

S2940

SAT-LOI-20150416-00025

IB2015000710

Spectrum Five LLC
BSSNET2A-111W



*with conditions

File # SAT-LOI-20150416-00025

Call Sign S2940 Grant Date 10/29/15

(or other identifier)

Term Dates See

From see conditions To: conditions

Approved: Stephen J. Duall

Stephen J. Duall
Chief, Satellite Policy Branch

Approved by OMB
3060-0678

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APPLICATION FOR SATELLITE SPACE STATION AUTHORIZATIONS FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	FCC Use Only
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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
Spectrum Five LLC Petition for Declaratory Ruling to Provide Service from 110.9 W.L.

1-8. Legal Name of Applicant			
Name:	Spectrum Five LLC	Phone Number:	703-981-8955
DBA Name:		Fax Number:	
Street:	1776 K Street, NW Suite 200	E-Mail:	dwilson@spectrumfive.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20006 -
Attention:	David Wilson		

Spectrum Five LLC
IBFS File No. SAT-LOI-20150416-00025
Call Sign S2940

The Letter of Intent filed by Spectrum Five LLC, IBFS File No. SAT-LOI-20150416-00025, to access the United States market to provide direct-to-home (DTH) services using the proposed BSSNET2A-111W 17/24 GHz Broadcast-Satellite Service space station (Call Sign S2940) is GRANTED. The space station will operate under the authority of the Netherlands at the 110.9° W.L. orbital location, which is offset 0.1° from the 111° W.L. location specified in Appendix F to the *17/24 GHz BSS Report and Order*, FCC 07-76, 22 FCC Rcd 8842 (rel. May 4, 2007). The BSSNET2A-111W space station will operate using the 17.3-17.7 GHz (space-to-Earth) and 24.75-25.15 GHz (Earth-to-space) frequency bands, at reduced power and without full interference protection, and conduct telemetry, tracking, and command operations at the center frequencies of 17.303 and 17.306 GHz (space-to-Earth) and 24.753 GHz and 24.755 GHz (Earth-to-space). Communications between U.S. licensed earth stations and Spectrum Five's BSSNET2A-111W space station must be in accordance with the terms, conditions, and technical specifications set forth in Spectrum Five's application, the Federal Communication Commission rules, and subject to the following conditions:¹

1. Spectrum Five may access the U.S. market using its BSSNET2A-111W space station at the 110.9° W.L. orbital location up to power flux density (pfd) levels that are reduced from those specified in 47 C.F.R. § 25.208(w) in accordance with the following calculation methodology: For a given location on the surface of the Earth at which the required pfd reduction value needs to be determined, calculate the topocentric angular separation ' ϕ ' of the 107° W and 111° W.L. geostationary orbital locations, and the corresponding off-axis gain $GCO1(\phi)$ of the antenna specified in Section 25.224(a)(1) of the Commission's rules at that angular separation. For the same location on the surface of the Earth, also calculate the topocentric angular separation of the 107° W.L. and 110.9° W.L. geostationary orbital locations, and the gain of the antenna ' $GCO2(\phi)$ ' specified in Section 25.224(a)(1) of the Commission's rules at that angular separation. Then, perform the subtraction $GCO2(\phi) - GCO1(\phi)$. The result is the required reduction in pfd from the value specified in Section 25.208(w). The pfd levels of Spectrum Five's space station transmissions must not exceed either these calculated levels or the levels stated in its application, whichever is lower, and must meet these pfd limits under all atmospheric conditions.

2. Spectrum Five must maintain its 17/24 GHz BSS space station within an east/west longitudinal station-keeping tolerance of ± 0.05 degrees of the assigned 110.9° W.L. orbital location.

3. When designing its system, Spectrum Five is reminded to take into consideration the geographic service requirements of Section 25.225 of the Commission's rules. 47 C.F.R. § 25.225.

