

General Dynamics SATCOM Technologies Satcom-On-The-Move Development Terminals

General Dynamics is a developer and manufacturer of satellite communications earth station antennas and equipment. As a part of the development process General Dynamics designs antennas, antenna pointing and tracking systems, and RF transmit and receive equipment to be incorporated in complete communications systems. This equipment is tested and verified through laboratory measurements with dummy loads on transmitters and simulated signals on receivers prior to being used operationally. As one of the final verification tests of General Dynamics Satcom-On-The-Move terminals, or Vehicle-Mounted Earth Stations, actual transmit antenna radiation pattern pointing and tracking accuracy can only be verified through on-air radiation.

The requested Experimental operation would include the transmission and reception of relatively low power signals using conventional FSS Ku-Band satellite transponders for verification of VMES terminal transmit/receive performance. The Fixed Stations employed are standard General Dynamics / Prodelin Model 1244 2.4 Meter satellite communications antennas utilizing less than 15 Watt transmitters. The various VMES antennas to be developed and verified consist of the additional antennas listed in the application intended for use in MOBILE: US locations. Signals to be transmitted will usually be low-power CW signals but may include low-power and low-rate DVB-S transmissions as well.

The requested Experimental License authorization is intended to support further development of new VMES capabilities and verify their performance prior to offering them for use by civil and government users. Previous development and test activities have been successfully conducted by General Dynamics under the previously issued authorization. This request is intended to provide for the installation of a Fixed Site terminal at a new Plano, Texas, location as well as request an additional period of operation.