

***Mission Status Report 143***

***Reference Period: 16-30 Sep. 2023***

***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.

Operational Products availability and access

* Level 1B Radiance/Irradiance, Level 2 Methane, Tropospheric Ozone (Offline); Aerosol Absorbing Index, Aerosol Layer Height, Carbon Monoxide, Cloud, Formaldehyde, Nitrogen Dioxide, Ozone Profile, Sulphur Dioxide, and Total Ozone products (Offline and Near Real Time) are available to the public via the Copernicus Data Space Ecosystem – <https://dataspace.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 Flight Operations Segment (FOS) and Payload Data Ground Segment (PDGS) have been nominal. Routine scheduling, acquisition, processing, and dissemination tasks were performed without major anomalies.
* Inuvik Acquisition Station: Nominal operations have been restored on 26th September (forest fires damaged parts of the communication network at the Inuvik ground station on 7th August).
* The data access for all Copernicus products has been transferred to the new Copernicus Data Space Ecosystem at the end of September.

Level 1B / Level 2 processors

* The KNMI team has delivered the Level 2 processor version 2.6.0, which highly improves the methane retrieval when SUOMI-NPP VIIRS cloud data are not available; also the Aerosol Layer Height product data quality will improve significantly for measurements over land. These product improvements will be implemented in the operational PDGS at the end of November 2023.

Cal/Val Activities

* The routine validation activities continued nominally for all products.

PAL Activities

* Six pre-operational products (Aerosol Optical Thickness, Bromine Monoxide, Glyoxal, Sun-Induced Fluorescence, Water Vapour, and a Sulphur Dioxide product using the new Covariance-Based Retrieval Algorithm (COBRA)) are being provided to the public via <https://data-portal.s5p-pal.com>.

***Outlook***

* The next updated PDGS release is planned for the end November 2023.

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