Technical Description

The Boeing Company

Submitted:
By
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JUSTIFICATION:

The Boeing Company is requesting an experimental license in lieu of FCC license WH2XUU to support 767-2C certification. Based on Electromagnetic Compatibility (EMC) and lab testing, potential spurious emissions observed on the HF Left (HFS-900D) radio were isolated to be emanating from the HF Right (AN/ARC-243) radio's antenna coupler. Transmission on these aeronautical mobile frequencies summarized in Table 1 below is required to evaluate the impact on HF Upper Sideband (HF USB) audio quality for identified frequency spurs by tuning to selected frequencies.

OBJECTIVE & TEST DESCRIPTION

Objective:

For each of the requested aeronautical mobile frequencies listed in Table 1 below, identify a tuned frequency with noise and/or tones and then perform a radio check with the Boeing Tactical Communications Trailer (TCT) to asses signal strength and intelligibility.

Test Description:

For each frequency:

1. Boeing will first establish if a noise and/or tone is present.
2. If present, Boeing will then perform a radio check and establish two way communications with a TCT (roughly 30-40 miles away) to asses signal strength and intelligibility. The quality of the radio check will be recorded using a pre-defined rating scale.

NOTE: For each of these frequencies, Boeing plans to transmit on both the HFS-900D and AN/ARC-243 HF radios for no longer than 2 minutes at a time to assess for noise/tones and audio quality.

OPERATION OVERVIEW

Manufacturer: Rockwell Collins Inc
Model: HFS-900D, AN/ARC-243

Frequencies:

Table 1: Requested Frequencies (in MHz)

17.9007	17MO	17.8987	17.9027
17.9137	17.9132	17.9117	17.9157
17.9160	17.9155	17.9140	17.9180

Emissions: 100HA1A, 100HJ2A, 2K75H3E, 2K75J1D, 2K75J3E, 2K80H2B, 2K80J3E

Effective Radiated Output: 100 W for HFS-900D and AN/ARC-243

Station Class: MO

STOP BUZZER POINT OF CONTACT:
Thomas Chan, 206-679-5291
Jeremy McFarland, 425-237-9120

LOCATION:
Paine Field, Everett Field
47 53 49 N 122 16 45 W
Radius 30 miles