The Boeing Company
Request for Experimental License Exhibit

L-3 Video Telemetry System Part Number VTX13C-5A/R/E/T
Independent Research and Development

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by

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Why a STA is necessary

The Boeing Company requests a STA in order to test L-3 Southern California Microwave's Video Telemetry System. Boeing anticipates future government contracts that will require implementation of a video telemetry system onboard Unmanned Aircraft Systems (UAS). This STA will allow testing of this particular video telemetry system to gauge its performance. Once a government contract is granted, Boeing will procure the appropriate Federal Government frequency assignments.

Purpose of Operation

The purpose of the video telemetry system is to provide video surveillance data from Unmanned Aircraft Systems (UAS) to command posts. This video telemetry data will be used to gain intelligence, assess potential threats, and execute mission protocols as appropriate.

Test Description

The video telemetry system will be operated near Boeing building 73-75 in Berkeley, Missouri. The video telemetry system will be taxied across a nearby runway to simulate the takeoff of an Unmanned Aircraft System (UAS). There will be no actual flight testing during this test.

Timely Response Appreciated

Boeing will greatly appreciate a determination as quickly as possible to meet the directive schedule.

Location

The Boeing Company
Bldg 73-75
8181 Aviation Drive
Berkeley (St Louis County), MO 63134-0000
38° 45' 5"N
90° 21' 21"W
WGS84/NAD83

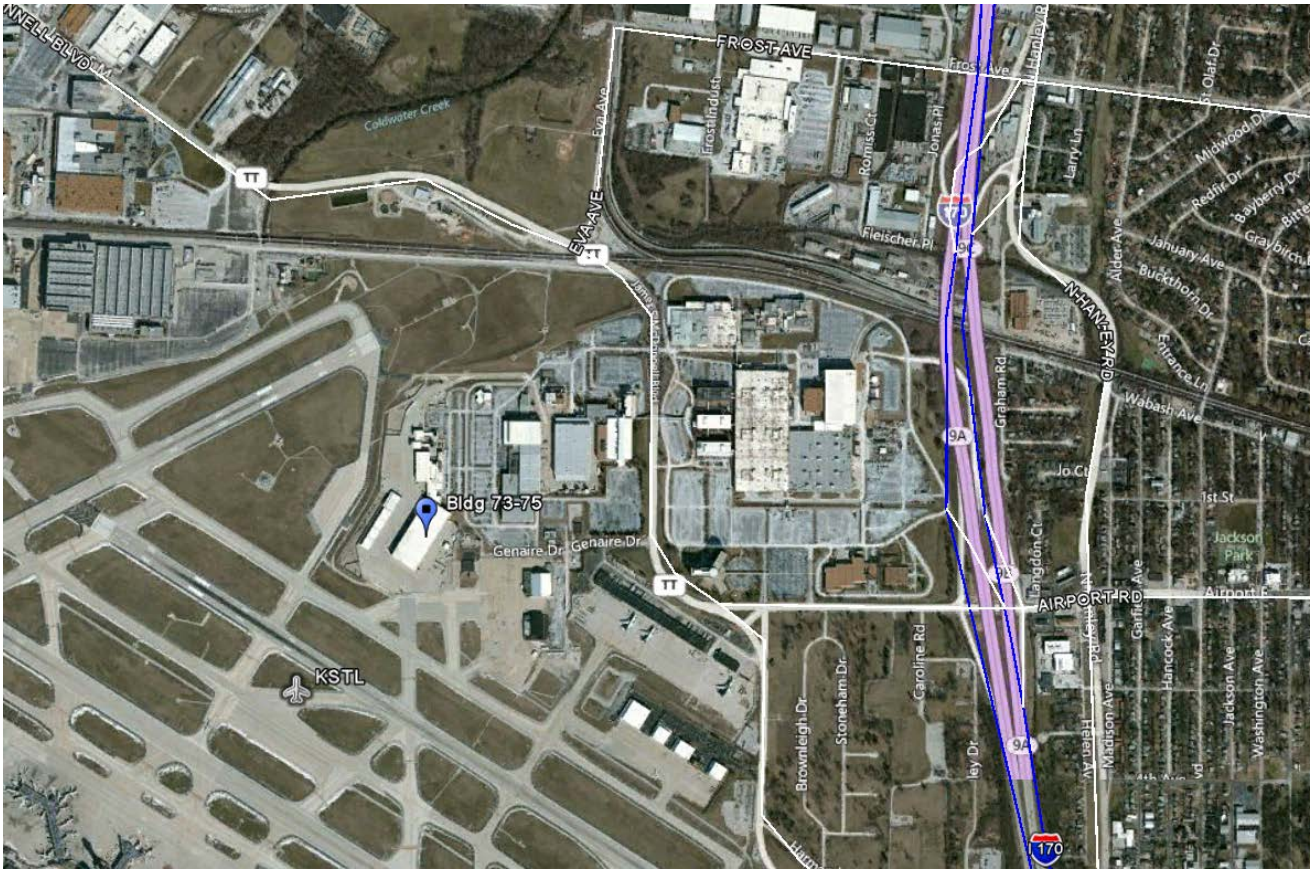

Figure 1 – Boeing, St Charles, MO (Building 73-75)

Schedule

The requested STA is to be effective for 2-years upon a grant from the FCC/OET. Operations will be anytime, 24 hours a day, 7 days a week, within a 5 kilometer radius of given location as necessary.

Stop Buzzer Contact Information

The equipment will be operated by Boeing employees.

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Test and Evaluation Engineer
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Frequencies, Power and Emission

Frequency	Power	Emission
4400 – 5000 MHz	15 watts (mean)	18M5F9W

Equipment and Antenna Parameters

Transmitter Manufacturer	L-3 Southern California Microwave
Transmitter Part Number	VTX13C-5A/R/E/T
Frequency Band	4400 MHz – 5000 MHz and 5250 MHz – 5850 MHz (1 MHz Steps, 1200 channels total for both bands)
Emission	18M5F9W
Antenna Manufacturer	Haigh-Farr
Antenna Model Number	6040, 6050
Antenna Type	Blade
Antenna Gain	3 dBi
Antenna Beamwidth	360 degrees horizontal; 78 degrees vertical
Antenna Polarization	Vertical

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Emission Bandwidth

Emission Designator	18M5F9W
-3 dB	2.4 MHz
-20 dB	14.8 MHz
-40 dB	26.0 MHz
-60 dB	38.0 MHz
OC-BW	14.0 MHz