

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
Galileo B ranging campaign April 2011

1. Applicant

Name:	Universal Space Network, Inc.	Phone Number:	215-328-9130
DBA Name:		Fax Number:	215-328-9132
Street:	417 Caredean Drive Suite A	E-Mail:	jswank@uspacenet.com
City:	Horsham	State:	PA
Country:	USA	Zipcode:	19044
Attention:	Joanne Swank		

" 30 days " with conditions



File# SES-STA-20110329-00377

Call Sign N/A Grant Date 04/08/2011
(or other identifier)

Term Dates
From 04/14/2011 To 05/13/2011

Approved:

Paul E. Hayes

Conditions of grant of SES-STA-20110329-00377

Universal Space Network Inc. is granted authorization operated the earth station identified in this application on transmit frequency 2048.877 MHz and receive frequency 2225.025 MHz. to a French satellite GIOVE-B operated by CNES on the following conditions:

1. All operations shall be on an unprotected, non-interference basis to both government and non-government operations.
2. All operations shall expire no later than 10 days from beginning of operations.
3. All operations shall be limited to telemetry, tracking, and control (TT&C)
4. Universal Space Network will inform NTIA (Skotler@ntia.doc.gov, 202-482-7983) and the FCC (Paul.Blais@ 202-418-7274) at least 24 hours prior to the planned operations if delayed beyond 13 May 2011
5. The Universal Space Network Point of Contact for Operation is 215-394-0155 and must be available while the frequencies are in use.

"30 days" with conditions



File# SES-STA-20110329-00377

Call Sign N/A Grant Date 04/14/2011
(or other identifier)

Term Dates
From 04/14/2011 To 05/13/2011

Approved: Paul E. Blais

Exhibit C
PETITION FOR WAIVER OF SECTION 25.137 AND 25.114 AND OF
THE U.S. TABLE OF FREQUENCY ALLOCATIONS

I. TO THE EXTENT THEY APPLY, GOOD CAUSE EXISTS FOR A WAIVER OF CERTAIN PORTIONS OF SECTIONS 25.137 AND 25.114

Universal Space Network, Inc. (USN) is provided limited legal and technical information for the GIOVE (GSTBV2) Satellite.¹ Pursuant to Section 25.137 of the Federal Communications Commission's ("Commission" or "FCC") rules, the same technical information required by Section 25.114 for U.S.-licensed space station, and certain legal information, must be submitted by earth station applicants "requesting authority to operate with a non-U.S. licensed space station to serve the United States..."² USN seeks authority to support a needed tracking verification campaign using the GSTBV2 on-orbit satellite in support of the upcoming LEOP support of the actual Galileo space constellation. This is a test of USN's tracking accuracy and not commercial service to the United States, and thus believes that Section 25.137 does not apply.

To the extent the Commission determines, however, that USN's request for authority to provide tracking on a special temporary basis is a request to serve the United States with a non-U.S.-licensed satellite, USN respectfully requests a waiver of Sections 25.137 and 25.114 of the Commission's rules, to the extent that USN has not herein provided the information required by these rules.³ The Commission may grant a waiver for good cause shown.⁴ A waiver is therefore appropriate if special circumstances warrant a deviation from the general rule, and such a deviation will serve the public interest.

In this case, good cause for a waiver of portions of Section 25.114 exists. USN seeks authority only to conduct a tracking verification test using GIOVE (GSTBV2). Thus, any information sought by Section 25.114 that is not relevant to the test – e.g., antenna patterns, energy and propulsion and orbital debris - USN does not have. In addition, USN would not easily be able to obtain such information because USN is not the operator of the GIOVE (GSTBV2) satellite, nor is USN in contractual privity with that operator. Rather, USN has contracted with Swedish Space Corporation, Solna Sweden (SSC) to support the test in S-Band using the GSTBV2 spacecraft in preparation for the LEOP support of the Galileo space constellation.

As with any STA, USN will conduct the test on an unprotected, non-interference basis to government operations. Because it is not relevant to the service for which USN seeks authorization, and because obtaining the information would be a hardship, USN seeks a waiver of all the technical and legal information required by Section 25.114, to the extent it is not provided herein. As noted above, USN has provided the required information to the extent that it is relevant to the tracking test for which USN seeks authorization.

