



ISO 9001 Certified

April 12, 1999

Federal Communications Commission  
Experimental Radio Services  
P.O. Box 358320  
Pittsburgh, PA 15252-5315  
Attention: Mr. Carl Huie

Sierra Technologies, Inc. (TIN #75-2394461) wishes to submit a "APPLICATION FOR NEW OR MODIFIED EXPERIMENTAL RADIO STATION AUTHORIZATION (Form 442)" to conduct field-testing of a ground to air RF modem link. This is a modification to the existing Special Temporary Authority granted April 7, 1999 under File 0111-EX-ST-1999, call sign WA9XFB. The reason for this request is to allow us additional test time (the existing grant does not include our required time frame of testing).

The link is used to transmit Differential Global Positioning System (DGPS) correction data from a ground station located on a surveyed point to an aircraft used for flight inspection of airport ground navigation facilities. Transmission will be performed from the ground station only; the aircraft RF modem will not transmit. Flight-testing will occur over a period beginning June 1999 and ending December 2000. Flight-testing will be performed at Mid Continent Airport in Wichita, Kansas.

Additionally, a minor amount of ground based testing will be performed at our facility here in Buffalo, New York, over the April 1999 through December 2000 time frame. We are located adjacent to the Buffalo-Niagara International Airport.

The uplink will utilize a Pacific Crest RFM96W-45-02-B Radio Modem, tunable over the 450 to 470 MHz range. To extend range in the event of inclement weather, a Pacific Crest RFA96W-45-35 Thirty Five-Watt Amplifier may be utilized. A data sheet for these products is attached (Adobe Acrobat file available on the Internet at <http://www.paccrst.com/ftp/anon/rfm96ds.pdf>).

System testing will utilize those frequencies as defined in the Special Temporary Authorization under File 0111-EX-ST-1999.

Once testing and product sale is completed, the flight inspection system will be delivered to the end user in Brazil, where local authorities will select final use frequencies.

The RF Modem vendor, Pacific Crest, has a Web site at <http://www.paccrst.com/>.

If you have any questions or require additional information please contact me directly at (716) 631-7784 or email at [jmroz@stisierra.com](mailto:jmroz@stisierra.com).

Sincerely,

Joseph J. Mroz  
Senior Engineer