, C. Boucher.
Invitee: J. Ray

I - ACTIONS SINCE LAST BOARD MEETING

1-Dusseldorf Geospectra Trade Fair

The participation of IERS in the "Geospectra 99" International Trade Fair held in Düsseldorf, Germany, June 9-15, 1999 was 2 posters which were derived from the IERS flyer. The first one presented the overall activities of the service: "Missions, Observation programs and users". The second one showed the IERS products.

2-IERS re-organization

The texts of the detailed documents describing the missions and tasks of the various components of the new structure were written. After corrections and updates, they will be sent together with the Call for Participation and the Terms of Reference in Fall.

3- Quadriennial report of the IERS to IAG

The report on the IERS activities for the period 1996-1999 was prepared by the Central Bureau and sent to Ole B. Andersen.

4- New FAGS representative to the Board

The new FAGS representative to the IERS Directing Board, in replacement of H.G. Wenzel, is David T. Pugh of The Institute of the Oceanographic Science, Wormley, UK (D.Pugh@soc.soten.ac.uk).

II - THE IERS RE-ORGANIZATION

It was agreed that neither the name of the IERS will change nor the significance of its letters and logo. The package of the Call for Participation in the new IERS Service will likely be sent out in Fall 1999 with the following documents:

- a) An official letter summarizing the context
- b) Detailed documents briefly describing the missions and tasks of the various components
- c) The new Terms of Reference (ToR)
- d) Standard form for response

This package will be officially air-mailed to the main institutes active in the area of geodynamics and reference frames.

It will also largely be distributed via the IERS gazette.

Review Process

A Review Board comprising the Directing Board and external experts will be set up for the review process. The proposals of the individual institutions will be submitted to the Chairman of the DB with a copy to the Central Bureau and redistributed to the reviewers.

III - STATUS OF CURRENT WORK

Technical Notes

Three Technical Notes were published and sent recently to the community:

- TN 25: Analysis Campaign to Investigate Motions of the Geocenter (J. Ray, ed.)
- TN 26: The impact of El-Niño and other low-frequency signals on Earth rotation and global Earth system parameters (D. Salstein, B. Kolaczek and D. Gambis, eds.)
- TN 27: The 1997 International Terrestrial Reference Frame ITRF97 (C. Boucher, Z. Altamimi, P. Sillard, eds).

Two other Technical Notes are intended to be published by the end of 1999/beginning of 2000: the first one on the GGFC activities (B. Chao) and the second one on High Frequency Oscillations of Earth Rotation (B. Kolaczek, H. Schuh and D. Gambis, eds.). A call for contribution for this last issue was sent via an IERS Gazette.

The Annual Report for 1998 was disseminated in August 1999.

ITRF2000

The call for contribution to the ITRF2000 and ITRF98 (a sub-set of the former) was discussed. It was decided that the Working Group should be the same as that for the ITRF. There was some concern about the way the ITRF2000 which is a long-term reference solution should be discriminated from the current yearly ITRF. The number of digits (4) seems to be sufficiently clear to avoid confusion.

The call for proposal concerns the new ITRF (98 and 2000) will be made in the same release and shall be sent by C. Boucher in mid-August 1999. The deadline is intended to be 31 January 2000. It will be sent with an explicit reference to the technique-based services (IGS, IVS, ILRS).

GGFC REPORT

R. Gross, GGFC representative presented the summary of the meeting held at the IUGG on July 22, 1999.

In agreement with most of the heads of the Special Centers, the name Global Geophysical Fluids Center (GGFC) was adopted. It is now one of IERS Product Centers in the new terms of reference adopted by the DB in Washington DC, on March 30, 1999.

A question arose on the future activities of the Geocenter Center: how will it conduct the continuation of the work on the geocenter after the publication of the TN25. A Special bureau be in charge of the monitoring of the geocenter as an IERS product may be required similarly to the EOP one.

An important discussion was held concerning the GGFC data base. Many expect that the GGFC would deliver data and not only derived results. Data centers are being implemented elsewhere and it is the mission of the IERS to provide this data base to a wide user community. It seems that the work of the GGFC group on the data base development is moving slowly.

BIPM ISSUES

1 - A letter by T.J. Quinn, BIPM director was sent to IERS after a CCTF meeting held in Paris in April 1999 about UTC time scale and leap seconds introducing discontinuities in this time scale. "There was no consensus within the CCTF for any proposal to change the definition of UTC", "UTC remains the basis for worldwide timekeeping, but TAI is recommended for those applications requiring uniform time". The whole text is available from the IERS Central Bureau.

2- The CCTF also considered the question of terrestrial reference frames. The creation of a mixed BIPM/IUGG committee was proposed during the IUGG but was only accepted as a pure IUGG committee. A controversial discussion on this issue took place at the Board meeting.