¹ The application was placed on public notice, Policy Branch Information, Report No. SAT-01101 (Aug. 7, 2015). In response the notice, Ciel Satellite Limited Partnership (Ciel) filed comments (Sept. 11, 2015) regarding its proposed BSS satellite network using 17/24 GHz BSS spectrum at the 111.1° W.L. orbital location under the Administration of Canada. Ciel requested that the Commission include conditions addressing coordination between the Netherlands and other Administrations, and conditions in the event coordination is not reached. The U.S. is not the filing administration for either the Spectrum Five or Ciel satellite network, and neither operator indicates that its Administration has successfully completed coordination of its system. Under the circumstances, we decline to specify detailed conditions concerning possible scenarios that may arise if the two operators and their respective Administrations do not complete coordination. Rather, this matter should be addressed by the two Administrations involved. We expect the operators to work in good faith to resolve any issues preventing completion of coordination. In accepting our grant of market access, Spectrum Five bears the risks inherent in the international coordination process. We understand that regardless of the conditions in this grant of market access, Spectrum Five will also adhere to any conditions resulting from coordination agreements with other satellite networks. *See Hughes Network Systems, LLC*, Declaratory Ruling, 26 FCC Rcd 8521 (Int'l Bureau 2011).

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4. Operations of Spectrum Five's 17/24 GHz BSS space station at the 110.9° W.L. orbital location must comply with coordination agreements reached between the Netherlands and other Administrations.

5. This grant of market access for Spectrum Five's 17/24 GHz BSS space station will be null and void with no further action on the Commission's part if the space station is not constructed, launched, and placed into operation in accordance with the milestone schedule in Section 25.164 and the bond requirement in Section 25.165 of the Commission's rules following the date of grant, as follows:

- a. Spectrum Five must file a bond with the Commission in the amount of \$3 million, pursuant to procedures set forth in 47 C.F.R. § 25.165, within 30 days of this grant of U.S. market access;
- b. Enter into a binding non-contingent contract to construct BSSNET2A-111W within one-year (October 29, 2016);
- c. Complete critical design review within two years (October 29, 2017);
- d. Commence construction within three years (October 29, 2018);
- e. Launch and begin operations within five years (October 29, 2020).

6. This grant of market access will terminate in the event that the BSSNET2A-111W space station is relocated from the 110.9° W.L. orbital location or ceases to operate.

7. This grant will become effective and remain effective on to the extent that launch and space operations are authorized by the Radiocommunications Agency Netherlands under the Netherlands Space Activities Law. Spectrum Five must file evidence in the public record of the proceeding demonstrating grant of any such authorizations within five business days of action by the Radiocommunications Agency of the Netherlands. In addition, Spectrum Five is requested to submit written confirmation that the appropriate registration documents for BSSNET2A-111W have been filed with the United Nations Office of Outer Space Affairs, within 10 days after filing, or to report the status of document preparation no later than six months following launch.

8. This grant of market access and all conditions contained herein are subject to the outcome of the Commission's rulemaking in IB Docket No. 06-123 and any requirements subsequently adopted therein.

9. Spectrum Five is afforded 30 days for the date of this grant to decline the grant, as conditioned. Failure to respond within this period will constitute formal acceptance of the grant, as conditioned.

10. 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 Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of release of this grant.



*with conditions 2

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Call Sign S2940 Grant Date 10/29/15
(or other identifier)

From see conditions Term Dates see conditions To: conditions

Approved: Stephen J. Duall

Stephen J. Duall
Chief, Satellite Policy Branch

9-16. Name of Contact Representative			
Name:	Spectrum Five LLC	Phone Number:	703-981-8955
Company:		Fax Number:	
Street:	1776 K Street, NW	E-Mail:	dwilson@spectrumfive.com
	Suite 200		
City:	Washington	State:	DC
Country:	USA	Zipcode:	20006 -
Attention:	David Wilson	Relationship:	

