Washington Office
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December 6, 1999

Federal Communications Commission – OET
7435 Oakland Mills Road
Columbia, MD 21046

RE: Application for Class II Permissive Change
Rockwell Collins SAT-906 System
SDU-906-3
FCC ID: AJKPN822-0310

Addition of Aero-H+ Capability

Dear Sir or Madame:

Pursuant to our telephone conversation with Mr. Frank Coperich, FCC-OET on December 6, Rockwell Collins hereby submits an application for a Class II permissive change to our SDU-906-3 allowing the addition of INMARSAT Aero-H+ capability to Rockwell Collins' SAT-906 system. The SAT-906 system consists of multiple components (each was individually certified pursuant to an earlier agreement with the FCC) which can be mixed and matched depending on customer needs. An operational SAT-906 system must include a satellite data unit (SDU), a radio frequency unit (RFU) and a high power amplifier (HPA).

In order to offer the new INMARSAT Aero-H+ capability in the SAT-906 system, Rockwell Collins must implement a 8400 bps RF data rate for the Aero-H+ messaging protocol. We will implement this data rate through changes to software residing in the SDU-906-3. The 8400 bps emission will be generated with existing SDU hardware using the same modulation scheme that is employed in the current SAT-906 system. The 8400 bps emission fits within the limits of existing SDU-906-3 emissions designators, 10K5G1D and 21K0G1W (Note: the SDUs provide IF output – that IF signal then is converted to L band in the RFU component and the final RF output to the antenna is generated in the HPA component). No changes to the RFU or HPA components are necessary to implement Aero-H+.

Rockwell Collins has tested the SAT-906 system with a modified SDU-906-6, the theoretical worst case with six channel capability. The system, with Aero-H+, capability performed as well as or better than the currently certified system. Pursuant to our December 6 conversation with Mr. Coperich, we are not including the test data in this application.

Once this application is approved, Aero-H+ capability will be included in all new SDU-906-3 equipment. Further, Rockwell Collins will make the Aero-H+ capability available to all SAT-906-3 customers with existing SDU-906-3 equipment via a service bulletin.

Finally, pursuant to our December 6 conversation with Mr. Coperich, this application is not being notified to the FAA because of the minor nature of the proposed changes to the original equipment. Please contact Brett Wilson on (703)516-8223 if you have any questions.

Respectfully submitted,

Linda C. Sadler
Director, Governmental & Regulatory Affairs