

# CEOS MIM Database Quarterly Report

## July 2024

@EOHandbook

The Earth Observation Handbook, prepared by the European Space Agency (ESA) in support of the Committee on Earth Observation Satellites (CEOS), presents the main capabilities of satellite Earth observations, their applications, and a comprehensive overview of present and planned civil space agency Earth observation satellite missions and their instruments. The database which serves as the foundation for the missions, instruments, and measurements information at the heart of the Handbook content is updated annually and is always available online at:

**[database.eohandbook.com](https://database.eohandbook.com)**

This document provides a summary of key mission activities from the past quarter (April to June, 2024), and the coming two quarters (July to December, 2024).

### Latest News

NASA's **Polar Radiant Energy in the Far-InfraRed Experiment (PREFIRE)** mission launched on May 25, 2024 onboard a Rocket Lab Electron rocket from Launch Complex 1, New Zealand. The mission consists of two 6U CubeSats that have the objective to study the climatic effects of heat radiated to space from Earth's poles.

The **Earth Cloud, Aerosol and Radiation Explorer (EarthCARE)** mission successfully launched on May 28, 2024 from the Vandenberg Space Force Base on a SpaceX Falcon 9 rocket. The cooperative mission between ESA and JAXA will investigate the role of cloud-aerosol-radiation interactions in the climate and weather.

On June 25, 2024, the fourth and final satellite in NOAA's advanced Geostationary Operational Environmental Satellites (GOES-R) series, **GOES-U**, launched from NASA's Kennedy Space Centre onboard a SpaceX Falcon Heavy rocket. GOES-U has now been renamed to GOES-19, and will monitor weather and environmental hazards across the Western hemisphere from the GOES-EAST orbit (75° West).

**ALOS-4**, the latest in JAXA's Advanced Land Observing Satellite (ALOS) series, successfully launched onboard the agency's H3 rocket on July 1, 2024 from Tanegashima Space Center. ALOS-4 is the successor to ALOS-2, with both missions carrying L-band SAR instruments for monitoring disasters, forests, sea-ice, and infrastructure development. ALOS-4 has an improved instrument, with higher resolution imagery compared to ALOS-2.



EarthCare (ESA)



Launch of ALOS-4 (Informed Pulse)

### Upcoming Launches

Mission	Agencies	Launch	Purpose
<b>AWS</b>	ESA / EUMETSAT	July 2024	First in a constellation of meteorological microsattellites for Arctic weather forecasting, complementing MetOp observations.
<b>KOMPSAT-6</b>	KARI	August 2024	High resolution radar satellite for GIS, disaster and environmental monitoring, and ocean and land management.
<b>Sentinel-2C</b>	ESA / European Commission	September 2024	Third in the European series of high-resolution multispectral optical imagers, providing continuity for Sentinel-2A & -2B which launched in 2015 & 2017 respectively.
<b>NISAR</b>	NASA / ISRO	October 2024	Will track movement of the Earth's crust and ice cover with both S-band and L-band SAR instruments.
<b>HydroGNSS</b>	ESA / UKSA	October 2024	Two identical satellites using GNSS reflectometry to measure important climate variables from space.
<b>Sentinel-1C</b>	ESA / European Commission	Q4 2024	Third in the Sentinel-1 C-band SAR series, replacing Sentinel-1B which was lost in late 2021 due to an anomaly with the power supply.
<b>Resurs-P N5</b>	ROSCOSMOS	Q4 2024	Environmental satellite carrying optical instruments, with applications in Earth resources, environmental and disaster monitoring, and cartography.
<b>AIST-2T N1</b>	ROSCOSMOS	December 2024	The first in a pair of planned stereoscopic imagery satellites.
<b>THEOS-2 Small Satellite</b>	GISTDA	December 2024	Companion satellite to THEOS-2, launched in October 2023. Will have the ability for video capture.