



# Mission Status Report 427

Reference Period: September 2023

# sentinel-1

→ RADAR VISION FOR COPERNICUS

### Mission status

- The Copernicus Sentinel-1A operations went on routinely during the reporting period.
- The Sentinel-1A spacecraft is in a stable state, operating in Nominal Mission Mode. No major S/C anomalies are to be reported.
- The Flight Operations Segment (FOS) ensured the monitoring, control and commanding of the satellites nominally. Orbit Control Manoeuvres (OCM) are performed nominally once a week. During the reporting period, one Collision Avoidance Maneuver (CAM) were performed on 08/09/2023 for S-1B.
- The Sentinel-1 Ground Segment operations have continued smoothly with no major anomaly to report.
- Access to the Sentinel-1 data is available through the new Copernicus Data Space Ecosystem. The Copernicus
  Data Hub is maintained up to end of October 2023 to ensure a smooth user migration.
- The pre-operational production of the ETAD product has restarted in August. ETAD products are planned to be made available to the public by October 2023.
- The spacecraft and downlink planning has been made successfully:
  - The use of the EDRS service by Sentinel-1A is on-going as part of the routine operations.
  - The detailed observation plan in the form of instrument acquisition segments has been <u>published</u>.
  - Wave Mode data is acquired globally over open oceans, systematically processed to Level-2 OCN products, and made available to CMEMS for operational assimilation.
  - Specific planning requests were placed to support:
    - Charter call mainly for flood in Libya and Brazil and the Morocco Earthquake
    - Monitoring of 5 Tropical cyclones systems
- S-1A Data Quality is nominal and is being checked routinely by the S-1 Mission Performance Center.
- The following articles related to Sentinel-1 were published during the reporting period:

<u>Sentinel-1 reveals shifts from Morocco earthquake</u> <u>Huge mountain erosion event witnessed from space</u>

### Latest news

Other news regarding Sentinel-1 can be found <u>here</u>.

### Sentinel-1B disposal

The S-1B disposal activities have been temporary paused following a safe mode entry, on the 25/07/2023 morning. The safe mode has been triggered by a degradation of the thrust balance generating a torque out of the acceptable limits. The Safe mode has been successfully recovered on the same day evening and placed in safe, stable and CAM enable attitude.

The disposal has restarted with the RCT B-branch characterisation end of August and is now proceeding at slower pace. Throughout September, similar signs of thrust imbalance have been witnessed requiring to adjust the disposal operations. At the end of September, the perigee was decreased by ~80Km.

