

International Doris Service

# IDS REPORT 2014

*IERS Directing Board Meeting #58*

*Technical University of Vienna, Vienna, Austria*

*April 27, 2014*



## Outline

1. **Satellite Constellation Status.**
2. **Network Status.**
3. **IDS Analysis Summary.**
4. **GB summary.**
5. **Future IDS meetings.**

## DORIS Constellation Status - Current Missions (5)

Satellite	Agencies	Altitude (km)	Inclin.	Dates
<b>DGXX Receiver (7 channels)</b>				
Jason-2	NASA/CNES/ EUMETSAT/NOAA	1336	66°	June 2008 → 2017
Cryosat-2	ESA	717	92°	April 2010 → 2017
HY-2A	CNSA, NSOAS	960	99°	August 2011 → 2014 (AC)
SARAL	ISRO, CNES	800	98.5°	Feb. 2013 →
<b>DGM Receiver (2 channels)</b>				
SPOT-5	CNES	830	98°	May 2002 → 2015.

- **SPOT-4: Decommissioned, June 2013.** (launched 1998)
- **Jason-1: End of mission, July 2013.** (launched Dec. 2001).



## DORIS Constellation Status - Future Missions

Satellite	Agencies	Altitude (km)	Inclin.	Dates
<b>DGXX Receiver (7 channels)</b>				
Sentinel-3A, Sentinel-3B	ESA	814	98.6°	2015, 2017
Jason-3	NASA/CNES/ EUMETSAT/NOAA	1336	66°	2015 → 2020
HY-2B, C, D	CNSA,	960	99°	2014, 2016, 2018 (3 yrs)
Jason-CS A,B	EUMETSAT/NOAA	1336	66°	2019, 2025
SWOT	NASA/CNES	970	78°	2020

