CNES/CLS AC SATUS

Hugues Capdeville, Jean-Michel Lemoine,
Adrien Mezerette
CNES/CLS AC (GRG)

IDS AWG meeting, London 23-24 May 2017

CNES/CLS AC STATUS

Status of the routine DORIS data processing

•We processed DORIS2.2 data with 3.5-day arcs and a cut-off angle of 12° until Dec. 2016
ITRF2014 configuration
Satellites: JASON-2, CRYOSAT2, HY-2A, SARAL
•We provided SINEX to CC until 2016 360

Last studies done by CNES/CLS AC

• Impact of the South Atlantic Anomaly effect on the station position estimation of the last DORIS satellites
• Precise orbit determination and station position estimation status on Jason-3 and Sentinel-3A
• Impact of the low elevation measurements on the DORIS scale factor and on the station position estimation
• Evaluation of 2014 TRF solutions in DORIS orbit
• Evaluation of DPOD2014 solution in DORIS orbit

PERSPECTIVES

For the next delivery to CC:

- Introduction of Jason-3 and Sentinel-3A in the GRG DORIS processing
- DORIS RINEX data processing for all satellites (GRG pre-processing)
- Switch to the ITRF/DPOD2014
- DORIS-only orbits processing and evaluation by SLR processing
- Strategy to minimize the SAA impact on the positioning will be applied for Jason-2 and Jason-3

Next studies:

- Adjustment of Frequency bias+drift for satellites impacted by SAA effect (Jason-3)
- Using of quaternions and angle panels for Jason-2 (spectral analysis)
- Provide to IDS CC a multi-satellite solution by applying strategy to minimize the SAA impact
- Provide to IDS CC a multi-satellite solution determined from DORIS2.2 data by using GRG pre-processing (reduce scale jump in 2012)
- …