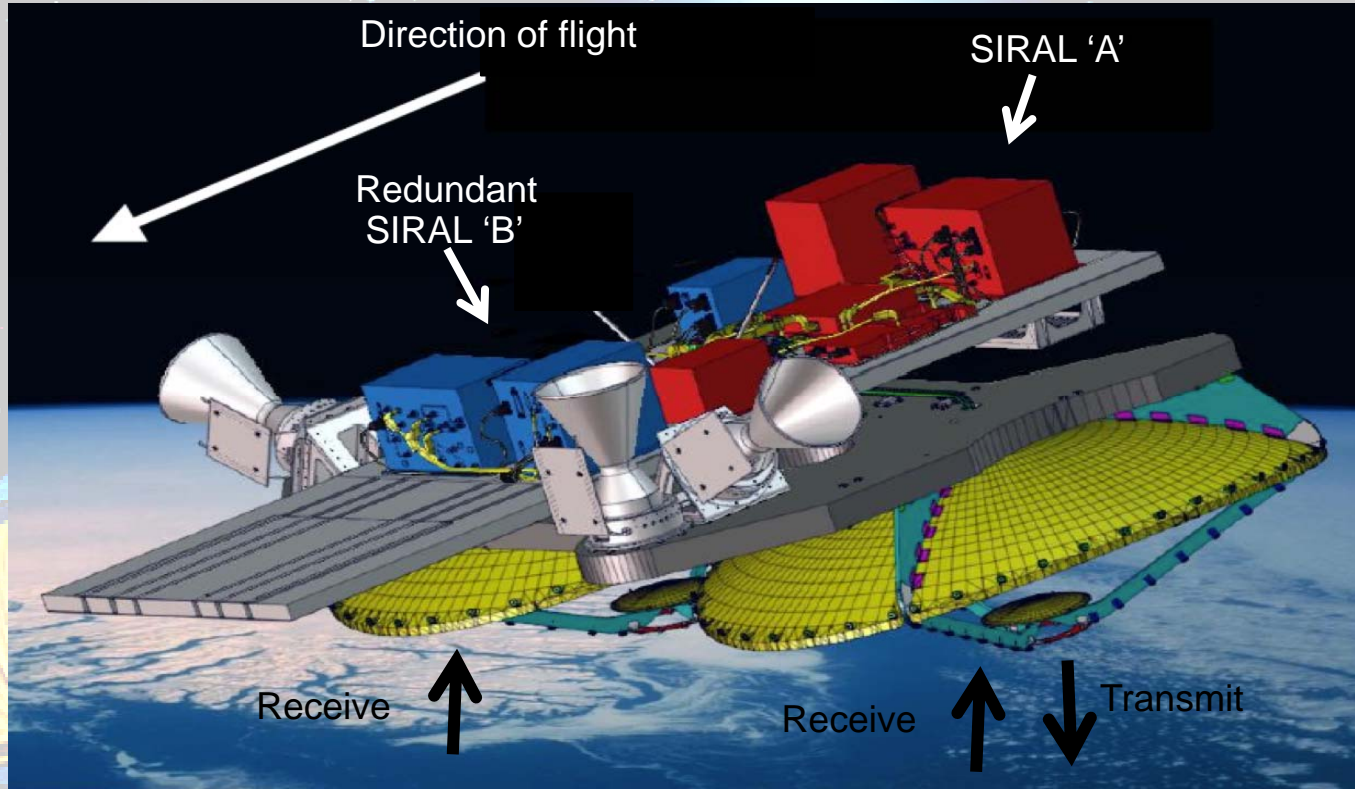




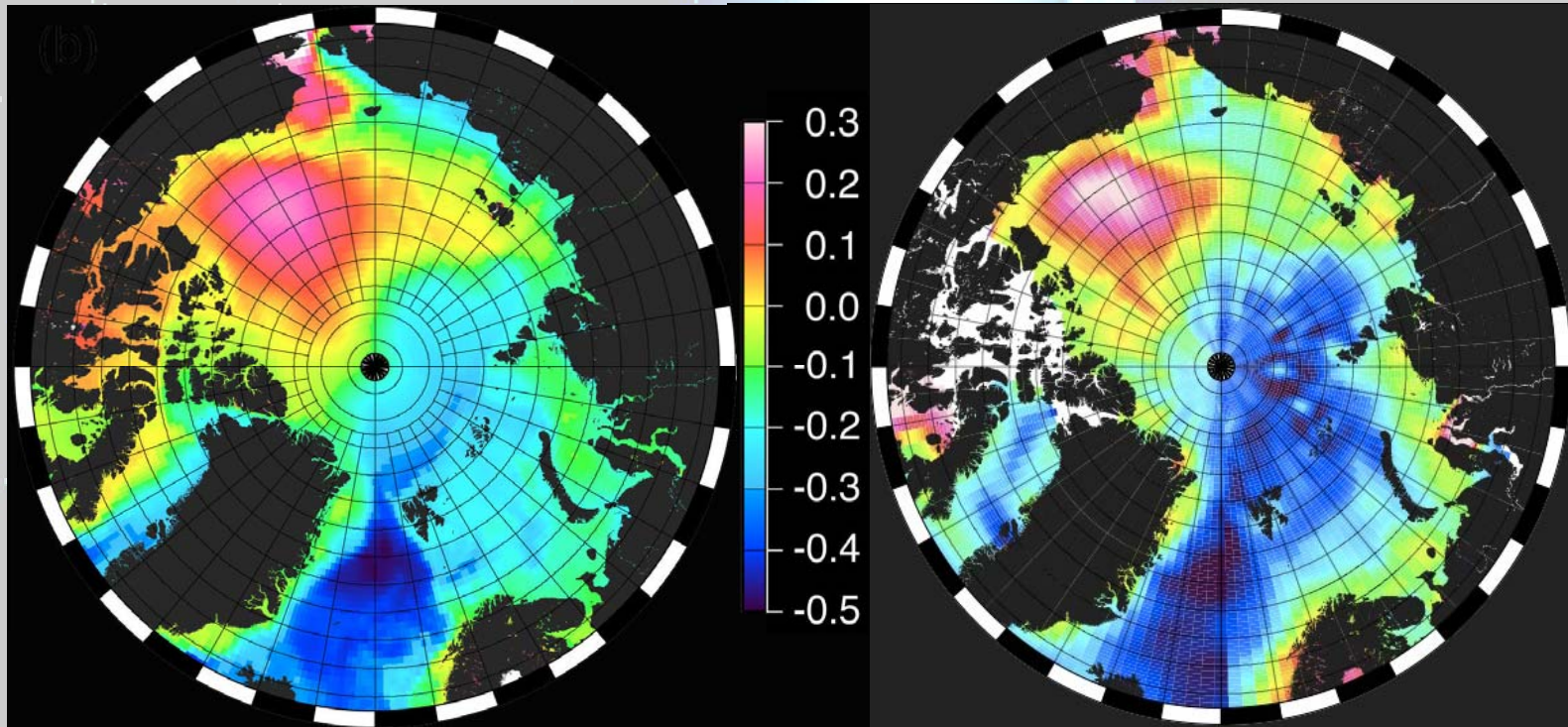
CryoSat-2 mission status and ocean products

***Duncan Wingham
CryoSat Lead Investigator
CPOM, Earth Sciences,
University College London***

The CryoSat-2 Payload.



