

CEOS MIM Database Quarterly Report

July 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

Biomass, ESA's forest-mapping satellite, was launched on a Vega-C rocket from Kourou, French Guiana, on April 29, 2025. It carries the first space-based P-band Synthetic Aperture Radar (SAR) and offers fully polarimetric measurements to derive forest biomass and carbon stocks in three dimensions.

ISRO's **RISAT-1B**, also known as EOS-09, was launched on May 18, 2025, aboard the PSLV-C61 rocket, carrying a C-band SAR. The mission failed due to an anomaly in the rocket's third stage, preventing the satellite from reaching orbit.

Japan's Global Observing SATellite for Greenhouse gases and Water cycle (**GOSAT-GW**), a follow-on mission to **GCOM-W** and **GOSAT-2**, was launched aboard a H-IIA rocket from Tanegashima Space Centre on June 29, 2025. It carries two instruments: **TANSO-3**, for measuring atmospheric greenhouse gases, and **AMSR3**, for monitoring key water cycle variables including precipitation, sea surface temperature, and soil moisture.

MTG-S1 (Meteosat Third Generation - Sounder), 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-4A** payload, an imaging spectrometer that will monitor air quality over Europe by measuring aerosols and trace gases like nitrogen dioxide and ozone.

Upcoming Launches



Biomass separating from Vega-C (Credit: ESA)



H-IIA Rocket launching with GOSAT-GW (Credit: JAXA)

Mission	Agencies	Launch	Purpose
CO3D	CNES	July 2025	Will provide Digital Surface Models of landmasses between 70° N and 70° S with a resolution of 1 metre.
MicroCarb	CNES / UKSA	July 2025	Carries an imaging spectrometer to measure atmospheric carbon dioxide concentrations.
NISAR	NASA / ISRO	Q3 2025	Will track the movement of the Earth's crust and ice cover, with two SAR instruments with different radar frequencies (S- and L-band).
MetOp-SG-A1 & Sentinel-5 A	EUMETSAT / COM / ESA	Q3 2025	First of Europe's second-generation polar-orbiting meteorological satellites. Carries Sentinel-5 A for atmospheric composition and air quality monitoring.
SWFO-L1	NOAA / NASA	Q3 2025	Will monitor solar wind and coronal mass ejections from the Sun-Earth Lagrange Point 1, with real-time data to improve space weather forecasting.
Ionosphera-M N3 & N4	ROSKOSMOS	Q4 2025	Will monitor space weather, study the ionosphere and improve our understanding of geomagnetic and solar storms, and their impact on Earth.
Sentinel-6B	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.
Sentinel-1D	ESA / COM	Q4 2025	Will carry a C-band SAR instrument, ensuring the continuity and enhancement of the Copernicus Sentinel-1 constellation.
THEOS-2 Small Satellite	GISTDA	Q4 2025	Companion mission for THEOS-2, designed for high-resolution land observation.