

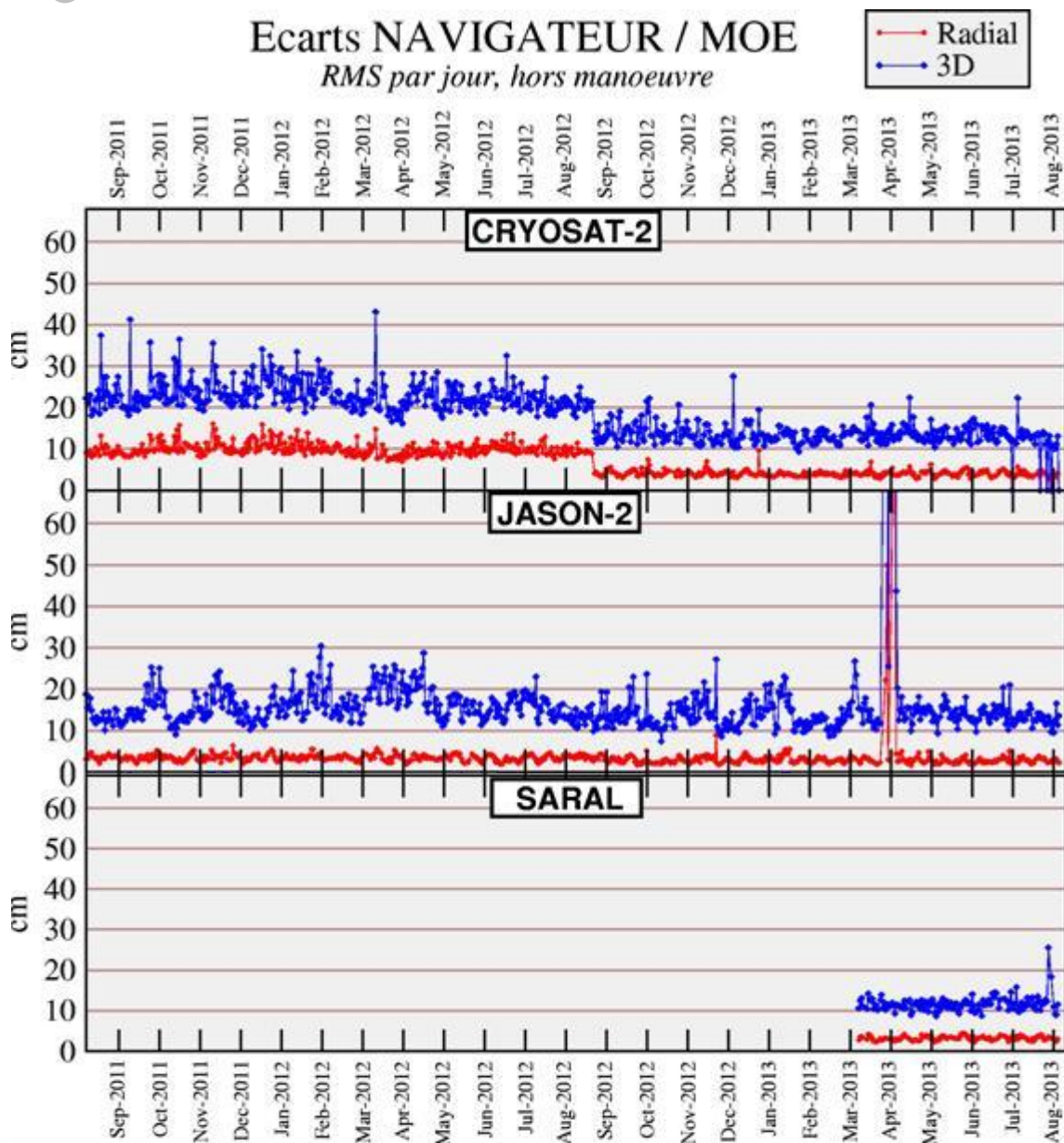
DORIS-DIODE (AND TRIODE) RESULTS

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GENERAL POINTS

- System permanent survey by DORIS Integrity Team
- DORIS time restitution (O.B.T –TAI) : nothing new, everything OK :
 - ◆ Time restitution accuracy should be 1 or 2 microseconds (as on-board Jason-2)
- 100% availability and integrity of DIODE R-T positions
- Update of on-board parameters successfully done (and checked by memory dump) => Monday, 2013/06/03 12:44:24
 - ◆ impact was expected to be below the noise level (1 or 2 millimeters w.r.t. 3 cm)
=> no visible improvement for the moment (as expected)

