



IGS

IGS Analysis Centre Workshop Potsdam - 2019



UAW IGS reps: Oct 2 – 4

- Benjamin M, Tim Springer, Rolf Dach, Felix Personaz , Mayra Oyola
- IGS-ACC rep to be confirmed
- Potentially Arturo Villiger

Timeline

- End of April: Attitude format example from Sylvain FES2014c coefficients
- End of April notification on availability of gspm for glonass
- End of April test upload location (IGN) provide a google sheets
- May 31 : Nadir dependent variations for GPS+GLONASS, robot + chamber calibrations for GNSS, Glonass offset comparison with Florian D
- PR to give PCO estimation for new sat from repro2
- Decision on HF EOP from WG June 1 no later
- June 1 HF EOF TVG decision
- June 9: NEW ANTEX released + preference list
- July 29th: GPS, GLONASS, Galileo Processing 2017 and 2018
- August 19: Combination Analysis/Results check ANTEX consistency
- August 26: Final ANTEX + reference frame update
- September 8: 2014 System Test finished (2 weeks) provide modelling updates in google excel
- September 23: Results checked, Repro3 begins
- 2020 March 1: Repro3 1994 – 2019 ACs solutions due
- 2020 August: Switch to repro3 standards for operational products
- 2020 Sept: repro3 2020 solutions due

Orbit Modelling - SRP

Satellite Type	Minimum modelling	Preferred (philosophical)
GPS IIA	ECOM-2,GPSM-Rock	Box wing + empirical
GPS IIF	ECOM-1,GPSM-Rock	“
GPS IIR	ECOM-2,GPSM-Rock	“
GPS III	ECOM-2,GPSM-Rock	“
GLONASS	ECOM 1 GSPM for glonass from JPL	“
Galileo	ECOM 2	“

Orbit Modelling

- Earth Albedo – same as repro2
 - Antenna thrust – values as stated in SINEX metadata file
 - Daily arcs are no longer mandatory
 - Recommended: Coordinates and ERPs must be within the day boundary
- Galileo eccentric satellite orbits need to be provided at 5 minute intervals

Recommendation to HF-EOP WG

- No strong evidence that Desai-Sibois or Gipson are superior when applied to GPS
- Preference for Desai-Sibois as this has been derived from an external source .

System Testing - Qualification

- 2014 – has a good mix of IIA, IIF, IIR
- confirm HF-EOP has been applied
- Confirm linear mean-pole has been applied
- GLONASS – time variable PCO values
- Check quality of clocks
- Provide Attitude in orbex format

Ionosphere

Ionosphere	
Mandatory	2 nd order Effects
Try it out	Use GIM from CODE (homogeneous product) to help correct for higher order terms for the early periods
Biases	
Recommendation	Use accumulated biases provided by Stefan on CODEs ftp server Estimating your own biases is fine (IFLC and L1 C1W9) but they need to be provided

Troposphere

- Tropo SINEX 2 please
- 7 degree or lower elevation please
- ZTD + gradients please.
- Start and stop on 0h00 and 24h00
- GPT2 or more modern
- Minimum of 1 hour, prefer 5 minutes (extraction of)

TVG/Tides

- Awaiting response from IDS, ILRS can you agree on the lower order values
- Current preference for ILRS model
- What is the parametrisation on C(2,0) going to be?

Tidal

Something more modern the FES2004

- Clarify access to FES2014c (for non-Europeans)
- Goto4p8convdelta+opole_30.txt

Workshop

- MGEX combination – keep going collaborate with GFZ
- Combined clock is E1-E5a with biases provided for others
- Beidou needs to be resolved with clock working group needs to be resolved by MGEX or clock WG
- Attitude info in ORBEX ITRF to body-frame

RINEX 3

- Recommendation to IC
 - Acs no longer need RINEX2 duplicate files
 - Antennas check the consistency of the receiver antennas for GPS and galileo and correct if necessary
 - Ask for attitude quaternions from providers
latency is fine

Workshop Feedback