

E120106 SES-STA-20170208-00140 IB2017000343
AC BidCo LLC

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 Request for ARSAT-2 Feb 2017

1. Applicant

Name: AC BidCo LLC Phone Number: 312-517-5566
DBA Name: Fax Number:
Street: 111 N Canal St., Suite 1500 E-Mail: melias@gogoair.com
City: Chicago State: IL
Country: USA Zipcode: 60606
Attention: Marguerite Elias

File # SESSTA20170208-00140
E120106 Grant Date 3-1-17
Call Sign (or other identifier)
Term Dates From: 3-1-17 To: 4-30-17
Approved: José Albuquerque



Applicant: AC BidCo LLC
Call Sign: E120106
File No.: SES-STA-20170208-00140
Special Temporary Authority



File # SES-STA-20170208-00140
E120106
Call Sign _____ Grant Date 3-1-17
(or other identifier)
Term Dates
From: 3-1-17 To: 4-30-17
Approved: Jose Albuquerque

AC BidCo LLC (AC BidCo) is granted special temporary authority for a period of 60 days, beginning on March 1, 2017, to operate up to 200 earth stations aboard aircraft (ESAAs) (0.24 meter AeroSat model HR6400 and 0.74 meter ThinKom model 2Ku) to communicate with the Argentine-licensed ARSAT-2 satellite (Call Sign S2956) at the 81° 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, as well as AC BidCo's pending modification application, as amended (IBFS File Nos. SES- MFS-20170109-00015 and SES-AFS-20170208-00139), 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/(mA² MHz)) for $\text{THETA} \leq 40$; -112 dB(W/(mA² 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 ARSAT-2 and operators of other Ku-band geostationary satellites within six angular degrees of ARSAT-2. 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 ARSAT-2, 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) 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/cm² 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/cm².

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.

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. Intelsat License LLC's opposition¹ to AC BidCo's request for special temporary authority, on the basis that Argentina has failed to ensure symmetrical treatment of foreign operators, contrary to its assurances in connection with the grant of U.S. market access to ARSAT-2,² is denied. We agree with AC BidCo³ that the issues raised by Intelsat are larger in scope than AC BidCo's specific request for STA, and that denial of STA is not the appropriate vehicle for resolution of those issues. Grant of this STA is for a limited time and a limited number of terminals and does not resolve Intelsat's opposition to adding ARSAT-2 as a point of communication in AC BidCo's license, as requested in AC BidCo's

¹ Opposition of Intelsat License LLC (filed February 16, 2017).

² See IBFS File No. SAT-PPL-20160304-00024 (granted July 21, 2016).

³ Response of AC BidCo LLC (filed February 23, 2016).

pending modification application, as amended. *See* IBFS File Nos. SES- MFS-20170109-00015 and SES-AFS-20170208-00139.

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

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

17. 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.

2. Contact	
Name: Karis Hastings	Phone Number: 202-599-0975
Company: SatCom Law LLC	Fax Number:
Street: 1317 F Street, N.W. Suite 400	E-Mail: karis@satcomlaw.com
City: Washington	State: DC
Country: USA	Zipcode: 20004 -
Attention:	Relationship: 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 SESAFS2017020800139 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 checked="" type="radio"/> Use Prior to Grant <input type="radio"/> Change Station Location <input type="radio"/> Other	
6. Requested Use Prior Date 03/01/2017	
7. City/Mobile	
8. Latitude (dd mm ss.s h) 0 0 0.0	

9. State	10. Longitude (dd mm ss.s h) 0 0 0.0
11. Please supply any need attachments. Attachment 1: STA Narrative Attachment 2: Attachment 3:	
12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) <div style="border: 1px solid black; padding: 5px;">AC BidCo LLC respectfully requests special temporary authority for 60 days to allow up to 200 ESAA terminals to communicate with the ARSAT-2 satellite, call sign S2956, in the conventional Ku-band frequencies for service to North America, including the U.S. See attached narrative.</div>	
13. By checking Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; for these purposes. Yes <input checked="" type="radio"/> No <input type="radio"/>	
14. Name of Person Signing Marguerite Elias	15. Title of Person Signing Exec. Vice President and General Counsel
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).	

