

## **The Boeing Company**

### Request for Special Temporary Authorization (STA) Experimental License Exhibit

BAE RT-1805/APN

Independent Research and Development

Updated and Submitted 1/21/2015

by

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### **Why a STA is necessary**

The Boeing Company requests a STA in order to test BAE's RT-1805/APN Altimeter. Boeing anticipates future government contracts that will require implementation of an altimeter system onboard Unmanned Aircraft Systems (UAS). This STA will allow testing of this particular altimeter system to gauge its performance. Once a government contract is granted, Boeing will procure the appropriate Federal Government frequency assignments. Boeing will greatly appreciate a determination as quickly as possible to meet the directive schedule.

### **Purpose of Operation**

The purpose of the altimeter system is to provide altitude data that will be used to navigate and land the Unmanned Aircraft Systems (UAS).

### **Test Description**

The altimeter system will be operated near Boeing building 73-75 in Berkeley, Missouri. There will be no actual flight testing during this test.

## 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

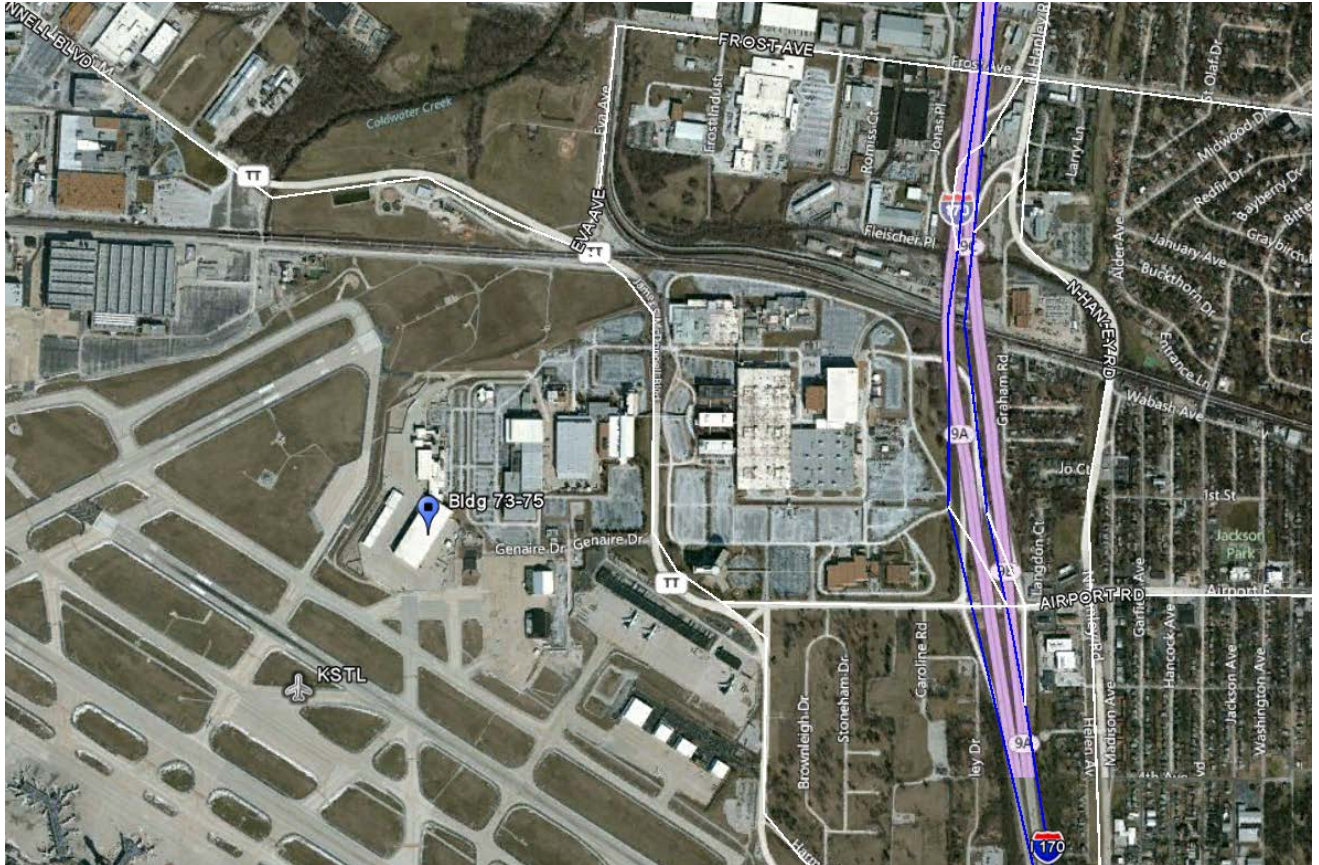


Figure 1 – Boeing, Berkeley, MO (Building 73-75)

## Schedule

The requested STA is to be effective for 6 months upon a grant from the FCC/OET. Boeing is looking to test around March 1, 2015. If it is determined a longer period is required, Boeing will submit a separate FCC OET application. 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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## Frequencies, Power and Emission

Frequency	Power	Emission
4200-4400	1 watts (peak envelope power)	200MG1N

## Equipment and Antenna Parameters

Transmitter Manufacturer	BAE Systems
Transmitter Part Number	RT-1805/APN
Emission	200MG1N
Antenna Manufacturer	Honeywell, Inc.
Antenna Model Number	AS-2595
Antenna Type	Horn
Antenna Gain	11 dBi
Antenna Beamwidth	40 degrees horizontal; 40 degrees vertical
Antenna Polarization	Linear