

sentinel-1

→ RADAR VISION FOR COPERNICUS

Mission Status Report 41

Reference Period: 3 February 2015 – 9 February 2015

Mission status

- The Sentinel-1A operational qualification phase is on-going. The Routine Operations Readiness Review is planned in May 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. See an overview at: <https://sentinel.esa.int/web/sentinel/missions/sentinel-1/observation-scenario>
- 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
- Sentinel-1 supported two emergency activations from the Copernicus Emergency Management Service for floods in Greece and Spain (activations 117 and 118 respectively). Flood delineation maps based on Sentinel-1 imagery were generated. More details at:
<http://emergency.copernicus.eu/mapping/list-of-components/EMSR117>
<http://emergency.copernicus.eu/mapping/list-of-components/EMSR118>
- 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
- 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. Operations are performed regularly at the DLR Processing and Archiving Centres (PAC) and at the UK PAC, with a load sharing between the PACs. All other PDGS operational services (i.e. Mission Performance, Precise Orbit Determination, Wide Area Network) are operating nominally
- Sentinel-1 operational products qualification is being pursued as planned
- The distribution of generated SAR SM, IW and EW L0 & L1 user products is on-going. The regular products flow is available for download by any user. A planned unavailability of the scientific data hub took place on 5 February (see <https://scihub.esa.int/news/News00014>). With the automatic query and download capability offered to users, the number of search and download has drastically increased over the past weeks, occasionally affecting the data access operations. Analyses are on-going to implement necessary actions for maintaining the data access performances under increased user interactions. By 5 February:
 - A total of 5038 users have self-registered
 - Since the opening of the regular data flow on 3 October:
 - 57839 products have been made available for download
 - 263119 product download have been made by users, corresponding to about 352 TB of data
- The overall operations mission performance is nominal

Outlook

- Continuation of ramp-up mission operations

