Description of Experiment
for STA file: 0438-EX-ST-2007

Background
The number of simultaneously operated RF emitters onboard aircraft continue to increase with time as the need for communications capability goes up. Consequently the practical requirement for interference rejection from local RF sources demands an increasing challenge to the radio engineers designing avionic communication equipment.

Specific Situation
Honeywell is developing next generation communications equipment for several discriminating customers. These customer require live, on-the-air, demonstrations to prove the interference rejection capability of the proposed next generation integrated COM system.

Experiment Details
Honeywell Int'l, at its Olathe, KS location, currently has several FCC experimental radio station licenses operating in the airborne communications bands of frequencies. In conjunction with the 5 HF experimental frequencies assigned to KI2XAO and the VHF test frequency assigned to WA2XQU, this STA application adds two additional temporary use frequencies for a total of 8 frequencies at the Olathe, KS site.

These 8 test frequencies have been carefully chosen based on the frequency plan used in the proposed next generation communications equipment. If on-the-air tests show the desired robustness against HF and VHF interference on various combinations of these 8 test frequencies, Honeywell and their customers will feel satisfied that the next generation design is sound.

Basically the intent is to simply provide voice test counts on one of the 8 experimental test frequencies while listening, and monitoring internal receiver IF amplifier signal strengths, on a variety of receive frequencies in the aviation band to assess interference levels.