

**The Boeing Company
Assembly and Testing
Temporary Indoor RF Antenna Lab
El Segundo, CA**

Submitted on

11/18/05

By

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Purpose

See Confidential Items Document.

Why we are applying for an STA

See Confidential Items Document.

Schedule

The schedule for testing is approximately for 1 month, beginning December 1, 2005. We are applying for an STA for 6 months to accommodate schedule sliding. Because of this schedule, Boeing is requesting and expedited grant of the STA.

Military Contracts

None.

FAA PRE-APPROVAL

See FAA Pre-Approval Document.

Frequencies, Emissions and RF power

Test Frequency MHz	Emission	Cup Antenna Seven Inch Dia. Circular Polarized Cross Cup Dipole Radiator Degrees 3 dB BW		Average Gain (dBi)	ERP (dBw)	ERP (Watts)
		E	H			
1530.0	CW-N0N	60	60	10	25.8	380.2
1545.0	CW-N0N	60	60	10	25.8	380.2

Anticipation of RF Radiating Schedule

Boeing anticipates that the duration of the RF radiation will be Monday through Friday, from 6:00 AM to 12:00 PM, for no more than 8 hours cumulative per day. This does not exclude other days, times or duration as required to meet the production schedule. About one month of actual testing is required during the 6 month period.

Antennas

Two -10 dBi CP Cup Dipole Antennas are used. The antennas are designed and manufactured by Boeing. Two antennas are required, one for each transmitter. The antennas are located inside an all steel building and an outside door covered with RF absorber. See System Diagram for antenna orientation. Beamwidth at -3dB half power point is 60 degrees and uses circular polarization.

Component being Tested

See Confidential Items Document.

RF Test Setup Diagrams

See Confidential Items Document.

RF Equipment

SierraCom Synthesizer 2724-0000 CW Generator: Stability 5 PPM, Phase Noise Floor -80 dB @ 1 KHz, -85 dBc @ 10 KHz, 2 units experimental. Note: Effective May 31, 2002, Microwave Engineering Corporation acquired certain assets and product technology/intellectual property of SierraCom.

<http://www.sierracom.com/>
<http://www.microwaveeng.com/>

Microwave Solutions Solid State Amplifier MSD-2709902-C. Provides a maximum of +17 dBw of power.

<http://www.microwavesolutions.com/>

Output filter: Daden-Anthony transmit bandpass filter, Model No. 1D1540-40-9TT

<http://www.micckts.com/>

None of the above equipment is capable of station identification as noted in CFR Part 5, Section 5.115.

Boeing is the owner and operator of the equipment.

STOP BUZZER Contacts:

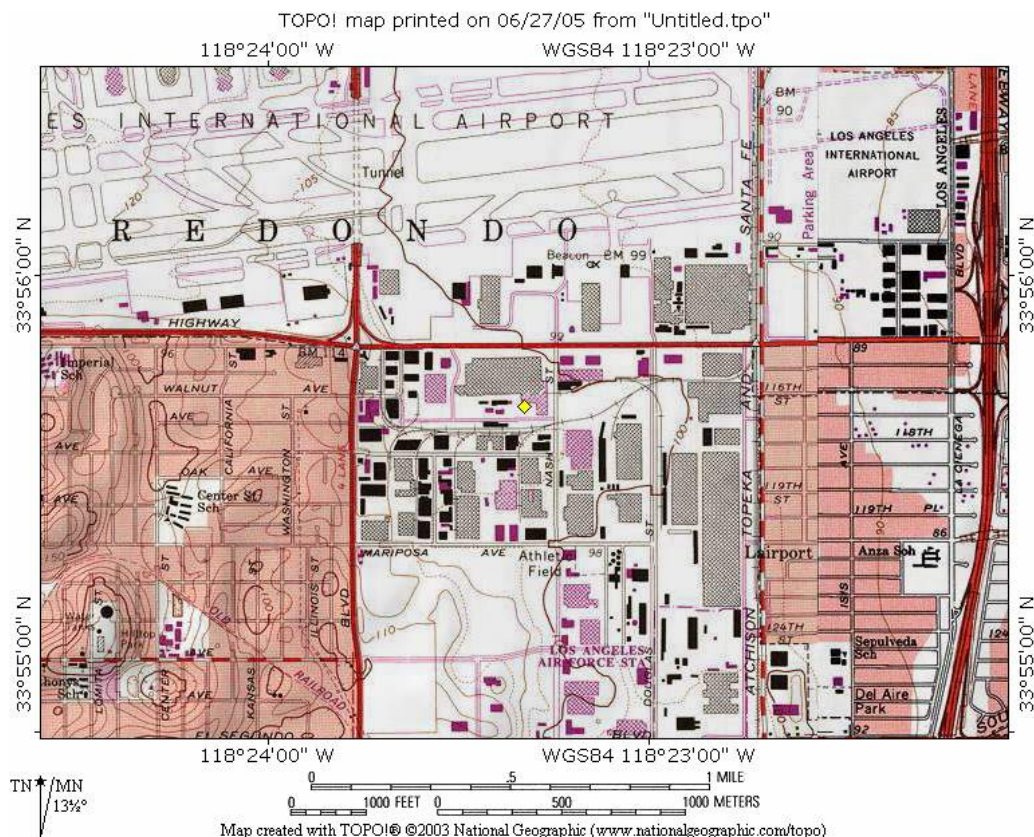
Robert L Reynolds
Antenna Electrical Engineering and Test
310-416-5643 Office

Luciano (Louie) F Lopez
Antenna Products - Antenna Test and Feed Leads
310-416-5655 Office
310-874-5690 Mobile

Lab Location (See Confidential Items Document for full description)

From the figure below, the location indicated by the yellow diamond symbol in the center of the map below and is south of the Los Angeles Airport by about 2,000 feet.

The Boeing Company
Assembly and Testing
Temporary Indoor RF Antenna Lab
Building 92-33.1 (S-3A), Room A01101
901 N. Nash Street
El Segundo (Los Angeles County), CA 90245-2844
33-55-43 N
118-23-19 W
NAD83
AMSL is 105 Feet
Building Construction: All steel walls and doors, no windows



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