

D-Orbit Launches Two Orbital Transportation Missions with ION Satellite Carrier

Endless Sky and Ascend, the 15th and 16th commercial missions of the OTV, launched aboard SpaceX's Transporter-12 from Vandenberg Space Force Base

Fino Mornasco, Italy, January 15, 2025 — On January 14th, 2025, [D-Orbit](#), a leader in space logistics and orbital transportation, successfully launched Endless Sky and Ascend, the 15th and 16th commercial missions of its cutting-edge Orbital Transfer Vehicle (OTV), **ION Satellite Carrier (ION)**.

The two OTVs were launched aboard SpaceX's Transporter-12 mission at **11:09 a.m. PT (07:09 PM UTC)** from **Space Launch Complex 4 (SLC-4E) at Vandenberg Space Force Base in California**. 1h 07m 47 sec after liftoff, the first ION vehicle, SCV Amazing Antonius, was deployed into a 510-km Sun Synchronous Orbit, followed by SCV Eminent Emmanuel four minutes later.

"With the launch of the Endless Sky and Ascend missions, we are proud to reinforce the growing trust our customers place in D-Orbit," said Renato Panesi, Co-founder, and Chief Commercial Officer of D-Orbit. "These missions are further demonstrating the versatility and reliability of our ION Satellite Carrier, and we are excited to set the stage for even more innovative solutions in the years ahead."

ION Satellite Carrier is a versatile space vehicle capable of transporting and releasing satellites into distinct orbital slots. It can also accommodate third-party payloads, including innovative technologies, research experiments, and instruments requiring in-orbit testing. Additionally, ION can support edge computing and space cloud services, providing satellite operators with advanced storage and computational capabilities in orbit.

D-Orbit's mission control team is now conducting the **Launch and Early Orbit Phase (LEOP)**, setting the stage for the upcoming operational phase.

Collaborating with new and recurring passengers

The two IONs host onboard several satellites and hosted payloads:

- **PoSAT-2**, a 3U CubeSat developed by [LusoSpace](#). As the first satellite in LusoSpace's 12-satellite constellation, PoSAT-2 aims to revolutionize maritime connectivity with significantly higher bandwidth than current AIS (Automatic Identification System) applications, enhanced data integrity, and advancements in maritime communication and safety.
- **LOGSATS-2**, developed by [EOS Orbit](#), is Thailand's first successful 3U CubeSat to reach space. The satellite is equipped with a space-based LoRa Gateway Service for IoT communication and an ADS-B receiver for advanced aviation monitoring. LOGSATS-2 is also enhanced with a high-resolution imaging camera for Earth observation and a Software-Defined Radio (SDR) for adaptable communications.
- **K2 SPACE COMPONENT MISSION** by [K2 Space](#). The K2 Space Component Mission will demonstrate space heritage for K2 Space's in-house designed bus components that will support the unique capabilities for the full K2 Satellite bus. These components include a Flight Computer, Motor Controller, and Reaction Wheel.
- **HITCHHIKER 1** is the first mission of [SpaceLocker](#)'s, a French shared mission operator specialized in simplified payload hosting. Its container and interface technology is a unique solution to make integration and operation of payloads easier. Carrying one container hosted on the deck of ION, Hitchhiker 1 enables a simplified and faster access to space to 3 users from around the world demonstrating innovative technologies in orbit.

