

Approved by OMB  
3060-0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
STA Extension to use AeroSat Terminals with AMC-6 at 67 WL Apr 2017

1. Applicant

Name: AC BidCo LLC Phone Number: 312-517-5566  
DBA Name: Fax Number:  
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City: Chicago State: IL  
Country: USA Zipcode: 60606  
Attention: Marguerite Elias



File # SES-STA-20170421-00455  
Call Sign N288F7 Grant Date 4-26-17  
(or other identifier)  
Term Dates  
From: N288F7 To: 5-28-17  
Approved: Paul E. Elias

Applicant: AC BidCo LLC  
Call Sign: E120106  
File No.: SES-STA-20170421-00455  
Special Temporary Authority



File # SES STA 20170421-00455  
E120106  
Call Sign E120106 Grant Date 4/26/17  
(or other identifier)  
Term Dates  
From: 4-28-17 To: 5-28-17  
Approved: Paul E. Black

AC BidCo LLC (AC BidCo) is granted special temporary authority for 30 days, beginning on April 28, 2017, to operate up to 300 earth stations aboard aircraft (ESAAs) (0.24 meter AeroSat model HR6400) to communicate with the United States-licensed AMC-6 satellite (Call Sign S2347) at the 67° W.L. orbital location. Operations are authorized using the 14.00-14.50 GHz (Earth-to-space) and 11.7-12.2 GHz (space-to-Earth) frequency bands. Operations must be in accordance with the technical specifications contained in AC BidCo's application, and are subject to the following conditions:

1. Operations are on an unprotected and non-harmful interference basis. AC BidCo must cease operations immediately upon notification of such interference and must immediately inform the Commission, in writing, of such an event.
2. Operation pursuant to this authorization must be in compliance with the terms of AC BidCo's coordination agreements with the National Science Foundation and the National Aeronautics and Space Administration pertaining to operation of ESAAs in the Ku-Band.
3. Operation pursuant to this authorization outside the United States in the 14.0-14.5 GHz band must be in compliance with the provisions of Annex 1, Part C of Recommendation ITU-R M.1643, with respect to any radio astronomy station performing observations in the 14.47-14.5 GHz band.
4. When operating in international airspace within line-of-sight of the territory of a foreign administration where Fixed Service networks have a primary allocation in the 14.0-14.5 GHz band, an ESAA must not operate in a manner that would produce predicted ground-level power flux density (pfd) in such territory in excess of the following values unless the foreign administration has imposed other conditions for protecting its FS stations:  $-132 + 0.5 \times \text{THETA}$  dB(W/(mA<sup>2</sup> MHz)) for  $\text{THETA} \leq 40$ ;  $-112$  dB(W/(mA<sup>2</sup> MHz)) for  $40 < \text{THETA} \leq 90$ . Where: THETA is the angle of arrival of the radio-frequency wave in degrees above the horizontal, and the aforementioned limits relate to the pfd and angles of arrival that would be obtained under free space propagation conditions.
5. Operation pursuant to this authorization must conform to the terms of coordination agreements between the operator of AMC-6 and operators of other Ku-band geostationary satellites within six angular degrees of AMC-6. In the event that another GSO Fixed-Satellite Service (FSS) space station commences operation in the 14.0-14.5 GHz band at a location within six degrees of any of these space stations, ESAAs operating pursuant to this temporary authority shall cease transmitting unless and until such operation has been coordinated with the new space station's operator or AC BidCo demonstrates that such operation will not cause harmful interference to the new co-frequency space station.

6. AC BidCo must operate in accordance with the off-axis EIRP spectral densities supplied in obtaining the satellite operator certification for AMC-6, attached as an exhibit to the application. AC BidCo shall automatically cease emissions within 100 milliseconds if the ESAA transmitter exceeds the off-axis EIRP spectral-densities supplied to the target satellite operator and transmission shall not resume until AC BidCo conforms to the off-axis EIRP spectral densities supplied to the target satellite operator.

