CEOS MIM Database Quarterly Report

October 2021

@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

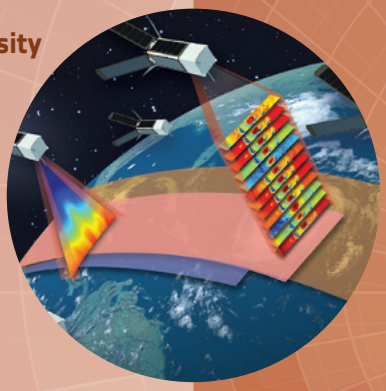
This page provides a summary of key mission activities from the past quarter (Jul-Sept, 2021), and the coming two quarters (Oct 2021 – Mar 2022).

Launch of **Landsat 9**. Image by NASA/Bill Ingalls

Latest News

Three CEOS Agency EO satellites have recently been successfully launched, with more than **20 launches expected in the last quarter of 2021 and first quarter of 2022.**

NASA's TROPICS (Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of Smallsats) Pathfinder mission was launched 30th June, and provides an opportunity to test the technology, communication systems, and data processing before the six satellites comprising the **TROPICS** constellation launch in 2022.



TROPICS mission

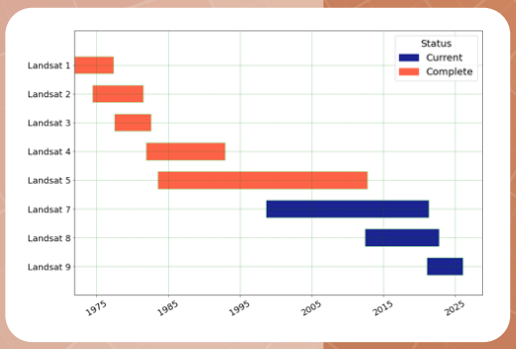
Launched 4th July and equipped with 11 remote sensing payloads, NSMC-CMA & NRSCC's **FY-3E** is part of the Fengyun-3 series of meteorological satellites. As the fifth in the series, it will measure atmospheric temperature, humidity, and other meteorological related parameters, which provides important continuity for weather forecast capabilities.

Landsat 9 was launched 27th September, and continues the USGS & NASA mission to provide continuous land surface imagery. Running for almost 50 years, the Landsat program provides the longest continuous space-based record of Earth's land. **Landsat 9** largely replicates its predecessor **Landsat 8**, to reduce build time and avoid a potential future gap in data.

Mission Launch / EOL Changes

OceanSat-3A, **RISAT-1A**, and **RESOURCESAT-3** are slated to be launched by ISRO before the end of 2021. The **Oceansat-3A** mission will aim to provide continuity of ocean colour data, with added improvements to enhance operational services such as potential fishery zones and primary productivity.

The Vietnam-made micro-satellite **NanoDragon** is set for launch in October. Weighing 4kg, the satellite belongs to the CubeSat category. It will operate at an orbit of 520km, with its main task to integrate an Automatic Identification System used for the purpose of tracking and monitoring vessels at sea.



Landsat timeline

Launched

TROPICS Pathfinder
NASA
30 June 2021

FY-3E
NSMC-CMA / NRSCC
4 July 2021

Landsat 9
NASA / USGS
27 September 2021

Upcoming

NanoDragon
VAST
October 2021

KOMPSAT-6
KARI
October 2021

MicroCarb
CNES / UKSA
December 2021

MDASat-1
SANSA / CPUT
December 2021

CSG-2
ASI / MoD (Italy)
December 2021

OCEANSAT-3A
ISRO
Q4 2021

RISAT-1A
ISRO
Q4 2021

HY-3A & 3B
NSOAS / CAST
Q4 2021

RESOURCESAT-3
ISRO
Q4 2021

HRSAT
ISRO
Q4 2021

THEOS-2 Main VHR
GISTDA
Q4 2021

Light-1
UAE SA / KU / NYUAD
2021

RESOURCESAT-3/3A
ISRO
January 2022

GOES-T
NOAA / NASA
February 2022

EnMAP
DLR
February 2022

Lares-2
ASI
March 2022

ALOS-3
JAXA
March 2022

JPSS-2
NOAA / EUMETSAT / NASA
March 2022