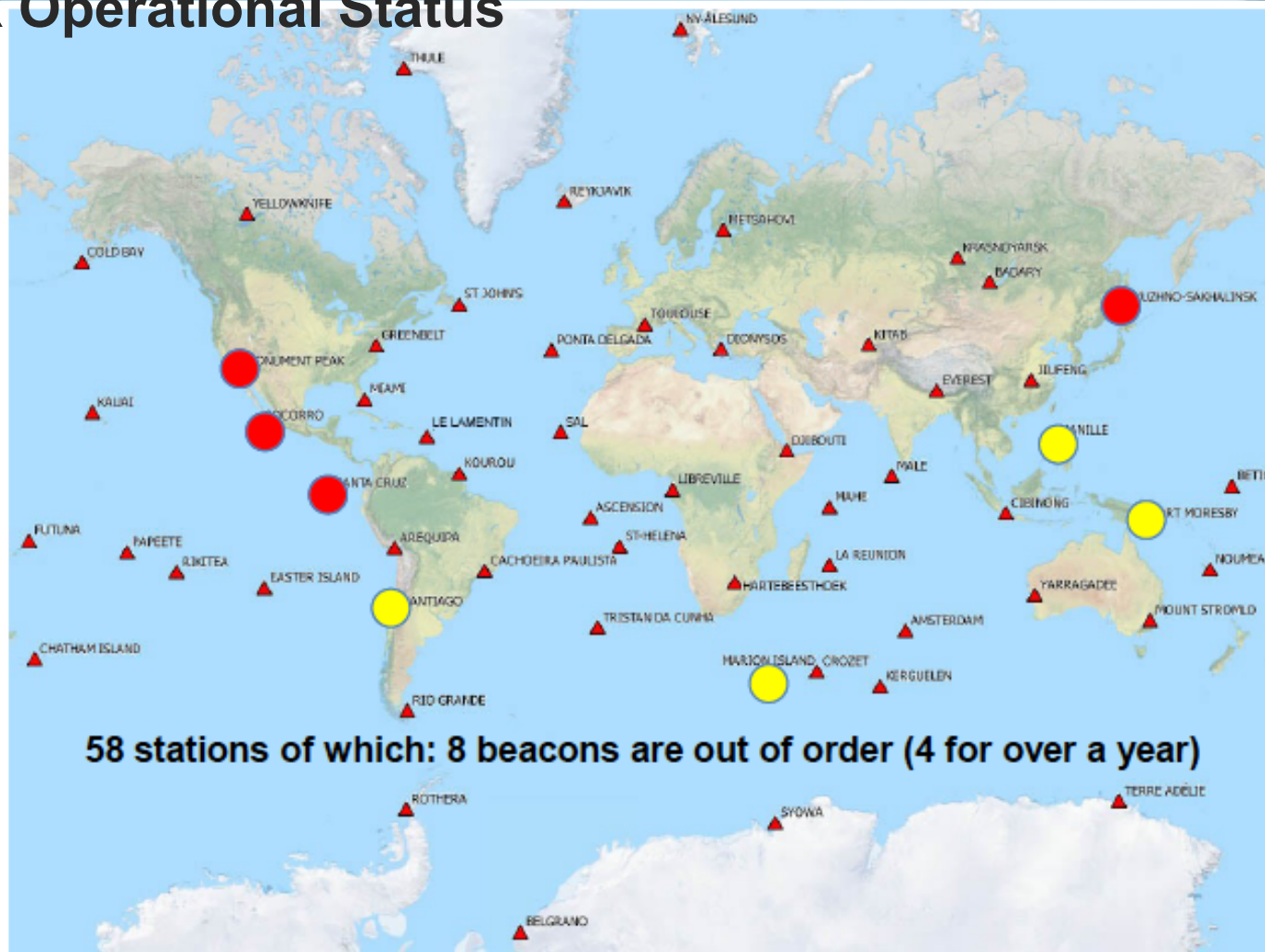


# Current DORIS tracking network (April 2014)



GMD 2014 Mar 24 17:07:29

# Network Operational Status



## Out of order for over a year:

**Yuzno-Sakhalinsk (11/2005); Santa Cruz (06/2009); Socorro (10/2009); Monument Peak (02/2010).**

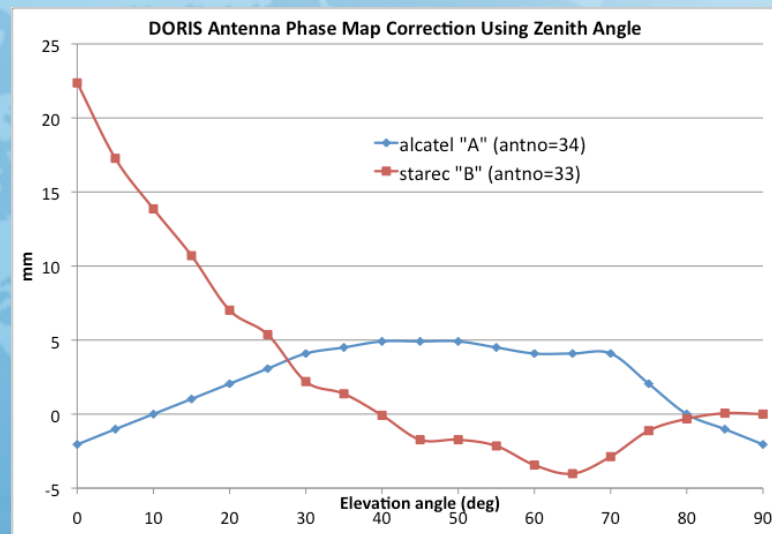
# Network evolution



- **SHORT TERM (Next 6 MONTHS):**
  - **Chatham, NZ:** re-location 18km SE (co-location with new GNSS station).
  - **Kitab, UZ:** major renovation (station re-location to get better visibility).
  - **Socorro, Mex.:** major renovation (station re-location to get better visibility).
- **LONGER TERM:**
  - **Goldstone, CA:** new station in place of Monument Peak.
  - **Miami, FL:** definitive shutdown (interference with mobile-TV relays).
  - **Managua, Nicaragua:** new station in place of Miami.
  - **Chichijima & Hokkaido, JA:** new stations waiting for frequency clearance.
  - **Easter Island (Chile).** Relocate to near IGS station, ISPA.
  - **Port-Moresby, PNG:** site to be closed. New location in Australia? Weipa or Katherine.
  - **Santiago:** site to be closed. Move to San Juan, Argentina?
- **IDS projects:**
  - **Sejong, Korea:** Removed from consideration. Not a true 4 technique site.
  - **Guam, US:** Planning underway for new station, near IGS site.
  - **Gavdos, Greece:** IDS GB agrees to decommission site, due to poor performance.
  - **Wettzell:** IDS GB agrees to beacon deployment (new 4 technique site)

# DORIS Ground Antenna Characterization (1/1)

- Updated Starec antenna phase law provided by CNES to DORIS Analysis Centers for use in ITRF2013; Separate phase law provided for Alcatel antenna.
- Starec antenna phase variations were measured in anechoic chamber by CNES – following request of IDS GB & the IERS.
- All ACs have successfully implemented the phase law in their software (as of April 2014).





# Analysis Update

1. **Six active DORIS analysis centers (ESA, GOP, GSC IGN, INA, LCA). GFZ requested status of Associate Analysis Center. After examination of ToR, ToR will need to be modified to allow for AACs.**
