

CEOS MIM Database Quarterly Report

October 2025

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The CEOS MIM Database provides information on CEOS agency Earth observation satellites based on an annual survey of CEOS members, and is available online at database.eohandbook.com. This report is a summary of key mission activities from the past quarter and provides a look at the next six months.

Latest News

MTG-S1 (Meteosat Third Generation - Sounder 1), part of Europe's series of third-generation geostationary meteorological satellites, was launched aboard a SpaceX Falcon 9 rocket from NASA's Kennedy Space Centre on July 1, 2025. Alongside the **Infra-Red Sounder** from which MTG-S1 takes its name, the satellite also hosts the **Sentinel-4 A** payload, an imaging spectrometer that will monitor air quality over Europe.

The third and fourth platforms in the Russian **Ionosphaera-M** constellation launched on July 25, 2025. Joining two other platforms which launched in December 2024, the four-platform constellation will provide measurements for space weather forecasting.

A Vega-C rocket lifted off from Kourou, French Guiana on July 26, 2025 carrying two French satellites, **MicroCarb** and **CO3D** (Constellation Optique 3D). A partnership between CNES and UKSA, MicroCarb is a global greenhouse gas mapper, which will measure atmospheric carbon dioxide at high precision. CO3D is a constellation of four individual satellites, all launched together, which will provide global, high-resolution, three-dimensional Digital Surface Models of landmasses between $\pm 70^\circ$ latitudes.

The **NASA-ISRO Synthetic Aperture Radar** (NISAR) was launched on July 30, 2025 from ISRO's Satish Dhawan Space Centre. The dual-band radar mission carries both **S-band SAR** and **L-band SAR** instruments, operated by ISRO and NASA respectively. The mission will be in commissioning phase for the first 90 days, and science-quality data is expected sometime in late October or early November.

On August 13, 2025, **METOP-SG A1**, the first of the second generation EUMETSAT Polar System, launched aboard an Ariane 6 rocket from Kourou, French Guiana. The constellation of six platforms, including three 'A' platforms with atmosphere sounding and imaging sensors, and three 'B' platforms with microwave imaging sensors, will provide European meteorological observations until the late 2040s. The 'A' platforms carry the Copernicus Sentinel-5 sensors, which support global atmospheric composition and air quality monitoring services. **Sentinel-5 A** was launched as a payload aboard METOP-SG A1.

Space Weather Follow-On - Lagrange 1 (SWFO-L1) will provide measurements of space weather phenomena with its onboard Compact Coronagraph, Magnetometer, Supra Thermal Ion Sensor and Solar Wind Plasma Sensor from Lagrange Point 1, orbiting between the Earth and the Sun. The satellite was launched on a Falcon 9 rocket from Kennedy Space Centre on September 24, 2025. It will arrive at Lagrange Point 1 in January 2026.

The seventh member of the Fengyun-3 series of polar-orbiting meteorological satellites, **FY-3H**, launched on 27 September 2025 on a Long March 4C carrier rocket from the Jiuquan Satellite Launch Center in Gansu, China. The satellite will replace **FY-3D** to provide meteorological observation in the afternoons.

The Polar Operational Environmental Satellites (POES) programme from NOAA included seventeen polar-orbiting meteorological satellites, which first launched with **TIROS-N** in October 1978. After collecting critical observations for meteorological applications and numerical prediction for almost 47 years, the final two satellites in the NOAA POES series, **NOAA-19** and **NOAA-15**, were decommissioned on August 13 and 19, 2025, respectively. **NOAA-18** was decommissioned on June 6, 2025, after the satellite lost functionality of its transmitter in late May. The series is succeeded by the Joint Polar Satellite Series (JPSS), of which **NOAA-20** (JPSS-1) and **NOAA-21** (JPSS-2) are currently operational.



