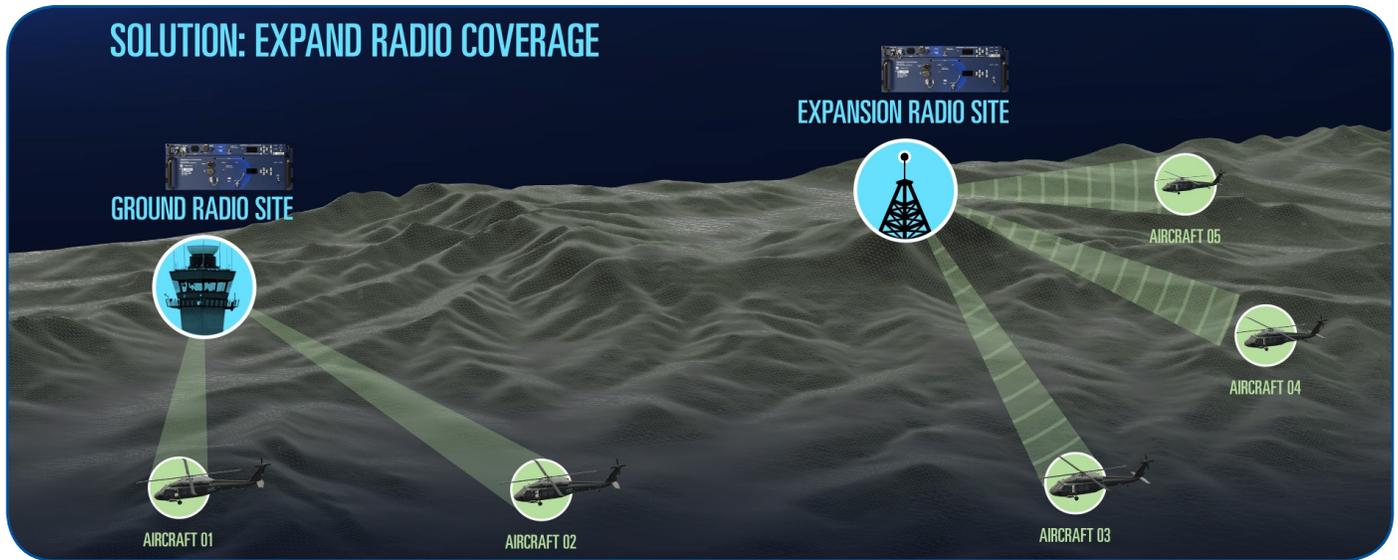


Simulcast System for Ground to Air Radio Communications

Full Communications - Resolves Ground to Air Coverage Gaps & Enhances Range Safety



Seamlessly combine audio from multiple sites on a single audio channel

Timing, frequency mismatch, doppler artifacts suppressed for clear pilot to controller audio

Best Signal Selection provides the ATC Controller the best received audio signal from multiple receiver sites

Central network control & monitoring, local or remote troubleshooting

Full turnkey system - site survey, coverage modeling and installation

19" rack mountable components, compatible with typical installations

Overview

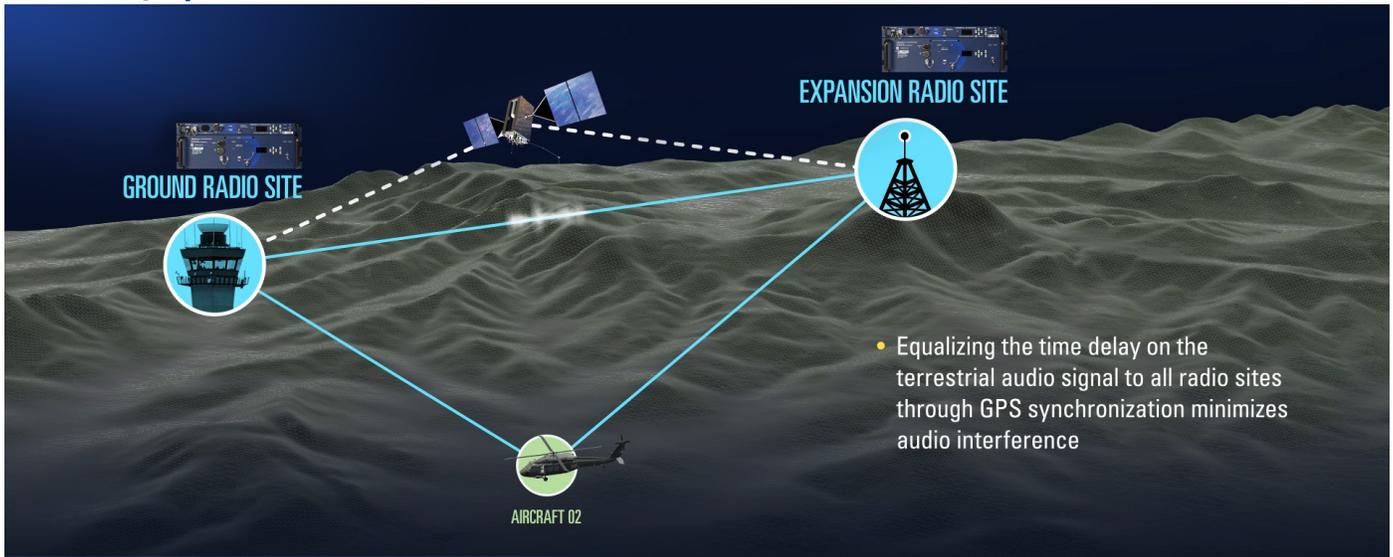
The General Dynamics Simulcast System for Ground to Air Radio Communications provides a scalable solution to resolve ground-to-air coverage gap issues. The system expands radio coverage and provides clear-line-of-site communications to areas where there was previously marginal or no coverage. Overlapping signal interference from multiple sites is minimized through the use of Audio Delay Equalization which equalizes the time delay on the terrestrial audio signal to all radio sites through GPS synchronization. Fortress® wireless mesh points provide a wireless data link to the expansion radio site if no terrestrial data infrastructure is available. In addition GPS synchronization eliminates the audio distortion in the cockpit often resulting from simultaneous broadcast from multiple transmitters if the frequencies are not synchronized. The Simulcast System is custom designed to match the challenges of terrain and maximize coverage for each facility, while minimizing the amount of remote radio sites.