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

AC BidCo LLC (“AC BidCo”), which holds a license to operate an earth station aboard aircraft (“ESAA”) network,¹ hereby requests special temporary authority (“STA”) for a period of 60 days commencing as soon as possible but no later than March 1, 2017, to permit up to 200 ESAA terminals to communicate in the conventional Ku-band with the Argentine-licensed ARSAT-2 satellite located at 81° W.L.² Grant of the requested STA will serve the public interest by allowing AC BidCo to meet customer demand for additional capacity over North America, including in U.S. airspace. AC BidCo has submitted an amendment to add ARSAT-2 as an authorized point of communications for its ESAA network,³ and seeks STA pending action on that application.

Background

AC BidCo is currently authorized to operate Ku-band terminals with specified satellites for ESAA service in U.S. airspace, foreign airspace, and the airspace over international waters. AC BidCo’s license was issued based on demonstration that the proposed network would enhance competition in the provision of in-flight broadband service to air travelers and airline crew members and that the planned operations were fully consistent with technical standards designed to ensure protection of other authorized communications networks. In order to enhance and expand its ESAA operations, AC BidCo is seeking authority to add ARSAT-2 as a point of communication for its ESAA network.

STA Request

Pending action on the AC BidCo Amendment, AC BidCo seeks STA to commence communications with ARSAT-2 to meet customer demand. The AC BidCo Amendment contains complete information regarding AC BidCo’s proposed operations with this spacecraft, and AC BidCo incorporates that information by reference herein. The amendment also includes a letter confirming that AC BidCo’s proposed ESAA operations are consistent with coordination agreements with operators of the satellites within six degrees on either side of ARSAT-2, and a copy of the letter is attached hereto for the Commission’s convenience.

¹ See Call Sign E120106, File No. SES-MFS-20160824-00738, granted Dec. 13, 2016 (the “AC BidCo ESAA License”).

² AC BidCo is licensed for two ESAA terminals, the 0.24 meter AeroSat model HR6400 designated as AES1 and the 0.74 meter ThinKom model 2Ku designated as AES2. AC BidCo seeks STA to use both antennas for communications with ARSAT-2.

³ See Call Sign E120106, File No. SES-AFS-20170208-00139 (the “AC BidCo Amendment”), amending AC BidCo’s pending application to modify its ESAA license, File No. SES-MFS-20170109-00015.

ARSAT-2 has been approved for U.S. market access, and full technical data regarding the satellite is already on file with the Commission.⁴ The technical parameters of the proposed operations with ARSAT-2 are consistent with those specified in the AC BidCo ESAA License.⁵

AC BidCo seeks authority to use ARSAT-2 capacity for ESAA operations on a primary basis in the 14-14.5 GHz uplink spectrum and in the 11.7-12.2 GHz downlink spectrum, consistent with the ARSAT-2 Market Access Grant and the Commission's orders in the ESAA proceeding.⁶ Communications with the satellite will be supported by a teleport in Brewster, WA, Call Sign E120043.

ARSAT-2 will provide coverage of North America. AC BidCo requires access to this capacity to ensure that it has sufficient bandwidth to meet near-term customer demand for in-flight connectivity.

AC BidCo emphasizes that the scope of this STA request is limited. AC BidCo is only seeking authority to add ARSAT-2 as an authorized point of communication for a limited number of ESAA terminals. AC BidCo is otherwise prepared to operate consistently with the terms and conditions set forth in the existing AC BidCo ESAA License. In addition, AC BidCo is willing to operate pursuant to the STA on an unprotected, non-harmful interference basis.

