Mission Status Report 160

Reference Period: 13 June 2017 – 19 June 2017

Mission status

- The Sentinel-1A and Sentinel-1B routine operations are on-going
- The Sentinel-1 observation scenario supports the systematic coverage of Copernicus Services areas of interest, of European land and coastal waters, of global tectonic/volcanic areas, as well as of other areas worldwide for various applications. The observation plan also includes a regular mapping of all land areas worldwide, with a frequency largely increased with Sentinel-1B in operations. Starting on 26 September 2016, the Sentinel-1 observation plan is implemented with the combined use of Sentinel-1A and Sentinel-1B
- Updated world maps as of May 2016 providing a high level description of the overall Sentinel-1 constellation observation scenario, in terms of SAR modes, polarisation, observation geometry, revisit and coverage frequency have been released and are available at: https://sentinels.copernicus.eu/web/sentinel/missions/sentinel-1/observation-scenario
- The detailed observation plan in the form of instrument acquisition segments, for both Sentinel-1A and Sentinel-1B is published at: https://sentinels.copernicus.eu/web/sentinel/missions/sentinel-1/observation-scenario/acquisition-segments
- The operational use of Sentinel-1 data by the Copernicus Marine Environment Monitoring Service for sea-ice and iceberg monitoring activities is on-going
- The European Maritime Safety Agency (EMSA) operationally uses Sentinel-1 imagery in quasi-real time in the CleanSeaNet services; operations with EMSA service providers local stations are on-going
- The use of the EDRS-A service by Sentinel-1A and Sentinel-1B is on-going as part of the routine operations, allowing to further increase the overall mission capacity
- **Sentinel-1A was unavailable on 16 June between 09:09 UTC and 12:31 UTC due to a SAR anomaly, and on 17 June between 11:43 UTC and 14:43 UTC, for a similar anomaly. No data were generated during these two periods**
- Both Sentinel-1A and -1B spacecraft are in a stable state, operating in Nominal Mission Mode (NMM). The Flight Operations Segment (FOS) ensuring the monitoring, control and commanding of the satellites 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 Data Hubs. 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
- By 15th June 2017, a total of 87,959 users have self-registered on the Sentinels Scientific Data Hub; 8.6 million Sentinel-1 product download have been made by users, corresponding to about 10.7 PB of data. 1.4 million Sentinel-1 products are available on-line for download, representing more than 2 PB of data. Statistics of last 24 hours are available in real time at the Data Hub home page: https://scihub.copernicus.eu

Outlook

- Continuation of Sentinel-1 constellation routine operations

Report prepared by the ESA Sentinel-1 Team