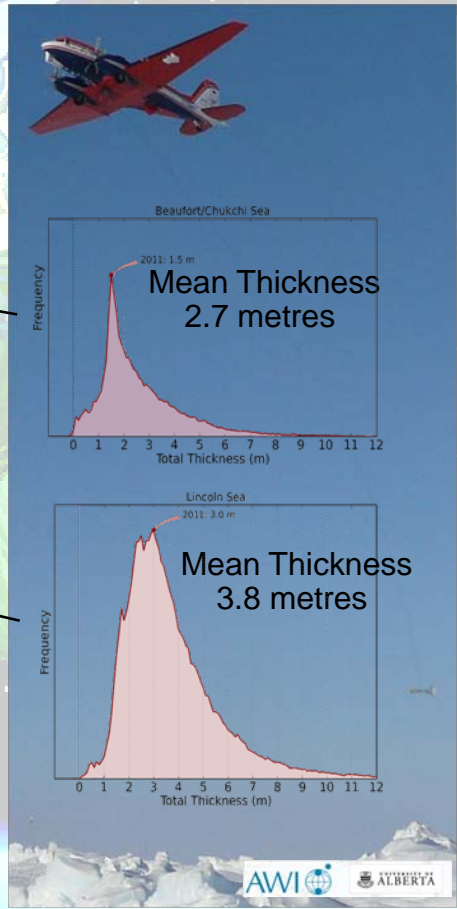
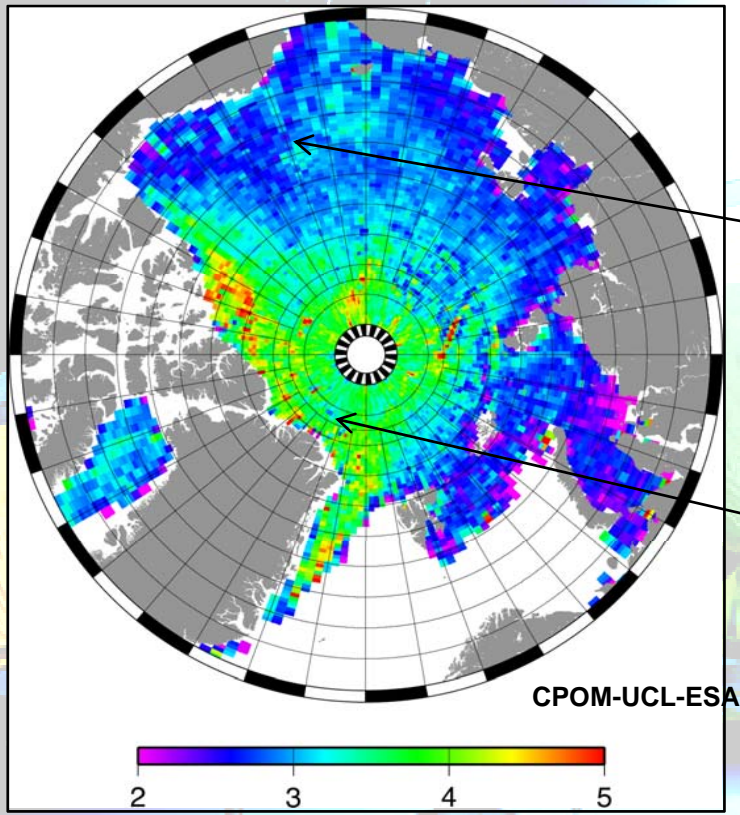
Arctic Dynamic Topography January – February 2011