Grant of the requested STA is consistent with Commission policy and will not adversely affect other authorized operations. AC BidCo's proposed operations with ARSAT-2 are consistent with coordination agreements with adjacent satellite operators and will also conform to the terms of AC BidCo's agreements with the National Science Foundation and the National Aeronautics and Space Administration, as required by the AC BidCo ESAA License.⁷ In addition, AC BidCo will comply with power flux density limits to protect terrestrial services outside the U.S.

⁴ *Empresa Argentina de Soluciones Satelitales S.A.*, Call Sign S2956, File No. SAT-PPL-20160304-00024, grant-stamped July 21, 2016 ("ARSAT-2 Market Access Grant").

⁵ Operations with ARSAT-2 will not involve any increase in the maximum off-axis EIRP density levels previously described to the Commission for the AC BidCo ESAA terminals.

⁶ *Revisions to Parts 2 and 25 of the Commission's Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary-Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14-14.5 GHz Frequency Bands*, Notice of Proposed Rulemaking and Report and Order, IB Docket Nos. 12-376 & 05-20, 27 FCC Rcd 16510 (2012); Second Report and Order and Order on Reconsideration, IB Docket No. 12-376, 29 FCC Rcd 4226 (2014).

⁷ AC BidCo ESAA License, Special and General Provisions, Condition 90304.

Grant of the proposed STA will allow AC BidCo to respond to urgent customer demand for increased capacity on important air transport routes over the U.S. and the remainder of North America, promoting competition in the provision of aeronautical services and expanding the availability of in-flight broadband to air travelers and crew members.

AC BidCo understands that any Commission grant of this STA will be without prejudice to the ultimate determination the Commission will make regarding the AC BidCo Amendment. In addition, AC BidCo acknowledges that any action taken pursuant to a grant of the requested STA will be at AC BidCo's own risk.



Federal Communications Commission
International Bureau
445 12th Street, S.W.
Washington, D.C. 20554

February 6, 2017

Re: Engineering Certification of ARSAT

To Whom It May Concern:

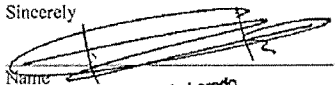
This letter certifies that ARSAT has been informed by SATELITES MEXICANOS, S.A DE C.V. on behalf of AC BidCo LLC that AC BidCo LLC is planning to seek a modification to its blanket authorization from the Federal Communications Commission ("FCC"), to operate two types of technically identical Ku-band transmit/receive earth stations aboard aircraft ("ESAA's"), Call Sign E120106. AC BidCo LLC seeks additional authorization for these aeronautical Ku-band earth stations to also utilize ARSAT-2 at 81° W.L. under the current ESAA rules including Section 25.227.

ARSAT certifies that the characteristics of the AC BidCo LLC ESAA terminals with ARSAT-2 is consistent with existing coordination agreements with all adjacent satellite operators within +/- 6 degrees of orbital separation from ARSAT-2. If the FCC authorizes the operations proposed by AC BidCo LLC, ARSAT will take into consideration the power density levels associated with the operations of AC BidCo LLC in all future satellite network coordination with other adjacent satellite operators, in the related frequency band and polarization, in accordance with the established international regulations, and as long as both companies are commercially related.

The confirmation provided by this means shall be limited to the information provided by SATELITES MEXICANOS, S.A. DE C.V. on behalf of AC BidCo LLC up to the present date. Should the information of SATELITES MEXICANOS, S.A. DE C.V. and/or AC BidCo LLC be modified, the present letter shall not be valid until further analysis is completed, and if required, ARSAT would provide the FCC with an updated letter reflecting any modification to the above.

ARSAT has also stated to SATELITES MEXICANOS, S.A. DE C.V. that the ESAA antennas must be installed and operated in accordance with AC BidCo LLC's representations and the terms of the AC BidCo LLC FCC license. In particular, the ESAA antennas will operate in compliance with the pointing accuracy and shutdown requirements of 47 C.F.R. Section 25.227(a) of the Commission's Rules that apply to ESAA operations.

Sincerely


Name
ARSAT Dr. Rodrigo de Loredo
Title Presidente
ARSAT

February 6th 2017
Date