



Overview of Airborne Systems

Thales Communications, Inc. provides communications solutions across a myriad of operational environments, including airborne systems. The company has leveraged the core technology of the AN/PRC-148 family of Multiband Inter/Intra Team Radios into solutions for unattended airborne vehicles (UAV) and unmanned airborne systems (UAS). Their growing portfolio of UAV and UAS products includes:

Multichannel, Multiband Airborne Radio (MMAR)

The MMAR repackages two AN/PRC-148 JTRS Enhanced Multiband Inter/Intra Team Radios (JEMs) into an airborne-qualified Air Transport Radio (ATR)-style enclosure specifically targeted at airborne VHF/UHF communications/relay payload applications. It supports dual independent radios or retransmission with cross-banding configuration. With integrated co-site filtering, the MMAR is uniquely suited to reduce interference from other emitters on the platform. With its integrated VoIP capability, it is able to easily integrate into airborne networks, allowing for remote command and control via the MMAR's hosted web paged Graphic User Interface (GUI). The rugged design of the MMAR meets the environmental extremes of UAS platforms. It retains a small size, weight, and low power, providing excellent support to a range of operations that include Aerostat, High Altitude Long Endurance (HALE), Extended Range/Multi-Purpose (ER/MP), and other tactical unmanned airborne missions.



The MMAR is currently fielded on more than a dozen platforms and payloads that include aerostats, high altitude airships, and fixed wing tactical UAVs.

Lightweight, Multiband Airborne Radio (LMAR)

The LMAR is a repackaged PRC6809 Multiband Inter/Intra Team Radio with the proper power conditioning and filtering for airborne applications. The LMAR was developed primarily for UAV applications.



Thales Communications is providing a unique version of the LMAR to the UK's Ministry of Defence Watchkeeper program. The Watchkeeper system provides enhanced capability that will enable commanders to detect and track targets for many hours without the need to deploy troops into potentially sensitive or dangerous areas. Watchkeeper flew for the first time in the UK on April 14, 2010.

SWAP-Constrained, Multiband Airborne Relay (SMAR)

The SMAR is a repackaged, small form factor PRC6809 Multiband Inter/Intra Team Radio with the proper power conditioning and filtering for airborne applications. Developed to meet the more size, weight, and power (SWAP) dependent UAV payloads and platforms, the SMAR provides full retransmission capabilities including optional SINCGARS and HAVEQUICK ECCM in a minimum SWAP package to extend radio linkage or overcome obstacles that prevent line-of-sight operations. The repeater function is non-CCI and crypto transparent.



JTRS Handheld, Manpack, and Small Form Fit (HMS) SFF-B

Co-developed under the JTRS HMS program with prime contractor General Dynamics, the SFF-B is the first JTRS embeddable, two-channel, Type-1 networking radio. It supports both the SINCGARS and Soldier Radio Waveforms (SRW). The small footprint facilitates easy integration and can be tailored per platform mechanical configuration needs. Interfaces support a wide array of devices to meet multiple mission requirements. External RF control supports various third party power amplifiers. It is compatible with multiple vehicular and body-worn displays. It connects to VIC systems via a platform adapter. The SFF-B is EMI/EMC compliant and compatible with legacy key fill devices. It also features separation of RF channels. An optional internal SAASM GPS is available.



Thales Communications serves the U.S. Department of Defense, U.S. civilian agencies, and allied and coalition forces globally with the development, manufacture, and support of tactical electronic equipment and information systems that address the technological and environmental challenges presented in real-world situations—especially those with size, weight, and power constraints. The company is meeting the diverse communications needs of our warfighters and first responders in the tactical, naval, and homeland security domains with reliable, proven, “future-proof” capabilities — getting the most capable equipment into their hands today with technology that will serve them far into the future.

Thales Communications’ products are developed and manufactured at their Maryland facilities and are supported around the world. The company has established in-theater maintenance and repair depots, which are sustaining troops in Kuwait, Iraq, and Afghanistan by providing facilities, product support, and other significant resources as close as possible to the warfighters who use and depend on the equipment.

Thales Communications is committed to helping warfighters and first responders execute their missions successfully and return home safely.

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