



Tour de l'IGS, 02 June 2021

Why is repro-3 important for the IGS?

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Goal: keep the connection within the community in the form of short sessions of virtual talks

Welcome to the first stop of the « Tour de l'IGS »:

#ITRF2020 and the outcomes of the activities of repro3

- **~300 participants including people from new groups/countries not traditionally active in the IGS, but who are involved in different Geodesy programs in their countries**
- **Volunteer organization seeking for new participants:**
 - Associate Member
 - Densifying the IGS network with your stations
 - Join Working Groups
 - Become an Analysis Center...
- **Please visit <https://www.igs.org/>**

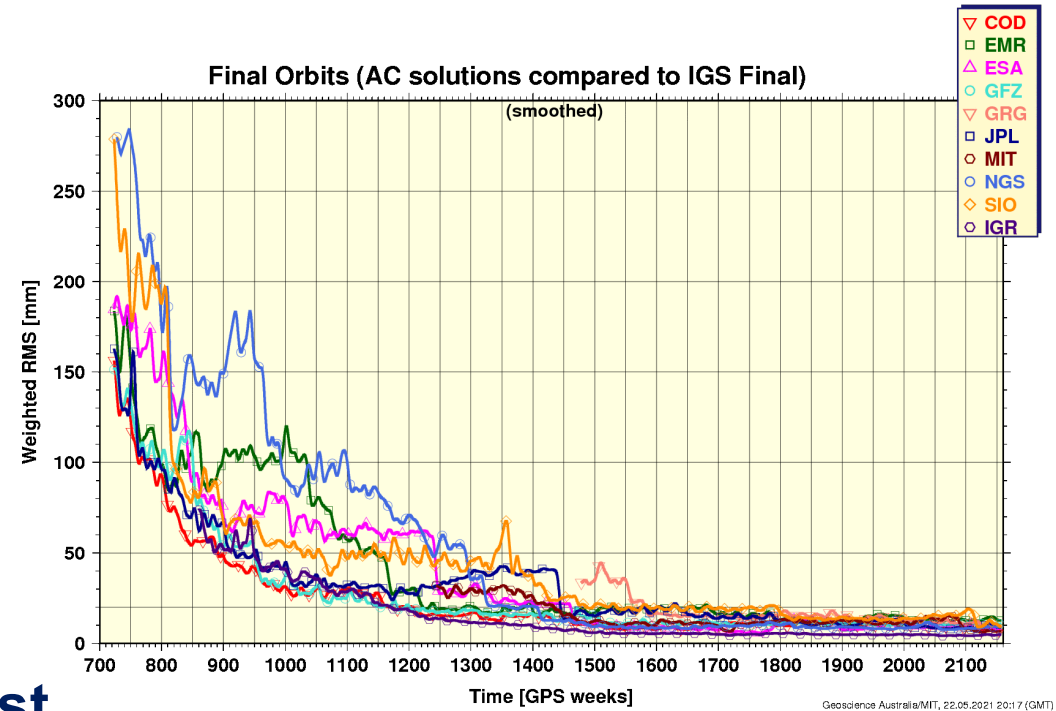
Foundation of the IGS:

- Providing the best possible GNSS data and products
- Participate to the ITRF realization

A reprocessing campaign is essential to both of these objectives

The overall quality of the IGS products improves as a function of time

Thanks to a common effort of most of the components of the service: infrastructure, formats, WG, ACs, ACCs...



A reprocessing campaign is a very particular milestone for the IGS

The goal is to provide the IERS (and other users) with:

- The longest time span
- The most consistent products during the time span (same processing configuration)
- The most consistent products between the ACs for a better combination
- The most accurate products

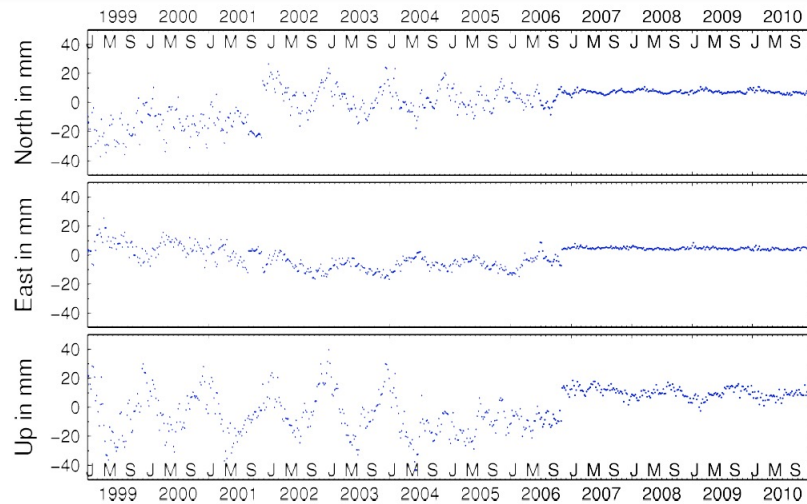
This is a challenge for the ACCs and to get a status quo from the different ACs involved...

