

EXHIBIT 1

This experimental license is required to conduct testing necessary to support airframe certification for induced lightning and High Intensity Radiated Fields (HIRF). The test data will be used to validate low frequency HIRF and lightning models and assure compliance with HIRF and lightning requirements as specified by:

1. FAA issue paper SE-2, Boeing 777, "Lightning Protection Requirements."
2. JAA document JAR25X899, Boeing 777, "Electrical Grounding and Protection Against Lightning and Static Electricity."
3. FAA issue paper SE-1, Boeing 777, "Protection from High Intensity Radiated Fields (HIRF)."
4. JAA HIRF Certification Review Item D-5 - Stage 2, Boeing 777, "Special Condition Protection from External High Intensity Radiated Fields."
5. FAA Special Condition #25-ANM-25, Boeing 747-400 & 747-400F, "Boeing 747-400 Lightning and Radio Frequency Energy Protection."
6. JAA Special Condition AAB747-400F/02, Boeing 747-400F, "Lightning Protection Indirect Effects."
7. JAA Special Condition AAB747-400F/01, Boeing 747-400F, "High Intensity Radiated Fields (HIRF)."

The tests to be conducted are direct drive, swept CW transfer function tests on production airplanes. These tests require driving a transmission line formed by the airplane parked over a wire grid return (See Exhibit 2). Current is driven onto the airplane by directly attaching the output of a 25W amplifier to the nose, wing tip, or engine nacelle. A "stepped swept" test is required to measure as many aircraft and cable resonances as possible: testing using widely spaced discrete frequencies would miss critical resonant frequencies. We do not believe that this test will cause RF interference; however, we are applying for a license since the test setup could act as a very inefficient antenna at higher frequencies. It should be noted that this test will be conducted inside a large metal hanger which will provide some shielding.

Dwell time per frequency point:

The dwell time per frequency point will be a maximum of 75 milliseconds per point based on 401 points in a 30s maximum sweep. The maximum number of sweeps per test will be 64.

Minimum time between tests: 2 minutes

Number of A/C to be tested: 1/year anticipated

Maximum number of tests per A/C: 1000 (The actual number of tests will vary as necessary to obtain the data required to assure compliance with the above cited requirements)

Similar testing has been previously performed at Tucson, AZ (KK2XBT), Glasgow, MT (KK2XBU) and Tulalip, WA.

<u>Site</u>	<u>FCC License</u>	<u>FCC File Number</u>
Tucson	KK2XBT	1401-EX-PL-90
Glasgow	KK2XBU	1402-EX-PL-90
Tulalip	KK2XCV	1403-EX-PL-90

