

S-3541-EX-1998

September 30, 1998
G-8930-RBD-1278

Federal Communications Commission
Experimental Radio Service
P.O. Box 358320
Pittsburgh, PA 15251-5315



Subject: Request for Special Temporary Authorization (STA)
HIRF Testing, Paine Field, Everett, WA

Gentlemen:

This request for a Special Temporary Authorization (STA) is submitted in accordance with CFR 47, Part 5.56. Pertinent **direct drive** testing data in this STA mirrors information submitted in our Special Temporary Authorization previously maintained under FCC File S-3487-EX-1998 (KA8XNF), for Seattle, WA. That STA had effective dates of August 20 - October 1, 1998.

1. **Name and Address:**
The Boeing Company
Frequency Management M/S 3U-AJ
P.O. Box 3707
Seattle, WA 98124-2207
2. **Need for special action:** This STA is required to conduct High Intensity Radiated Field (HIRF) direct drive tests on a new model of Boeing aircraft.
3. **Type of operations:** The tests to be conducted in 50 Hz to 100 MHz are direct drive, swept carrier wave transfer function tests on production airplanes. These tests require driving a transmission line formed by the airplane parked over a wire grid return. Current is driven onto the aircraft by directly attaching the output of a 25 watt amplifier to the nose, wing tip, or engine nacelle. A "stepped swept" test is required to measure as many aircraft and cable resonance's as possible. Testing using widely spaced discrete frequencies would miss critical resonant frequencies. The dwell time per frequency point will be a maximum of 75 milliseconds per point, based on 401 points in a 30 second maximum sweep. The maximum number of sweeps per test will be 64. Intervals between test segments will be approximately two minutes.
5. **Time and Date:** Testing is planned to occur between the dates of October 12 and December 23, 1998. If approved, Boeing will

coordinate it's testing with FAA Northwest Region Frequency Management Office of actual test dates to narrow the actual effective dates of the Authorization.

6. **Class of Station:** XR
Call Sign: TBD
Nature of Service: Experimental
7. **Location:** Paine Field, Everett, WA. This location is a Boeing owned facility located at coordinates: 47°54'12" N 122°17'12"W.

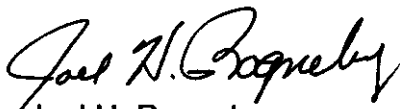
BOEING

8. **Equipment Manufacturer:**

Manufacturer	Type	No. Of Equipments
RF Powerlabs	M125L	1
Kalmus	520FC	1
IFI	M5500	1

9. **Frequency Bands:** 50 Hz - 100 MHz
10. **Power Output to Antenna:** 20 to 25 watts (band dependent)
11. **Emission:** N0N
12. **Antenna height:** Less then 18 feet above ground level
Antenna Type: Equipment is direct drive with no deliberate antenna
Gain: 10dB
Beamwidth: Less then 90° at the ½ power point
Polarization: Various
Direction: 360° North

Should you require additional information, please contact Bob Douglass at 253-657-6421 or bob.douglass@boeing.com email.

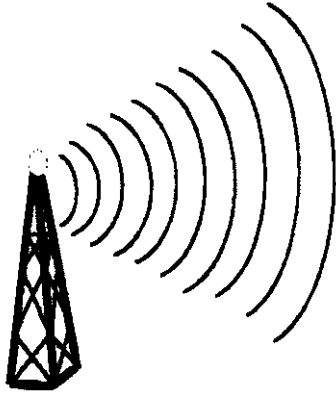


Joel H. Rognaby
Manager, Frequency Management Services
Boeing Shared Services Group
253-657-6095

Enclosures:
FCC Form 159
Check #: 0407179

cc: Mark Novak 05-AP

The Boeing Company
Frequency Management, M/S 3U-AJ
P.O. Box 3707
Seattle, WA 98124-2207



DATE: September 29, 1998 TIME: 2:05 PM
TO: Nancy Hey PHONE: 202-418-2432
FC/OET FAX: 202-418-1918 *887-5637*
FROM: Bob Douglass PHONE: 253-657-6421
Frequency Management FAX: 253-657-6900
RE: STA Requests - HIRF
CC:

Number of pages including cover sheet: 9

Message

I have forwarded these to the "Mellon Bank" via express mail. One has a preferred date of 10/12/98 and the other is an extension of a previous STA. Both should arrive at the bank by Friday. The real ones do have checks attached. I sent them out before realizing I should have copied the checks and included them to you. Have a nice FCC day.

Bob Douglass