NERC NOC

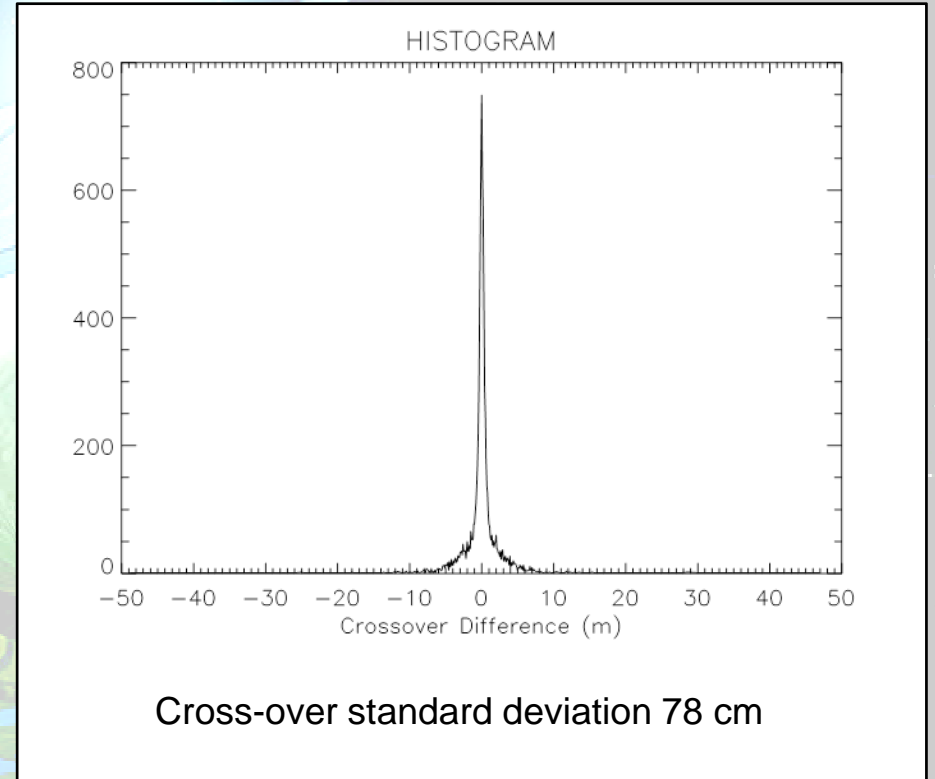
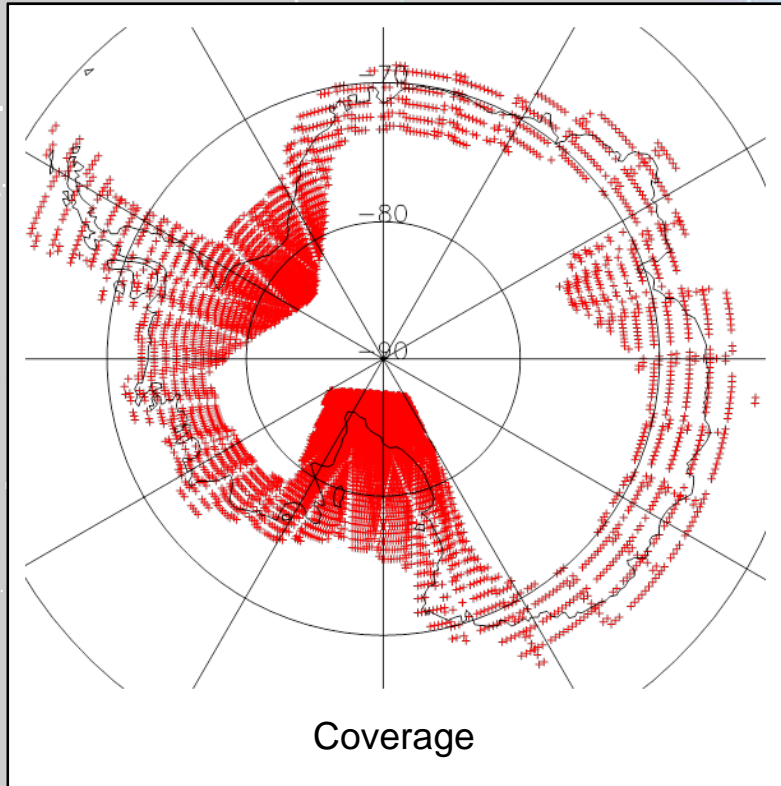
CPOM-UCL-ESA

