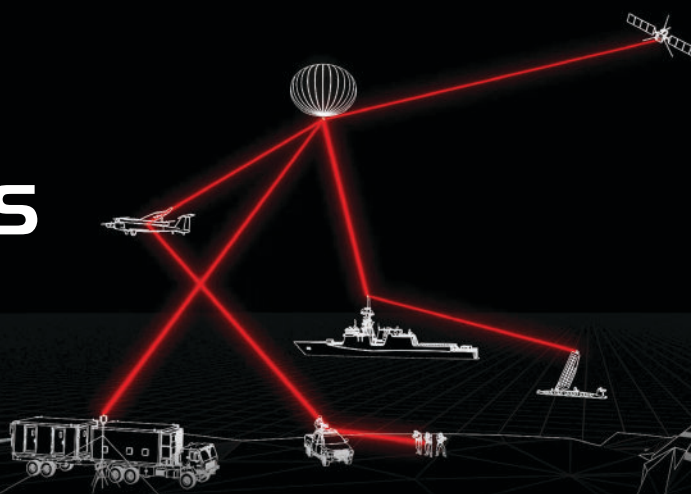


STRATOSPHERIC AIRBORNE COMMUNICATIONS RELAY

Video, Voice & Data Communications



MISSION POSSIBILITIES

- DEFENSE ISR
- PUBLIC SAFETY
- DISASTER RESPONSE

CORE COMPONENTS

Silvus StreamCaster MANET Radios

When deployed via high-altitude unmanned aerial platforms, StreamCaster MANET radios create a robust BLOS communications relay that can link lower-altitude UAVs, ground mobile units, and operations teams, expanding the operational range of their mesh network connectivity to hundreds of miles.

Top Benefits:

- Class-leading output power, range, and mobility
- High-fidelity video, voice, and data communications
- Self-healing, self-forming, and adaptive mesh network
- Unmatched data throughput, EW resiliency and scalability
- Spectrum Dominance - expansive suite of LPI/LPD and anti-jamming resiliency capabilities

Aerostar Thunderhead Stratospheric Balloon System

The ground-breaking high-altitude system delivers long-duration navigation and persistence over areas of interest. Aerostar balloons fly a small electronics package and one-time use envelope that allows them to be planned and executed at a fraction of the cost and time of traditional stratospheric platforms.

Top Benefits:

- Persistence over areas of interest
- A.I.-based wind navigation models
- Ground-up launch in less than two weeks
- Constellations expand reach hundreds of miles
- Multi-payload platform possibilities

"Stratospheric balloons open up a whole new range of possibilities with unmanned aerial data links. They allow you to raise your antennas well above the horizon, extending that line of sight range over a much greater distance and opening up a whole new realm of possibilities for tactical communications."

Jimi Henderson
Vice President of Sales
Silvus Technologies

"A resilient network can route data and be up no matter what happens. If balloons and assets are floating in and out of range, a resilient network picks up the new nodes and routes traffic automatically without dropping packets."

Sara Venhuizen
Director of Engineering Programs
Aerostar

THE HORIZON IS NO LONGER A LIMIT

The Art of What's Possible

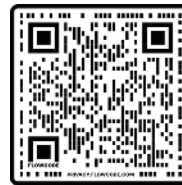
In today's complex operational environments, intelligent, secure, and resilient communication is mission-critical. Aerostar and Silvus are redefining multi-domain capabilities for defense, public safety, and disaster management organizations.

A systems-of-systems approach creates powerful communication networks that unify operational assets in any environment. With the ability to expand the operational horizon to hundreds of miles, Thunderhead Stratospheric Balloon Systems from Aerostar are more persistent and cost-effective than many aircraft.

Thunderhead's navigation is powered by solar energy, and leverages A.I.-based navigation wind models, enabling more time on station with low demand on personnel or the environment. Paired with Silvus StreamCaster MANET mesh radio systems, the system is designed to withstand the toughest conditions, thrive in contested environments and match your operational tempo.

AEROSTAR PLATFORMS WITH SILVUS RADIOS ACHIEVED LINK DISTANCES EXCEEDING 300 MILES

- **Case One:** Silvus SC4400 MANET radio (8 Watt) in S-Band, was paired with 5 dBi Omni antennas on the Aerostar Thunderhead Balloon. Payload sensor data was transmitted down in real-time to a ground station that featured a second SC4400 MANET radio (8 Watt) paired with a 19 dBi Panel antenna.
- **Case Two:** Silvus SC4400 MANET radio (8 Watt) in C-Band, was paired with 15 dBi sector antennas on the Aerostar Thunderhead Balloon. Real-time ISR sensor data was transmitted to the ground station that featured a SC4200 MANET radio (4 Watt) paired with a high-power amplifier and 30 dBi Dish antenna.



[Watch a Demonstration](#)

SILVUS TECHNOLOGIES

As the world's leading provider of advanced MANET and MIMO communications systems, Silvus Technologies is reshaping mesh network technology – on ground, in air, and at sea. Its battle proven StreamCaster radios and proprietary MN-MIMO waveform provide the vital communications link for defense, law enforcement, and public safety agencies around the world. Silvus Technologies continues to innovate technology for the tactical edge with unmatched range, data throughput, EW resiliency, and scalability.

AEROSTAR

Aerostar has taken lighter-than-air technologies to all new heights by leveraging the most brilliant minds, materials, and machinery for over 65 years to connect, protect, and save lives. Aerostar is a world leader in the design and manufacture of highly technical aerospace and defense solutions and is committed to the rapid innovation of highly technical and groundbreaking technology that enhances security and connects the world.

Equipment described herein requires U.S. Government authorization for export purposes. Diversion contrary to U.S. law is prohibited, 22 C.F.R, Subchapter M, Parts 120-130 per Section 38 of the Arms Export Control Act, 22U.S.C. 2778. Transfer of these commodities or associated technical data as defined by ITAR §120.10 by any means to a non-U.S. person, whether in the United States or abroad, without prior approval from the U.S. Department of State is strictly prohibited. A U.S. person is as defined in ITAR §120.15.

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