

sentinel-1

→ RADAR VISION FOR COPERNICUS

Mission Status Report 78

Reference Period: 20 October 2015 – 26 October 2015

Mission status

- The Sentinel-1A routine operations are on-going
- Sentinel-1 data can be accessed from: <https://sentinels.copernicus.eu>
- The observation scenario supports the systematic coverage of a first set of Copernicus Services areas of interest, of European land and coastal waters, of global tectonic/volcanic areas, as well as of other specific targets worldwide for various applications. The observation plan also includes regular mapping of all land areas worldwide. The dedicated campaign for Antarctica ice sheet monitoring has been completed. An overview of the observation scenario is available at: <https://sentinels.copernicus.eu/web/sentinel/missions/sentinel-1/observation-scenario>
- A revision of the Sentinel High Level Operations Plan, including among others a description of the Sentinel-1 observation scenario, has been released on Sentinel Online: <https://sentinels.copernicus.eu/documents/247904/351367/Sentinel+High+Level+Operations+Plan>
- The detailed observation plan in the form of instrument acquisition segments is published on Sentinel Online at: <https://sentinels.copernicus.eu/web/sentinel/missions/sentinel-1/observation-scenario/acquisition-segments>
- The operational use of Sentinel-1A data by the Copernicus Marine Environment Monitoring Service for sea-ice and iceberg monitoring activities is on-going
- The European Maritime Safety Agency (EMSA) is gradually introducing in the CleanSeaNet service the use of Sentinel-1 imagery in quasi-real time. Preliminary operations with first EMSA local stations are on-going
- The Sentinel-1A spacecraft is in a stable state, operating in Nominal Mission Mode (NMM). 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
- A satellite unavailability occurred between 21 October 14:54 UTC and 22 October 07:12 UTC, time at which SAR nominal operations were resumed
- 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
- Wave Mode data are regularly acquired over open oceans and systematically processed to Level-2 OCN products. Sentinel-1 IW and EW Level-2 OCN products over regional ocean areas are available to users on the Scientific Data Hub since 26 July 2015. The operational qualification of Level-2 OCN products is on-going (geophysical validation)
- 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
- Testing activities with direct receiving collaborative stations are on-going
- Since 21 July, 100% of the IW data acquired over land are systematically produced to level 1 SLC, as shown at: <https://sentinels.copernicus.eu/web/sentinel/missions/sentinel-1/production-scenario>
- By 22 October, a total of 12,899 users have self-registered on the Sentinels Scientific Data Hub; 2,380,640 product download have been made by users, corresponding to 2.79 PB of data. At the time of publishing this report, more than 297,900 Sentinel-1A products are available on-line for download. Daily statistics are available at the Data Hub home page (<https://scihub.copernicus.eu>)
- The overall operations mission performance is nominal

Outlook

- Continuation of routine mission operations

