Ball News Releases

BAE Systems and Stellar Blu Solutions complete multi-orbit antenna qualification and type certification for in-flight connectivity

The milestone opens the door for integration of the aero terminal onto commercial and military aircraft. The companies are in full production to fulfill orders.

BROOMFIELD, Colo. and FORT WORTH, Texas, July 22, 2024 /PRNewswire/ -- BAE Systems' (LON: BA) strategic partner Stellar Blu Solutions has completed qualification and earned supplemental type certification on the multi-orbit Sidewinder aero terminal using BAE Systems' Ku-band electronically scanned antenna (ESA). The milestone enables the companies to begin mass production and installation of the antennas to support in-flight connectivity (IFC) on commercial aircraft, business jets, and other military and government platforms.

"This milestone serves as a building block as we advance these capabilities for our commercial and military customers."

In March, the ESA completed its DO-160 airborne equipment qualification. The antenna completed qualification from its original design and moved directly to production, showcasing its design maturity, product quality, and strong heritage. Upon completion of flight testing in June, the Sidewinder terminal received its first supplemental type certification (STC) from the Federal Aviation Administration, opening the door for airlines to begin integrating the system onto regional jets. The terminal will continue with global performance validation and testing with a second aircraft, including in polar areas.

With these requirements met and Sidewinder now in service, BAE Systems and Stellar Blu have ramped production and begun shipment to meet more than 1,000 existing orders, including several hundred installations scheduled over the next year. In parallel, the companies continue their collaboration on next generation terminal designs focused on Ku and Ka low-Earth orbit (LEO) optimized terminals.

"The need for quality in-flight connectivity is growing every day, as displayed by our already considerable number of orders," said Paula Burns, vice president and general manager of Tactical Solutions for BAE Systems Space & Mission Systems. "This is a major milestone for both BAE Systems and Stellar Blu, and it will serve as a building block as we continue to advance these capabilities for our commercial and military customers."

BAE Systems designs and produces the transmit antenna, receive antenna, and antenna control software that Stellar Blu integrates into its Sidewinder terminal. Sidewinder is a complete aero terminal, and the full kit includes all external and cabin components to support internet service providers offering multi-orbit connectivity. Integrator kits are available for government applications. Stellar Blu was responsible for the qualification and STC process for the terminal.

"Our collaboration is foundational to our success, which is reflected in our backlog and the overwhelming interest in every aero market," said Tracy Trent, CEO of Stellar Blu Solutions. "We continue to invest in the adaption of Sidewinder with airframe original equipment manufacturers and the development of new products, utilizing proven BAE Systems technology to bring a range of solutions to our customers."

BAE Systems' antennas support multi-orbit satellite communications and have been extensively flight tested on LEO and geostationary orbit satellite networks. The low-profile antenna met all qualification requirements without requiring an external radome, reducing the cost and installation complexity while improving radio frequency performance.

www.baesystems.com/US
@BAESystemsInc

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For further information: Sawyer D'Argonne, BAE Systems, Mobile: 303-250-6031, sawyer.dargonne@baesystems.us

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