

sentinel-1

→ RADAR VISION FOR COPERNICUS

Mission Status Report 47

Reference Period: 17 March 2015 – 23 March 2015

Mission status

- The Sentinel-1A operational qualification phase is on-going. The first yearly Routine Operations Review is planned early 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, including in particular the coverage of a first set of Copernicus Services areas of interest, of European land and coastal waters, of a set of global tectonic/volcanic areas, as well as of other specific targets worldwide for various applications. The observation plan is gradually complemented with observations outside the above areas to achieve a full mapping of all land areas worldwide before the end of the ramp-up phase. The first Greenland ice sheet acquisition campaign has been completed. 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 are 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 pre-operational precursor of the Copernicus Marine Environment Monitoring Service MyOcean for sea-ice and iceberg monitoring activities is on-going
- The FRINGE 2015 workshop (“*Advances in the Science and Applications of SAR Interferometry and Sentinel-1 InSAR Workshop*”) is taking place at ESA/ESRIN from 23 to 27 March 2015. More information at: <http://seom.esa.int/fringe2015/>
Sentinel-1 application results are presented during the workshop, see an example at: http://www.esa.int/Our_Activities/Observing_the_Earth/Slight_surface_movements_on_the_radar
- Products were made available in response to the call from the International Charter Space and Major Disasters related to the Turrialba Volcano eruption in Costa Rica
- 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
- The Sentinel-1A – Alphasat TDP-1 inter-orbit link characterisation phase has started
- 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 is systematically processed to Level-1 SLC products is gradually being extended since 4 March. The current SLC production can be consulted at: <https://sentinel.esa.int/web/sentinel/missions/sentinel-1/production-scenario>
- As planned, there has been a slight change in the format of the Level-1/2 user products generated from 19 March following the operational deployment of a new version of the Level-1/2 processor software. More details at: <https://sentinel.esa.int/web/sentinel/missions/sentinel-1/news/-/article/sentinel-1-product-format-change-moved-to-19-march-2015>
- By 19 March, a total of 5833 users have self-registered; 496000 product download have been made by users, corresponding to 630 TB of data. At the time of publishing this report, about 74900 products are available on-line for download
- The overall operations mission performance is nominal

Outlook

- Continuation of ramp-up mission operations

