

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 AMC-3 (67 WL) - April 2015

1. Applicant

Name:	Row 44 Inc.	Phone Number:	818-706-3111
DBA Name:		Fax Number:	
Street:	4353 Park Terrace Drive	E-Mail:	smcLellan@globaleagLeent.com
City:	Westlake Village	State:	CA
Country:	USA	Zipcode:	91361
Attention:	Mr Simon McLellan		

Fig. 1 SES-STA-20150424-00275
E080100 Grant Data S-T-15
Call Sign (or other identifier)
From S-1-15 Term Data To 6/30-15
Approver's *Mark E. Allen*
GRANTED
International Bureau

Applicant: Row 44, Inc.
Call Sign: E080100
File No.: SES-STA-20150424-00275
Special Temporary Authority



File: SES-STA-20150424-00275
E080100
Call Sign _____ Grant Date 5-1-15
(or other identifier) _____
From 5-1-15 Term Dates To 6-30-15
Approver: Paul E. Hines
GRANTED
International Bureau

Row 44, Inc. is granted special temporary authority for 60 days to operate up to 50 aeronautical terminals (0.62 meter TECOM Ku-Stream antenna) to communicate with AMC-3 (Call Sign S2162) at the 67° W.L. orbital location using the 14.05-14.47 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 Row 44, Inc.'s application and are subject to the following conditions:

1. Operations under this grant of special temporary authority must be on an un-protected, non-harmful interference basis, i.e., while operating under this temporary authority Row 44, Inc. must not cause harmful interference to, and must not claim protection from interference caused to it by, any other lawfully operating radiocommunication system. Row 44, Inc. must cease operations immediately upon notification of such interference and must immediately inform the Commission, in writing, of such an event.
2. ESAA operations in band shall not exceed the EIRP density limits specified in the current earth station authorization, Call Sign E080100, IBFS File No. SES-MOD-20121023-00963.
3. 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 aircraft earth station must not produce 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: $-132 + 0.5 \times \text{THETA dB(W/(m^2 MHz))}$ for $\text{THETA} \leq 40^\circ$; $-112 \text{ dB(W/(m^2 MHz))}$ 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.
4. Operations pursuant to this authorization must conform with the terms of coordination agreements between the operator of AMC-3 and operators of other Ku-band geostationary satellites within six angular degrees of AMC-3. In the event that another GSO Fixed-Satellite Service (FSS) space station commences operations in the 14.0-14.5 GHz band at a location within six degrees of any of these space stations, aircraft earth stations 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 Row 44, Inc. demonstrates that such operation will not cause interference to the new co-frequency space station.
5. Row 44, Inc. must take all necessary measures to ensure that the antenna 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 wherever such exposures might occur. 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/lrfsafety) 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.

6. Row 44, Inc. 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. The licensee shall have available, at all times, the technical personnel necessary to perform supervision of remote station operations.

7. Aircraft earth stations 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.

8. Aircraft earth stations 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 aircraft earth station 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.

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

10. Operation in the territory or airspace of any country other than the United States must be in compliance with the applicable laws, regulations, and licensing procedures of that country, as well as with the conditions of this authorization.

11. For each aircraft transmitter, Row 44, Inc. must maintain records of the following data for each operating aircraft earth station (AES), 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 AES 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.

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

13. Row 44, Inc. must comply with any pertinent limits established by the International Telecommunication Union to protect other services allocated internationally.

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

15. Any action taken or expense incurred as a result of operations pursuant to this special temporary authority is solely at Row 44, Inc.'s risk.

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: David S. Keir	Phone Number: 202-429-8970
Company: Lerman Senter PLLC	Fax Number: 202-293-7783
Street: 2000 K Street, NW Suite 600	E-Mail: dkeir@lermansenter.com
City: Washington	State: DC
Country: USA	Zipcode: 20006 -1809
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 or Submission ID IB2015000810	
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 05/01/2015	
7. City Washington	
8. Latitude (dd mm ss.s h) 0 0 0.0 N	

9. State DC	10. Longitude (dd mm ss.s h) 0 0 0.0 W
11. Please supply any need attachments. Attachment 1: 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;"> <p>Row 44, Inc. requests authority commencing May 1, 2015 to use conventional Ku-band capacity on the AMC-3 satellite at 67 degrees W.L. for a period of 60 days in advance of final action on Row 44's pending license modification application. See Attached Narrative.</p> </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 Michael Pigott	15. Title of Person Signing Vice President, Legal 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).	

