

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
Application for 60-Day STA for BB45 terminals.

I. Applicant

Name:	RiteNet Corp.	Phone Number:	240-505-4996
DBA Name:		Fax Number:	
Street:	1445 Research Blvd Suite 505	E-Mail:	rramineni@ritenet.com
City:	Rockville	State:	MD
Country:	USA	Zipcode:	20850 -6111
Attention:	Mr. Rao Ramineni		

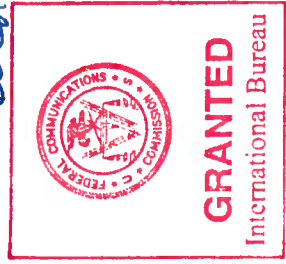
60 days "With conditions"

File # SES-STA-20190203-00051

Call Sign E190028 Grant Date 02/21/2019
(or other identifier)

Term Dates
From: 02/22/2019 To: 04/22/2019

Approved: *[Signature]*



2. Contact	
Name: Carlos M. Nalda	Phone Number: 5713325626
Company: LMI Advisors	Fax Number:
Street: 2550 M Street, NW, Suite 300	E-Mail: cnalda@lmiadvisors.com
City: Washington	State: DC
Country: USA	Zipcode: 20037
Attention:	Relationship: Other
(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 IB2019000227	
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	
02/06/2019	
7. City Various	
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: Narrative Attachment 2: Form 312 Schedule B Attachment 3: Technical Appendix	
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;">Application for 60-Day STA for BB45 terminals.</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 Rao Ramineni	15. Title of Person Signing President
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.

Applicant: RiteNet Corp.
Call Sign: E190028
File No.: SES-STA-20190203-00051
Special Temporary Authority ("STA")

RiteNet Corp. ("RiteNet") is granted STA for 60 days to operate up to 50 SkyTech model BB45 earth station aboard aircraft (ESAA) terminals to communicate with the France licensed EUTELSAT 113WA (Call Sign S2596) satellite at the 8° W orbital location using 14.0-14.50 GHz (Earth-to-space) frequencies and 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz (space-to-Earth) frequencies within the satellite's footprints. Operations are subject to the following additional conditions:

1. Operations shall not exceed the coordinated parameters. Operations are on an unprotected and non-harmful interference basis. RiteNet 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 RiteNet's coordination agreements with the National Science Foundation and the National Aeronautics and Space Administration pertaining to operation of ESAs 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 $40 < \text{THETA} \leq 90$ g. 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 EUTELSAT 113WA and operators of other Ku-band geostationary satellites within six angular degrees of EUTELSAT 113WA. 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, ESAs 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 RiteNet demonstrates that such operation will not cause harmful interference to the new co-frequency space station.
6. RiteNet must operate in accordance with the off-axis EIRP spectral densities supplied in obtaining the satellite operator certification for EUTELSAT 113WA, attached as an exhibit to

the application. RiteNet 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 RiteNet conforms to the off-axis EIRP spectral densities supplied to the target satellite operator.

7. RiteNet 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. RiteNet 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. RiteNet has specified the following contact information: RiteNet Network Operations Center, 13665 Dulles Technology Drive, Suite 300, Herndon, VA 20171, Tel: 1-866-830-7610 and 1-703-391-9970, e-mail: noc@artellc.com

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

10. For each ESAA transmitter RiteNet 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 three degrees above the geographic horizon while the aircraft is on the ground.

12. RiteNet 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, RiteNet is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.

14. Grant of this authorization is without prejudice to any determination that the Commission may make regarding RiteNet's pending FCC IBFS File No. SES-LIC-20190203-00052 or future applications.

