

Roadmap for ITRF2020

ITRS Center

IPGP-IGN, France

Key points

- **Recall of the Background/History**
- **Current status per Technique Center**
- **Call for Participation**
- **Schedule and time-line**

Roadmap for the next ITRF solution: ITRF2020

- Consultation was sent to the technique ACCs and GGFC on January 24, 2018 ==> ITRF2020
- An inventory (list) of all effects and model updates to be considered by all and individual techniques in the reprocessing effort

IVS

- **IVS: Response from John Gipson:**
 - General agreement, except:
 - HF-EOP model to be recommended by the WG
 - Atmospheric Loading model (ATML) will be applied!!
- **Contribution of the ATML corrections to the right-hand side of the normal equation must be provided in the SINEX, i.e. $A^T P \cdot (\delta Y_{ATML})$**
 - High priority to updating software to apply gravitational deformation.
- **IVS time line for reprocessing:**
 - No major obstacle

ILRS

- **ILRS: Complete :**
 - Mostly agree on ITRS proposal
 - Different opinions on some topics, mainly the gravity field model(s)
 - HF EOP: awaiting for a “consensus” model
 - Will **not** include a loading model
 - No model for 3D thermal effects
- **ILRS time line for reprocessing:**
 - No major obstacle (?)

IDS

- **IDS: Complete:**
 - Mostly agree on ITRS proposal
 - HF EOP: awaiting for a “consensus” model
 - **A number of DORIS-specific effects will be addressed**
- **IDS time line for reprocessing:**
 - ITRF2020 is more realistic
 - **But hope no delay will happen!!**

IGS

- **IGS: response from Michael Moore**
 - Mostly agree on ITRS proposal
 - Adopt post EGM2008 model: Not all ACs are convinced this has a significant impact on GNSS
 - HF EOP: awaiting for a “consensus” model
 - Most ACs **not** in favor of applying a loading model
- **IGS time line for reprocessing:**
 - 15th - 17th April Dedicated AC workshop (after EGU)
 - Start reprocessing probably June 2019
 - But hope no delay will happen!!

ITRF2020: Call for Participation (CfP)

- **Draft circulated among IERS DB Thursday, Dec 06, 2018**
 - **List of suitable model updates in the annex of the CfP**
- **Comments were welcome until January 10, 2019**
 - **No comments received**
- **The CfP is now final & posted at the ITRF Website :**

http://itrf.ign.fr/doc_ITRF/CFP-ITRF2020.pdf

ITRF2020 Inputs by TCs: specific model updates are strongly requested

- **IVS: modeling the gravitational deformation for as many antennas as possible, possibly refine the thermal expansion modeling**
- **ILRS: SLR range biases to be estimated/applied**
- **IGS: up to date GNSS force models to be used**
- **IDS: Improve analysis strategy, DORIS-specific model updates**

Summary

- **General agreement of all techniques regarding proposed effects and model updates to be considered for the reprocessing**
- **CfP disseminated, available at the ITRF Website**
- **In preparation for ITRF2020, the ITRS Center may**
 - **Request specific solutions for testing purposes, e.g.**
 - **SLR range biases estimated**
 - **New HF-EOP model applied**
 - **Others TBD**
- **Follow up by all ACCs of the effects and model updates, with regular report to ITRS and IERS DB**

Schedule & time-line

Date	Action
January 10, 2019	Dissemination of the Call for Participation
February 10, 2021	Deadline for solution submissions by Technique Centers. Earlier submissions are welcome
April 2021	First and early results to be shared and discussed with the TCs.
Until end of May, 2021	Inter comparisons of the ITRF CCs solutions
~June, 2021	Preliminary ITRF2020 solution available for evaluation by TCs
Sep-Oct, 2021	Final ITRF2020 solution released by the ITRS Center

Backups