¹ FCC Form 312 Section B

² 47 C.F.R. § 25.137(a)

³ 47 C.F.R. §§25.137 and 25.114

⁴ 47 C.F.R. §1.3

Good cause also exists to waive portions of Section 25.137, to the extent the information required is not herein provided. Section 25.137 is designed to ensure that “U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services” in other countries. Here, there is no service being provided by the satellite; USN is providing tracking verification test in preparation for the LEO of the Galileo space constellation. Thus, the purpose of the information required by Section 25.137 is not implicated here. For example, Section 25.137(d) requires earth station applicants requesting authority to operate with a non-U.S.-licensed space station that is not in orbit and operating to post a bond.⁵ The underlying purpose in having to post a bond – i.e., to prevent warehousing of orbital locations by operators seeking to serve the United States – would not be served by requiring USN to post a bond in order to conduct the initial 5 days (plus a few additional tests during the duration of the STA) of tracking support of the GIOVE (GSTBV2) satellite.

It is USN’s understanding that GIOVE (GSTBV2) is licensed by ESA (European Space Agency). GIOVE (GSTBV2) is a test bed satellite for the European Galileo constellation. The spacecraft family is primarily meant to serve the EU. Thus, the purpose of Section 25.137 – to ensure that U.S. satellite operators enjoy “effective competitive opportunities” to serve foreign markets and to prevent warehousing of orbital locations service the United States – will not be undermined by grant of this waiver request.

Finally, USN notes that it expects to communicate with the GIOVE (GSTBV2) satellite using its U.S. earth station for a period of 5 days (plus a few additional tests during the duration of the STA). Requiring USN to obtain technical and legal information from an unrelated party, where there is no risk of interference and the operation will cease within the period authorized would pose undue hardship without serving underlying policy objectives. Given these particular facts, the waiver sought herein is appropriate.

⁵ 47 C.F.R. §25.137(d)(4)

II. GOOD CAUSE EXISTS FOR A WAIVER OF THE UNITED STATES TABLE OF FREQUENCY ALLOCATIONS

USN further requests a waiver of the United States Table of Frequency Allocations ("U.S. Table") as described in section 2.106 of the rules for the frequency bands 2025 – 2110 MHz (Earth-to-Space) and 2200 – 2290 MHz (Space-to-Earth).⁶ Section footnotes allow for non-federal Government use of these bands in the United States on a case-by-case non-interference basis. Such use by USN necessitates a waiver of the U.S. Table.

Good cause exists to grant USN a limited waiver of the U.S. Table to allow the tracking test of the GIOVE (GSTBV2) satellite. In considering request for case-by-case spectrum uses, the Commission has indicated that it would generally grant such waivers "where there is little potential for interference into any service authorized under the Table of Frequency Allocations and when the case-by-case operator accepts any interference from authorized services."⁷ USN will coordinate with other parties operating communication systems in compliance with the Table of Frequency Allocations to ensure that no harmful interference is caused. USN seeks to operate only pursuant to special temporary authorization and thus agrees to accept any interference from authorized services. In summary, USN's operation on a non-interference, non-protected basis support waiver of the U.S. Table.

⁶ 47 C.F.R. §2.106

⁷ Previously approved STA's for Universal Space Network SES-STA-20020725-01174; SES-STA-20021112-02008; SES-STA-20040315-00475

APPLICANT INFORMATION

1. Legal Name of Applicant Universal Space Network, Inc.		2. Voice Telephone Number 949-476-3432	
3. Other Name Used for Doing Business (if any)		4. Fax Telephone Number 949-851-9485	
5. Mailing Street Address or P. O. Box 1501 Quail Street, Suite 102		6. City Newport Beach	8. Zip Code 92660
ATTENTION: Joanne Greet-Swank 215-328-9130 phone		7. State / Country (if not U.S.A.) CA	10. Voice Telephone Number
9. Name of Contact Representative (if other than applicant)		12. Fax Telephone Number	
11. Firm or Company Name		14. City	
13. Mailing Street Address or P. O. Box		15. State / Country (if not U.S.A.)	
ATTENTION:		16. Zip Code	

CLASSIFICATION OF FILING

17. Place an "X" in the box next to the classification that applies to this filing for both questions a. and b. Mark only one box for 17a and only one box for 17b.

<input checked="" type="checkbox"/> a1. Earth Station	<input type="checkbox"/> b1. Application for License of New Station	<input type="checkbox"/> b6. Transfer of Control of License or Registration
<input type="checkbox"/> a2. Space Station	<input type="checkbox"/> b2. Application for Registration of New Domestic Receive-Only Station	<input type="checkbox"/> b7. Notification of Minor Modification
	<input type="checkbox"/> b3. Amendment to a Pending Application	<input type="checkbox"/> b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
	<input type="checkbox"/> b4. Modification of License or Registration	<input type="checkbox"/> b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
	<input type="checkbox"/> b5. Assignment of License or Registration	<input checked="" type="checkbox"/> b10. Other (Please Specify): Application to request Special Temporary Authority

18. If this filing is in reference to an existing station, enter:
Call sign of station: **N/A**

19. If this filing is an amendment to a pending application enter:
(a) Date pending application was filed:
(b) File number of pending application:

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Place an "X" in the box(es) next to all that apply.

