

From Page 1:

4. Particulars of Operation								
BAND NO.	FREQUENCY BAND (A)	POWER			EMISSION (E)	MODULATING SIGNAL (F)	NECESSARY BANDWIDTH (kHz) (G)	** STEP INCREMENT
		(B)	(C)	(D)				
1	NOT USED							
2	NOT USED							
3	50 - 200 MHz	10W	18W	MEAN	NON	CW	CW	225 kHz
4	200 - 500 MHz	10W	100W	MEAN	NON	CW	CW	375 kHz
5	500 - 1000 MHz	10W	100W	MEAN	NON	CW	CW	625 kHz
6	1.0 - 2.0 GHz	20W	200W	MEAN	NON	CW	CW	1.25 MHz
7	2.0 - 4.0 GHz	20W	200W	MEAN	NON	CW	CW	2.50 MHz
8	4.0 - 8.0 GHz	20W	200W	MEAN	NON	CW	CW	5.00 MHz
9	8.0 - 12.4 GHz	20W	200W	MEAN	NON	CW	CW	5.50 MHz
10	12.4 - 18.0 GHz	20W	200W	MEAN	NON	CW	CW	7.06 MHz

- * 1. Specific portions of these bands can be blanked out and not used if required.
 2. Coordination with local FCC and FAA offices will be accomplished if required.

** Step Increment =
$$\frac{\text{Band}}{(\text{Maximum Number of steps} - 1)} = \frac{\text{Band}}{(800)}$$

(All bands will use a maximum of 801 points/scan)

EXHIBIT 1

From Page 2:

This experimental license is required to conduct testing necessary to obtain airframe certification for High Energy Radio Frequency (HERF) protection and assure compliance with HERF requirements specified by:

1. French Special Condition #SC-B767-1, dated October 17, 1989, Boeing 767, "Effect of External Radiations on Aircraft Systems."
2. JAA Special Condition #E-2, dated April 7, 1989, Boeing 747-400, "External Radiation Protection."
3. Draft FAA HERF NPRM (Notice of Proposed Rulemaking)-FAR 25.1317, "High Energy Radiated Electromagnetic Fields (HERF) Protection." (NPRM Scheduled for October 1990.)
4. Draft JAA NPA (Notice of Proposed Amendment) JAR 25.1431, "Effect of External Radiations Upon Aircraft Systems." (NPA schedule is TBD.)

The tests to be conducted are radiated swept CW open field tests. A "stepped-swept" test is required to measure the maximum possible aircraft resonances. Testing using widely spaced discrete frequencies would miss critical resonance frequencies.

Dwell Time per Frequency Point:

50 MHz to 1.0 GHz = Maximum of 1.1 millisecond/point
(Maximum of 64 sweeps/test)

1.0 GHz to 18.0 GHz = Maximum of 50 milliseconds/point
(Maximum of 1 sweep/test)

Minimum time between tests = 2 minutes

Number of tests will vary as necessary to obtain the data required to assure compliance with the above cited HERF source documents.

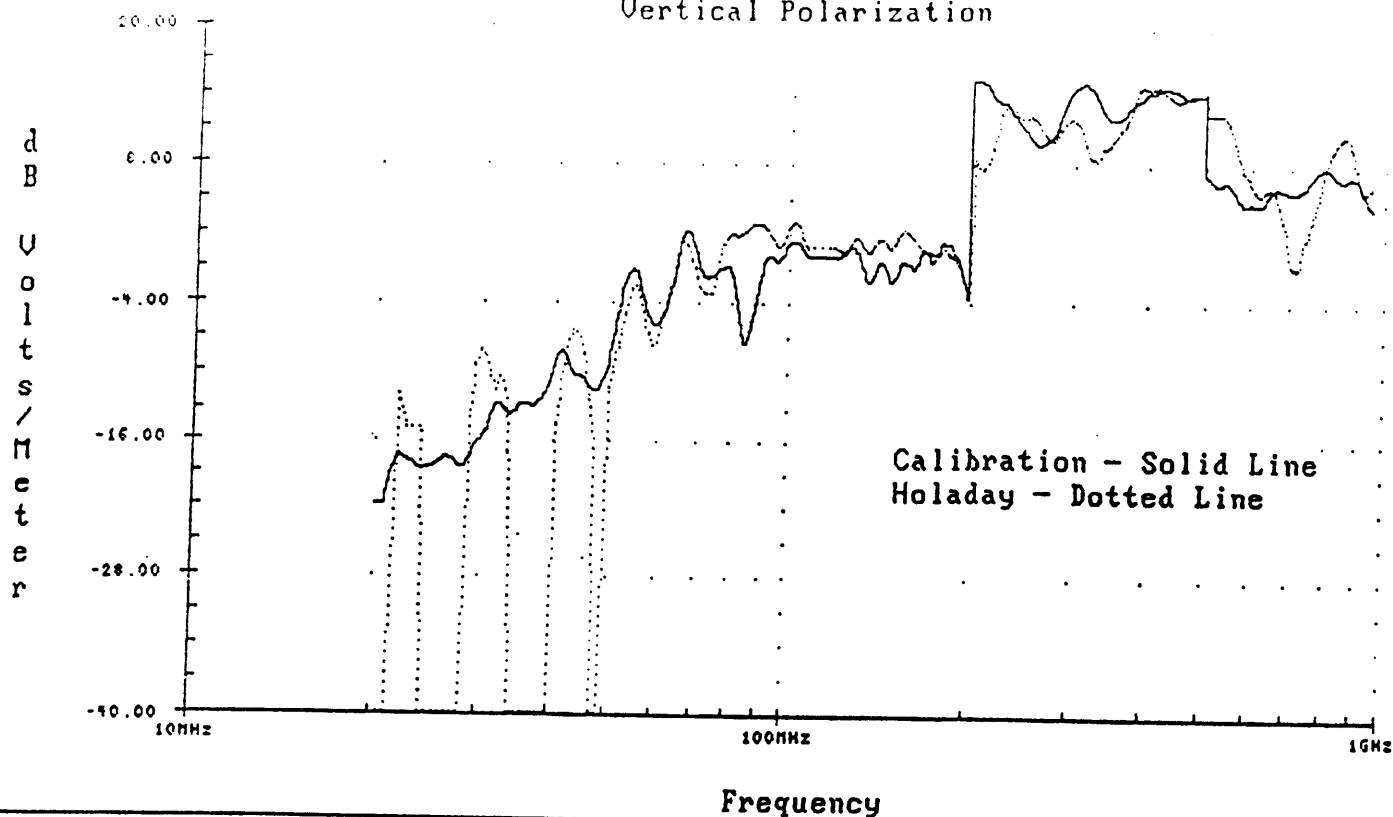
Number of A/C to be tested = 4/yr anticipated