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

16. 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"

 GRANTED International Bureau	File # <u>SES-STA-20190203-00051</u>
	Call Sign <u>E190228</u> Grant Date <u>02/21/2019</u> (or other identifier)
	Term Dates From: <u>02/22/2019</u> To: <u>04/27/2019</u>
	Approved: <u>Paul E. Glavin</u>

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Application of RiteNet Corp. for 60-Day)	
Special Temporary Authorization to)	Call Sign: N/A
Operate Ku-band Earth Station Aboard)	File No. SES-STA-
Aircraft Terminals)	

APPLICATION FOR SPECIAL TEMPORARY AUTHORIZATION

RiteNet Corp. (“RiteNet”), pursuant to Section 25.120 of the Commission’s rules,¹ respectfully requests 60-day special temporary authorization (“STA”) to operate a previously authorized earth station aboard aircraft (“ESAA”) terminal to provide intelligence, surveillance, and reconnaissance (“ISR”) support for important United States Government (“USG”) security operations. Specifically, RiteNet seeks this STA to operate up to 50 SkyTech Model BB45 (“BB45”) ESAA terminals in the 14.0-14.5 GHz (Earth-to-space)² and 10.95-11.2 GHz, 11.45-11.7 GHz and 11.7-12.2 GHz (space-to-Earth) bands during the pendency of a currently filed ESAA blanket license application³ to deliver immediate, mission-critical communications under a long-term contract with U.S. Customs and Border Protection (“CBP”). Grant of this request will strongly serve the public interest and is consistent with the Commission’s ESAA operations.⁴

¹ 47 C.F.R. § 25.120.

² RiteNet will coordinate operations in the 14.0-14.2 GHz bands with potentially affected NASA TDRSS facilities, as well as operations in the 14.47-14.5 GHz band with potentially affected radioastronomy operations, before operating in these bands within the exclusion zones specified in the Commission rules. See 47 C.F.R. § 25.227(c) and (d).

³ See RiteNet Corp., File No. SES-INTR2019-00227 (filed Feb. 3, 2019).

⁴ 47 C.F.R. § 25.227.

I. DISCUSSION

RiteNet provides diverse satellite communications services for a range of USG customers, including long-term support for CBP. The BB45 terminal has been successfully demonstrated and operated with Ku-band geostationary satellite orbit (“GSO”) fixed-satellite service (“FSS”) satellites under previously granted experimental and commercial authority.⁵ RiteNet seeks the instant 60-day STA to enable near-term transition of terminal operations to the RiteNet network to provide immediate mission support to CBP during the pendency of an application for long-term ESAA blanket license authority.

Along with the technical and operational description included in this STA application, RiteNet’s existing USG contract vehicles and operational scope establish the pressing need for near-term operating authority. RiteNet provides the FCC Form 312 and Schedule B,⁶ as well as the Technical Appendix, for information relating to the proposed ESAA operations. As demonstrated in these materials, RiteNet will operate the BB45 terminal consistent with the Commission’s rules and policies governing ESAA operations.

A. ESAA Terminal

The BB45 terminal is an airborne stabilized antenna system that provides broadband satellite communications for aeronautical applications in Ku-band FSS frequencies. The antenna is mechanically steerable and is intended for tail or fuselage mounting. RiteNet seeks to operate the BB45 ESAA terminal on the RiteNet satellite network to support mission-critical ISR

⁵ See *UltiSat Inc.*, File No. 0201-EX-ST-2018 (granted Mar. 2, 2018), File No. SES-LIC-20180726-02089 (granted Nov. 21, 2018), File No. SES-STA-20180621-01477 (granted July 6, 2018).

⁶ Because of difficulties on the IBFS website, it is not currently possible to download the entire FCC Form 312 and Schedule B in a single document. As a result, the Form 312 and Schedule B attached to the STA application were assembled from individual electronic application pages on the IBFS website.

applications for CBP aircraft. This STA will allow RiteNet to begin immediate integration of the terminal into its network, thereby expanding support for CBP operations.

