

# DORIS status

**F. Lemoine (NASA/GSFC)**



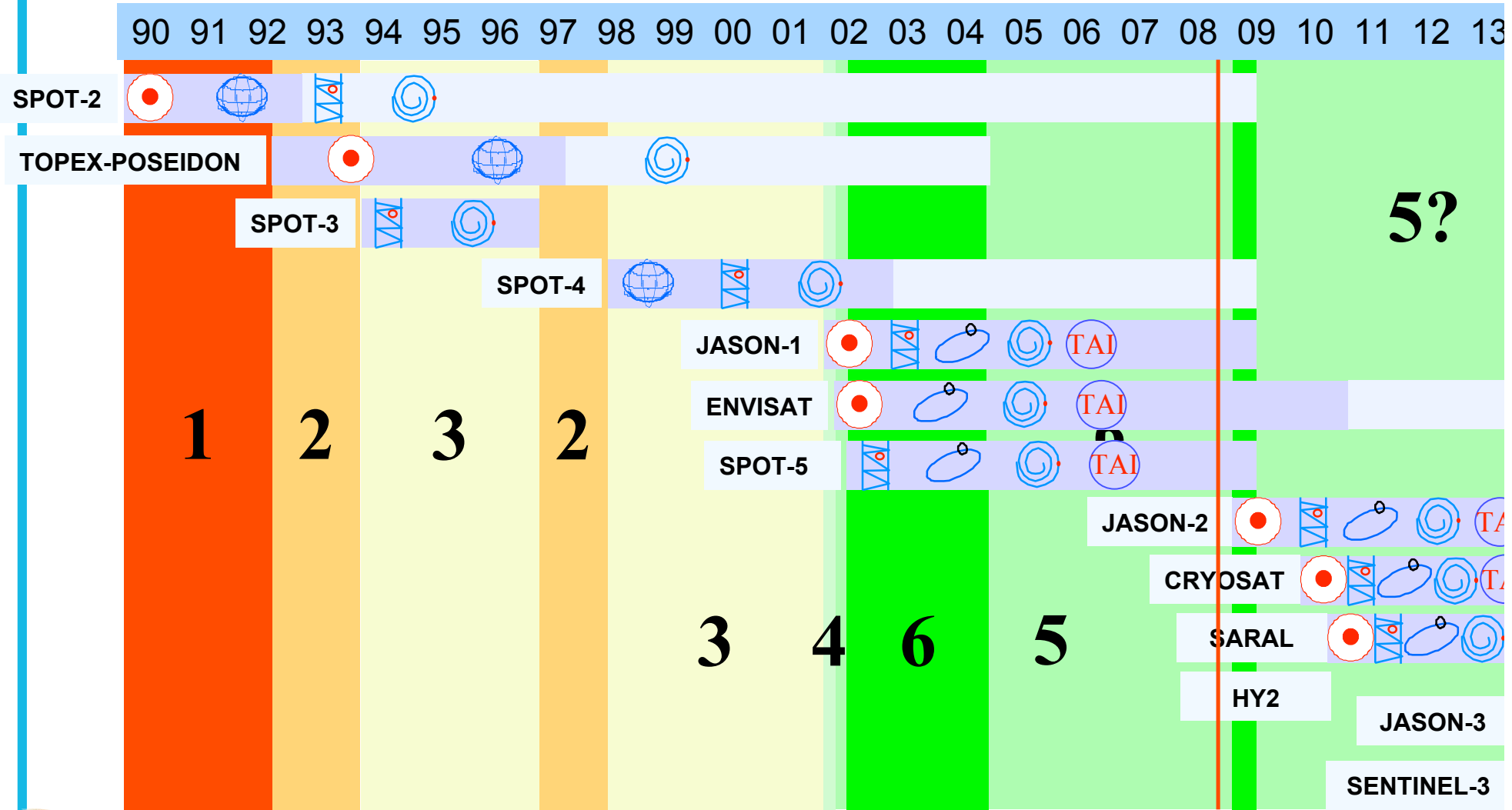
-Flawless launch from VAFB, June 20, 2008, at ~00:40 PDT.

-With the Jason-2 launch, the number of usable DORIS satellites for EOP & Station Positioning Determination is now five (instead of four).

