

sentinel-1

Mission Status Report 102

Reference Period: 12 April 2016 – 18 April 2016

→ RADAR VISION FOR COPERNICUS

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. An overview of the observation scenario is available at: <https://sentinels.copernicus.eu/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://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
- Additional specific tasking of the satellite was performed to complement the already planned acquisitions over the areas of the 7.9-magnitude earthquake in Ecuador (activations from the Copernicus Emergency Management Service and from the International Charter on Space and Major Disasters) and the 7.3 magnitude earthquake in Japan (activation from the International Charter on Space and Major Disasters)
- Sentinel-1A responded to the activations from the International Charter on Space and Major Disasters for floods in Iran as well as in Argentina
- 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
- 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 Payload Data Ground Segment (PDGS), systematically processed to Level-0 and Level-1 products and archived
- Wave Mode data are regularly acquired over open oceans, systematically processed to Level-2 OCN products and made available. Sentinel-1 IW and EW Level-2 OCN products over regional ocean areas are available on the Scientific Data Hub. The operational qualification of Level-2 OCN products is on-going (geophysical validation of the Radial Surface Velocity component)
- 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
- Since 21 July 2015, 100% of the IW and SM data acquired over land are systematically produced to level 1 SLC. More information at: <https://sentinels.copernicus.eu/web/sentinel/missions/sentinel-1/production-scenario>
- By 14 April, a total of 30,397 users have self-registered on the Sentinels Scientific Data Hub; 4,011,878 product download have been made by users, corresponding to 4.74 PB of data. At the time of publishing this report, 491,000 Sentinel-1A products are available on-line for download, representing 622 TB of data. Statistics of last 24 hours are available in real time at the Data Hub home page (<https://scihub.copernicus.eu>).
- The overall operations mission performance is nominal

Outlook

- Continuation of routine mission operations
- Launch of Sentinel-1B on 22 April 2016 on a Soyuz launcher from Kourou, French Guiana. The launch is planned to take place at 23:02 CEST. Follow the live launch event on the ESA web portal.