SUB-BUREAU FOR RAPID SERVICE & PREDICTIONS, BRIEF REPORT OF RECENT ACTIVITIES

Jim Ray presented the activity of this center. The web site was completely revised. Bulletin A is now derived daily. The precision has progressed. It is about 0.75 mas on the Pole and 0.16 ms on UT1 for a 1.5 day prediction. An upgraded GPS-based UT series is currently derived using Kammeyer (USNO) procedure. It improved the rapid service UT1 results and it is used by the IGS for real-time analysis. The e-mail publication will be reduced to once a week. As discussed with D. Gambis, the precision of 0.1 mas is practically obtained by GPS. In order to take advantage of this precision and to restore the internal consistency to 0.1 mas for the pole, a re-computation of the (IERS) C 04 is necessary for a better consistency between terrestrial and celestial reference frames. The date of 1 January 2000 seems to be suitable for that.

ITRF DATUM WORKING GROUP

Jim Ray proposed a new charter of the IERS Working Group on the ITRF Datum:

The IERS Directing Board at its Meeting held during the 1999 IUGG General Assembly in Birmingham renewed the Working Group on the ITRF Datum.

Its primary purpose continues to be maintenance of specifications for the precise datum fixation when IERS performs the realizations of the International Terrestrial Reference System under the label ITRF.

For this purpose, the WG shall continue to evaluate its previous recommendations in view of evolving measurement and analysis capabilities, ensuring adherence to resolutions of the IUGG and IAG concerning realizations of the terrestrial reference frame.

In particular, the WG should consider appropriate procedures for monitoring variations in the geocenter relative to the origin of the ITRF, working closely with the IERS Global Geophysical Fluids Center. In addition, the WG should work closely with the IERS ITRS Center to assist in validating each new ITRF realization.

This WG should select a chair from its membership and will report periodically to the IERS, particularly at its ITRF workshops. Sub-groups may be formed, with additional members, for specialized tasks.

Proposed Members:

M. BEVIS *	R. FERLAND *	J. MANNING *
G. BLEWITT	T. HERRING	G. PETIT *
C. BOUCHER	K. LARSON *	J. RAY
B. CHAO *	C. MA	J. RIES *
H. DREWES *	H-G. SCHERNECK *	

* new members (9)

IERS EXTERNAL COOPERATIONS

- Status and progress of the ILRS (<http://ilrs.gsfc.nasa.gov>)

At the last meeting held in Den Haag, there was a discussion on satellite tracking. The next Workshop will take place in Firenze in September 1999.

The International GLONASS Experiment 1998 (IGEX98) began on 19 October 1998 and will continue indefinitely, but in a modified capacity.

On 15 May 1999, the Governing Board approved the recommendation from the IGEX analysis centers to continue the ILRS support of IGEX indefinitely, but the number of requested GLONASS satellite supported has been modified from nine to three. Currently, only GLONASS 70, 72, and 79 are on the ILRS priorities list.

The GEOS-3 campaign began on 15 October 1998 and ended on 20 April 1999.

Note: A 3 month extension was granted by the ILRS GB on 20 January 1999.
The ERS-1 campaign that began on 20 July 1998 is extended until 31 December 1999.

- Status and progress of the IVS (<http://ivscc.gsfc.nasa.gov/>)

There was an IVS DB meeting at the IUGG on Monday 18 July 1999. Axel Nothnagel was elected Analysis Coordinator. His term begins on October 1st. The 1998 annual report was made and distributed at the IUGG 1999. There will be a Call for Proposals for hosting the TIGO calibration station which will also be distributed as an IERS gazette. The IVS plans to hold a General Meeting every 2 years. In between, it plans to hold technical meetings related to special topics such as analysis, technology or training.

The first IVS General Meeting will be held February 21 to 25, 2000.

The location is Koezting, Germany, which is close to the Wettzell station.

- Status and progress of the IGS (<http://igscb.jpl.nasa.gov/>)

Two workshops took place: in March the Leo workshop at GFZ Potsdam and the Analysis Workshop in Scripps Institute in Spring 1999. It appears now that not all VLBI stations are equipped with a GPS receiver for colocation. Efforts in that sense should be done.

It also seems that there is a slow deterioration of the network (problems with receivers).

- Progress of the DORIS activities (<http://doris@www-projet.cst.cnes.fr:8060/>)

As it was discussed at the IUGG, a pilot DORIS experiment of CSTG was initiated. Terms of reference are being written similarly to the other technique-based Services.

FUTURE IERS DB MEETING

- 1) At the Fall AGU location in December 1999 for the first review of the CfP status and inputs.
- 2) In March/April for selection of the various IERS components.