

## Mission Status Report #7

Reference Period: 26 Mar – 1 Apr 2016

# sentinel-3

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### Mission status

- The overall mission status is nominal.
- All instruments are ON using the nominal side and are providing data as expected at this stage in commissioning.
- The satellite is in the nominal orbit with a ground track within the +/- 1km band around its reference.
- The X-Band ground station in Svalbard continues to successfully acquire data.
- The in orbit Cal/Val phase is on-going as planned.

### Satellite

- All subsystems and units are operating nominally.
- The spacecraft (S/C) is in NORMAL mode, the high bit rate for telemetry and Attitude and Orbit Control System (AOCS) is in NOMINAL mode (geodetic with yaw steering).
- All instruments are functioning well and are in nominal measurement modes. In summary:
  - SRAL is switched ON, with mode switched between LRM Close Loop (CL) and SAR CL. Regular calibrations are scheduled using the same mode switch.
  - SLSTR is operating in its nominal (ON-DUTY) mode.
  - OLCI is switched ON in Normal Mode.
  - MWR is switched ON in Measurement Mode.
  - DORIS is switched ON in Measurement Mode with DIODE Routine Navigation.
- Extensive calibration exercises are on-going to verify the performance of all instruments. In particular
  - For OLCI a spectral campaign has been performed, measuring data during day and night over the pacific in non-relaxed mode (all 46 micro-bands). Analysis is on-going. The spectral campaign with the nominal offset compensation loop disabled is planned for next week.
  - For SLSTR the fine tuning of Detector Unit temperature settings is on-going as well as the analysis of the scan cycle stability measurements with the inclusion of all channels. Intensive Black Body (BB) performance tests have been executed including the exchange of hot and cold BBs.
  - For the MWR and for SRAL operating in LRM CL and SAR CL the first preliminary calibration data analysis confirms good performance. The evaluation of the LRM data shows very good agreement with Jason-2 for the computation of the Sea Level Anomaly (SLA), Significant Wave Height (SWH) and backscatter coefficient ( $\sigma_0$ ). The first results of the SAR processing look promising and confirm the as planned transition to 100% SAR mode for the next cycle.

### Ground Segment

- The FOS ground segment is nominal. Contacts scheduling is nominal with 10 passes per day over Kiruna, Svalbard or Troll, and EUMETSAT continues to listen in.
- The Payload Data Ground Segment commissioning continues as planned.
- The Core Ground station (CGS) service is nominal.
- Housekeeping telemetry (HK TM) circulation to ESA and EUMETSAT FOS is nominal.
- Level 0 production continues successfully for all instruments at the Core Ground Station in Svalbard and at EUMETSAT's marine centre.
- Mission planning continues successfully providing updates of the Nominal Payload Planning File (NPPF) to allow the on-board commanding of data download to the X-band station.

### Outlook

- The S-3A Cal/Val phase continues, with extensive calibration activities ongoing.
- The transition to 100% SAR mode operation for SRAL is planned for 8 April.

### User interface and communication

- Users will be informed about the availability of sample data and their distribution in due time.