



ABOVE THE SUMMER SKY

MISSION BOOKLET



Mission name: Above the Summer Sky
Carrier name: ION SCV Joyful Julia

Fino Mornasco, Italy, July 7th, 2026 – On July 7th, 2026, **D-Orbit**, a global leader in space logistics and orbital transportation, launched **Above the Summer Sky**, the 23rd commercial mission of its orbital transfer vehicle (OTV), **ION Satellite Carrier (ION)**, aboard **SpaceX's Transporter-17 mission**.

The OTV was launched from **Space Launch Complex 4E (SLC-4E)** at **Vandenberg Space Force Base** in California at 00:12 PDT (07:12 UTC). Following liftoff, **ION SCV Joyful Julia** was released into a Sun-synchronous Orbit at an altitude of approximately 510 km.

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.



A note about the name of the satellite carrier

The name of the satellite carrier is “ION Joyful Julia”, a combination of the acronym “ION”, which stands for “InOrbit NOW”, and the satellite’s first name. This format follows the naming conventions of naval vessels used in navies around the World. The name “Julia” was drawn at random from a bowl containing the names of all D-Orbit’s employees. The company will continue to follow this procedure in the future to honor the skills, energy, passion, and commitment to its people.



ION SCV Joyful Julia, and team



Name of payload: Cesário, Florbela, Torga

Form Factor: 3x8U

POC: info@lusospace.com

LusoSpace's ambitious plan includes the development and deployment of a 12-satellite constellation, each equipped with cutting-edge VDES (VHF Data Exchange System) payloads. This constellation aims to revolutionize maritime connectivity by providing significantly higher bandwidth than current AIS (Automatic Identification System) applications, enhanced data integrity, and a promising leap forward in maritime communication and safety. Cesário, Florbela and Torga will join in the skies PoSAT-2, Camões, Agustina, Saramago and Pessoa, to increase the Lusíada constellation formation. The satellite's payload features a next-generation VHF radio capable of encoding and decoding AIS and VDES messages, complemented by a deployable VHF antenna activated after the LEOP (Launch and Early Orbit Phase). The payload is managed by the spacecraft's onboard computer, which stores data received via the VHF link and transmits it to maritime control centers. Additionally, it enables the transmission of critical information to vessels, such as navigational warnings and updates. The satellite's core system manages spacecraft operations, including attitude control, S-band communication for monitoring, and command and control functions throughout its lifetime.

COMPANY PROFILE Website: www.lusospace.com

Founded in 2002, LusoSpace was the first space startup in Portugal. Ivo Yves Vieira, LusoSpace's main co-funder and CEO, participated in 1993 in the first Portuguese satellite, PoSAT-1, with the ambition to contribute to space industry growth and development in Portugal. LusoSpace has been growing 20% on average and increased its competencies and capabilities holding several testing equipment and two clean rooms.

Photo credit: Lusospace





Name of payload: QSAT1

Type of payload: NTN Research Payload

POC: pratdas@qti.qualcomm.com

The QSAT1 is a Non-Terrestrial Network (NTN) research platform designed to support in-orbit validation of advanced satellite communication technologies. It enables the evaluation of key functionalities required for the future evolution of 5G-Advanced NTN systems to 6G, including signal transmission performance, system integration, and operation in realistic space conditions. The payload is designed to operate as a self-contained unit, gathering data and insights that will support the development of next-generation communication architectures integrating terrestrial and satellite networks. This mission provides an opportunity to validate the payload's behavior and performance in orbit, contributing to ongoing research and innovation in space-based communication systems.

COMPANY PROFILE Website: www.qualcomm.com

Qualcomm is a global computing leader at the center of the AI era, enabling intelligence to scale from the most personal devices to large-scale infrastructure. Building on more than four decades of innovation, we develop platforms and solutions that bring together advanced AI, high-performance low-power computing, and industry-leading connectivity—powering products and services used around the world. At Qualcomm, we are engineering human progress.

Photo credit: Qualcomm





stardome

Name of payload: Stardome SNS

Type of payload: 10x10cm Data Authentication Payload

POC: Philippe Perotti
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The Stardome Notary Source (SNS) is a hardware module integrated within the satellite host. The Stardome SNS module has been designed to

- provide the OBC (on-board computer) with Stardome digital identity;
- sign data provided by the OBC with Stardome digital signature;
- compute the Stardome Epoch.

The Stardome SNS modules process data certification at the source, understood as the host device that provides the source data through a direct connection to the Stardome module: Stardome attests that specific bytes were presented to a specific module instance in a specific continuity state and at a specific synchronization state.

COMPANY PROFILE

Website: stardome.cloud

Stardome is a hardware-bound attestation and notarization architecture for autonomous systems operating in space and on Earth. In Stardome, certification means generating a device-bound attestation over source data and continuity state, publishing that attestation to a decentralized ledger technology resource for independent timestamping and retrieval. Instead of relying only on conventional certificate hierarchies, Stardome combines hardware-bound timing or continuity evidence, post-quantum hash-based signatures, and public-ledger publication to generate independently verifiable evidence objects. A certification system integrated within and above the Earth's digital infrastructure ensures the traceability, non-repudiation and preservation of the digital signatures.

Photo credit: Stardome



