



Mission Status Report 90

Reference Period: 01-15 Jul. 2021

sentinel-5p

→ GLOBAL AIR MONITORING
FOR COPERNICUS

Mission Status

Overall

- The mission, in Phase E2 (Operations Phase) since 24th April 2018, has reached routine operations capacity at the beginning of March 2019. Routine operations have not been affected by COVID-19.

Data availability and access

- Level 1B Radiance/Irradiance, Methane, Tropospheric Ozone (Offline - OFFL); Carbon Monoxide, Formaldehyde, Nitrogen Dioxide, Sulphur Dioxide, Total Ozone, Aerosol Absorbing Index, Aerosol Layer Height and Cloud products (OFFL and Near Real Time - NRTI) are available to the public via the Copernicus Sentinel-5 Precursor Data Hub – s5phub.copernicus.eu.

Platform

- All platform subsystems performed nominally.

TROPOMI Payload

- The TROPOMI instrument continues measuring in nominal operations baseline with a 360 orbit repeat cycle and since 6th August 2019 with a spatial resolution of about 5.5 km along-track and 3.5 km across-track.

Ground Segment

- The status of both FOS (Flight Operations Segment) and PDGS (Payload Data Ground Segment) has been nominal. Routine scheduling, acquisition, processing and dissemination tasks were performed without major anomalies.
- On 5th July a significant update of the PDGS was performed, including upgraded Level 1B and Level 2 products. This represents a major milestone for the Sentinel-5P mission on data quality improvement.
- The PDGS upgrade downtime period caused the following effects on the data products:
 - Data gaps for the following orbits (only in NRTI): 19306 (33%), 19307 (100%), 19310 (30%), 19311 (100%), 19312 (100%) and 19313 (37%).
 - Quality degradation for HCHO and SO₂ products: from 05-12 July (NRTI production); 01-15 July (OFFL production). The later products (OFFL) will be deleted from the Data Hub and reprocessed in the near future.

Level 1B / Level 2 processors

- The KNMI team is working on an improved Level 2 processor version that includes the Ozone Profile product, which has not been released so far. The processor will also have the capability of the processing of Methane data over the ocean.

Cal/Val Activities

- The routine validation activities continued nominally for the publicly released products.

Outlook

- The improved KNMI Level 2 processor will be delivered to the PDGS on 6th August, with a subsequent generation of Validation Test Data for processor qualification.