

E120106
Gogo LLC

SES-STA-20160830-00746

IB2016001949

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 for Intelsat 20 August 2016

1. Applicant

Name:	Gogo LLC	Phone Number:	202-870-7220
DBA Name:		Fax Number:	
Street:	5614 Connecticut Avenue, NW #288	E-Mail:	bgordon@gogoair.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20015 -
Attention:	Mr William J Gordon		



"With Conditions"

File # SES-STA-20160830-00746

Call Sign E120106 Grant Date 09/02/2016
(or other identifier)

From 09/04/2016 Term Date 11/03/2016

Approved: Paul E. Blum

Applicant: AC BidCo LLC
Call Sign: E120106
File No.: SES-STA-20160830-00746
Special Temporary Authority



"With conditions"
File # SES-STA-20160830-00746
Call Sign E120106 Grant Date 09/02/2016
(or other identifier)
From 09/04/2016 Term Date 11/03/2016
Approved: Paul E. Haas

AC BidCo LLC (AC BidCo) is granted a special temporary authority extension from SES-STA-20160624-00610, for 60 days, beginning September 4, 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 Intelsat 20 (Call Sign S2487) at the 68.5° E.L orbital location in the 14.0-14.5 GHz (Earth-to-space) and 10.95-11.2 GHz, 11.45-11.7 GHz, and 12.5-12.75 GHz (space-to-Earth) frequency bands, 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 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 operator of Intelsat 20 and operators of other Ku-band geostationary satellites within six angular degrees of 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 Intelsat in obtaining the satellite operator certification for 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 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. 7. Operations during the period September 1, 2016 to the date of this grant were authorized pursuant to Section 1.62 of the Commission's rules 47 C.F.R. § 1.62.

19. 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 "With conditions"

File # SES-STA-20160830-00746

Call Sign E120106 Grant Date 09/02/2016
(or other identifier)

From 09/04/2016 To 11/03/2016

Approved: [Signature]


GRANTED
International Bureau

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Gogo LLC (“Gogo”), which holds a license to operate an earth station aboard aircraft (“ESAA”) network,¹ hereby requests a 60-day extension of the special temporary authority (“STA”) it was granted in File No. SES-STA-20160624-00610 to permit up to 200 ESAA terminals to communicate the U.S.-licensed Intelsat 20 spacecraft.² Grant of the requested STA extension will serve the public interest by allowing Gogo to continue to respond to customer demand and optimize its coverage in the Middle East. Gogo seeks extension of its authority pending Commission action on Gogo’s recent application to modify its ESAA license, which includes a request to add Intelsat 20 as an authorized point of communication.³ Gogo incorporates by reference the supporting information that was provided in File No. SES-STA-20160624-00610.

¹ See Call Sign E120106, File No. SES-MFS-20151022-00735, granted June 30, 2016 (the “Gogo ESAA License”). A *pro forma* assignment of the Gogo ESAA license to Gogo’s affiliate AC BidCo LLC (“AC BidCo”) has been approved by the Commission but has not yet been consummated. See File No. SES-ASG-20160714-00659, granted July 19, 2016. Gogo requests that upon consummation of the assignment, the Commission continue to process this STA request but replace Gogo with AC BidCo as the applicant.

² Gogo is licensed for two ESAA terminals, the 0.24 meter AeroSat model HR6400 and the 0.74 meter ThinKom model 2Ku, and requests continued authority for both models, up to a combined total of 200 terminals.

³ See *Gogo LLC*, Call Sign E120106, File No. SES-MFS-20160824-00738.

2. Contact	
Name: Karis Hastings Company: SatCom Law LLC Street: 1317 F Street, N.W. Suite 400 City: Washington Country: USA Attention:	Phone Number: 202-599-0975 Fax Number: E-Mail: karis@satcomlaw.com State: DC Zipcode: 20004 - 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 09/04/2016	
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: 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.) Gogo LLC (Gogo) respectfully requests a 60-day extension of the special temporary authority it was granted in File No. SES-STA-20160624-00610 to allow up to 200 ESAA terminals to communicate with the Intelsat 20 satellite for coverage of the Middle East. Extension of the STA is sought pending action on a recent modification application, File	
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 ☐ No	
14. Name of Person Signing William J. Gordon	15. Title of Person Signing Vice President, Regulatory Affairs
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

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERF, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

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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

Gogo LLC (Gogo) respectfully requests a 60-day extension of the special temporary authority it was granted in File No. SES-STA-20160624-00610 to allow up to 200 ESAA terminals to communicate with the Intelsat 20 satellite for coverage of the Middle East. Extension of the STA is sought pending action on a recent modification application, File No. SES-MFS-20160824-00738, that seeks to add Intelsat 20 as an authorized point of communication under Gogo's existing ESAA license, call sign E120106. See attached narrative.