7. AC BidCo must take all necessary measures to ensure that the operation authorized does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR 1.1307(b) and 1.1310. Measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled exposure, as defined in these rule sections. Requirements for restrictions can be determined by predictions based on calculations, modeling or by field measurements. The FCC's OET Bulletin 65 (available on-line at [www.fcc.gov/oet/rfsafety](http://www.fcc.gov/oet/rfsafety)) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alerting signs and protective equipment for workers. The licensee shall ensure installation of terminals on aircraft by qualified installers who have an understanding of the antenna's radiation environment and the measures best suited to maximize protection of the general public and persons operating the aircraft and equipment. A terminal exhibiting radiation exposure levels exceeding 1.0 mW/cm<sup>2</sup> in accessible areas, such as at the exterior surface of the radome, shall have a label attached to the surface of the terminal warning about the radiation hazard and shall include thereon a diagram showing the regions around the terminal where the radiation levels could exceed 1.0 mW/cm<sup>2</sup>.

8. AC BidCo must maintain a U.S. point of contact available 24 hours per day, seven days per week, with the authority and ability to terminate operations authorized herein. AC BidCo has specified the following contact information: +1 866-943-4662 and [noc@AC BidCoair.com](mailto:noc@AC BidCoair.com).

9. Stations authorized herein must not be used to provide air traffic control communications.

10. For each ESAA transmitter AC BidCo shall maintain records of the following data for each operating ESAA, a record of the aircraft location (i.e., latitude/longitude/altitude), transmit frequency, channel bandwidth and satellite used shall be time annotated and maintained for a period of not less than one year. Records shall be recorded at time intervals no greater than one (1) minute while the ESAA is transmitting. The ESAA operator shall make this data available, in the form of a comma delimited electronic spreadsheet, within 24 hours of a request from the Commission, NTIA, or a frequency coordinator for purposes of resolving harmful interference events. A description of the units (i.e., degrees, minutes, MHz) in which the records values are recorded will be supplied along with the records.

11. Antenna elevation for all operations must be at least 5 degrees above the geographic horizon while the aircraft is on the ground.

12. AC BidCo shall comply with any pertinent limits established by the International Telecommunication Union to protect other services allocated internationally.

13. In connection with the provision of service in any particular country, AC BidCo is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.

14. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future applications.

15. Any action taken or expense incurred as a result of operations pursuant to this special temporary authority is solely at AC BidCo's risk.

16. This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately. Petitions for reconsideration under Section 1.106 or applications for review under Sections 1.115 of the Commission's rules, 47 C.F.R. § 1.106, 1.115, may be filed within thirty days of the date of the public notice indicating that this action was taken.

<b>2. Contact</b>			
<b>Name:</b>	Karis Hastings	<b>Phone Number:</b>	202-599-0975
<b>Company:</b>	SatCom Law LLC	<b>Fax Number:</b>	
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<b>City:</b>	Washington	<b>State:</b>	DC
<b>Country:</b>	USA	<b>Zipcode:</b>	20004 -
<b>Attention:</b>		<b>Relationship:</b>	Legal Counsel
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)			
3. Reference File Number or Submission ID			
4a. Is a fee submitted with this application?			
<input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).			
<input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee <input type="radio"/> Other (please explain):			
4b. Fee Classification    CGB - Mobile Satellite Earth Stations			
5. Type Request			
<input type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input checked="" type="radio"/> Other			
6. Requested Use Prior Date			
04/27/2017			
7. CityMobile		8. Latitude	
		(dd mm ss.s h) 0 0 0.0	

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## **12. Description**

AC BidCo LLC (AC BidCo) respectfully requests a 30-day extension of the special temporary authority it was granted in File No. SES-STA-20170321-00321 to allow up to 300 AeroSat model ESAA terminals to communicate with the U.S.-licensed AMC-6 satellite in the conventional Ku-band frequencies for service to North America, including the U.S. AC BidCo incorporates by reference the supporting information that was submitted in File No. SES-STA-20170321-00321.