ESA & Arianespace Launches Copernicus Sentinel-1D Earth-Observation Satellite Aboard Ariane 6 Rocket

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In November 2025, the European Space Agency**(ESA)**and**Arianespace**launched the**CopernicusSentinel-1D**Earth-Observation Satellite**(EOS)**to Low Earth Orbit (LEO) aboard the**Ariane 6**rocket from the Guiana Space Centre in Kourou, French Guiana.

About Launches:

Launch Vehicle: The Ariane 6 rocket launched in its**A62 configuration,**equipped with two solid rocket boosters, a cryogenic core stage powered by the Vulcain 2.1 engine, and an upper stage using the Vinci engine.

Mission: Designated**VA265**, this mission represents a major milestone in Europe's space efforts, improving autonomous access to space and bolstering Earth observation capabilities.

Milestone: Sentinel-1D marks the 356th launch by Arianespace and the 4th mission using Ariane 6. It is also the 7th Sentinel satellite launched by Arianespace and the 109th spacecraft built by Thales Alenia Space to be launched by the company.

Key Objectives: The mission aims to support environmental monitoring (ice, vegetation, deforestation), disaster management (rapid mapping for floods and earthquakes), maritime safety (oil spill detection and ship monitoring), and urban planning (land deformation and infrastructure stability).

About Sentinel-1D:

Overview: The Sentinel-1D satellite marks the**fourth and final**launch of the first-generation Copernicus Sentinel-1 constellation, finalizing Europe's high-resolution radar imaging system for Earth observation.

Features: The satellite weighs about 2,300 Kilogram (Kg) and operates in a sun-synchronous orbit at an altitude of about 693 Kms. SAR provides high-resolution imaging between 5 and 25 meters (m) and carries an Automatic Identification System (AIS) to track maritime vessels in real time.

About Ariane 6 Rocket:

Developer: Ariane 6 launch vehicle, developed by ArianeGroup under ESA and Centre National d'EtudesSpatiales (CNES), French National Centre for Space Studies.

Successor: Built to succeed the retired Ariane 5, Ariane 6 delivers greater flexibility and cost-efficiency for diverse space missions.