

Key Points to be Discussed

1. Jason-2 Extension of Life:

- Discuss the proposed orbits
(see presentation and poster by Gerald Dibarboure)
- Protection of reference & interleaved orbits

2. SARAL/AltiKa

- What is the impact if the SARAL/AltiKa orbit is *not* maintained on the Envisat ground track (drifting)

3. Other topics:

- Jason-1 GDR-E reprocessing
- Impact of Jason-3 launch delay
- Shall we send a recommendation to the COP21
(Paris, Dec 2015)?



Jason-2 Extension of Life

- Some basics, agreed upon with the CNES project manager:
 - The **EoL phase is planned to occur only *after* the interleaved phase**, when the risk of losing control of the satellite becomes high. The chosen orbit will also serve as graveyard orbit.
 - In contrast to Jason-1, **we are not starting from scratch**. Some possibilities were explored, and we should propose the best possible choices to the community, and weighing possibly conflicting priorities: see *Dibarboure et al.*
 - There are **constraints at the project level** that must be taken into consideration: health of the satellite, quantity of propellant remaining, orbit occupied by Jason-1, French space operations act...



Jason-2 Extension of Life

- A compromise between scientific and operational objectives
 - **Geodesy, Altimetric Bathymetry, MSS improvement:**
 - “New global marine gravity model from CryoSat-2 and Jason-1 reveals buried tectonic structure”, Sandwell et al., Science **346** (6205): 65-67, 3-Oct-2014 (and Geoid/MSS poster session)
 - Low inclination Jason orbit provides improved E-W component of gravity field
 - Jason-2 *uncompressed waveforms* should provide additional precision
 - **Operational Oceanography:**
 - Interleaved orbit provides optimal Jason-2 + Jason-3 sampling
 - Non-interleaved EoL orbit will have periods of data redundancy = reduced sampling
 - **Best candidate orbit from Dibarboure study (35 km above the reference orbit):**
 - Orbit: 12+247/401 (sub-cycles: 3, 5, 13, 138, 401 days)
 - Minimizes mesoscale sampling duplication
 - Good geodetic grid
 - **SWOT preparation?**
- The identified needs are addressed by a dedicated J2-EoL team, who will suggest the best possible choice of orbit in coordination with the Jason-2 project team.



SARAL/AltiKa

- Recent problems at the platform level (presented by Thierry Guinle)
 - Bad behavior of the reaction wheels
 - Ground track was drifting from end of March to beginning of August 2015
 - Another way to maintain the tracks is now applied (thrusters)
 - Not sure this situation can be maintained during the whole mission life
 - What impact if SARAL/AltiKa orbit is not maintained in the future on the Envisat ground track (drifting)?



Other items

- **Jason-1 GDR-E**
 - Cycles 1-110 (2002-2004) are available
 - 2005-2008 by the end of October
 - 2009-2013 by the end of November
- **Impact of Jason-3 launch delay**
- **Shall we send a recommendation to the COP21?**
(United Nations Framework Convention on Climate Change, Paris, 30 Nov – 11 Dec 2015)

Round tables for each splinter are organized **Thursday from 14:00 to 15:45**
Plenary discussion and recommendations will take place on **Friday morning**



Possible COP21 Recommendation

Observations of global sea level rise from space chart human caused climate change that is likely irreversible on time scales shorter than hundreds of years in a comprehensive and global way. As such the Ocean Surface Topography Science Team strongly recommends continued monitoring of sea level rise by precision satellite altimetry.

