

# sentinel-1

→ RADAR VISION FOR COPERNICUS

## Mission Status Report 45

Reference Period: 3 March 2015 – 9 March 2015

### Mission status

- The Sentinel-1A operational qualification phase is on-going. The first yearly Routine Operations Review is planned early June 2015
- The opening of the Sentinel-1 data flow to all users took place on 3<sup>rd</sup> October. Data can be accessed from: <https://sentinel.esa.int>
- The implementation of the ramp-up observation scenario is on-going, including in particular the coverage of a first set of Copernicus Services areas of interest, of European land and coastal waters, of a set of global tectonic/volcanic areas, as well as of other specific targets worldwide for various applications. The observation plan is gradually complemented with observations outside the above areas to achieve a full mapping of all land areas worldwide before the end of the ramp-up phase. See an overview at: <https://sentinel.esa.int/web/sentinel/missions/sentinel-1/observation-scenario>
- The use of Sentinel-1A data by the pre-operational precursor of the Copernicus Marine Environment Monitoring Service MyOcean for sea-ice and iceberg monitoring activities is on-going
- Sentinel-1A responded to an activation from the International Charter Space and Major Disasters for an eruption of the Villarrica Volcano in Chile. See more at: <https://www.disasterscharter.org/web/guest/activations/-/article/volcano-in-ch-19>
- The Sentinel-1A spacecraft is in a stable state, operating in Nominal Mission Mode (NMM), with all sub-systems working on prime units
- 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 PDGS, systematically processed to Level-0 and Level-1 products and archived. Level-2 product operational qualification 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
- The detailed observation plan in the form of instrument acquisition segments will from now on regularly be published through KML files on Sentinel Online at: <https://sentinel.esa.int/web/sentinel/missions/sentinel-1/observation-scenario/acquisition-segments>
- The areas where acquired data is systematically processed to Level-1 SLC products have been extended on 4 March. The current SLC production can be consulted at: <https://sentinel.esa.int/web/sentinel/missions/sentinel-1/production-scenario>
- By mid-March, a slight change in the Level-1 and 2 product format specification will be introduced. More details at: <https://sentinel.esa.int/web/sentinel/missions/sentinel-1/news/-/article/sentinel-1-level-1-2-product-format-specifications-version-2-9-released>
- By 5 March:
  - A total of 5541 users have self-registered
  - Since the opening of the regular data flow on 3 October:
    - about 62000 products are currently available on-line for download
    - 394498 product download have been made by users, corresponding to 521 TB of data
- The overall operations mission performance is nominal

### Outlook

- Continuation of ramp-up mission operations

