



Press release

SES Space & Defense Demonstrates First Multi-orbit, Multi-band Commercial LEO Relay

SES Space & Defense together with Planet Labs successfully demonstrate low-latency LEO space data relay services via ground system

Reston, Va., 5 June 2024 – SES Space & Defense, a wholly-owned subsidiary of SES, today announced the successful demonstration of the first multi-orbit, multi-band commercial space relay service in support of the NASA Communications Services Project (CSP).

To demonstrate data relay services, SES Space & Defense partnered with Planet Labs (Planet), the leading provider of global daily Earth data using SES's O3b mPOWER satellite constellation in Medium Earth Orbit (MEO) and Planet's Low Earth Orbit (LEO) flight-representative terminal.

SES Space & Defense and Planet demonstrated a stable data link, validating the hardware, data flow and the end-to-end system performance as well as successfully reduced flight hardware and services risk. Throughout the testing process, the performance of Planet's flight modem correlated with expectations, achieving link budgets that consistently aligned with predicted results.

The demonstrations support NASA's Funded Space Act Agreement, which enables commercial space relay via Geostationary (GEO) C-band and Medium Earth Orbit (MEO) Ka-band satellites to spacecraft in Low Earth Orbit (LEO). The initiative allows for NASA's transition from the Tracking and Data Relay Satellite System (TDRSS) to commercial systems for its space relay requirements while helping create a commercial market for space relay.

In late 2023, SES Space & Defense already demonstrated Telemetry, Tracking and Commanding (TT&C) relay services through ground testing of a C-band "always on" channel. This was accomplished through Planet's LEO flight-ready C-band terminal and SES's C-band GEO global beams.

"With this end-to-end test and demonstration of capabilities, we were able to successfully showcase a complete data flow through our LEO Relay System (LRS) service," said David Fields, President and CEO, SES Space & Defense. "The data measurement results validated our multi-band commercial space relay service, set the stage for the flight demonstration as the next step, and for the future launch of the operational service offering. We are exceptionally proud of all involved in developing a multi-orbit, multi-band space relay for both government and commercial LEO operators as NASA's TDRS system retires."

For further information, please contact:



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About SES Space & Defense

SES Space & Defense is a wholly-owned subsidiary of SES, the leader in global content connectivity solutions, and is exclusively focused on building, managing, and supporting the most advanced satellite network solutions for the U.S. Government. SES Space & Defense leverages a proven multi-operator network integration and management capability, an extensive global terrestrial network, as well as access to SES's multi-orbit satellite fleet. It also offers U.S. Department of Defense customers the essential tools in cybersecurity for mission-critical operations, coupled with a proven track record in governance and compliance. SES Space & Defense operates under a proxy board, enabling it to support classified projects, and it has been present in the U.S. Government satcom market for over four decades. Further information can be found at: www.sessd.com.

About SES

SES has a bold vision to deliver amazing experiences everywhere on Earth by distributing the highest quality video content and providing seamless data connectivity services around the world. As a provider of global content connectivity solutions, SES owns and operates the world's only geosynchronous orbit and medium earth orbit (GEO-MEO) constellation of satellites with the unique combination of global coverage and high performance. By using its intelligent, cloud-enabled network, SES delivers high-quality connectivity solutions anywhere on land, at sea or in the air, and is a trusted partner to the world's leading telecommunications companies, mobile network operators, governments, connectivity and cloud service providers, broadcasters, video platform operators and content owners. SES's video network carries over 6,400 channels, reaching 363 million households, delivering managed media services for both linear and non-linear content. The company is headquartered in Luxembourg and listed on Paris and Luxembourg stock exchanges (Ticker: SESG). Further information is available at: www.ses.com