DIODE BEHAVIOUR - ROUTINE



- Same DIODE version on-board Jason-2 and Cryosat-2

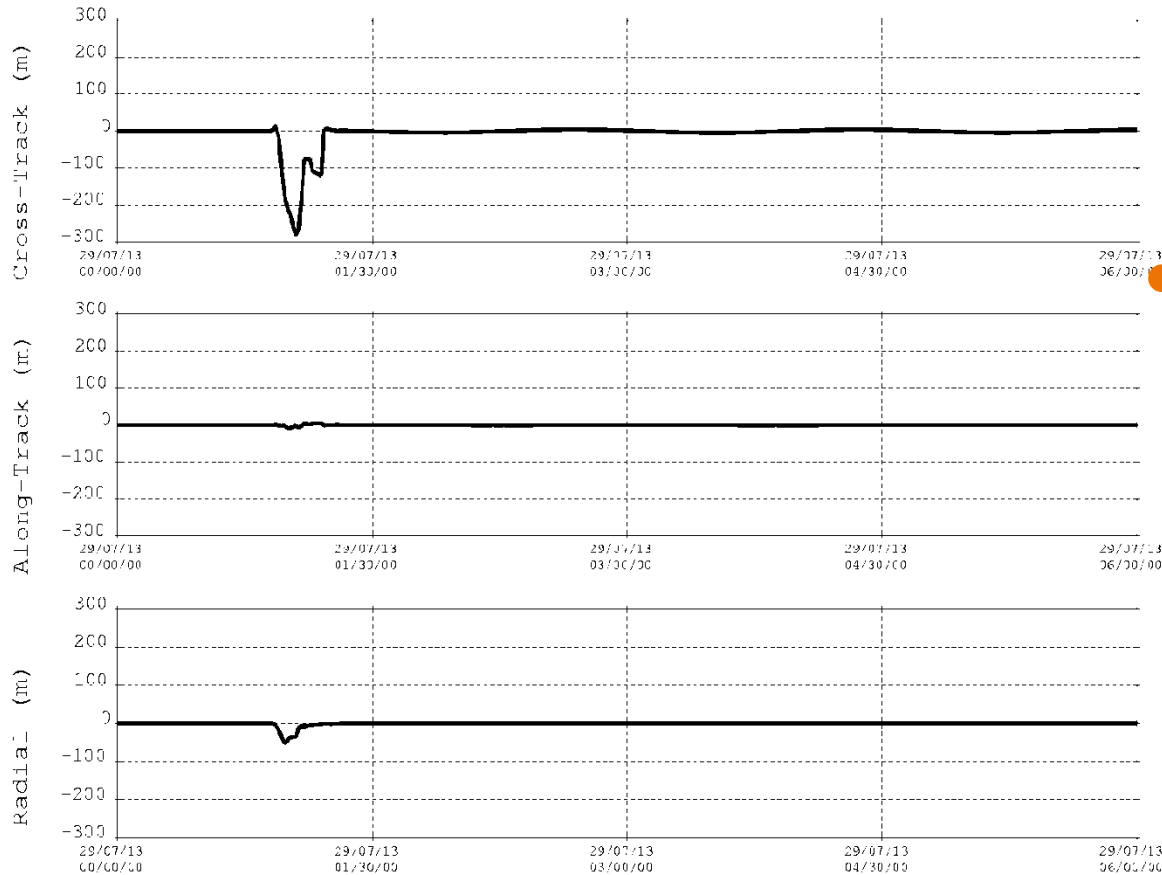
- Comparison DIODE // MOE (meters) checked everyday by P. Yaya

**Radial RMS
≈ 3.3 cm**

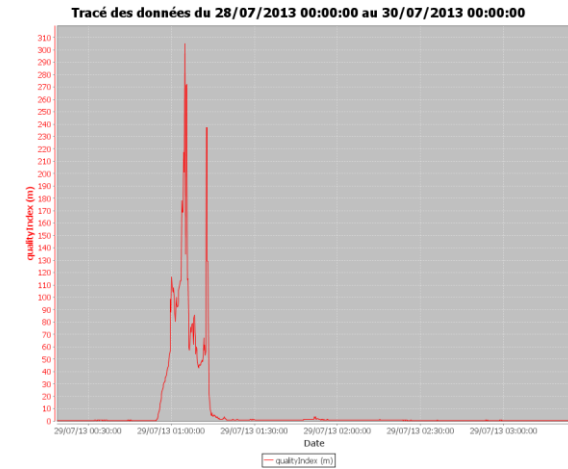
- Accuracy is convenient for OGDR products

