

ATTACHMENT TO
APPLICATION FOR SPECIAL TEMPORARY AUTHORITY
0880-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

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4. Need for STA:

As explained below, AeroSat Airborne Internet LLC seeks to demonstrate and test an experimental airborne communications system, initially under contract with the FAA. The company seeks an extension of its current special temporary authority ("STA") granted under call sign WC9XPO (File No. 0409-EX-ST-2006) for experimentation and demonstration to meet FAA requirements. The extension would allow AeroSat to continue to demonstrate and test data exchange between aircraft on 902-928 MHz, to operate ground stations on 902-928 MHz, to transmit from the aircraft to the ground using the band 14.2-14.4 GHz, and to transmit from the ground to the aircraft using the band 11.2-11.45 GHz. In combination, these system elements will demonstrate a non-satellite communications network at flight level.

The company was required to make hardware modifications to its test equipment based on the experimental conditions that have just been completed. Also, due to FAA equipment availability and holiday schedule, AeroSat has been delayed in its ability to test the now-installed system. Due to these factors, AeroSat respectfully requests an extension to its STA.

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.

In conjunction with the FAA, AeroSat Airborne Internet is conducting Airborne Internet flight demonstrations on FAA test aircraft at the William J. Hughes Technical Center. Two aircraft have been equipped with Airborne Internet systems for operational in flight. The aircraft will execute flight profiles off the coast of the United States from a base at Egg Harbor, New Jersey. Specifically, the aircraft will fly in the following area of operation: North of 34 NL, South of 42 NL, East of 76 WL, and West of 68 WL at altitudes of up to 51,000 feet. System performance data will be gathered during the demonstration and used to refine the system simulation model and hardware design.

AeroSat has already received an STA under call sign WC9XPO (File No. 0409-EX-ST- 2006) to test data exchange between aircraft on 902-928 MHz, to operate ground stations on 902-928 MHz, to transmit from the aircraft to the ground using the band 14.2-14.4 GHz, and to transmit from the ground to the aircraft using the band 11.2-11.45GHz. AeroSat has fulfilled the requirements of Special Condition (10) and received concurrence from Mobile Satellite Ventures (MSV) that AeroSat's operations will not cause interference to MSV's operations. The collection of data may extend beyond the period of the current contract. Experimental operations described will be conducted using U.S. government aircraft and ground facilities.

6. Operation Dates:

01/13/2007-07/13/2007

7. Technical Information:

Technical details are provided in the associated STA request.

8. Geographic Area

During the test, the aircraft will fly in the following area of operation: North of 34 NL, South of 42 NL, East of 76 WL, and West of 68 WL at altitudes of up to 51,000 feet.

9. 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. AeroSat has fulfilled the requirements of STA File No. 0409-EX-ST-2006 Special Condition (10) and received concurrence from Mobile Satellite Ventures (MSV) that AeroSat's operations will not cause interference to MSV's operations. The 24-7 duty person for this operation is Mr. Frank Blanda, Chief Technology Officer. Mr. Blanda can be reached at 603-598-1771 or fblanda@aerosat.com.