Arctic sea ice thickness January – February 2011

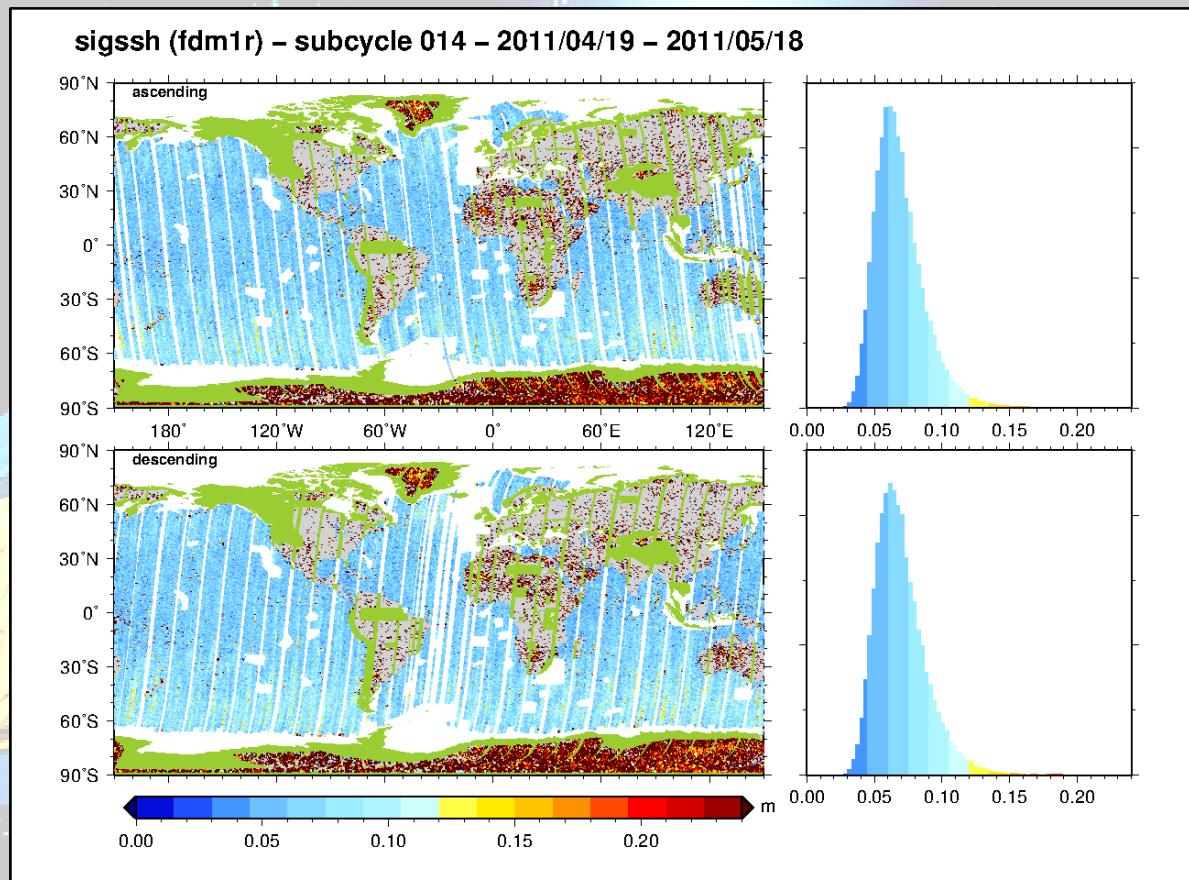


(Courtesy Haas, Hendricks & Eicken)