NISAR in orbit
(Image: NASA JPL)



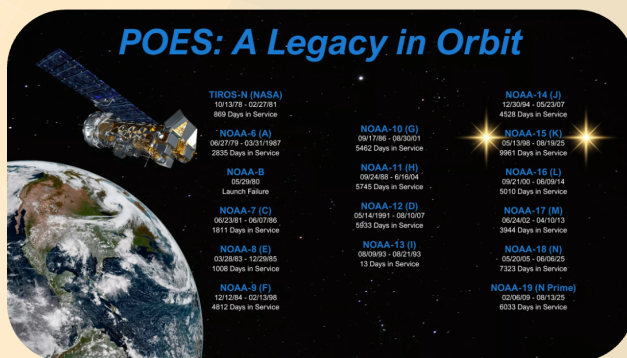
MetOp SG-A1
with Sentinel-5A
(Image: ESA)

Upcoming Launches

Mission	Agencies	Launch	Purpose
Sentinel-1 D	ESA / COM	Q4 2025	Will carry a C-band SAR instrument, ensuring the continuity and enhancement of the Copernicus Sentinel-1 constellation.
Sentinel-6 B	EUMETSAT / COM / ESA / NASA / NOAA	Q4 2025	Second satellite in the Copernicus Sentinel-6 series, to continue high-precision measurements of global sea surface height.
KOMPSAT-7	KARI / KAI	Q4 2025	High resolution optical imagery for land applications in cartography and disaster monitoring
Aist-2T N1 & N2	ROSKOSMOS	Q4 2025	Designed to capture high-resolution stereo imagery of the Earth's surface, with a maximum resolution of 1.2 m and a swath width of 32 km. Their primary mission is to support environmental monitoring, cartography, and disaster management.
CSG-3	ASI	Q4 2025	Will carry the CSG-SAR instrument to provide high-resolution imaging capabilities for environmental monitoring, disaster response, and security operations
HydroGNSS	ESA / UKSA	Q4 2025	An ESA Scout mission comprising two small satellites in Low Earth Orbit that sense global hydrological climate variables using GNSS Reflectometry
RESOURCESAT-3	ISRO	Q4 2025	Fourth flight unit of the ResourceSat programme. Will carry ALISS-3 payload to ensure the continued availability of data for land and resources management programmes.
THEOS-2 Small Satellite	GISTDA	Q4 2025	Companion mission for THEOS-2, designed for high-resolution land observation.
Elektro-L N5	ROSKOSMOS / ROSHYDROMET	Q4 2025	Observations for operational meteorological, continuing the Elektro-L series.
FY-4C	NSMC-CMA / CNSA	Q4 2025	Geostationary meteorological satellite, to be positioned at 105° E. Also carries space weather instruments.
DQ-2	CNSA	Q4 2025	Carrying both active and passive payloads for the measurement of carbon dioxide concentrations and aerosols.
PLT-1	ASI	Q1 2026	Experimental X-band SAR designed to validate new radar technologies, supporting environmental monitoring, maritime management, and topographic mapping.
KOMPSAT-6	KARI	Q1 2026	Carries a high-resolution X-band SAR instrument, providing continuity for observations made by KOMPSAT-5.
CAS500-2	KAI / NGII / KARI	Q1 2026	South Korean optical EO satellites, with spatial resolution up to 1 m.
Resurs-PM N1	ROSKOSMOS	Q1 2026	Environmental satellite providing thermal imaging in MWIR and TIR bands.
OCEANSAT-3A	ISRO	Q1 2026	Aims to provide data continuity for ocean and atmosphere applications, such as monitoring ocean colour and sea surface temperature, supporting marine resource management, climate studies, and disaster monitoring.
FLEX	ESA	2026	Eighth ESA Earth Explorer, will provide global maps of vegetation fluorescence to understand photosynthetic activity and plant health and stress.



MicroCarb & CO3D Liftoff
(Image: Arianespace)



NOAA POES Series
(Image: NOAA)



SWFO-L1
(Image: NOAA)