

2/17/16

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:
Extension of STAs for ASTRA 4A, IS 29e, AMC-3 and IS 20 Oct 2016

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		

60 days


"Extension with conditions"

File # SES-STA-20161025-00855

Call Sign E120106 **Grant Date** 10/28/2016
(or other identifier)

Term Dates
From 10/28/2016 **To** 12/24/2016

Approved: Paul E. Klein



Applicant: AC BidCo LLC
Call Sign: E120106
File No.: SES-STA-20161025-00855
Special Temporary Authority



"Extensions with conditions"
File # SES-STA-20161025-00855
Call Sign E120106 Grant Date 10/28/2016
(or other identifiers)
From 10/28/2016 To 12/26/2016
Approved: Paul E. Glass

AC BidCo LLC (AC BidCo) is granted extension of special temporary authority for a period of 60 days, beginning October 28, 2016, to operate up to 200 (0.24 meter AeroSat model HR6400 and 0.74 meter ThinKom model 2Ku) earth stations aboard aircraft (ESAA) with: (1) the AMC-3 satellite (S2162) at the 67° W.L orbital location in the 14.0-14.5 GHz (Earth-to-space) and 11.7-12.2 GHz (space-to-Earth) frequency bands; (2) the Intelsat 29e satellite (S2913) at the 50.0° W.L. orbital location in the 14.0-14.5 GHz (Earth-to-space), 11.7-12.2 GHz (space-to-Earth) and 10.95-11.7 GHz (space-to-Earth) frequency bands; (3) the Sweden-licensed ASTRA 4A satellite at 4.8° E.L. orbital location in the 14.0-14.5 GHz (Earth-to-space), 11.7-12.2 GHz (space-to-Earth), and 12.20-12.75 GHz (space-to-Earth) frequency bands; and (4) the U.S.-licensed satellite Intelsat 20 (Call Sign S2847) at 68.5° E.L. orbital location in the 14.0-14.5 GHz (Earth-to-space), 10.95-11.20 GHz, 11.45-11.70 GHz, and 12.25-12.75 GHz (space-to-Earth) frequency bands, under 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 ESAA 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/(m² MHz)) for $\text{THETA} \leq 40^\circ$; -112 dB(W/(m² MHz)) for $40^\circ < \text{THETA} \leq 90^\circ$. 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 operators of AMC-3, Intelsat 29e, ATRA 4A, and Intelsat 20 and operators of other Ku-band geostationary satellites within six angular degrees of AMC-3, Intelsat

29e, ATRA 4A, and Intelsat 20. 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 this space station, ESAA operating pursuant to this temporary authority shall cease transmitting to that space station 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 to those satellites in obtaining the satellite operator certification for AMC-3, Intelsat 29e, ATRA 4A, and Intelsat 20, attached as exhibits to AC BidCo's pending application, IBFS File No. SES-MFS-20160824-00738. 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 [ww.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/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@gogoair.com.

9. ESAA authorized herein must employ a tracking algorithm that is resistant to capturing and tracking adjacent satellite signals, and each station must be capable of inhibiting its own transmission in the event it detects unintended satellite tracking.

10. ESAA authorized herein must be monitored and controlled by a ground-based network control and monitoring center. Such stations must be able to receive "enable transmission" and "disable transmission" commands from the network control center and must cease transmission immediately after receiving a "parameter change" command until receiving an "enable transmission" command from the network control center. The network control center must

monitor operation of each ESAA to determine if it is malfunctioning, and each aircraft earth station must self-monitor and automatically cease transmission on detecting an operational fault that could cause harmful interference to a fixed satellite service network.

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

12. 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.

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

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

15. 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.

16. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending application, IBFS File No. SES-MFS-20160824-00738.

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

18. 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.

60 days


"Extension with conditions"

File # SES-STA-20161025-00855

Call Sign E12D106 Grant Date 10/28/2016
(or other identifier)

Term Dates
From 10/28/2016 To 12/24/2016

Approved: Paul E. Blair



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 SESMFS2016082400738 or Submission ID

4a. Is a fee submitted with this application?

If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).

Governmental Entity Noncommercial educational licensee

Other (please explain):

4b. Fee Classification CGB - Mobile Satellite Earth Stations

5. Type Request

Use Prior to Grant

Change Station Location

Other

6. Requested Use Prior Date

10/28/2016

7. CityMobile

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: 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; margin: 5px 0;">AC BidCo LLC respectfully requests a 60-day extension of the special temporary authority it was granted to use the ASTRA 4A, Intelsat 29e, AMC-3, and Intelsat 20 satellites pending action on its application to modify its ESAA license to add these satellites as points of communication, File Nos. SES-MFS-20160824-00738 and SES-AMD-20161004-00827. AC</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. <input checked="" type="radio"/> Yes <input type="radio"/> No	
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).	

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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.

12. Description

AC BidCo LLC respectfully requests a 60-day extension of the special temporary authority it was granted to use the ASTRA 4A, Intelsat 29e, AMC-3, and Intelsat 20 satellites pending action on its application to modify its ESAA license to add these satellites as points of communication, File Nos. SES-MFS-20160824-00738 and SES-AMD-20161004-00827. AC BidCo incorporates by reference the supporting information submitted in File Nos. SES-STA-20160729-00699, SES-STA-20160825-00742, and SES-STA-20160624-00610.