

URC-300 GROUND-TO-AIR TRANSCEIVER IS COMPLIANT FOR GLOBAL OPERATION

The URC-300 portable transceiver maximizes RF performance and provides clear communications in highly contested environments

Ryan Parsons, Sr. marketing manager, General Dynamics Mission Systems

 General Dynamics Mission Systems is pleased to announce that its new URC-300 transceiver has completed European Telecommunications Standards Institute (ETSI) European Standard (EN) 300 676 testing and is now in full compliance with all 25kHz and 8.33kHz VHF specifications.

In addition, the URC-300 recently completed the ETSI EN 302 617 UHF testing and is also compliant with 25kHz UHF specifications. The tests were performed by an independent accredited testing service.

These certifications make the URC-300 the first portable ruggedized man-pack dual band transceiver to be approved for global operation against the stringent aviation spectrum standards.

Certified

General Dynamics understands that the spectrum approval process can be highly complex and time consuming, especially outside of the USA. As a result, General Dynamics will obtain all required certifications to eliminate purchase, approval and spectrum roadblocks and help streamline deployment without delays.

The URC-300 is compliant with global standards and certifications including Radio Equipment Directive (RED), REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals), RoHS, ETSI EN 300 676 compliance and it readily supports worldwide 25kHz and 8.33 kHz deployment.

The URC-300 is also certified by the Federal Communication Commission (FCC) for civilian use and is currently in the process of being certified to operate in the US DoD (Department of Defense) Spectrum.



Emergency Transceiver Replacement program

The Federal Aviation Administration (FAA) recently chose General Dynamics Mission Systems to provide new URC-300E transceivers as part of their Emergency Transceiver Replacement (ETR) program. This FAA variant of the URC-300 will be

delivered under the eight-year, IDIQ contract which has a value of US\$99 million if all options are exercised.

The URC-300 will replace current legacy radios and provide both Very High Frequency (VHF) and Ultra High Frequency (UHF) operation for civil and military air traffic control (ATC) communications in the



Above: The URC-300 is specifically designed to enable future features and functions to be added in the field via quick and simple software upgrades

Left: Users can operate multiple URC-300s as close as 6.5ft apart without interference

Right: The FAA recently chose General Dynamics Mission Systems to provide new URC-300E transceivers as part of their Emergency Transceiver Replacement (ETR) program

event of a catastrophic failure, such as a facility fire or natural disaster.

ATC controllers will use the URC-300 to maintain essential ground-to-air communications with aircraft during the critical moments after such an event. The URC-300 transceiver is specifically designed to maximize radio frequency (RF) performance and enable users to operate multiple URC-300s as close as 6.5ft (2m) apart without interference – an unprecedented capability compared to currently available man-pack radios which can require up to 50ft (15m) of separation. This close proximity capability enables rapid grab-and-go, multi-channel operations during emergency situations.

“We recently delivered the 20,000th CM-300/350 (V2) radio to the FAA as part of the NEXCOM 2 program,” said Dawn Bushnell, product manager, ground-to-air radio products at General Dynamics Mission Systems.

“The URC-300 is another example of our team’s dedication to delivering technologies and products that support the FAA’s efforts





to continuously improve the National Airspace and safety of flight.”

Flexible and rugged

General Dynamics Mission Systems new URC-300 software-defined transceiver is a versatile platform that supports multiple waveforms and provides exceptional radio frequency (RF) performance to support ground-to-air, line-of-sight and other mission critical applications. It provides interference-free communications in highly congested environments and improves immunity to outside interference such as other airfield channels, Wi-Fi transmitters, and commercial FM broadcast towers.

Users can operate multiple URC-300s as close as 6.5 feet apart without interference, an unprecedented capability compared to currently available tactical man-pack radios that require at least 50 to as much as 115 feet of separation. This close proximity capability enables rapid grab-and-go, multi-channel operations during emergency situations.

The URC-300 is specifically designed with a flexible, software-defined core architecture similar to a commercial smartphone that enables future features and functions to be added in the field via quick and simple software upgrades. Unlike conventional

**CERTIFICATIONS OBTAINED
BY GENERAL DYNAMICS
Enables Easy Global Deployment**



CE
Marking



U.S. DoD
Spectrum Certification



ETSI
ETSI 8.33 KHz & 25 KHz
channel spacing compliant



FCC
Federal Communication
Commission (FCC)

Top: The URC-300 is the first portable ruggedized man-pack dual band transceiver to be approved for global operation against the stringent aviation spectrum standards

Above: General Dynamics will obtain all required certifications to eliminate purchase, approval and spectrum roadblocks and help streamline deployment of the URC-300 without delays

software-defined radio platforms, the URC-300 does not require users to return it to the manufacturer for additional hardware retrofits when new software is installed. This approach simplifies new waveform and feature technology insertion enabling field upgradability without having to take it out of service. This essentially makes the it “future proof” and greatly improves the value proposition for customers, resulting in significant time and life cycle cost savings.

In addition to providing robust RF operations, the URC-300 supports many other applications including emergency grab-and-go, manpack, vehicular, scalable deployment and rackmount applications. The transceiver is ruggedized and meets MIL-STD-810 requirements, which provides protection against shock, vibration, altitude, humidity and temperature. It is interoperable with the URC-200 (V2) radio, and many of its accessories.

Since the URC-300 is smaller and lighter than the URC-200 (V2), two URC-300s can fit side-by-side in a single 19” rackmount tray. The radio’s newly re-designed front panel has a functional display and a simple intuitive keypad interface that is glove friendly. A Web Maintainer Application allows the user to connect to the transceiver’s interface and control and monitor the front panel functions using a common browser such as Chrome or Edge.

The URC-300 operates on standard lithium-ion batteries, lasting longer on a single battery than most radios can on two. It also has a re-designed power supply that enables users to operate directly on DC power with embedded power conditioning for dirty power source environments. The URC-300 is now available for purchase, for more information please visit our website. ❖