CLASSIFICATION OF FILING

<p>17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.</p> <p>a.</p> <p>(N/A) a1. Earth Station</p> <p><input checked="" type="radio"/> a2. Space Station</p>	<p>b.</p> <p><input checked="" type="radio"/> b1. Application for License of New Station</p> <p>(N/A) b2. Application for Registration of New Domestic Receive-Only Station</p> <p>(N/A) b3. Amendment to a Pending Application</p> <p>(N/A) b4. Modification of License or Registration</p> <p>(N/A) b5. Assignment of License or Registration</p> <p>(N/A) b6. Transfer of Control of License or Registration</p> <p>(N/A) b7. Notification of Minor Modification</p> <p>(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite</p> <p><input checked="" type="radio"/> b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States</p> <p><input type="radio"/> b10. Replacement Satellite Application – no new frequency bands</p> <p><input type="radio"/> b11. Replacement Satellite Application – new frequency bands (Not eligible for streamlined processing)</p> <p><input type="radio"/> b12. Petition for Declaratory Ruling to be Added to the Permitted List</p> <p>(N/A) b13. Other (Please specify)</p>
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17c. 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): No fee – Petition for Declaratory Ruling

17c. Fee Classification BNY – Space Station (Geostationary)

18. If this filing is in reference to an existing station, enter:

(a) Call sign of station:
Not Applicable

19. If this filing is an amendment to a pending application enter:

(a) Date pending application was filed:

Not Applicable

(b) File number of pending application:

Not Applicable

TYPE OF SERVICE

<p>20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:</p> <p><input type="checkbox"/> a. Fixed Satellite</p> <p><input type="checkbox"/> b. Mobile Satellite</p> <p><input type="checkbox"/> c. Radiodetermination Satellite</p> <p><input type="checkbox"/> d. Earth Exploration Satellite</p> <p><input type="checkbox"/> e. Direct to Home Fixed Satellite</p> <p><input type="checkbox"/> f. Digital Audio Radio Service</p> <p><input checked="" type="checkbox"/> g. Other (please specify) 17/24 GHz Broadcasting-Satellite Service</p>	
<p>21. STATUS: Choose the button next to the applicable status. Choose only one.</p> <p><input type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier</p>	<p>22. If earth station applicant, check all that apply.</p> <p>Not Applicable</p>
<p>23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:</p> <p><input type="radio"/> Connected to a Public Switched Network <input type="radio"/> Not connected to a Public Switched Network <input checked="" type="radio"/> N/A</p>	
<p>24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).</p> <p><input type="checkbox"/> a. C-Band (4/6 GHz) <input type="checkbox"/> b. Ku-Band (12/14 GHz)</p> <p><input checked="" type="checkbox"/> c. Other (Please specify upper and lower frequencies in MHz.)</p> <p>Frequency Lower: 17300 Frequency Upper: 25150 (Please specify additional frequencies in an attachment)</p>	

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

- (N/A) a. Fixed Earth Station
- (N/A) b. Temporary-Fixed Earth Station
- (N/A) c. 12/14 GHz VSAT Network
- (N/A) d. Mobile Earth Station
- e. Geostationary Space Station.
- f. Non-Geostationary Space Station
- g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY: Not Applicable

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an "X" in the box(es) next to all that apply.) Not Applicable

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments. Yes No

ALIEN OWNERSHIP

Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No
30. Is the applicant an alien or the representative of an alien?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.	

BASIC QUALIFICATIONS

<p>35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No Technical Narrative</p>
<p>36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No Appendix B-1</p>
<p>37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No Appendix B-2</p>
<p>38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No Response to Q.36</p>
<p>39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer. Response to Q.40

41. 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

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43. Yes No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station? Netherlands

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Spectrum Five LLC seeks authority to provide service to the U.S. market through a Netherlands-authorized satellite from the 110.9 W.L. orbital location using the 17/24 GHz Broadcasting-Satellite Service band.

Legal Narrative

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

C

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)

- Individual
- Unincorporated Association
- Partnership
- Corporation
- Governmental Entity
- Other (please specify) Limited Liability Company

45. Name of Person Signing
David Wilson

46. Title of Person Signing
President, Spectrum Five LLC

47. Please supply any need attachments.

1:

2:

3:

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).

Completed Schedule S

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