

CEOS MIM Database Quarterly Report

April 2022

@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:

<http://database.eohandbook.com>

This page provides a summary of key mission activities from the past quarter (Jan - Mar, 2022), and the coming two quarters (Apr - Sep, 2022).

Latest News

After launch on 27 September 2021, **Landsat 9** passed its post-launch assessment review for transition into its operational phase on 31 January 2022. Following internal data system readiness reviews, USGS began making data fully and freely available to external users on 10 February 2022. This continues the long history of free and open Landsat data.

Seven CEOS Agency EO satellites have been successfully launched in the last three months, with approximately nine launches expected in the next six months.

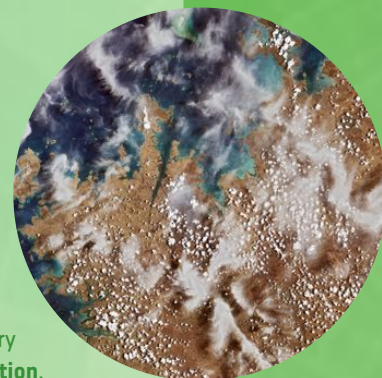
The second of Agenzia Spaziale Italiana's **COSMO-SkyMed Second Generation series**, **CSG-2**, launched on 31 January 2022. The second generation series aims to provide operational continuity for the original **COSMO-SkyMed constellation**, which consists of four small satellites, launched between 2007 and 2010. Together, **CSG-1 & -2** will be able to observe the same points on Earth twice a day. **CSG-3 & -4** are scheduled for launch in 2024 and 2027, respectively.

MDASat-1, the three-satellite mini-constellation developed by the South African National Space Agency in collaboration with the Cape Peninsula University of Technology, was launched on 13 January 2022. The launch marked a significant milestone for South Africa, as it was the first launch of a satellite developed entirely on the African continent.

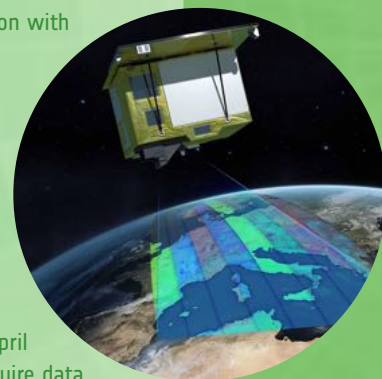
ISRO successfully launched **RISAT-1A** (also known as EOS-4), carrying a C-Band SAR instrument. The satellite is designed to provide high-quality images under all-weather conditions for applications such as agriculture, forestry, soil moisture, hydrology, and flood mapping.

NOAA's **GOES-T** (now **GOES-18**) launched on 1 March 2022. It is the third in a series of four advanced geostationary weather satellites, carrying the same instruments as its predecessors **GOES-R (GOES-16)** and **GOES-S (GOES-17)**.

The German Aerospace Centre (DLR) launched the first ever German optical Earth observing satellite, **EnMAP**, on 1 April 2022. **EnMAP** carries a **hyperspectral imager**, with 230 spectral channels in the solar-reflectance range and will acquire data on a frequent basis with high geometric resolution. The major objectives of the mission are to measure, derive, and analyse numerous diagnostic parameters which describe vital processes on the Earth's surface relating to agriculture, forestry, soil and geological environments, as well as coastal zones and inland waters. **EnMAP** data has already been assessed as **CEOS Analysis Ready Data**, prior to launch.



Landsat 9 "First Light" Image



EnMAP

Upcoming Satellite Launches

With the successful launch of the Pathfinder mission in June 2021, NASA will launch the other 6 satellites that make up **TROPICS** (Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of Smallsats) in the first half of 2022.

Launched

MDASat-1
SANS A / CPUT
13 January 2022

CSG-2
ASI / MoD (Italy)
31 January 2022

RISAT-1A
ISRO
14 February 2022

GOES-T
NOAA / NASA
1 March 2022

EnMAP
DLR
1 April 2022

Upcoming

OCEANSAT-3
ISRO
April 2022

TROPICS Constellation
NASA
First Launch April 2022

Lares-2
ASI
May 2022

EMIT-on-ISS
NASA
May 2022

CAS500-2
KARI / KAI / NGII
Q2 2022

RESOURCESAT-3S
ISRO
July 2022

KOMPSAT-7
KARI / KAI
September 2022

JPSS-2
NOAA / EUMETSAT / NASA
September 2022