

IB2014001418

SES-STA-20140710-00591

Universal Space Network, Inc.


Approved by OMB
3060-0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
STA Galileo FOC1 FOC2

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:	jpgreet@uspacenet.com
City:	Horsham	State:	PA
Country:	USA	Zipcode:	19044
Attention:	Joanne Greet		



GRANTED
International Bureau

File # SES - STA - 20140710-00591

Call Sign HA Grant Date 8/20/2014

(or other identifier)

Term Dates
From 8/21/2014 To: 10/20/2014

Approved: Paul E. Kiser

Applicant: Universal Space Network, Inc.

File No.: SES-STA-200140710-00591

Call Sign: None

Universal Space Network, Inc.(USN) is granted special temporary authority, with conditions, to operate its NAALEHU, HI, 13 meter earth station to assist the European Space Agency (ESA) with the launch and early orbit phase (LEOP) operations of the Galileo FOC 1 and FOC 2 space craft from August 21, 2014, for 60 days on the center frequencies: 2046.051, 2048.887, (2060.181 MHz emergency use only) Earth-to-space and 2221.995, 2225.024 MHz (space-to-Earth)

Conditions:

1. Operations are limited to:

Site Location: NAALEHU, HI
Latitude: 19 00 50.3 N,
Longitude: 155 39 46.6 W

Earth Station Transmit frequency: 2046.051, 2048.887, (2060.181 emergency use only) MHz .

Uplink Emission parameters: 200KG2D, 68.0 dBW/carrier, 51 BW/carrier/4kHz
Modulation: 2kbps data PSK onto an 8 kHz subcarrier with 100 kHz ranging tones

Space Station Transmit frequencies: 2221.995, 2225.024 MHz

Downlink emission designator: 510KG2D

Space Station Transmit Power: EIRP -15.5 dBW,
PFD 4.239×10^{-16} mW/cm²

Polarization: Left and Right hand circular

2. Operations under this STA shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference.
3. The USN must maintain a manned 24x7 Point of Contact (POC) during operations at 215-394-0155 and confirm this "STOP BUZZER" POC information, by email, to NTIA (bmitchell@ntia.doc.gov).
4. NTIA's response is based on the FCC authorization being an experimental special temporary authority (STA) for launch vehicle communications for the launch and early orbit phase (LEOP) operations of the Galileo FOC 1 and FOC 2 space craft that has a planned launch date of August 21,2014. Any NTIA non-objection is based on the applicant's acknowledgement that construction of this satellite (and this mission)

will be entirely at the applicant's risk and will not entitle the applicant to any assurances that its proposed experiment will be subsequently approved or regular services subsequently authorized (see 47CFR § 5.53 "Station authorization required"). NTIA and the federal agencies will need to consider in greater detail the technical and policy issues concerning any operational request. The applicant should be aware that the NTIA response to an operational system may not be the same as the response to this experimental one-time STA.

5. One policy of concern relates to non-federal use of the band 2200-2290 MHz. Based on DoD concerns (see letter from Defense Secretary-to-Commerce Secretary dated 2 August 1999), non-federal use of the band is limited to commercial space launch on an exception basis. An exception to this policy would be under footnote US303 ("In the band 2285-2290 MHz, non-Federal space stations in the space research, space operations and Earth exploration-satellite services may be authorized to transmit to the Tracking and Data Relay Satellite System subject to such conditions as may be applied on a case-by-case basis. Such transmissions shall not cause harmful interference to authorized Federal stations. The power flux-density at the Earth's surface from such non-Federal stations shall not exceed -144 to -154 dBW/m²/4 kHz, depending on angle of arrival, in accordance with ITU Radio Regulation 21.16."). These limits are also contained in the NTIA Manual Section 8.2.36 (Power Flux-Density Limits). Noting that this application is only for an experimental special temporary authority (STA), NTIA has some flexibility in reviewing this request with the understanding that future use of the band beyond what is allowed per policy, e.g., Secretary Defense letter, will not be allowed. Any application to operate in the band 2200-2290 MHz for non-Federal use is done at the applicant's own risk as they may be denied grants in the future. NTIA is reviewing this application with DoD and will work with the concerned federal agencies to determine what policy may be appropriate in considering future requests. NTIA is hopeful that the outcome of the FCC Notice of Proposed Rule Making and Notice of Inquiry (FCC 13-65) released May 9, 2013 will resolve these issues in the future.
6. All Universal Space Network operations granted on an experimental basis shall be on an unprotected, non-interference basis to authorized federal stations.
7. This STA is to support the single launch to include for launch vehicle communications for the launch and early orbit phase (LEOP) operations of the Galileo FOC 1 and FOC 2 space craft. This STA will expire as soon as the launch is completed. Any future launches will need to submit applications to the FCC to be re-coordinated with NTIA.
8. Universal Space Network shall be aware that future non-federal launches will be considered on a case-by-case basis, especially for requests in the band 2200-2290 MHz, and Universal Space network shall have no expectations that future launches will be approved.

9. All transmissions in the band 2200-2290 MHz will comply with national and international power flux-density limits.
10. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Universal Space Network, Inc.'s risk.



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Term Dates
From 8/21/2014 To: 10/20/2014

Approved: Paul E. Blair

2. Contact	
Name:	Universal Space Network, Inc. Phone Number: 215-328-9130
Company:	215-328-9132
Street:	417 Caredean Drive Fax Number: 215-328-9132
	Suite A E-Mail: jgreet@uspacenet.com
City:	Horsham State: PA
Country:	USA Zipcode: 19044 -
Attention:	Joanne Greet Relationship: Same
(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	
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 CGX – Fixed Satellite Transmit/Receive Earth Station	
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	
08/15/2014	
7. City Naalehu	
8. Latitude	
(dd mm ss.s h) 19 0 50.3 N	

9. State HI	10. Longitude (dd mm ss.s h) 155 39 46.6 W
11. Please supply any need attachments. Attachment 1: Form 312 Attachment 2: Coordination Report Attachment 3: Waiver and Analysis	
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.) Provide LEOP and IOT support of the Galileo FOC1 & 2 spacecraft currently scheduled for August 21, 2014. Requesting a 60 day STA	
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 Joanne Greet	15. Title of Person Signing Manager, Compliance
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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