- a. Fixed Satellite
- b. Mobile Satellite
- c. Radiodetermination Satellite
- d. Earth Exploration Satellite
- e. Direct to Home Fixed Satellite
- f. Digital Audio Radio Service

g. Other (please specify) **Ranging & Testing of on-orbit mission**

21. STATUS: Place an "X" in the box next to the applicable status. Mark only one box.

- a. Common Carrier
- b. Non-Common Carrier

22. If earth station applicant, place an "X" in the box(es) next to all that apply.

- a. Using U.S. licensed satellites
- b. Using Non-U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Mark only one box. Are these facilities:

- a. Connected to the Public Switched Network
- b. Not connected to the Public Switched Network

24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).

- a. C-Band (4/6 GHz)
- b. Ku-Band (12/14 GHz)
- c. Other (Please specify)

S-band

TYPE OF STATION

25. CLASS OF STATION: Place an "X" in the box next to the class of station that applies. Mark only one box.

- a. Fixed Earth Station
- b. Temporary-Fixed Earth Station
- c. 12/14 GHz VSAT Network
- d. Mobile Earth Station
- e. Space Station
- f. Other (Specify)

If space station applicant, go to Question 27.

26. TYPE OF EARTH STATION FACILITY. Mark only one box.

- a. Transmit/Receive
- b. Transmit-Only
- c. Receive-Only

PURPOSE OF MODIFICATION OR AMENDMENT

27. The purpose of this proposed modification or amendment is to: Place an "X" in the box(es) next to all that apply.

- a -- authorization to add new emission designator and related service
- b -- authorization to change emission designator and related service
- c -- authorization to increase EIRP and EIRP density
- d -- authorization to replace antenna
- e -- authorization to add antenna
- f -- authorization to relocate fixed station
- g -- authorization to change assigned frequency(ies)
- h -- authorization to add Points of Communication (satellites & countries)
- i -- authorization to change Points of Communication (satellites & countries)
- j -- authorization for facilities for which environmental assessment and radiation hazard reporting is required
- k -- Other (Please Specify) **N/A**

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 as an exhibit for new transmitting facilities, major modifications, or major amendments. Refer to OET Bulletin 65.

YES

NO

ALIEN OWNERSHIP

29. Is the applicant a foreign government or the representative of any foreign government?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
30. Is the applicant an alien or the representative of an alien?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
31. Is the applicant a corporation organized under the laws of any foreign government?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
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="checkbox"/> YES	<input type="checkbox"/> NO
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="checkbox"/> YES	<input type="checkbox"/> NO
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit, the 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

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.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
36. Has the applicant or any party to this application 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 the circumstances.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
37. Has the applicant, or any party to this application, 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 the circumstances.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
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 the circumstances.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
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.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, addresses, and citizenship of those stockholders owning of 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.		
41. By checking Yes, the undersigned certifies, that neither the 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="checkbox"/> YES	<input type="checkbox"/> 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.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> 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?	<p>International Telecommunication Union</p>	

43. Description. (Summarize the nature of the application and the services to be provided).

USN ground station shall be used to assist the Centre National D'Etudes Spatiales (CNES) and Swedish Space Corporation with the on-orbit ranging operations of the GIOVE-B Spacecraft. Communication shall consist of telemetry, telecommand, data deliver, and control of the satellite. The ranging campaign will be intermittent from April 1 - May 15, 2011. Services requested beyond that period USN will request an additional STA

Exhibit No.	Identify all exhibits that are attached to this application.

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): (Place an "X" in the box next to applicable response.)

- a. Individual
- b. Unincorporated Association
- c. Partnership
- d. Corporation
- e. Governmental Entity
- f. Other (Please specify) _____

45. Typed Name of Person Signing

Joanne Greet-Swank

46. Title of Person Signing

Manager, Compliance

47. Signature

48. Date

29 March 2011

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).