DIODE BEHAVIOUR – INCLINATION MANOEUVRE

DIODE bord // MOE SARAL 29/07/2013

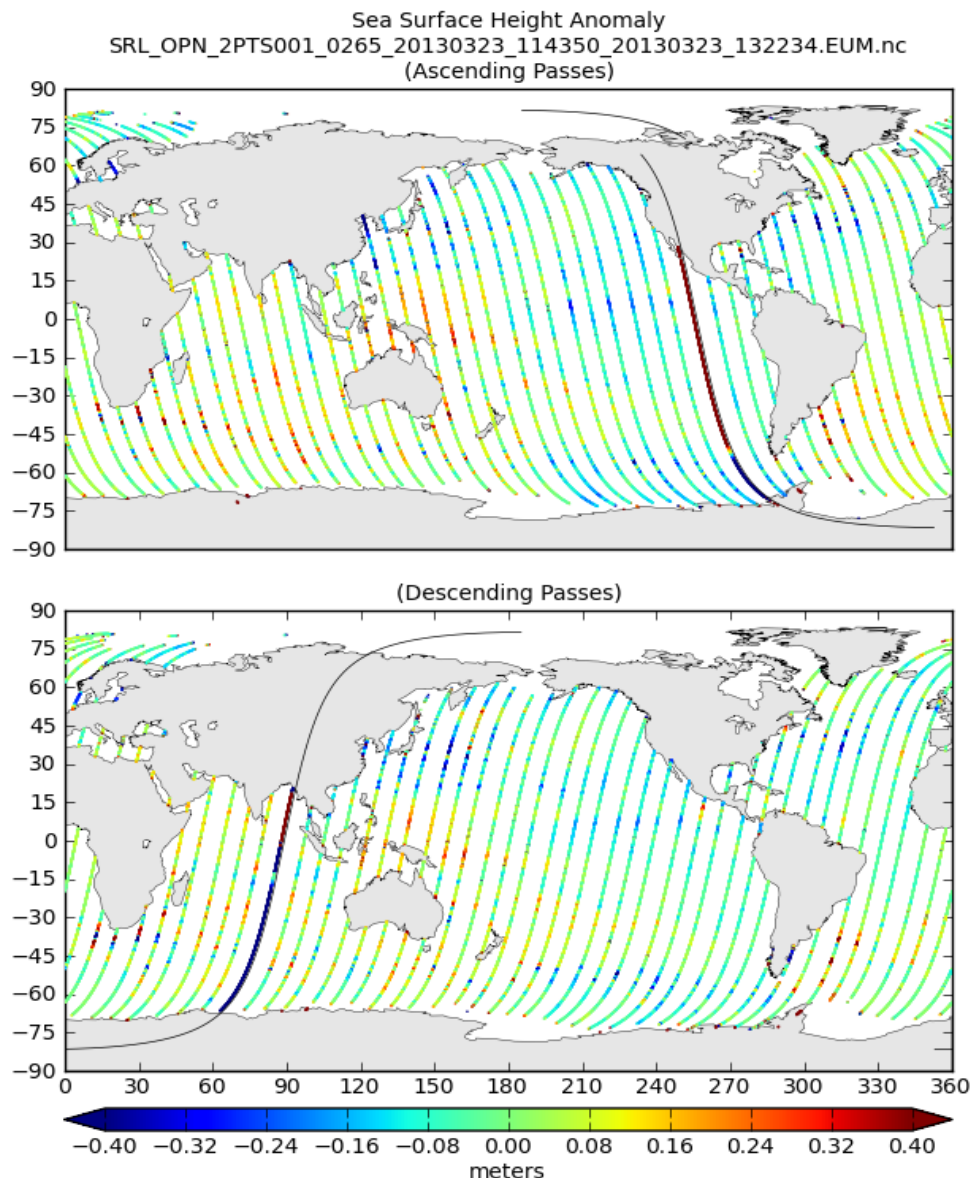


- Maneuver TCH indicates 3.155 m/sec, while actual maneuver is estimated 4.487 m/sec
- Maneuver properly handled by DIODE anyway



