

NARRATIVE STATEMENT

By this application, Raytheon TI Systems, Inc. ("Raytheon TI"), is requesting an experimental radio license intended in part to replace the Special Temporary Authorization ("STA") issued under call sign KS2XAT, File No. S-3000-EX-97. A copy of the STA is attached.

A grant is needed to continue testing defense-related equipment under development. The communications link provides a channel for the transmission of data essential to the testing effort.

Operation as proposed would involve a ground station and an aircraft station. The airborne station would operate at altitudes of up to 20,000 feet flying in a pattern above McKinney, Texas. Typically, the experimentation will require the transmission of a burst of data (up to 100 ms) once a second during airborne operations.

A two-way UHF data link is needed to transmit GPS data for a test program characterizing the detection and tracking capabilities of a modern technology radar. Fixed ground station and mobile aircraft stations exchanging digital data are required.

The experimentation will use digital FM modulated signals with bandwidth which would not extend beyond the specific frequencies requested. Raytheon TI will coordinate with existing licensees operating in the proposed bands.

Two types of transmitting equipment to be tested include NavSymm Model DR5-96S II UHF Transceivers built by Navstar Systems, Ltd., and power amplifiers built by Pacific Crest Corporation. The experimentation would involve a maximum of two base stations and four mobiles, although at any given test only one base station and two mobiles will be used. Other devices might be tested, but they will not exceed the number of units mentioned.

As a final matter, please note that the experimentation proposed in this application employs low power and thus is categorically excluded from the FCC's requirements associated with human exposure to RF radiation. Thus, the proposed operation would not have a significant environmental effect under Section 1.1307 of the FCC's rules.

The grant of this application will allow Raytheon TI to improve the capabilities of the proposed system. Accordingly, Raytheon TI submits that a grant will serve the public interest, convenience, and necessity.