End-to-End Customizable Turnkey Solution

Our proven and reliable system provides a complete, end-to-end turnkey solution from the controller stations to the antenna system. We can assist you with determining the most cost-effective complement of transmitters, receivers and transceivers required for your site as well as how best to upgrade your existing radios. Our dedicated engineering and technical support staff are on-hand to provide you with technical services whenever you need it.

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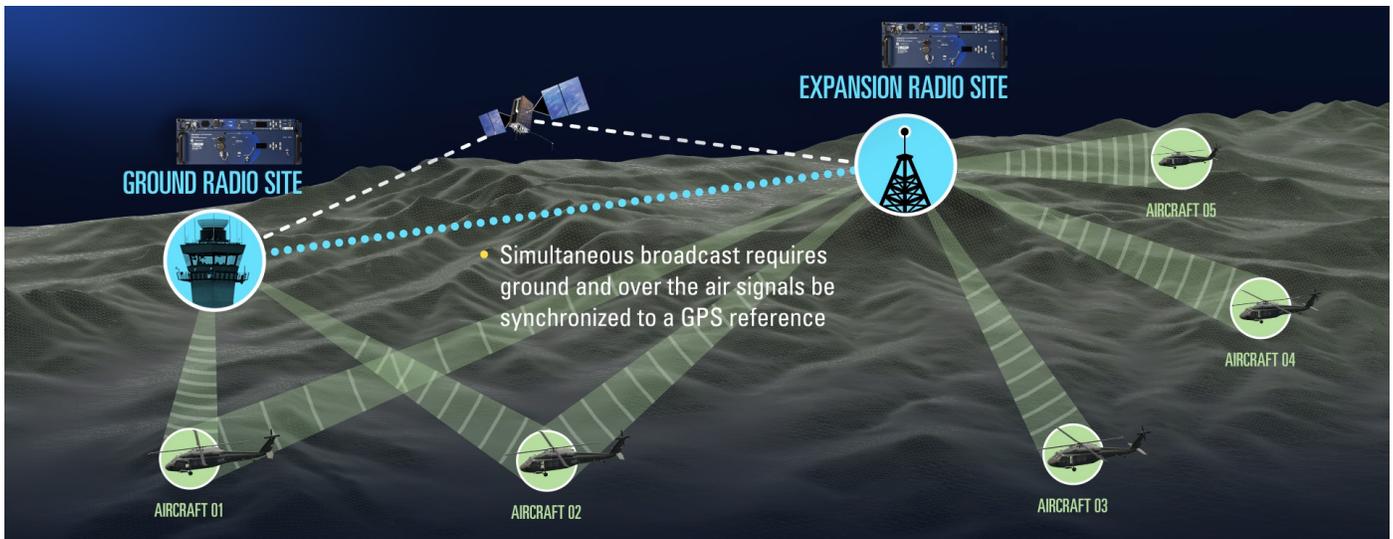
Audio Delay Equalization



Challenge: Terrestrial Audio delay between multiple transmitter sites introduces an echo in the pilots headset.

Solution: Audio Delay Equalization removes the echo by equalizing the time delay on the audio signal to all radio sites through GPS synchronization. In addition Fortress Wireless Mesh point radios can provide a wireless data link to the expansion radio site if no terrestrial data infrastructure is available.

GPS Synchronization



Challenge: Simultaneous broadcast from multiple transmitters can generate audio distortion in the cockpit if the transmitter frequencies are not synchronized.

Solution: GPS Synchronization suppresses audio distortion in the cockpit by requiring ground and over-the-air signals to be synchronized to a GPS reference. ICAO Annex 10 Offset Carrier techniques are also available to optimize the over-the-air voice communications.

GENERAL DYNAMICS

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