Antarctic single-sub-cycle cross-overs March 2011



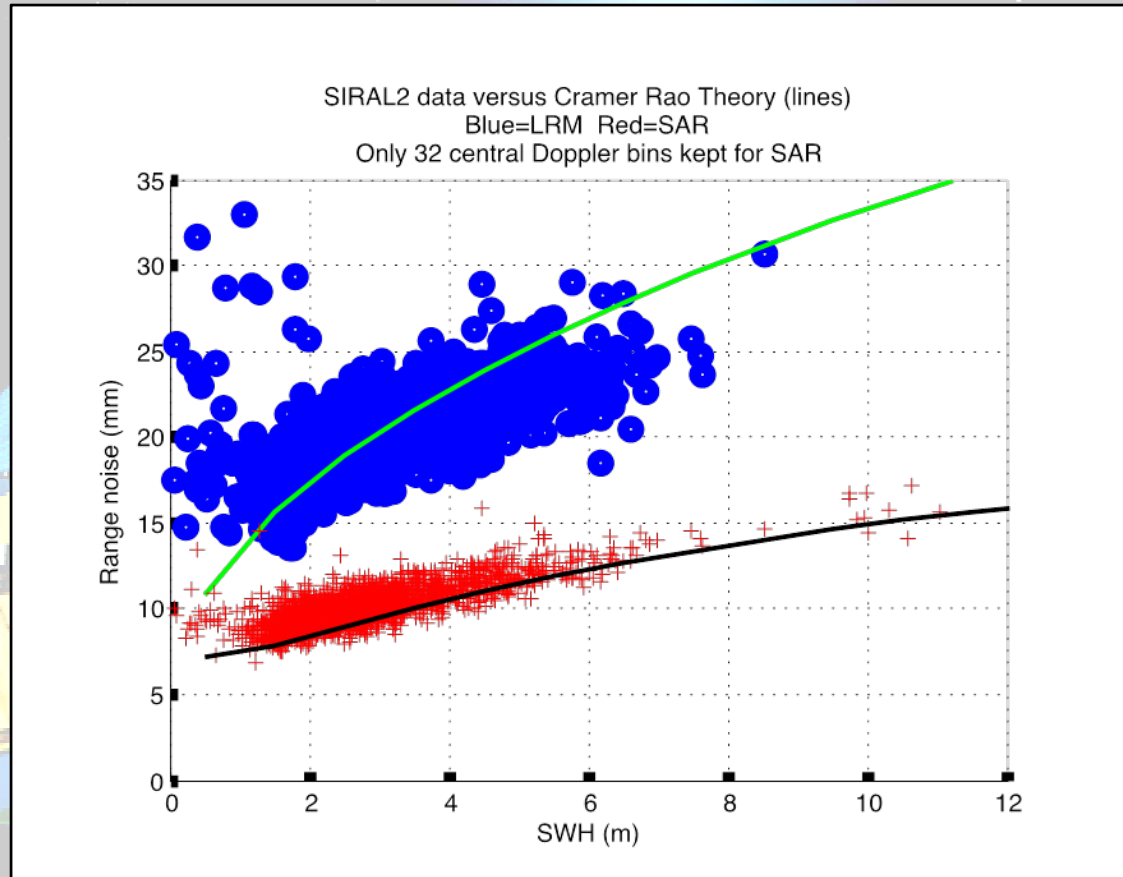
Low resolution mode performance



Range precision ~ 6 cm at 20 Hz.

