



Antenna Working Group

Arturo Villiger

Overview of the Working Group Charter

- Who is the chair?
 - Working at the Astronomical Institute of the University of Bern
 - Part of the CODE AC team
 - Working on: CODEs IGS processing schemes, Repro3, Analysis of calibration patterns and their usage for GNSS scale determination
- Currently :
 - 54 subscription for the IGS AWG mailing list (restricted to contributing members)
- In close collaboration with the IGS Reference Working Group: preparation and release of the antenna pattern

Overview of the Working Group Charter

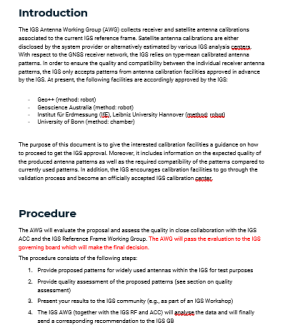
- The AWG is responsible for:
 - Collecting and providing receiver and satellite antenna pattern to the IGS community for:
 - The current IGS14 frame (**igs14.atx**)
 - Reprocessing (**Repro3**)
 - Coordination of the unique IGS receiver and antenna names as well as providing the corresponding information on the antenna reference point (rcvr_ant.tab and antenna.gra)
- In close collaboration with the IGS Reference Working Group: preparation and release of the antenna pattern

Progress since last AM Meeting (Dec 2019)

- In 2019 the repro3 ANTEX file including multi-GNSS (and multi-frequency) calibrations released with pre-launch satellite chamber calibrations.
- Igs14.atx update in 2021:
 - 10 new multi-GNSS receiver antenna calibrations (robot)
 - 2 new GPS/GLO receiver antenna calibrations (copied)
→ all received calibrations include all frequencies
 - One new QZSS satellite with calibrated antenna pattern added

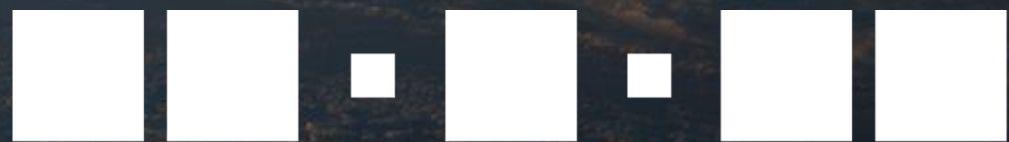
Progress since last AM Meeting (Dec 2019)

- Working on a Guideline on how to become an IGS approved receiver antenna calibration facility:
 - Guideline for facilities who want to contribute to the IGS
 - Indicating expected accuracies and tests
 - They are not strict rules but a guideline



Future Work

- Encourage the calibration centers to start a dedicated validation campaign “ring-calibration”. Status update at the next IGS Workshop 2022. (start in 2021)
- Creation of an updated ANTEX format 2.0 (separating satellite metadata and antenna calibrations). (currently forming a small group to prepare a first draft)



IGS

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Thank You!

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