# Future Missions

- ➔ **CryoSat-2 (ESA)**
  - Late 2009
  
- ➔ **SARAL/Alti-KA (CNES/ISRO) - Remains on schedule for ~2010.**
  
- ➔ **Hy2 (CNSA/CNES)**
  - June 2010?
  
- ➔ **SENTINEL 3 (ESA)**
  - November 2012
  
- ➔ **Jason-3 (NOAA/EUMETSAT/CNES/NASA)**
  - End 2012?? Funding debates between ESA & these entities makes the continuity of this mission uncertain at present. Politics seems to be threatening the continuity of the TOPEX/Jason-1/Jason-2 altimetric time series. Hopefully these issues will be resolved.

# IDS tomorrow: Satellites



# Possible Missions

- ➔ **CEMIT (NASA Small Explorer program)**
  - Dallas and Colorado universities proposal: spatial environment (iono)
  - Possible CNES proposal for DORIS + accelerometers: thermosphere
  - Accelerometers beyond CHAMP and GRACE: 2012?
  
- ➔ **EarthCARE (ESA)**
  - DORIS + GPS - 2013? 3+ years
  
- ➔ **GRASP (Y. Bar Sever - JPL)**
  - On-board colocation (SLR + DORIS + GPS + VLBI)

# Analysis Activities

## ➤ IDS Analysis Working Group Meetings, Workshop

- ◆ March 13-14, 2008, AWG (Paris)
- ◆ June 5-6, 2008, AWG (Paris)
- ◆ November 12-14, 2008 Workshop (Nice)

## ➤ New Analysis Centers are now participating in DORIS analyses.

=> **IGN (Pascal Willis), LCA (Laurent Soudarin & colleagues); INASAN (Sergei Kuzin) (were previous AC's that submitted to ITRF2005)**

**1. GOP - Geodetic Observatory Pecny (Petr Stepanek), is new analysis center using BERNESE.**

**2. ESA - (ESOC, European Space Operations Center) (Michiel Otten).**

**3. GAU - Geoscience Australia (Ramesh Govind) has submitted an IDS SINEX series (2003-2008), using NASA/GEODYN software.**

**4. UNC - University of Newcastle (Phil Moore). SINEX series under testing.**

**5. GSC - NASA GSFC will also submit a solution to the IDS - as a normal equation - whereas GAU will submit a SINEX solution (covariance matrix).**

## Analysis Activities

- ➔ Combination Center is CLS (Toulouse) with Jean-Jacques Valette.

## Renewal of Governing Board

- ➔ Gilles Tavernier (CNES) has moved to a new post at the CNES (outreach)
- ➔ Pascale Ferrage ([Pascale.Ferrage@cnes.fr](mailto:Pascale.Ferrage@cnes.fr)), replacement designated by CNES.
- ➔ The steps to renew the GB have nearly been completed: **Re-elected by peers:** (Carey Noll; Pascal Willis); **Elected by GB** (*Herve Fagard, Pascale Ferrage, John Ries, F. Lemoine*); **The follow members were appointed by IAG and IERS; IAG Rep.:** (Michiel Otten, ESA). **IERS Rep.** *Ron Noomen* .
- ➔ **GB Chairman:** - To be completed by email by the New Year.

## IDS ITRF2008 Status (1)

- ➔ 1. As a group we feel the schedule (Delivery of Combined and Validated Product by January 2009) will be a challenge.
- ➔ 2. Summary of Progress and Plans of AC's:
  - IGN & LCA, will likely have a full series (1993-2008) by early 2008.
  - LCA - must handle atmospheric loading in its time series.
  - GOP - Will have reprocessed all the 1998-2008 by mid-January deadline.
  - INA - experienced a set back - had to go back to reanalyze data with elevation cutoff - and some other enhancements that had not been included. New series submitted by Sergei week of AGU.
  - GAU - SINEX delivery from 2003-2008 has been completed; Preliminary validation completed.
  - ESA - Delivery of a validated series by early 2008 for 1998-2008 is a reasonable goal;
  - NCL- SINEX files still need to be validated; Orbit comparisons look reasonable.