FEDERAL COMMUNICATIONS COMMISSION
FCC 312 - Schedule A
 (Place an "X" in one of the blocks below)

CONSENT TO TRANSFER OF CONTROL CONSENT TO ASSIGNMENT OF LICENSE
 NOTIFICATION OF TRANSFER OF CONTROL OF RECEIVE ONLY REGISTRATION NOTIFICATION OF ASSIGNMENT OF RECEIVE ONLY REGISTRATION

FCC Use Only

A1. Name of Licensee or Registrant

A2. Voice Telephone Number

A3. Mailing Street Address or P. O. Box

A4. Fax Telephone Number

ATTENTION:

A5. City

A6. State / Country (if not U.S.A.)

A7. Zip Code

A8. List Call Sign(s) of station(s) being assigned or transferred

A9. No. of station(s) listed

A10. Name of Transferor/Assignor (if different than licensee or registrant)

A15. Name of Transferee/Assignee

A11. Mailing Street Address or P. O. Box

A16. Mailing Street Address or P. O. Box

A12. City

A13. State/Country

A14. Zip Code

A17. City

A18. State/Country

A19. Zip Code

A20. If these facilities are licensed, is the transferee/assignee directly or indirectly controlled by any other entity?
 If Yes, attach as an exhibit, a statement (including organizational diagrams where appropriate) which fully and completely identifies the nature and extent of control including: (1) the name, address, citizenship, and primary business of the controlling entity and any intermediate subsidiaries or parties; and (2) the names, addresses, citizenship, and the percentages of voting and equity stock of those stockholders holding 10 percent or more of the controlling corporation's voting stock.

YES

NO

A21. If these facilities are licensed, attach as an exhibit, a complete statement setting forth the facts which show how the assignment or transfer will serve the public interest.

CERTIFICATION

1. The undersigned, individually and for licensee, certifies that all attached exhibits pertinent to Schedule A and all statements made in Schedule A of this application are true, complete and correct to the best of his/her knowledge and belief. The undersigned also certifies that any contracts or other instruments submitted herewith are complete and constitute the full agreement.

2. The undersigned represents that stock will not be delivered and that control will not be transferred until the Commission's consent has been received, but that transfer of control or assignment of license will be completed within 60 days of Commission consent. The undersigned also acknowledges that the Commission must be notified by letter within 30 days of consummation.

A22. Printed Name of Licensee (Must agree with A1)

A23. Signature

A24. Title (Office Held by Person Signing)

A25. Date

A26. Printed Name of License Transferor/Assignor
 (if different than licensee. Must agree with A10)

A27. Signature

A28. Title (Office Held by Person Signing)

A29. Date

A30. Printed Name of License Transferee/Assignee
 (Must agree with A15)

A31. Signature

A32. Title (Office Held by Person Signing)

A33. Date

FEDERAL COMMUNICATIONS COMMISSION
SATELLITE EARTH STATION AUTHORIZATIONS
(Technical and Operational Description)
(Place an "X" in one of the blocks below)

- License of New Station Registration of New Domestic Receive-Only Station Amendment to a Pending Application Modification of License/Registration Notification of Minor Modification

B1. Location of Earth Station Site. If temporary-fixed, mobile, or VSAT remote facility, specify area of operation and point of contact. If VSAT hub station, give its location.

For VSAT networks attach individual Schedule B, Page 1 sheets for each hub station and each remote station. Individually provide the Location, Points of Communications, and Destination Points for each hub and remote station.

B1a. Station Call Sign		B1b. Site Identifier (HUB, REMOTE, etc.)		B1c. Telephone Number		B1j. Geographic Coordinates		B1k. Lat/Lon. Coordinates are:	
93-1704 South Point Road		USH101		808-929-8069		Deg. - Min. - Sec. - E/W		<input type="checkbox"/> NAD-27 <input checked="" type="checkbox"/> NAD-83	
B1d. Street Address of Station or Area of Operation			B1e. Name of Contact Person		B1i. Zip Code		B1l. Site Elevation (AMSL)		
93-1704 South Point Road			Joanne Greet-Swank		96772-0842		meters		
B1f. City		B1g. County		B1h. State					
Naalehu		Ka'u		HI					

B2. Points of Communications: List the names and orbit locations of all satellites with which this earth station will communicate. The entry "ALSAT" is sufficient to identify the names and locations of all satellite facilities licensed by the U.S. All non-U.S. licensed satellites must be listed individually.

Satellite Name and Orbit Location	Satellite Name and Orbit Location	Satellite Name and Orbit Location
GIOVE-B		

B3. Destination points for communications using non-U.S. licensed satellites. For each non-U.S. licensed satellite facility identified in section B2 above, specify the destination point(s) (countries) where the services will be provided by this earth station via each non-U.S. licensed satellite system. Use additional sheets as needed.

