



INTERNATIONAL EARTH ROTATION SERVICE (IERS)
SERVICE INTERNATIONAL DE LA ROTATION TERRESTRE

DIRECTING BOARD

REPORT OF MEETING No. 14

**Held on 1994 August 20, 11:30-14:00 in Den Haag (Holland),
in conjunction with the
22nd General Assembly of the International Astronomical Union.**

Attendance: E.F. Arias, W.E. Carter, M. Feissel (secretary), D.D. McCarthy, B.E. Schutz,
C. Veillet, G.A. Wilkins, Ya. S. Yatskiv (Chairman).

Selection of the Doris centres to participate in IERS

Seven proposals were received in response to the Call for Proposals issued earlier this year. They are summarized in the table hereafter.

Institute	Country	Proposed function				Satellites			
		Coord. Ctr	Data Ctr	Oper. Ctr	Anal. Ctr	Spot1,2	Tpx/Pos		
				TRF	EOP	TRF	EOP		
IGN	France	x	x	.	.	x	x(1)	x	x (2)
CNES/SOD	France	.	x	x	x	.	.	x	x
NASA/CDDIS	USA	.	x	.	.	.	.	x	x
CSR Texas	USA	.	.	.	.	x	x	x	x
Delft UT	The Netherlands	.	.	.	x	x	.	.	x (3)
GRGS/CNES,									
CLS/ARGOS	France	.	.	.	.	x	x	x	x (3)
MCC(4)	Russia	.	.	.	x	x	x	x	x (5)

Notes:

- 1 - The Analysis Centre operation will be a cooperation with the JPL.
- 2 - The Doris data will be used in conjunction with GPS data.
- 3 - The Doris data will be used in conjunction with SLR data.
- 4 - MCC is the Russian Mission Control Centre in Kaliningrad (near Moscow).
They just started sending operational SLR EOP to the sub-bureau for
Rapid Service and Predictions and to the Central Bureau.
- 5 - Additional proposals: extension of the DORIS network in Russia,
installation of the Doris system on Russian satellites.

The Directing Board considers that the ensemble of the responses is satisfactory and may provide a useful contribution to IERS. Pascal Willis (IGN) is appointed as Coordinator for Doris in IERS, and as such will be a non-voting member of the Directing Board with voting status beginning in 1996 after completion of the test period (1 October 1994 - 30 November 1995).

Letters of acceptance will be sent to IGN, and to the other proposers, requesting them to contact the Doris coordinator for the organisation of the work.

The IERS Celestial Reference Frame and the IAU

The 1994 realization of the IERS Celestial Reference System includes 531 extragalactic objects, 209 of which have positions accurate and stable enough to be considered as "definition source" according to the nomenclature of the IAU Working Group on Reference Frames. 239 objects have position uncertainties smaller than 0.25 mas. The position uncertainty is derived from the agreement between five different analyses. The direction of the axes of the frame is maintained by means of a no-rotation condition based on the definition sources. The unstability of axes is smaller than 0.02 mas. The position of the IAU conventional origins in the IERS Celestial System are known within $\pm 1-3$ mas from studies of precession and nutation based on VLBI analysis for the pole, and from joint use of LLR and VLBI for the origin of right ascensions. The offsets are smaller than the uncertainties of the FK5 reference frame that is the current IAU conventional frame.

The IERS positions of reference extragalactic sources for VLBI observation of radio stars were provided to the Hipparcos project.

Members of the IERS participated in the IAU Working Group on Reference Frames, which adopted at the 22nd General Assembly of the IAU a list of extragalactic objects defining the IAU Reference Frame. The group is now concerned with the definition of the new IAU celestial reference frame (coordinates of definition sources) and the organisation of the future maintenance of the frame. It will meet in mid-February 1995 at Observatoire de la Côte d'Azur/CERGA, France.

IERS Standards (1995)

A number of models present in the 1992 issue of the IERS Standards have to be revisited and may be revised (e.g. Precession-Nutation, ocean loading, plate motion, gravity field and some new models will be considered (e.g. post glacial rebound, diurnal and sub-diurnal variations, atmospheric loading

A first draft, taking into account the IAU decisions, will be circulated in the fall of 1994, and the final version will be presented at the IERS Workshop in the spring of 1995 for adoption. The IERS Standards (1995) will be printed in the series of the IERS Technical Notes. The document will be available on computer, both as TEX and ASCII files, accessible through the World Wide Web.

The work on the IERS Standards is accomplished in cooperation with the IAU Working Group on Astronomical Standards and the IAG Special Commission 3 on Fundamental Constants, in order to avoid unnecessary duplication and inconsistencies with the decisions of these groups.

Unification of IERS results

The analysis performed by the Central Bureau for the 1993 IERS Annual Report (mailed at the end of July 1994) included a realignment of the series of Earth orientation parameters and reference frames. The agreement is now better than ± 0.1 mas at 1993.0, degrading by less than ± 0.1 mas/year.

"IERS plans and needs until 2000"

A first draft is available for discussion. A second draft will be prepared on the basis of comments and additions available in September. It will be distributed at the end of 1994 to the Corresponding Members, to prepare the discussion that will take place at the 1995 IERS Workshop.

VLBI Coordinating Centre

After a letter was sent by the IERS/DB Chairman to J.D. Baker, NOAA Administrator, the latter responded to assure IERS of the full support of NOAA to IERS through its role in the US national Earth Orientation Service (NEOS), jointly operated with USNO. The Chairman will write a letter of thanks to J. Baker.

1995 IERS Workshop

The Workshop and Directing Board meeting will be held in the week of 24 April 1995 in Paris. The discussions will concentrate on selected topics: IERS Standards (1995), internal consistency of IERS results, motion of the geocentre, Celestial Reference Frame, and IERS plans and needs until 2000. Some time will be devoted to discussions organised by the Technique Coordinators.

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