Mission Status Report 86

Reference Period: 15 December 2015 – 21 December 2015

sentinel-1

→ 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. The dedicated campaign for Greenland ice sheet monitoring is planned to start on 23 December 2015. 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
- Sentinel-1A responded to the activations EMSR147 and EMSR149 from the Copernicus Emergency Management Service for major floods in the UK and Ireland. Numerous flood delineation maps based on Sentinel-1 observations have been generated. More information at: http://emergency.copernicus.eu/mapping/list-of-activations-rapid
- 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
- 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 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
- At the time of publishing this report, more than 358,000 Sentinel-1A products are available on-line for download, representing 447 TB of data. Statistics of last 24 hours are available in real time at the Data Hub home page (https://scihub.copernicus.eu). Provision of other usual statistic information (number of registered users, number and volume of products download) will be resumed early January 2016
- Following high workload and massive increase of requests on the Scientific Data Hub, a number of actions have been implemented over the past weeks to improve the hub access. More information at: https://scihub.copernicus.eu/news/News00048
- The overall operations mission performance is nominal

Outlook

- Continuation of routine mission operations