

Experimental Explanation:

Lockheed Martin is working in cooperation with ViaSat Corp to test a (prototype) Aero modem designed specifically for helicopter use. The testing timeframe and scope are of short term duration with specific engineering objectives and are consistent with the spirit of granting of Special Temporary Authorization.

Purpose of Operations:

Lockheed Martin will operate in the Ka-band uplink spectrum from 29.5 to 30.0 GHz. System check-out, de-bug and aircraft integration design will be carried out at the Owego, NY facility. Lockheed Martin will utilize a 1.2 meter earth station to communicate to AMC-16. A specially modified ViaSat model VR-12 Ka-band aeronautical antenna will be installed on a Sikorsky H3 helicopter.

Testing objectives will evaluate satellite pointing accuracy. Logging of flight data and pointing data will be recorded. Transmission cessation circuitry will be incorporated to stop transmission for any out of tolerance pointing conditions.

Testing objectives will evaluate the effectiveness of data interleaving (proprietary to ViaSat) technology in the presence of rotor blade blockage.

Testing objectives will include usability of voice, video and data applications.

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