Satellite Name	List of Destination Points
GIOVE-B	CNES (Non US spacecraft)

FEDERAL COMMUNICATIONS COMMISSION
 SATELLITE EARTH STATION AUTHORIZATIONS

FCC Form 312 - Schedule B: (Technical and Operational Description)

B4. Earth Station Antenna Facilities: Use additional pages as needed.

(a) Site ID*	(b) Antenna ID**	(c) Quantity	(d) Manufacturer	(e) Model	(f) Antenna Size (meters)	(g) Antenna Gain Transmit and/or Receive (dBi at ____ GHz)
USHI01	HI-13M	1	Datron	1453	13	TX 46.3dBi @ 2090 MHz RX 47.2dBi @ 2270 MHz

B5. Antenna Heights and Maximum Power Limits: (The corresponding Antenna ID in tables B4 and B5 applies to the same antenna)

(a) Antenna ID***	(b) Antenna Structure Registration No.	(c) Maximum Antenna Height		(e) Building Height Above Ground Level (meters)****	(f) Maximum Antenna Height Above Rooftop (meters)****	(g) Total Input Power at antenna flange (Watts)	(h) Total EIRP for all carriers (dBW)
		(c) Above Ground Level (meters)	(d) Above Mean Sea Level (meters)				
HI-13M	N/A	20	398	N/A+	N/A+	200W	68dBW
0-360	0-360			non-GEO	on a building.	Max bldg ht. is 10'	5 degrees
5 degrees	0-360			2048.877 MHz	non-GEO	Non-GEO	5 degrees

Notes: * If this is an application for a VSAT network, identify the site (Item B1b, Schedule B, Page 1) where each antenna is located. Also include this Site-ID on Schedule B, Page 5.
 ** Identify each antenna in VSAT network or multi-antenna station with a unique identifier, such as HUB, REMOTE1, A1, A2, 10M, 12M, 7M, etc. Use this same antenna ID throughout tables B4, B5, B6, and B7 when referring to the same antenna.
 *** Attach sketch of site or exemption, See 47 CFR Part 17.

**FEDERAL COMMUNICATIONS COMMISSION
SATELLITE EARTH STATION AUTHORIZATIONS
FCC Form 312 - Schedule B: (Technical and Operational Description)**

B6. Frequency Coordination Limits: Use additional pages as needed.

(a) Antenna ID*	(b) Frequency Limits (MHz)	(c) Range of Satellite Arc Eastern Limit**	(d) Range of Satellite Arc Western Limit**	(e) Antenna Elevation Angle Eastern Limit	(f) Antenna Elevation Angle Western Limit	(g) Earth Station Azimuth Angle Eastern Limit	(h) Earth Station Azimuth Angle Western Limit	(i) Maximum EIRP Density toward the Horizon (dBW/4KHz)
HI-13M	2225.025 MHz	non-GEO	Non-GEO	5 degrees	5 degrees	0-360	0-360	
HI-13M	2048.877 MHz	non-GEO	Non-GEO	5 degrees	5 degrees	0-360	0-360	11.1 dBW

Notes: * Provide the ANTENNA-ID from table B4 to identify the antenna to which each frequency band and orbital arc range is associated.
 ** If operating with geostationary satellites, give the orbital arc limits and the associated elevation and azimuth angles. If operating with non-geostationary satellites, give the notation "NON-GEO" for the satellite arc and give the minimum operational elevation angle and the maximum azimuth angle range.

**FEDERAL COMMUNICATIONS COMMISSION
 SATELLITE EARTH STATION AUTHORIZATIONS
 FCC Form 312 - Schedule B: (Technical and Operational Description)**

If VSAT Network, provide the SITE-ID (Item B1b) of the station that B8-B13 are in response to (HUB, REMOTE1, etc.): N/A -not VSAT network

B8. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with **geostationary** satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurements? If NO, provide as an exhibit, a technical analysis showing compliance with two-degree spacing policy. YES NO

B9. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with **non-geostationary** satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements? YES NO

B10. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point. YES NO

Remote Control Point Location:

B10a. Street Address 417 Caredean Drive, Suite A			
B10b. City Horsham	B10c. County Montgomery	B10d. State / Country PA	B10e. Zip Code 19044
B10f. Telephone Number 215-328-9130		B10g. Call Sign of Control Station (if appropriate)	

B11. Is frequency coordination required? If YES, attach a frequency coordination report as an exhibit. YES NO

B12. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as an exhibit. YES NO

B13. FAA Notification - (See 47 CFR Part 17 and 47 CFR Part 25.113(c))
 Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and/or the FAA's study regarding the potential hazard of the structure to aviation?
FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION. YES NO