


APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
STA Renewal for Satmex 5 - June 2014

1. Applicant

<b>Name:</b>	Row 44 Inc.	<b>Phone Number:</b>	818-706-3111
<b>DBA Name:</b>		<b>Fax Number:</b>	
<b>Street:</b>	4353 Park Terrace Drive	<b>E-Mail:</b>	smclellan@row44.com
<b>City:</b>	Westlake Village	<b>State:</b>	CA
<b>Country:</b>	USA	<b>Zipcode:</b>	91361
<b>Attention:</b>	Simon McLellan		



**File #** SES-STA-20140623-00539  
**Call Sign** W080100  
**Grant Date** 7-9-14  
**Term Dates** 9-7-14  
**From** 7-9-14  
**To:** 9-7-14  
**Approved:** Paul E. Allen

**GRANTED**  
International License

Applicant: Row 44 Inc.  
File No.: SES-STA-20140623-00539  
Call Sign: E080100

Row 44 Inc. is granted extension of the special temporary authority that was previously granted under IBFS File No. SES-STA-20140205-00054 for a 60-day period to communicate with Satmex 5 (Call Sign S2589) at the 114.9° W.L. orbital location using the 14.0-14.5 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's application and are subject to the following conditions:

1. Operation under this grant of special temporary authority must be on an unprotected and non-harmful interference basis, *i.e.*, while operating under this temporary authority Row 44 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 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 Row 44's coordination agreements with the National Science Foundation and the National Aeronautics and Space Administration pertaining to operation of aircraft earth stations 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 aircraft earth station 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/(m<sup>2</sup> MHz)) for  $\text{THETA} \leq 40^\circ$ ;  $-112$  dB(W/(m<sup>2</sup> 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 Satmex 5 and operators of other Ku-band geostationary satellites within six angular degrees of Satmex 5. 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, 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 demonstrates that such operation will not cause harmful interference to the new co-frequency space station.

6. Row 44 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/rf safety](http://www.fcc.gov/oet/rf_safety)) 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.

7. Row 44 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. Row 44 must submit a letter to be included in its license file with the name and telephone number of the point of contact prior to commencing operation.

8. 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.

9. 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.

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

11. For each transmitter, Row 44 shall 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 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 shall comply with any pertinent limits established by the International Telecommunication Union to protect other services allocated internationally.

14. In connection with the provision of service in any particular country, Row 44 is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.

15. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending applications. *E.g.* IBFS File Nos. SES-MOD-

20121023-00963/SES-AFS-20130920-00833/SES-AFS-20140203-00029.

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

17. Operations during the period June 30, 2014 to the date of this grant were authorized pursuant to Section 1.62 of the Commission's rules 47 C.F.R. § 1.62.

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.

**File #** SES-STA-20140623-00539

**Call Sign** \_\_\_\_\_ **Grant Date** 7-9-14  
(or other identifier)

**From** 7-9-14 **Term Dates** 9-7-14  
**To:**

**Approved:** Paul E. Hayes

**GRANTED**  
International Bureau

**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      **E-Mail:** dkeir@lermansenter.com  
Suite 600  
**City:** Washington      **State:** DC  
**Country:** USA      **Zipcode:** 20006 -  
**Attention:** David S. Keir      **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 SESAFS2014020300029 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    CGX – Fixed Satellite Transmit/Receive Earth Station

5. Type Request

Use Prior to Grant       Change Station Location       Other

6. Requested Use Prior Date

07/01/2014

7. City

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;"> <p>Row 44, Inc. seeks extension special temporary authority for an additional 60-day period from July 1, 2014 through August 29, 2014 to operate its licensed Ku-band Earth Stations Aboard Aircraft network (Call Sign E080100) using conventional Ku-band capacity (11.7-12.2 /14.0-14.5 GHz) on Satmex 5 at 114.9 degrees W.L. while its application for permanent</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. Yes <input checked="" type="radio"/> No <input type="radio"/>	
14. Name of Person Signing Simon McLellan	15. Title of Person Signing Senior Engineer
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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## 12. Description

Row 44, Inc. seeks extension special temporary authority for an additional 60-day period from July 1, 2014 through August 29, 2014 to operate its licensed Ku-band Earth Stations Aboard Aircraft network (Call Sign E080100) using conventional Ku-band capacity (11.7-12.2/14.0-14.5 GHz) on Satmex 5 at 114.9 degrees W.L. while its application for permanent modification of its license to add this (and other satellites) as a point of communication remains pending. This authority was previously granted on May 1, 2014 in FCC File No. SES-STA-20140205-00054, and that application is incorporated herein by reference.