

IDS Report

GGOS Bureau for Networks and Observations Vienna, 26 April 2017

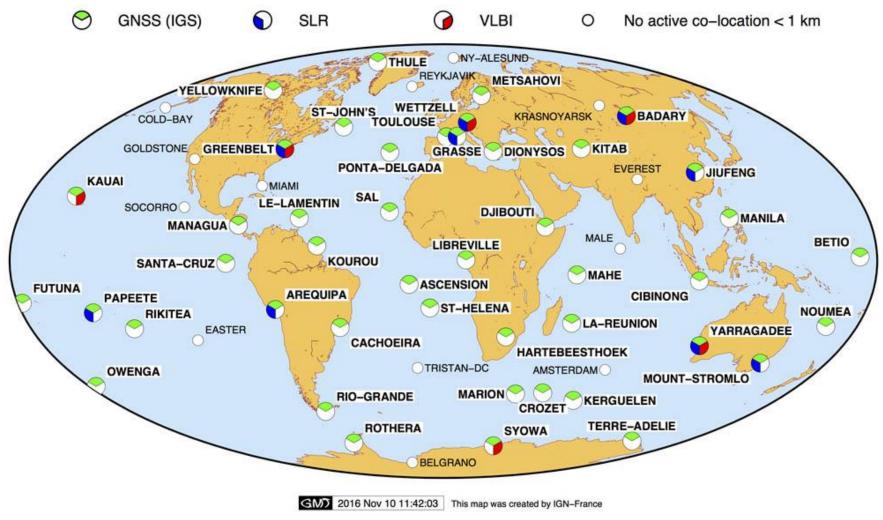
D oppler
O rbitography
and R adiopositioning
I ntegrated
by S atellite

Prepared by JEROME SAUNIER, IGN (IDS representative to GGOS-BNO)

NETWORK STATUS



45 CO-LOCATIONS OUT OF 57 DORIS SITES

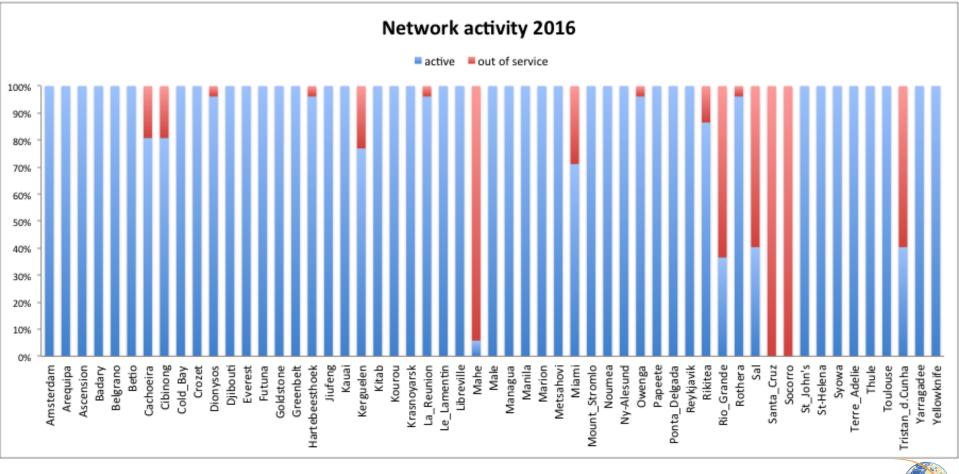


NETWORK STATUS



RELIABLE SERVICE: ANNUAL MEAN OF 89% OF ACTIVE SITES IN 2016

CURRENTLY: 5 STATIONS ARE OUT OF ORDER





IDS

NETWORK EVENTS

RECENT NETWORK EVENTS

- Sep. 2016: new DORIS station at Wettzell observatory becoming a new 4 techniques site
- Feb. 2017: local tie survey at Papeete, Tahiti
- Mar. 2017: reconnaissance and RF compatibility tests at Papenoo, Tahiti, future core site
- Mar. 2017: restarting at Socorro, Mexico (equipment replacement) out of order for a year

Papenoo: potential GGOS Core Site

Budget under consideration; various contributors: CNES, NASA, Observatoire de la Côte d'Azur, Observatoire de Paris, IGN...

Reconnaissance and tests results:

- Complying with the GGOS requirements
- No impact on the Galileo TTCF-6 station located 800m away
- DORIS-VLBI compatibility: -60 dBm from DORIS can be • accepted; that is to say at least 300m between the two instruments; natural barrier or RF shield can provide up to -20 dBm attenuation









RIS

NETWORK EVOLUTION



• SHORT TERM (2017):

- San Juan, AR: new station installing in place of Santiago (3 techniques site)
- Guam, US: new station to near IGS station, GUUG
- Easter Island, Chile: relocating (hosting migration)

LONGER TERM (2018):

- Rothera, Antarctic: station re-location (site refurbishment)
- Ny-Ålesund, Spitzberg, Norway: relocating (new 4 techniques site)
- Katherine, AS: new station installing in place of Port-Moresby (3 techniques site)
- Changchun, CN: new station installing in place of Sakhalinsk (3 techniques site)
- Papenoo, Tahiti, FR: new 4 techniques site

■ 4TH GENERATION DORIS GROUND BEACON

Design detailed review last January; next step: prototype manufacturing





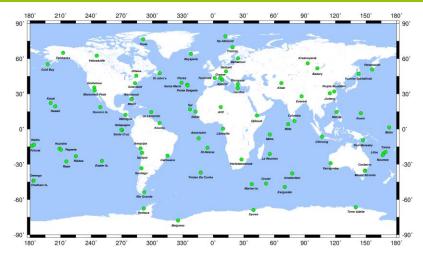
NEW PRODUCTS AT IDS DATA CENTERS

DPOD2014

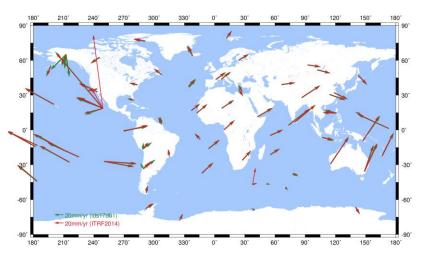
- Extension of ITR2014 for Precise Orbit Determination.
- Performed by the IDS Combination Center.
- Validated by an external group managed by P. Willis
- Mostly based on the latest DORIS position and velocity cumulative solution.
- 2 updates per year ; available in SINEX and text formats.

DORIS cumulative solution ids17d01

- Stacking of the IDS combined series no 12 from 1993.0 to 2016.0.
- Position constraints from the IGN DORIS-to-DORIS ties.
- Continuity velocity constraints.
- Aligned to ITRF2014.
- 4 updates per year ; available in SINEX format only.









IDS NEWS



IDS GOVERNING BOARD

- Frank Lemoine, new Analysis Center representative and new Chair of the IDS GB for 2017-2020
- Petr Stepanek, new IDS representative to the IAG
- New Working Group on NRT DORIS Data (chair: D. Dettmering)

IDS COMMUNICATION

- IDS website redesign (including webservices)
- 3 newsletters already on-line; newsletter#4 in preparation
- IDS Activity Report 2016 in preparation

NEXT IDS MEETINGS

- IDS AWG + GB, in London (UCL), 22-24 May 2017
- IDS Retreat under preparation