2. **DORIS ACs routinely submit SINEX solutions each quarter (e.g. 3/30, 6/30, 9/30, 12/30) which are now processed by IDS Combination Center.**
3. **ITRF2013: Contributions of Analysis Centers for ITRF2013 have been validated. As of April 27, 2014, all ACs have completed their submissions.**
4. **ITRF2013: IDS CC has prepared a V0 IDS combination; V0 = those AC contributions available ~4/15/2014. A V1 IDS Combination will be prepared after the EGU. A final V2 IDS Combination will be prepared to implement any last fixes.**
5. **Analysis Working Group meetings in Washington DC (October 2013), Paris (March 2014). DORIS Special Issue Planned (Adv. Space Research). Proposed co-editors (F. Lemoine and EJO Schrama). Follow-on to special issue in Adv. Space Res (2010).**
7. **IDS Workshop, scheduled for Konstanz, Germany, in conjunction with Ocean Surface Topography Science Team meeting (October 27-31, 2014)**

# Curent IDS Governing Board

Name	Institution	Country	Mandate
Richard Biancale	CNES	France	Member at large
Pascale Ferrage	CNES	France	System representative
Frank Lemoine	GSFC	USA	Analysis Coordinator
Brian Luzum	USNO	USA	IERS representative
Guilhem Moreaux	CLS	France	Combination Center representative
Carey Noll	GSFC	USA	Data flow Coordinator
Michiel Otten	ESOC	Germany	IAG representative
John Ries	U. Texas/CSR	USA	Member at large
Jérôme Saunier	IGN	France	Network representative
Laurent Soudarin	CLS	France	Director IDS Central Bureau
Pascal Willis (chair)	IGN/IPGP	France	Analysis Center representative

## IDS Representatives to External Entities

IDS Representative to IAG	Pascal Willis
IDS Representatives to the IERS	Frank Lemoine, Jérôme Saunier
IDS Delegate to the GGOS Steering Committee	Pascal Willis; <u>Alternate</u> . F. Lemoine
IDS Rep. to the GGOS Consortium	Pascal Willis; <u>Alternate</u> . L. Soudarin

# Next IDS Meetings

**IDS Workshop, (in tandem with OSTST, Konstanz, Germany) October 27-28 2014.**

**IDW AWG, early 2015. Location TBD.** One major topic will be assuring that all AC's can process DORIS/RINEX data, as for Jason-3, Sentinel3A, - data only available in that format.

<http://ids-doris.org>