Maximum number of tests per A/C = 1000

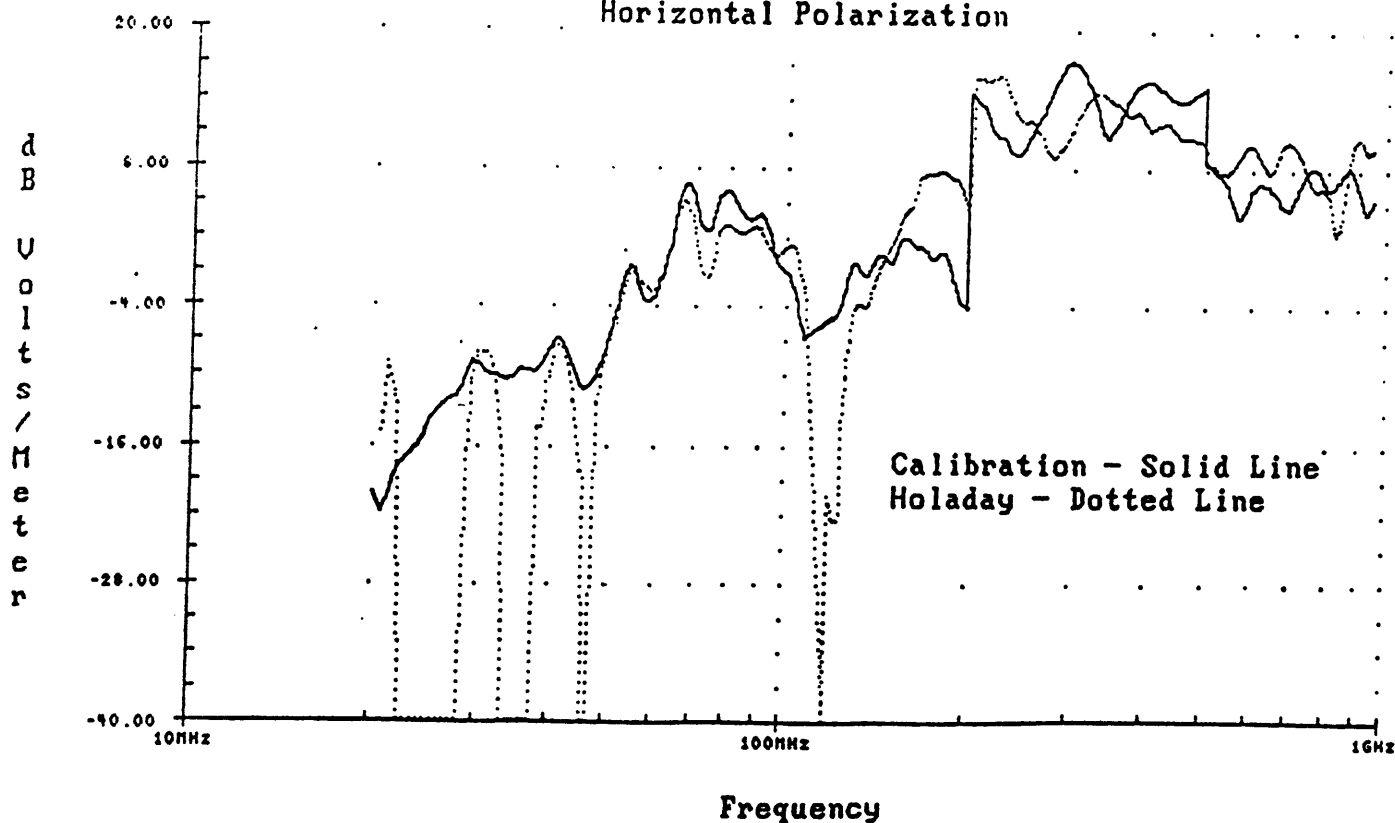
Similar HERF testing (see Exhibit 3) was previously performed at Tucson, AZ under an FCC Special Temporary Authorization (STA) issued to:

Applicant:	The Boeing Company
Call Sign:	KM2XJD
File Number:	S-0517-EX-87-1
Date of Filing:	October 28, 1988

15' Absolute Cal. Measurement vs Holaday Measurement
Vertical Polarization



15' Absolute Cal. Measurement vs Holaday Measurement
Horizontal Polarization



15' ANTENNA HEIGHT ABSOLUTE CALIBRATION MEASUREMENTS TAKEN AT TUCSON, AZ

FIELD STRENGTHS MEASURED AT 50' FROM THE TX ANTENNA
IN BANDS 20-200 MHz, 200-500 MHz, AND 500 MHz-1 GHz