Mission Status Report 53

Reference Period: 28 April 2015 – 4 May 2015

sentinel-1

→ RADAR VISION FOR COPERNICUS

Mission status

- The Sentinel-1A operational qualification phase is on-going. The first yearly Routine Operations Review is planned on 9 June 2015
- The opening of the Sentinel-1 data flow to all users took place on 3rd October. Data can be accessed from: https://sentinel.esa.int
- The implementation of the ramp-up observation scenario is on-going, see an overview at: https://sentinel.esa.int/web/sentinel/missions/sentinel-1/observation-scenario
- The detailed observation plan in the form of instrument acquisition segments is published on Sentinel Online at: https://sentinel.esa.int/web/sentinel/missions/sentinel-1/observation-scenario/acquisition-segments
- The use of Sentinel-1A data by the Copernicus Marine Environment Monitoring Service for sea-ice and iceberg monitoring activities is on-going
- Sentinel-1A is contributing to the scientific analysis of the M7.8 Nepal earthquake that occurred on 25 April. In order to maximise this contribution, some additional acquisitions were planned over the relevant areas and will continue to be planned in the coming weeks, on top of the ones already included in the default observation plan. From the products openly available to all users on the scientific data hub, experts could generate interferograms, from which the ground motion induced by the earthquake could be derived. See first results at: http://www.esa.int/Our_Activities/Observing_the_Earth/Copernicus/Sentinel-1/Nepal_earthquake_on_the_radar

  https://earth.esa.int/web/guest/featured-image/-/article/sentinel-1-analyses-the-nepal-earthquake

  http://www.esa.int/spaceinimages/Images/2015/04/Nepal_earthquake_displacement
- The Sentinel-1A spacecraft is in a stable state, operating in Nominal Mission Mode (NMM), with all sub-systems working on prime units. The Flight Operations Segment (FOS) ensuring the monitoring, control and commanding of the satellite is operating nominally. Orbit control manoeuvres are performed once a week typically
- The Sentinel-1A – Alphasat TDP-1 inter-orbit link characterisation phase is on-going
- X-Band data acquisitions are routinely performed over Matera, Svalbard and Maspalomas X-band core stations. The acquired data are circulated within the PDGS, systematically processed to Level-0 and Level-1 products and archived. Level-2 product operational qualification is on-going
- Operations are performed regularly at the Processing and Archiving Centres (DLR-PAC and UK-PAC). All other PDGS operational services (i.e. Mission Performance, Precise Orbit Determination, Wide Area Network) are operating nominally
- The areas where acquired data are systematically processed to Level-1 SLC products are gradually being extended. The SLC production scenario description has been updated and can be consulted at: https://sentinel.esa.int/web/sentinel/missions/sentinel-1/production-scenario
- By 30 April, a total of 6700 users have self-registered; 805315 product download have been made by users, corresponding to 993 TB of data. At the time of publishing this report, about 115700 products are available on-line for download
- The overall operations mission performance is nominal

Outlook

- Continuation of ramp-up mission operations