



# Mission Status Report 171

Reference Period: April 2021

## sentinel-2

→ COLOUR VISION FOR COPERNICUS

### Mission Status

- Despite the situation due to the COVID-19 pandemic, Sentinel-2 mission operations remained nominal.
- The mission is sensing systematically all land and water areas indicated [here](#), and the detailed mission acquisition plans are regularly published [here](#).
- Level-1C (top-of-atmosphere reflectance) and Level-2A (surface reflectance) products are available on [Copernicus Open Access Hub](#) and on [Data and Information Access Service \(DIAS\) platforms](#).
- Since 28 April, new products remain available online on the Copernicus Open Access Hub for 30 days. After 30 days the products become available offline as described [here](#).
- On 30 March, a major improvement was introduced on the geometric quality of Sentinel-2 products, having now a more accurate absolute geolocation and multi-temporal registration. The improvement is in place over Europe and Africa and it will be extended to the rest of the World in the coming months. Details on this improvement are available [here](#) and [here](#).
- The newly introduced Processing Baseline (03.00 for both Level-1C and Level-2A products) also includes the following improvements on the complete production:
  - Use of the new Copernicus DEM (Digital Elevation Model) at 90m resolution.
  - Improvement of the Level-1C cloud detection algorithm over high-altitude terrains.
  - Improvement of the Level-1C Technical Quality (TECQUA) mask accuracy.
  - Improvement of the Level-2A cloud probability layer near the boundary of the swath.
  - Improvement of the Level-2A topographic correction by using the Copernicus DEM @90m.
  - Correction of a light halo observed along Level-2A image boundaries, either at the edge of the swath or at the end of data-strips.
- Related to the improvements above, please also note that a new version of the stand-alone Level-2A processor (sen2cor version 2.9) is available online [here](#).
- Information on data quality is available in two reports, one for [L1C products](#) and one for [L2A products](#).
- Some Data Hub anomalies and outages impacted the availability of the data access during the period. Please refer to the [news](#) page for the list of the single events.  
As a consequence of a publication anomaly on 27 April, the availability of Level-2A products on the data hubs was delayed.
- As a consequence of a contingency, all products on 22 April between 00:00 and 07:00 UTC were randomly affected by a geolocation shift up to 30 meters and a mis-registration between bands.
- Due to multiple contingencies on 1, 6, 7, 15, 16 and 18 April, the generation of several products was delayed.
- The following articles related to Sentinel-2 were published during the reporting period:
  - [Copernicus Sentinels monitor Etna's various eruptions](#)
  - [Satellites monitor Mount Etna's unpredictable behaviour](#)
  - [Satellite imagery key to powering Google Earth](#)
  - [ESA and FAO unite to tackle food security and more](#)
  - [Glacier avalanches more common than thought](#)
- Sentinel-2 videos and images have been published and are available [here](#).

### Outlook

- To extend the provision of geometrically refined products over all regions worldwide.