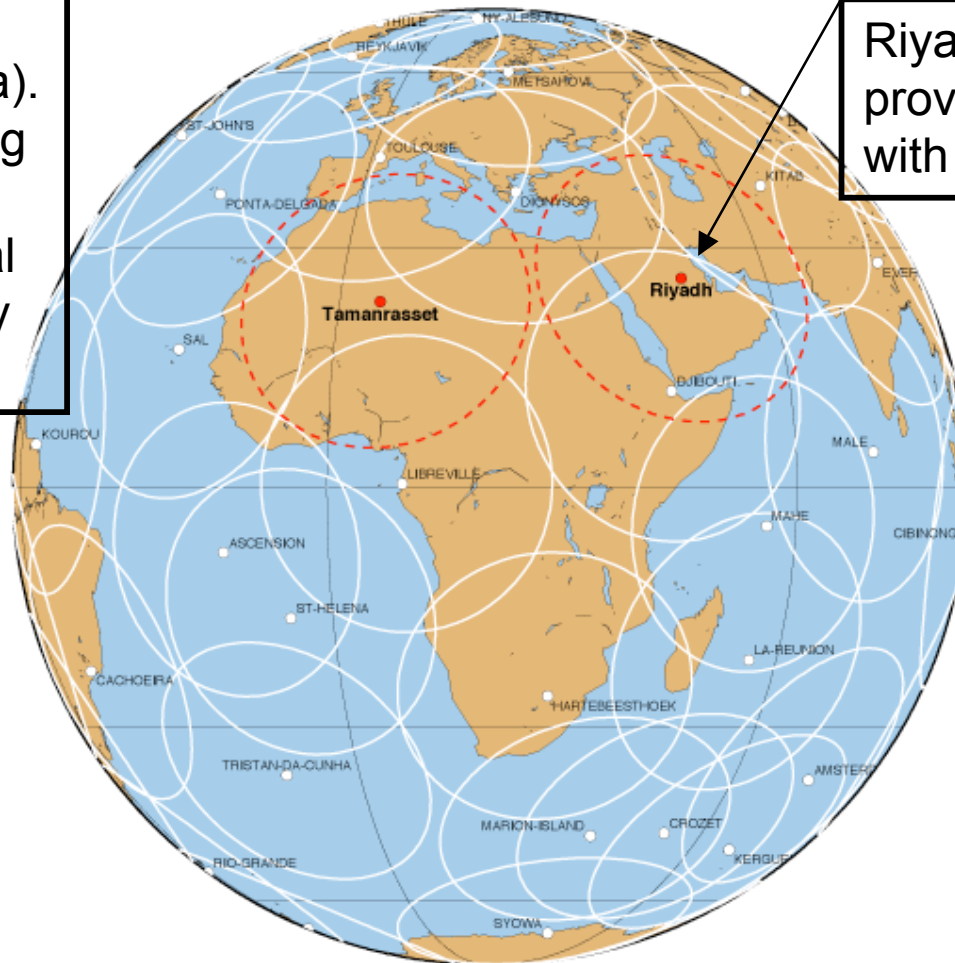


## DORIS Special Issue

- Will include some papers from the November workshop, but other contributions will be solicited.
- We considered but rejected using Journal of Geodesy for this special issue - since they imposed unacceptable conditions.
- The journal “Advances in Space Research” has agreed to host the special issue. Pascal Willis will be guest editor, and as before all papers will face peer review with 3-4 reviews per paper.
- Submissions will be open from February - May 2009.

## New DORIS Stations

Need clarification for Tamanrasset (Algeria). Groundwater pumping apparently causing subsidence of several cm/year; GPS nearby is not part of IGS.



Riyadh station provides colocation with SLR;

## Relocation of Fairbanks Station

- ➔ **Need to relocate the DORIS station - since the facility at Fairbanks is no longer available due to closure of VLBI and building housing equipment by the host agency;**
- ➔ **A new station further to the South - in the Aleutians - would fill in coverage; However logistical site constraints have so far prevented us from finding a suitable site; Adak was under consideration for a while - but this did not work out.**
- ➔ **A new possible candidate site is Cold Bay is being considered by Herve Fagard. We would need assistance or advice from NOAA (possibly Dru Smith?) to take action on this recommendation.**