

Exhibit Information for FCC Form 442

QUESTION 7: PURPOSE OF EXPERIMENT

If the answers to Items 4, 5, and 6 are "NO" include as an exhibit a narrative statement describing in detail the following items:

i) The complete program of research and experimentation proposed including description of equipment and theory of operation.

The purpose of our experiment is to demonstrate & collect operational information of voice and data communication links between a fixed ground station and a rotary-wing aircraft.

Two different transmitters are utilized. The first is a VHF/UHF voice-grade radio manufactured by Raytheon Company. We will experiment with two-way voice transmission over VHF & UHF channels using AM & FM analog modulation techniques between the aircraft and fixed ground station.



Raytheon RT-1808A Receiver/Transmitter

The second transmitter is a data link providing analog or encoded digital data to relay one-way situational awareness information from the aircraft to the fixed ground station. The radio is manufactured by L3 Communications. We will experiment with data transmission over C-band channels using FM, FSK and O-QPSK modulation techniques.



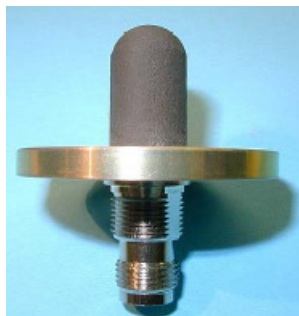
L3 Communications Transmitter (60057879+001)

Our experiment will incorporate the same antenna set for both the aircraft and the fixed ground station end points. The VHF/UHF antenna is a vertically polarized omnidirectional in azimuth blade antenna. The VHF function is fulfilled using a P.I.N. diode tuned structure. The UHF antenna is configured as a broadband passive element.



Chelton VHF/UHF Antenna

The C-Band antenna is a vertically polarized omnidirectional in azimuth quarter wave monopole antenna.



Antcom C-Band Antenna

ii) The specific objectives sought to be accomplished.

Our test objectives are aligned to capture operational communication link quality at varying altitudes and aircraft line-of-sight angles relative to the fixed ground station. Position location of the base station is fixed with an antenna mounted no greater than 15 foot above ground level. The aircraft will commence a flight program that will not exceed an 8km distance from the base station and will not exceed 2000 foot elevation above ground level.

iii) How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion or utilization of the radio art, or is along line not already investigated.

Our program of experimentation will contribute to the utilization of the radio art by developing new platforms that incorporate voice and data communication links necessary for federal, state and military operations.