ATTACHMENT TO
APPLICATION FOR EXPERIMENTAL AUTHORITY

0086-EX-PL-2006

1. Name of Applicant: AeroSat Airborne Internet LLC

2. Mailing Address:

Address: AeroSat Airborne Internet LLC
62 Route 101A
Amherst, NH 03031-2280

Attention: William McNary
E-Mail Address: wmcnary@aerosat.com

3. Contact Person (to handle inquiries pertaining to this application):

Name: Frank Blanda
Title: Chief Technology Officer
Address: AeroSat Airborne Internet LLC
62 Route 101A
Amherst, NH 03031-2280
Phone Number: (603) 672-0894
E-Mail Address: fblanda@aerosat.com

4. Need for License:

As explained below, AeroSat Airborne Internet LLC seeks to demonstrate and test an experimental airborne communications system under contract with the FAA. The company requires experimental authority so that it may commence its experimentation and demonstration commencing on March 20, 2006, to meet FAA requirements.

5. Purpose of Operation:

The FAA seeks to observe Airborne Internet capability to evaluate its potential to address the advanced communications requirements of the Next Generation Air Transport System (NGATS). As the Global Airspace System evolves to extend the NGATS common integrated operational picture to aircraft, the system will require that aircraft become mobile nodes on the System Wide Information Management (SWIM) network. The Airborne Internet holds promise for connecting aircraft to the network with high-speed broadband on a global scale while reducing both communications latency and costs and increasing bandwidth utilization.

Under an FAA contract, DTFAWA-05-C-00093, AeroSat Airborne Internet will conduct Airborne Internet flight demonstrations on FAA test aircraft at the William J. Hughes Technical Center. One ground station and two aircraft will be deployed

during the test. Data will be exchanged between the air and ground at 45 Mbps using the bands 11.7 to 12.2 GHz (uplink) and 14.0-14.5 GHz (downlink), then passed from aircraft to aircraft on 902-928 MHz to demonstrate a non-satellite communications network at flight level. The ground station will also be capable of operating on 902-928 MHz. Performance data will be gathered during the demonstration and used to refine the system simulation model and hardware design.

6. Technical Information:

Technical details are provided in the Form 442 associated with the application. The company seeks to demonstrate and test a system comprised of equipment operating with aeronautical mobile stations in the 14.0-14.5 GHz band, ground stations operating in the 11.7-12.2 GHz band, and ground and aeronautical stations operating in the 902-928 MHz band.

The company will deploy antennae with the following characteristics:

Band (GHz)	Sta. Class	Dir. Ant'	Beamwidth at the half power point (deg.)	Hor. plane	Vert. plane	6m rule	AGL (m)	GE (m)	Dist. to closest airport (km)
11.7-12.2	FX	Y	1.7	steerable	N/A	5.6*	27	18.3	0.6
14.0-14.5	MO	Y	4.8	steerable	N/A	aircraft	16,000	N/A	N/A
0.902-0.928	FX	N	N/A	N/A	N/A	5**	22	18.3	0.6
0.902-0.928	MO	N	N/A	N/A	N/A	aircraft	16,000	N/A	N/A

* A directional antenna (in a radome designed to be 5.6 meters above the roof) will be deployed in the 11.7 to 12.2 GHz band.

** An antenna operating in the 902-928 MHz band will be deployed at the ground station at a height not more than 5 meters above the roof.

7. Additional Operational Information:

Operations will be conducted on a non-interference basis, and AeroSat will immediately address any interference that may occur, including discontinuing the demonstration if necessary. The 24-7 duty person for this operation is Mr. Frank Blanda, Chief Technology Officer. Mr. Blanda can be reached at (603) 672-0894 or fblanda@aerosat.com