At all times, RiteNet will operate the BB45 terminal in permissible frequencies⁷ with satellites on the Commission's Permitted Space Station List ("Permitted List")⁸ and within the off-axis EIRP spectral density ("ESD") limits set forth in Section 25.227 of the Commission's rules. RiteNet will operate the BB45 terminal at off-axis ESD levels that are compliant with the Commission's two-degree spacing policy and thus it will protect adjacent satellite operations from harmful interference.⁹

In addition, the BB45 terminal: (i) meets the pointing accuracy requirements of Section 25.227(a)(1)(ii)(A) with a pointing accuracy of less than or equal to 0.2° between the orbital location of the target satellite and the axis of the main lobe of the ESAA antenna; (ii) automatically ceases emissions within 100 milliseconds if the angle between the orbital location of the target satellite and the axis of the main lobe of the ESAA antenna exceeds 0.5°; and (iii) does not resume transmissions until such angle is less than or equal to 0.2°.

RiteNet will maintain control of all transmissions and will cease transmissions immediately upon request of the satellite operator or other notice of harmful interference. The point of contact with control over the proposed ESAA operations is:

⁷ The frequencies requested in this application are available for ESAA operations with Permitted List satellites. See 47 C.F.R. § 25.115(k)(1).

⁸ The operating parameters of Permitted List satellites have been previously reviewed and approved by the Commission and will support RiteNet's operations throughout U.S., international, and foreign airspace, subject to compliance with the regulations of any overflown nations governing Ku-band ESAA operations. See Approved Space Station List, available at: <https://www.fcc.gov/approved-space-station-list>; Permitted Space Station List, available at: <https://www.fcc.gov/permitted-space-station-list>.

⁹ See 47 C.F.R. § 25.227(a)(12).

RiteNet Network Operations Center
13665 Dulles Technology Drive, Suite 300
Herndon, VA 20171
Tel: 1-866-830-7610 and +1-703-391-9970
E-Mail: noc@artelllc.com

24/7 Emergency Contact:
XT Vuong
Tel: +1-703-371-5386
E-Mail: xvuong@artelllc.com

Additional information regarding the operational characteristics of the BB45 terminal can be found in the materials attached to this STA request.

B. STA Request & Public Interest Considerations

RiteNet respectfully requests this 60-day STA pursuant to Section 25.120 of the Commission's rules, 47 C.F.R. §25.120. Section 25.120(a) provides that STA requests should be filed at least three working days prior to the date of commencement of the proposed operations. Here, RiteNet seeks a commencement date of February 6, 2019. Additionally, the Commission may grant a 60-day STA if the request has not been placed on public notice and the applicant has filed a request for regular authority for the operations.¹⁰ RiteNet has concurrently filed an ESAA blanket license application to permit regular commercial operation of the BB45 terminal.

The unique circumstances here, including proposed operations that are essentially identical to those previously authorized,¹¹ warrant near-term temporary authority for BB45 operations on the RiteNet network. Further, this STA application involves "extraordinary

¹⁰ See 47 C.F.R. §25.120(b)(3); see also *supra* n. 3.

¹¹ See *supra* n. 5.

circumstances¹² because RiteNet has an immediate need to support CBP operations on its network using terminals that have already been successfully demonstrated and tested.¹³

RiteNet's proposed operations will serve the public interest by permitting immediate support for national security and border protection missions through commencement of regular operations on CBP aircraft. In addition, grant of the requested authority will allow RiteNet and its government partners to integrate the service and equipment with practical government applications and operations. The public interest will also be served by facilitating RiteNet's ability to provide advanced, versatile, and easily deployable ESAA terminal solutions for U.S. government entities to the benefit of the U.S. public.

II. CONCLUSION

In view of the foregoing, the public interest would be served by a grant of the requested 60-day STA to allow RiteNet to operate the BB45 ESAA terminals to support its USG customers, commencing on February 6, 2019, or as soon as practicable thereafter.

¹² See 47 C.F.R. 25.120(b)(1).

¹³ See *supra* n. 5.