

Mission Status Report #5

Reference Period: 12 - 18 Mar 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 +/- 1 km band around its reference.
- The X-Band ground station in Svalbard continues to successfully acquire data without interruption.
- 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 now in nominal measurement modes with the (expected) exception of the SLSTR cool-down which will be performed and verified after completed decontamination. In summary:
 - SRAL is switched ON, with its mode being switched between LRM closed loop (CL) and SAR CL. Regular calibrations are scheduled using the same mode switch.
 - SLSTR is switched ON. The decontamination heating has been stopped. Scanning is enabled and measurement data of the three visual channels are provided.
 - OLCI is switched ON in Normal Mode.
 - MWR is switched ON in Measurement Mode. The calibration timeline has already been updated on Thursday 17 March towards a more operational scheme to decrease the number of interruptions by calibration and monitoring measurements (deep sky) within one orbit leading to an increased number of brightness temperature measurements.
 - 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 bands).
 - For SLSTR measurements have been performed to allow analyzing the stability of the scan cycle.
 - For the MWR and for SRAL operating in LRM CL and SAR CL the first preliminary calibration data analysis confirms good performance. Regarding the operation of SRAL in open loop (OL), an issue with reading the DEM after loss of tracking is currently being further analysed.

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 Sentinel-3A Cal/Val phase continues, with extensive calibration activities ongoing.
- The first OOP (Out of Plan) maneuver is planned for 21 March to keep the satellite on its +/- 1 km ground track.
- The cool-down of the SLSTR detectors will be initiated on 21 March.

User interface and communication

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