NEWS RELEASE

CesiumAstro, SES, and Hughes Team Up to Demonstrate a Scalable Ka-Band Active Phased Array SATCOM Terminal

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AUSTIN, Texas--(BUSINESS WIRE)-- CesiumAstro, SES, and Hughes announced today the successful over-the-air (OTA) demonstration of a scalable Ka-band active phased array terminal for satellite communications (SATCOM).

CesiumAstro's medium form factor SATCOM terminal (Graphic: Business Wire)

Conducted by CesiumAstro throughout the months of June and July in Austin, Texas, the demonstration paired the company's medium form factor terminal with the Hughes HM400 software-defined modem connecting through SES's geosynchronous orbit (GEO) satellite. This news is a key milestone on CesiumAstro's roadmap to flight-qualify its Ka-band SATCOM terminal on commercial and defense platforms. CesiumAstro recently announced a contract to demo its terminal aboard a U.S. Air Force MQ-9A Reaper unmanned aerial system (UAS) in support of the military's need for enhanced, higher throughput connectivity aboard airborne vehicles.

CesiumAstro's SATCOM terminal seamlessly connected with SES's satellite on both stationary and mobile platforms, demonstrating transmit and receive link closure to the satellite, and to a Hughes ground station in Woodbine, Maryland. The CesiumAstro team surfed the internet as well as streamed full-motion video and a live webcam feed from the terminal to a remote site, replicating the required capabilities of commercial inflight connectivity and UAS intelligence, surveillance, and reconnaissance (ISR) missions.

"We appreciate SES and Hughes for their support on this OTA demonstration," said Shey Sabripour, founder and CEO of CesiumAstro. "Flat-panel SATCOM with multi-beam and multi-orbit capabilities is game-changing in both the commercial and defense airborne terminal markets."

“This demonstration showcased the functionality and maturation of the industry’s first multi-beam capability allowing utilization of the terminal’s electronically steerable beam to maintain connectivity on the move,” said Wayne Phelps, program lead at CesiumAstro. “We look forward to many more program successes over the next six months as our team completes our next set of demonstrations for this terminal.”

As previously announced, CesiumAstro will complete a flight demonstration with Airbus in early to mid-2024. The company is on schedule to deliver hardware for this demonstration in Q3 2023.

“The Hughes team is proud to join CesiumAstro and SES in demonstrating the power and flexibility of satellite connectivity in meeting mission requirements of the U.S. Department of Defense,” said Rick Lober, vice president and general manager, Defense & Government Systems Division, Hughes. “This is an excellent example of how the Hughes Military air and ground system supports Beyond Line of Sight (BLoS), resilient communication and the implementation of Primary Alternate Contingency Emergency (PACE) plans.”

To learn more about CesiumAstro’s Ka-band SATCOM terminal, visit **cesiumastro.com/SATCOM** or reach out to **sales@cesiumastro.com**.

About CesiumAstro

Headquartered in Austin, Texas, with offices in Broomfield, Colorado; El Segundo, California; and the United Kingdom; CesiumAstro builds high-throughput, software-defined phased array communications payloads for airborne and space platforms, including satellites, missiles, UASs, and more. CesiumAstro’s full-stack, multi-mission hardware and software solutions enable a range of commercial, civil, and defense objectives. CesiumAstro provides full in-house design, manufacturing, and testing capabilities based on the ISO AS9100 standard. To learn more, visit **cesiumastro.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 connectivity around the world. As the leader in global content connectivity solutions, SES operates the world's only multi-orbit constellation of satellites with the unique combination of global coverage and high performance, including the commercially-proven, low-latency Medium Earth Orbit O3b system. By leveraging a vast and intelligent, cloud-enabled network, SES is able to deliver 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 ~8,000 channels and has an unparalleled reach

of 366 million households, delivering managed media services for both linear and non-linear content. The company is listed on Paris and Luxembourg stock exchanges. Further information is available at: **www.ses.com**.

About Hughes

Hughes Network Systems, LLC, an EchoStar (Nasdaq: **SATS**) company, provides broadband equipment and services; managed services featuring smart, software-defined networking; and end-to-end network operation for millions of consumers, businesses, governments and communities worldwide. The Hughes flagship internet service, HughesNet®, connects millions of people across the Americas, and the Hughes JUPITER™ System powers internet access for tens of millions more worldwide. Hughes supplies more than half the global satellite terminal market to leading satellite operators, in-flight service providers, mobile network operators and military customers. A managed network services provider, Hughes supports half a million enterprise sites with its HughesON™ portfolio of wired and wireless solutions. To learn more, visit **http://www.hughes.com** or follow HughesConnects on Twitter and LinkedIn.

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