ATTACHMENT TO
APPLICATION FOR SPECIAL TEMPORARY AUTHORITY

0370-EX-ST-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 STA:

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 special temporary authority so that it may commence its experimentation and demonstration commencing not later than June 1, 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. Two aircraft will be deployed during the test. Data will be exchanged between aircraft on 902-928 MHz and then from the aircraft to the ground at 45 Mbps using the band 14.0-14.5 GHz to demonstrate a non-satellite communications network at flight level. The ground station will also be capable of operating on 902-928 MHz. Unlike its earlier proposal submitted under File No. 0098-EX-ST-2006, Aerosat does not seek authority in this request to transmit from the ground stations to the aircraft on 11.7 to 12.2 GHz.

The aircraft are expected to fly a loop off the coast of the United States between Egg Harbor, New Jersey, and Cape Cod, Massachusetts. Performance data will be gathered during the demonstration and used to refine the system simulation model and hardware design.

The band 14.0-14.5 GHz is a Federal Government band and the experimentation will be coordinated by the Federal Aviation Administration with the National Telecommunications and Information Administration. Nevertheless, Aerosat will operate on a non-interference basis and will immediately resolve any interference that may be caused, including if necessary, discontinuing its experimentation until such interference is resolved.

6. Operation Dates:

Start Date: 06/01/06
End Date: 12/01/06

7. 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 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)
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

* 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.

8. 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