

L-3 Communications  
Avionics Systems  
1105 Schrock Road  
Columbus, Ohio 43229

Feb. 3, 2005

To whom it may concern at the FCC:

L-3 Communications is requesting a total of 5 Experimental Licenses. We currently have five STA's.

0501-EX-ST-2004  
0502-EX-ST-2004  
0504-EX-ST-2004  
0505-EX-ST-2004  
0506-EX-ST-2004

These STA's expire soon, and we have not completed our work. We want to convert these STA's to experimental licenses. All of these STA's were granted based upon recommendation letters from AFTRCC. We are using the same AFTRCC recommendation letters to obtain the experimental licenses. These letters are still in effect for over four more years. (In hindsight we should have applied for 2 year experimental licenses instead of the STA's).

These coordination letters contain recommendations to the FCC for usage of four frequencies in two aircraft and at four fixed locations.

AFTRCC has recommended to the FCC that we use the following four frequencies for our experiments.

123.250 MHz  
123.275 MHz  
123.350 MHz  
123.475 MHz

L-3 Communications Avionics Systems is developing an integrated cockpit system ( see bottom of webpage <http://www.as.l-3com.com/about/about.asp>) for Cirrus Design (maker of private aircraft). The development of this system includes the development of a VHF Communications Radio. The development of the radio has progressed to a point where we would like to conduct test flights with the radio. These flight tests are needed to test the radio and to test the integration of the radio into the integrated cockpit that we are developing. The radio has been designed to

the RTCA DO-186 standard, which is the standard the FAA imposes on manufacturers. The radio is currently functioning and will take approximately 6 more months to get FAA/FCC certified, and another year to be integrated into the aircraft.

We want to continue to conduct a test program, which requires four base stations and two aircraft. We would like to conduct our tests out to 250 miles from any base station. The base stations will be located at the three engineering locations of L-3 Communications, Avionics Systems. Those locations are:

Grand Rapids, MI  
Columbus, OH  
Beavercreek (Dayton), OH

Additionally we will be conducting tests with Cirrus Design in:

Duluth, MN.

The communication radio is being developed to the standards of DO-186 and is in the process of being certified to TSO-C37d and TSO- C38d. The radio will receive a FCC equipment authorization after it has received a FAA TSO. Equipment Authorization is anticipated to take place by August, 2005.

The radio is designed to operate on single channel which is 25 KHz wide and can operate across the range of 117.975 MHz – 137.000 MHz.

The FCC emission designator is 6K00A3E which means that it is a voice modulated AM, double sideband signal with an occupied BW of 6 KHz.

The aircraft will fly no higher than 18,000 feet.

Based on our prior STA approvals, I believe that the information provided here and in the applications will be sufficient to obtain licenses. If you need any other information please do not hesitate to call me.

Thank you for your assistance in this matter.

Sincerely,

Brent Locher  
  
Staff Engineer  
L-3 Communications  
Avionics Systems  
614-825-2243