W.H.F. Smith & R. Scharoo, this meeting

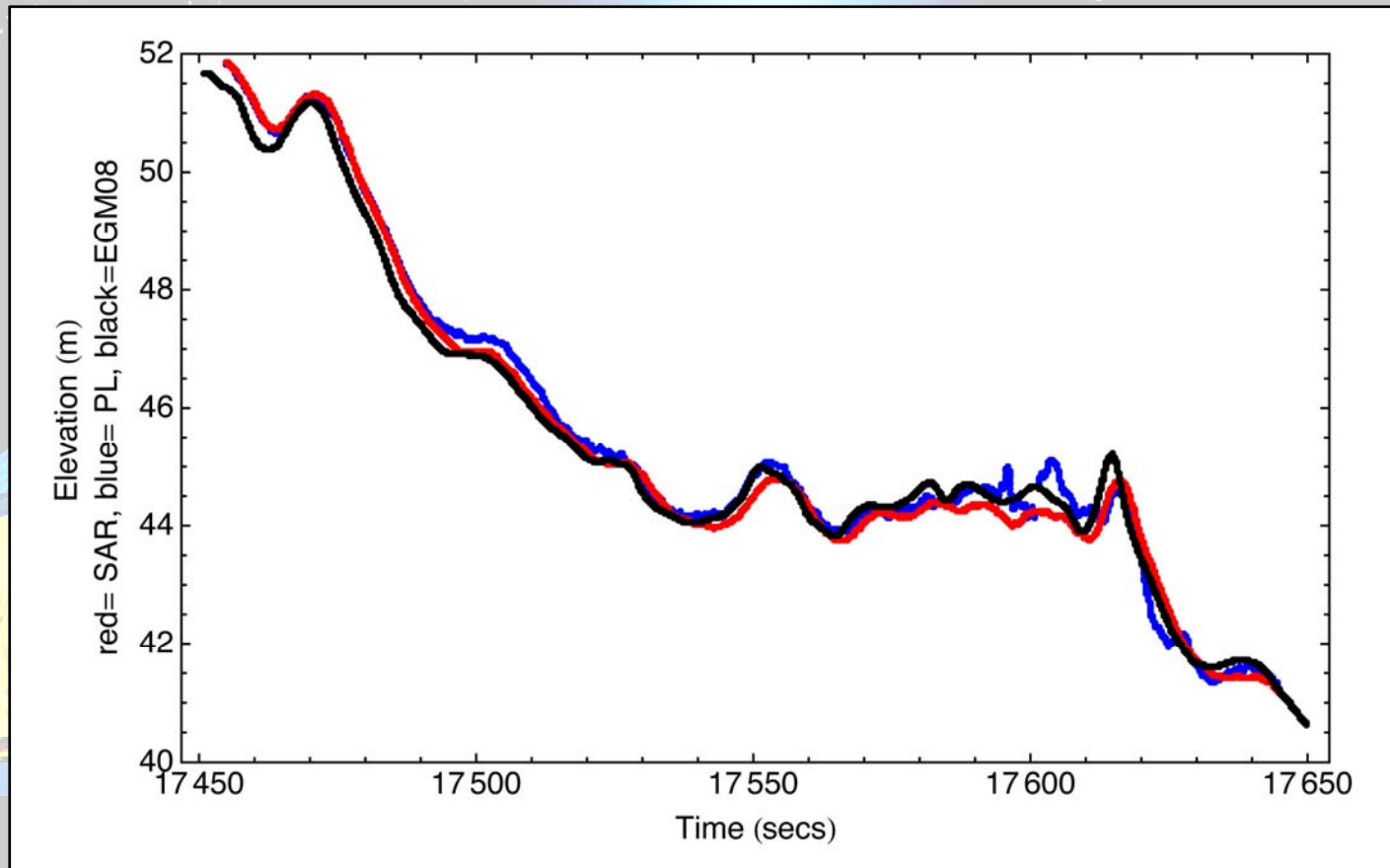
SAR mode performance

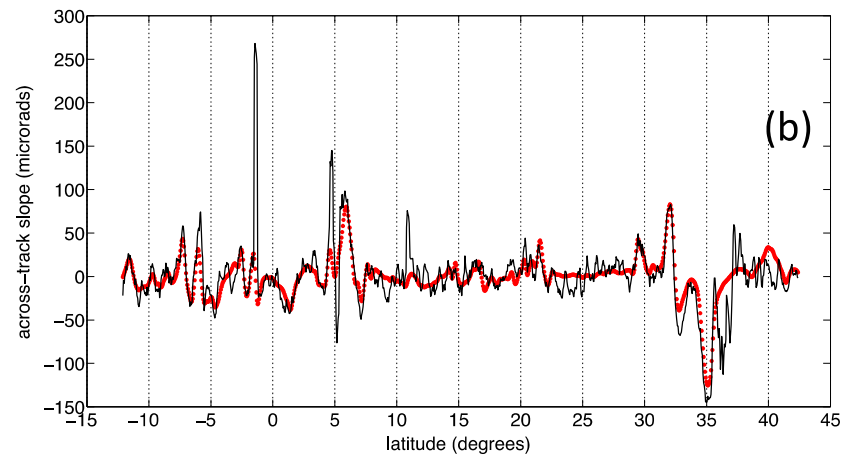
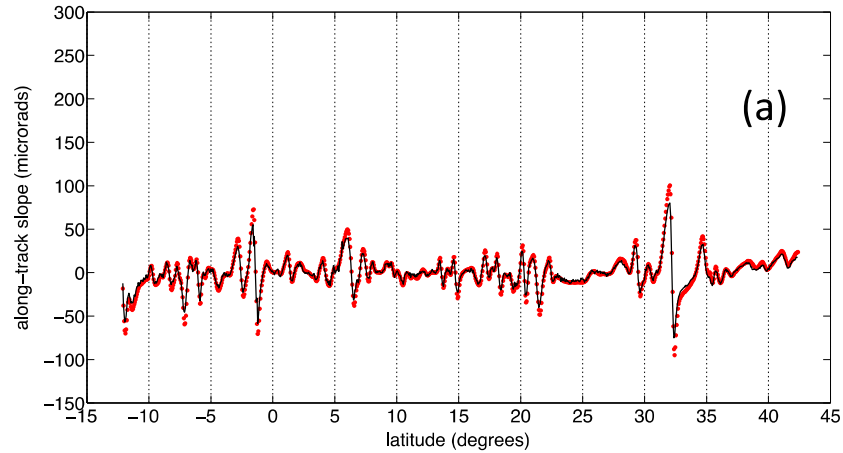


Range precision ~ 3 cm at 20 Hz.

W.H.F. Smith & R. Scharoo, this meeting

SAR mode performance

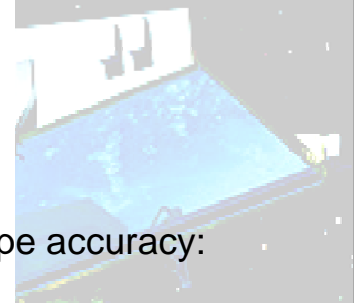




Across track slope accuracy:

~ 20 micro-rad at 10 km

~ 6 micro-rad at 2000 km



CryoSat-2 data products status

Since the February October 2010 ESA release many problems have been identified and fixed. **Some are known and being fixed.** **Some are known and not yet fixed.** **One will remain.**

FDM:

- Numerous errors in many data fields
- Drop out of the DORIS Navigator orbit
- PDGS bottlenecks (original design for 30 day latency)
- Timing error in DORIS Navigator orbit use by ground segment.
- 5 blind orbits

LRM:

- Inversion of AGC value
- Sign error for Doppler correction

SAR & SARIN:

- Aliasing of echo power
- Erroneous cyclic phase shifts in azimuth FFT
- Incorrect application of internal phase-difference corrections

Known, fixed problems will be included in upgrade of Kiruna processors for data release February 2012. ESA intend a release of a 3-day ocean products later in 2012.