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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.

EXPLANATORY STATEMENT

Row 44, Inc. hereby requests Special Temporary Authority (“STA”) for a period of sixty (60) days, pursuant to Section 25.120(b) of the FCC’s Rules, to operate its licensed Ku-band network of Earth Stations Aboard Aircraft (“ESAA”), under Call Sign E080100, with an additional satellite point of communication, AMC-3 at 67° W.L. Row 44 is filing contemporaneously with this request an application seeking permanent authority to operate with this satellite as a new point of communication. *See* IB Submission ID No. IB2015000810 (“Modification Application”). In this STA application, Row 44 seeks authority to permit initiation of service on AMC-3 using up to fifty (50) earth stations while this underlying application remains pending. Row 44’s STA operation would change its current authority only through the addition of AMC-3 as a point of communication for this limited number of units under the operating approach outlined in the Modification Application, and its operations would otherwise remain consistent with all terms and conditions of its current license. Proposed operations on AMC-3 would be limited to conventional Ku-band capacity frequencies at 11.7 to 12.2 GHz (downlink) and 14.0 to 14.5 GHz (uplink), as proposed in the pending Modification Application.

All technical and other required information concerning Row 44’s planned use of AMC-3 is contained in the underlying application, including a coordination certification letter signed by SES. *See* Modification Application, IB Submission ID No. IB2015000810, Exhibit B. In the coordination certification letter, SES confirms that Row 44’s proposed ESAA operations are consistent with coordination arrangements with operators of the satellites within six degrees on either side of AMC-3. Row 44’s planned operations will also be fully consistent with its existing agreements with the National Science Foundation and the National Aeronautics and Space Administration, and will adhere to the terms and conditions of Row 44’s current license.

Under Section 25.120(b)(1) of the FCC’s Rules, the International Bureau may grant an STA when the public interest supports the relief requested, and/or delay in the institution of temporary operations would be contrary to the public interest. *See* 47 C.F.R. § 25.120(b)(1). Such authority may be granted for a period not to exceed 60 days if the STA Request itself has not appeared on public notice but the applicant has filed (or even plans to file) a request for permanent authority for the parameters and facilities requested. *See* 47 C.F.R. § 25.120(b)(3).

Grant of the authority requested in this instance will affirmatively serve the public interest by permitting Row 44 to continue to serve existing customers and to expand its ESAA network for the broader benefit of air travelers and airline crew members. Access to this new capacity is particularly necessary at this time because higher than expected demand from airline passengers has caused congestion on the network, and there are not currently additional capacity options on satellites for which Row 44 has already obtained authorization. If Row 44 finds that it has insufficient bandwidth to operate normally, service availability would be impaired and the

in-flight user experience significantly degraded. Due to these developments, Row 44 has been forced to seek authority to add new satellite capacity in a much shorter timeframe than would normally be expected. Addition of AMC-3 to Row 44's existing authority will provide more effective coverage of Atlantic Ocean routes, as well as Row 44's primary U.S. service area (CONUS) and parts of Central America and the Caribbean. This will provide enhanced performance and also make new areas of operation available to U.S. airline passengers that use the Row 44 service. Grant of the requested STA is consistent with Commission policy and will not adversely affect other authorized operations.

Row 44 acknowledges that favorable FCC action on this STA request would be without prejudice to the ultimate determination the FCC will make regarding the Modification Application. In addition, Row 44 acknowledges that any action taken pursuant to a grant of the requested STA will be at its own risk.

The conventional Ku-band capacity that Row 44 seeks to use on AMC-3 will be available beginning May 1, 2015. Accordingly, Row 44 respectfully requests that the FCC grant it authority for a period of sixty (60) days commencing on or before that date to use the AMC-3 satellite as a point of communication in the conventional Ku-band for up to 50 TECOM antennas now operating under its FCC ESAA network license.