The IERS deadline helps in taking decisions and agreeing on a common view and strategy

After each reprocessing campaign both the quality and the consistency of the IGS products have been improved:

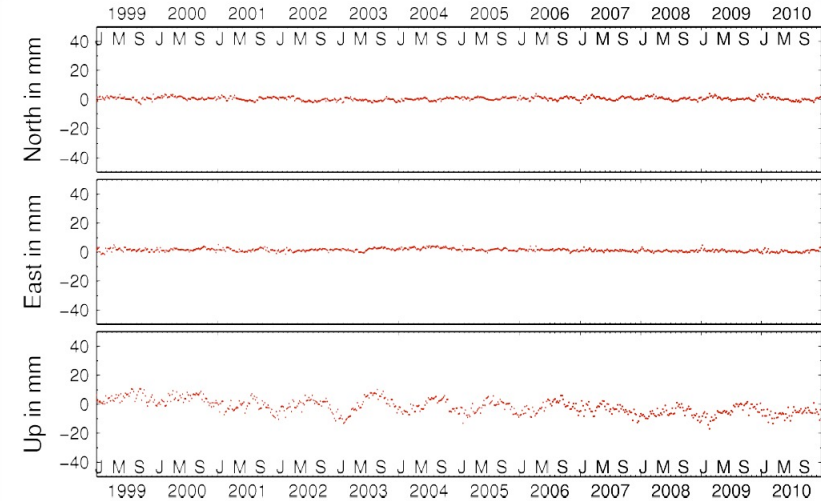
- This is also what is expected from REPRO3 and why the IGS made it!

Coordinate time series for Zimmerwald



Operational series from CODE, weekly solutions

Coordinate time series for Zimmerwald



Reprocessed series from CODE, weekly solutions

Courtesy Rolf Dach, AIUB

REPRO-3 models and processing strategy major changes vs REPRO-2:

- Ground antenna PCO/PCV
- Satellite Antenna thrust
- Sub-daily EOPs
- Linear mean pole
- Updated ocean loading model
- Empirical dynamical parametrization
- station Network
- ...

More information: <http://acc.igs.org/repro3/repro3.html>

New ACs have participated !

REPRO3 was also the opportunity for more fundamental evolutions:

- Multi-GNSS: GPS, GLONASS, Galileo
- Resolving the scale of the frame (Using Galileo metadata)
- Clock combination compatible with PPP-AR

REPRO-3 done!

- **Covers from the mid-90's to end of 2019**
- **Huge effort from the ACs:**
 - Software development, Model implementation, testing
 - Processing between 2 and 10 million of RINEX files
- **Huge effort from the ACCs:**
 - Adapt the tools and strategy to the new products
 - Feedback to ACs on each problem detected
 - Managing and combine HUGE quantity of files
- **Some products are already available in the data centers**

All you want to know about:

- ❖ IGS contribution to ITRF2020

Paul Rebischung and Zuheir Altamimi

- ❖ multi-GNSS orbit and clock solutions

Salim Masoumi and Jianghui Geng

- ❖ PPP-AR products

Simon Banville

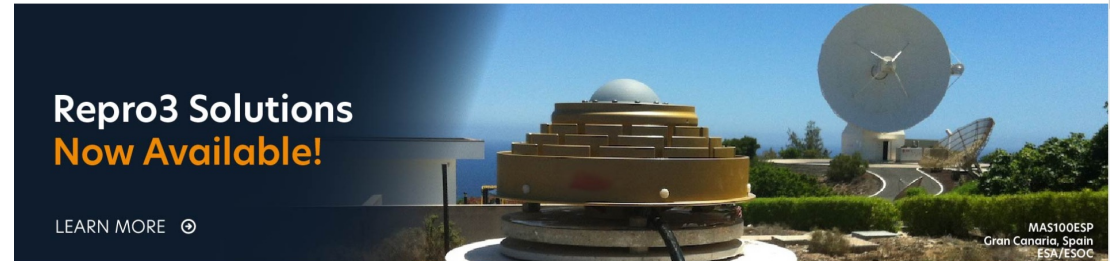
- ❖ Galileo-based terrestrial scale

Susanne Glaser

<https://www.igs.org/>



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News and Announcements



Thanks for your attention!

Special Thanks to the CB for the organization!

Enjoy the session

More stops of the *Tour de l'IGS* are already in preparation

See you soon!