

sentinel-1

→ RADAR VISION FOR COPERNICUS

Mission Status Report 71

Reference Period: 1 September 2015 – 7 September 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 is nominally on-going and will run till early October 2015 indicatively. 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 use of Sentinel-1A data by the Copernicus Marine Environment Monitoring Service for sea-ice and iceberg monitoring activities is on-going
- Additional observations have been performed and related products made available in near real time in response to the activation EMSR130 from the Copernicus Emergency Management Service (EMS) related to major floods in Myanmar, still on-going since early August. Numerous flood delineation maps based on Sentinel-1 data have been produced by the EMS, as shown at: <http://emergency.copernicus.eu/mapping/list-of-components/EMSR130>
See one example of value-added information product, showing the large scale flood mapping capability of Sentinel-1 at:
http://emergency.copernicus.eu/mapping/system/files/components/EMSR130_16IRRAWA_DYDELTA_DELINEATION_OVERVIEW-MONIT02_v1_100dpi.jpg
- 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 4 September 16:54 UTC and 5 September 11:08 UTC, with no SAR operations performed during this period
- 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
- 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 3rd September, a total of 10,703 users have self-registered on the Sentinels Scientific Data Hub; 1,949,745 product download have been made by users, corresponding to 2.28 PB of data. At the time of publishing this report, more than 246,000 Sentinel-1A products are available on-line for download
- The overall operations mission performance is nominal

Outlook

- Continuation of routine mission operations