- Quality index < 2m after less than 1 hour

DIODE BEHAVIOUR – ALONG-TRACK MANOEUVERS



Along-Track Maneuvers
only impact ONE OGDR
in routine

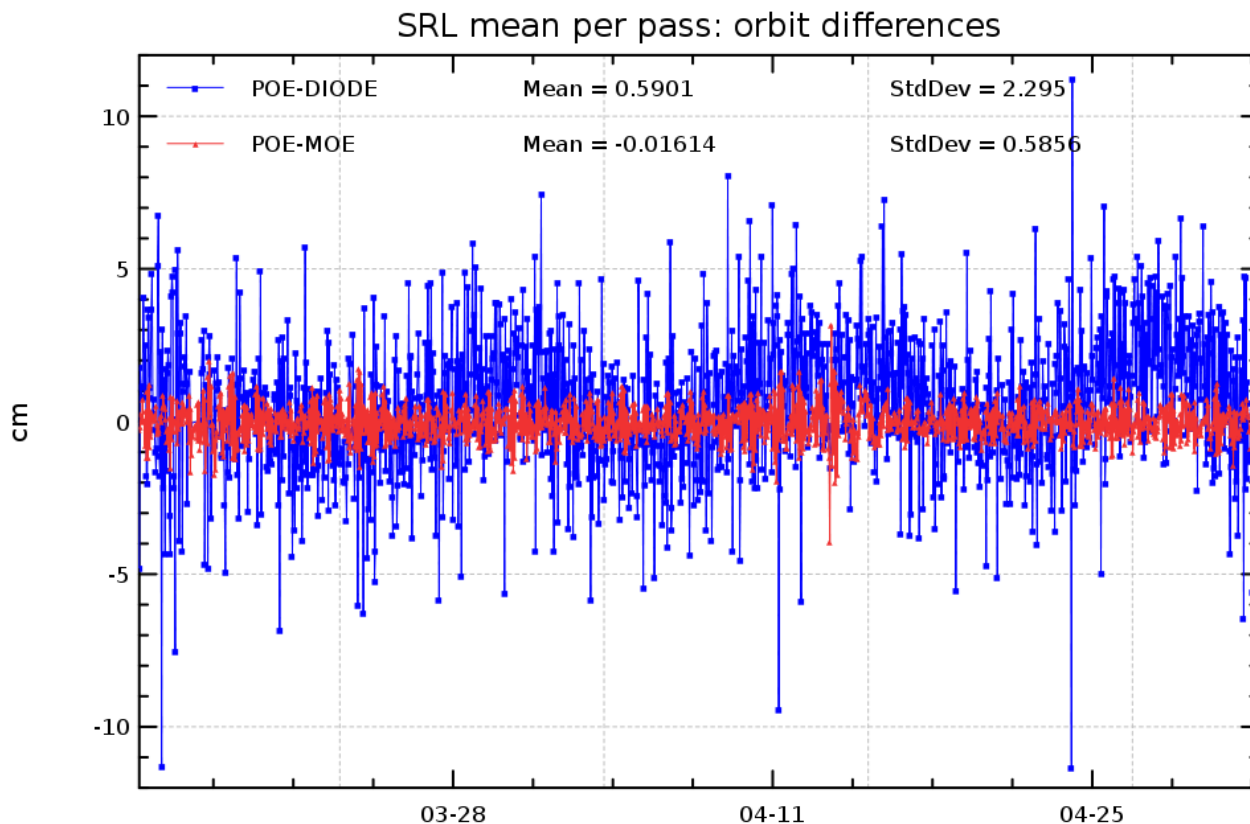
(here, March 23rd)

(exceptionnaly TWO
OGDRs on June 24th)

● (Courtesy J. Lillibridge)

TRIODE EVOLUTION

Following a remark by S. Philipps



OGDR orbits
show a small
signature :
2 centimeters,
@15 days period

First verification :
on-board software
not guilty

This oscillation is also visible in Jason-2 & CryoSat-2 TRIODE results
Correction of an (old) approximation in TRIODE reference system :
=> new TRIODE version will improve Saral-AltiKa, Jason-2 & CryoSat-2 NRT results

SUMMARY OF DORIS-DIODE BEHAVIOUR

- 100% availability and integrity during routine phases
- Radial RMS $\simeq 3.3$ cm : on-board position accuracy OK for OGDR

- Normal behaviour during inclination maneuver (and also during Along-Track maneuvers)

- New TRIODE version : expected in September/October
 - ◆ integration in TM_NRT (and impact on JA2) to be analysed and discussed with relevant partners (EuMetsat, ISRO, NOAA)