

***Mission Status Report 107***

***Reference Period: 16-31 Mar. 2022***

***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, Level 2 Methane, Tropospheric Ozone (Offline); Carbon Monoxide, Formaldehyde, Nitrogen Dioxide, Sulphur Dioxide, Total Ozone, Ozone Profile, Aerosol Absorbing Index, Aerosol Layer Height and Cloud products (Offline and Near Real Time) are available to the public via the Copernicus Sentinel-5 Precursor Data Hub – <https://s5phub.copernicus.eu>.
* Since 15th December 2021 a new Nitrogen Dioxide dataset reprocessed with the Sentinel-5P Product Algorithm Laboratory (PAL) using the official processor Version 2.3.1 is available to the users to allow consistent long-term data analysis (e.g. trends in air pollution based on COVID-19 impact). It covers the time period 1st May 2018 to 14th November 2021 and is available at <https://data-portal.s5p-pal.com>. It is planned to replace this data set during 2022 by an upgraded product reprocessed with the Payload Data Ground Segment (PDGS).

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 Flight Operations Segment (FOS) and PDGS has been nominal. Routine scheduling, acquisition, processing and dissemination tasks were performed without major anomalies.

Level 1B / Level 2 processors

* An upgraded Level 1B processor version 2.1.0 has been delivered by KNMI to PDGS on 31st March, together with updated calibration data. The major improvement consists on the implementation of the time dependent radiance degradation correction through the calibration data.
* An improved Level 2 UPAS processor version 2.4.0 was delivered by DLR to PDGS on 23rd March. This processor includes an adjustment to the updated Level 1B processor version 2.1.0.

Cal/Val Activities

* The routine validation activities continued nominally for all products.

***Outlook***

* A major PDGS upgrade is planned during June 2022 which includes updated processors (already delivered) to be used for a full mission reprocessing campaign.

 *Report prepared by the ESA Sentinel-5 Precursor Team*