European Commission

esa

sentinel-1

→ RADAR VISION FOR COPERNICUS

Mission Status Report 2

Reference Period: 8 April - 13 April 2014

Mission Status

- The LEOP has been successfully completed on 6 April
- The satellite Commissioning Phase has started and is on-going
- The acquisition strategy to reach the nominal orbit is being prepared. Detailed manoeuvre plan will be defined based on the characterisation of the propulsion system, activity currently on-going

Satellite

- The satellite is in Nominal Mission Mode (NMM), with all sub-systems nominally working on prime units, and with the Attitude and Orbit Control System (AOCS) in the operational Nominal Pointing Mode (attitude steering enabled)
- Regular Housekeeping Telemetry (HKTM) and GPS data downlinks are being performed to the PDGS X-Band stations Matera and Svalbard
- The SAR is being operated based on plans coming from the PDGS
- SAR data takes are nominally downloaded to the PDGS X-Band stations
- The characterisation of the propulsion sub-system has started with the in-plane manoeuvre calibration

Ground Segment

- Following the LEOP, the Spacecraft operations have been moved to and are conducted from the Sentinels dedicated control room in ESOC
- The overall PDGS status and performance are nominal, including the PDGS operational facilities, and the PDGS services (X-band Stations, Long Term Archive (LTA), Mission Performance, Precise Orbit Determination (POD), Wide Area Network (WAN))
- The first SAR operations driven by the PDGS operational mission planning system were successfully started on 9 April
- The end-to-end loop, from SAR mission planning by PDGS, telecommand uplink by the FOS, SAR operation, on-board recording, downlink to X-band stations, level 0 pre-processing, circulation, generation of level 1 products, and archiving, is working nominally
- Following the enabling of the Nominal Pointing Mode on 11 April, the preliminary checks on product quality has shown very good results

Outlook

- Continuation of the satellite commissioning activities and the out-of-plane calibration of the propulsion system
- Operations of the SAR in additional modes and longer data takes
- Publication of initial data products

Report prepared by the ESA Sentinel-1 Team -