- **Mission Impossible: 2 (MI:2)**, a mission by [TRL11](#). MI:2 includes 4 Fovea cameras and SAVER, a powerful video edge computer designed to provide low delay, full motion video of all the vehicle's dynamic space operations.
- **SWIMMR**, the Space Weather Innovation, Measurement, Modelling and Risk (SWIMMR) programme is a five-year, £20 million investment by the [UK Research and Innovation \(UKRI\) Strategic Priorities Fund](#), that will improve the UK's capabilities for space weather monitoring and prediction, focusing on space radiation. The SWIMMR Core mission is the second mission of the SWIMMR S1 'Improved in-situ radiation measurements for space and aviation' project, implemented by the [Space Physics and Operations Division of the Science and Technology Facilities Council \(STFC\) RAL Space](#). The mission will consist of a radiation monitor HardPix developed by [Czech Technical University](#), integrated on ION Satellite Carrier to provide radiation data to the Met Office Space Weather Operations Centre, from altitudes between 330km and 1200km.
- **DATA DOT**, by [SpaceDOTS](#), is the first space environmental data-gathering unit, collecting critical data on the environmental events that directly affect spacecraft design, costs, operations and, ultimately, mission success. Understanding these dynamic environments is key to designing smarter, safer, and more cost-efficient missions.
- **AlbaPod 6P**, a PocketQube satellite deployer by [Alba Orbital Ltd.](#) serves as a deployer for 6P PocketQube satellites. PocketQubes, which are typically cube-shaped with 5 cm sides and a maximum mass of 250 grams, leverage commercial off-the-shelf components for electronics. AlbaPod 6P aims to provide a reliable deployment platform for these diminutive satellites, enhancing the scope of what can be achieved with small-scale space assets. The deployer will host a variety of PocketQubes, each with its own unique research objectives.
- **AI-eXpress (AIX)**, a project by [Planetek](#) with the collaboration of [D-Orbit](#) and [AIKO](#). AIX is co-funded by [ESA](#) Philab's Incubed programme that uses advanced technologies such as Artificial Intelligence (AI) and Blockchain in Space to enhance satellite capabilities in terms of reactivity, responsiveness and low-latency information delivery. AIX provides a hybrid edge/cloud ecosystem on a Low Earth Orbit (LEO) platform equipped with Earth observation payloads, deployable CubeSats and a software framework that manages sensors and on-board resources. The first mission, launched today and called AI-eXpress 1 Precursor (AIX-1p), is designed to test and validate the core building blocks of fundamental software services (data processing and execution) directly in space. These functionalities form the backbone of the "satellite-as-a-service" model. AIX-1p is the first step toward creating a space "App Store," offering a simpler and more innovative way to access space resources.

On an additional port on the Transporter-12 mission, D-Orbit is also launching four satellites from [Plan-S Satellite and Space Technologies](#) (Connecta IOT-5,-6,-7,-8), two from [Spire](#) (Lemur 2 Star Fox and Lemur 2 Arianna), two from [FOSSA Systems](#) (FO018 and FO019), and one from [Almagest Space](#) (Elevation-1). Additionally, the mission includes four ISISPACE quadpacks (carrying satellites from ISISPACE's own customers).

ION will also host onboard further satellites and hosted payloads from undisclosed customers.

D-Orbit launched its first ION in September 2020. With this launch, the Company will have transported to space **almost 180 payloads** collectively.

About D-Orbit

D-Orbit is a market leader in the space logistics and transportation services industry with a track record of space-proven services, technologies, and successful missions.

Founded in 2011, D-Orbit is the first company addressing the logistics needs of the space market. ION Satellite Carrier, for example, is a space vehicle that can transport satellites in orbit and release them individually into distinct orbital slots, reducing the time from launch to operations by up to 85% and the launch costs of an entire satellite constellation by up to 40%. ION can also accommodate multiple third-party payloads like innovative technologies developed by startups, experiments from research entities, and instruments from space companies requiring a test in orbit. Finally, ION can also be rented for edge computing applications and space cloud services to provide satellite operators with storage capacity and advanced computing capabilities in orbit. D-Orbit's roadmap includes becoming a relevant player in the in-orbit servicing market, which is forecasted to become one of the largest, growing markets within the space sector.

With offices in Italy, Portugal, the UK, and a new US team focused on bus design, manufacturing, and commercialization, D-Orbit is the world's first certified B-Corp space company and a registered benefit corporation.

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