

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
E000232 – March AFB STA Request

1. Applicant

Name:	Allen Holdings, Inc. d/b/a Allen Communications	Phone Number:	562-902-7691
DBA Name:		Fax Number:	562-902-7695
Street:	10813 El Arco Drive	E-Mail:	
City:	Whittier	State:	CA
Country:	USA	Zipcode:	90603 -
Attention:	Mr Bill Allen		

SES-STA-20110719-00839
E000232
Call Sign 8-B1D Grant Date 8-12-11
(or other identifier)
From 8-B1D Term Dates For 9-11-11
Approved: [Signature]
International Bureau

with conditions

ALLEN HOLDINGS, INC. D/B/A ALLEN COMMUNICATIONS
SES-STA-20110719-00839, E000232

The use of 5850-5925 MHz (Earth-to-space) of the non-Federal fixed-satellite service is limited to international inter-continental systems and is subject to case-by-case electromagnetic compatibility analysis. US245.

For the frequency band of 5850-5925 MHz band, Allen Holdings Inc. (i) is aware of the co-primary Federal Government radiolocation allocation in the 5850-5925 MHz band in the U.S. and Possessions; (ii) is aware of the potential electromagnetic compatibility issues in the frequency band; and (iii) agrees to accept this potential for unacceptable interference that may be caused to its communication links by radiolocation systems, including high-powered land-based transportable and shipborne radar transmitter operating in the frequency band in accordance with footnote G2.

All operations shall be on an unprotected and non-harmful interference basis, i.e., Allen Holdings, Inc. d/b/a Allen Communications 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.

SES-STA-20110719-00839

E000232

8-18-11

Call Sign _____

(or other identifier)

8-18-11


From _____

9-11-11

Appr _____

GRANTED

International Bureau



2. Contact

Name:	Frank R. Jazzo, Esq.	Phone Number:	7038120400
Company:	Fletcher, Heald & Hildreth, PLC	Fax Number:	703-812-0486
Street:	1300 N. 17TH ST. 11th Floor	E-Mail:	JAZZO@FHHLAW.COM
City:	ARLINGTON	State:	VA
Country:	USA	Zipcode:	22209 -
Attention:		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 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
07/27/2011

7. City Riverside

8. Latitude
(dd mm ss.s h) 33 54 21.7 N

9. State CA	10. Longitude (dd mm ss.s h) 117 14 57.8 W
11. Please supply any need attachments. Attachment 1: Schedule B Attachment 2: RadHaz-FreqCoord Attachment 3: STA Request	
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: 10px 0;">Request for authority to provide the primary source of Armed Forces Network programming into the Pacific Rim, Asia, and the Pacific Ocean region via NSS9.</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. <input checked="" type="radio"/> Yes <input type="radio"/> No	
14. Name of Person Signing Bill Allen	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).	

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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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.

STA REQUEST

Allen Holdings, Inc. owns and operates multiple satellite uplink systems at the American Forces Network (AFN) Broadcast Center under subcontract with the U.S. Defense Media Activity/Department of Defense. The systems are located at March Air Reserve Base near Riverside, CA. These systems are the sole programming source for the Military Radio and television outlets overseas. These outlets serve American service men and women, Department of Defense civilians and their families stationed around the world.

Earth Station E000232 directly supports this activity. A change in the operational satellite is necessary. The new satellite requirement is NSS9. The transmission on this satellite will provide the primary source of the AFN programming into the Pacific Rim, Asia, and the Pacific Ocean region.

Allen Holdings, Inc. requests Prior Use special temporary authority to begin supporting the AFN programming July 27, 2011.

Analysis of Non-Ionizing Radiation for a 11.0-Meter Earth Station System

This report analyzes the non-ionizing radiation levels for a 11.0-meter earth station system. The analysis and calculations performed in this report comply with the methods described in the FCC Office of Engineering and Technology Bulletin, No. 65 first published in 1985 and revised in 1997 in Edition 97-01. The radiation safety limits used in the analysis are in conformance with the FCC R&O 96-326. Bulletin No. 65 and the FCC R&O specifies that there are two separate tiers of exposure limits that are dependant on the situation in which the exposure takes place and/or the status of the individuals who are subject to the exposure. The Maximum Permissible Exposure (MPE) limits for persons in a General Population/Uncontrolled environment are shown in Table 1. The General Population/Uncontrolled MPE is a function of transmit frequency and is for an exposure period of thirty minutes or less. The MPE limits for persons in an Occupational/Controlled environment are shown in Table 2. The Occupational MPE is a function of transmit frequency and is for an exposure period of six minutes or less. The purpose of the analysis described in this report is to determine the power flux density levels of the earth station in the far-field, near-field, transition region, between the subreflector or feed and main reflector surface, at the main reflector surface, and between the antenna edge and the ground and to compare these levels to the specified MPEs.

Table 1. Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Power Density (mW/cm ²)
30-300	0.2
300-1500	Frequency (MHz)*(0.8/1200)
1500-100,000	1.0

Table 2. Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Power Density (mW/cm ²)
30-300	1.0
300-1500	Frequency (MHz)*(4.0/1200)
1500-100,000	5.0

Table 3. Formulas and Parameters Used for Determining Power Flux Densities

Parameter	Symbol	Formula	Value	Units
Antenna Diameter	D	Input	11.0	m
Antenna Surface Area	A _{surface}	$\pi D^2 / 4$	95.03	m ²
Subreflector Diameter	D _{sr}	Input	121.9	cm
Area of Subreflector	A _{sr}	$\pi D_{sr}^2 / 4$	11670.71	cm ²
Frequency	F	Input	5850	MHz
Wavelength	λ	300 / F	0.051282	m
Transmit Power	P	Input	76.00	W
Antenna Gain (dBi)	G _{as}	Input	55.4	dBi
Antenna Gain (factor)	G	$10^{G_{as}/10}$	346736.9	n/a
Pi	π	Constant	3.1415927	n/a
Antenna Efficiency	η	$G\lambda^2/(\pi^2 D^2)$	0.76	n/a

1. Far Field Distance Calculation

The distance to the beginning of the far field can be determined from the following equation:

$$\begin{aligned} \text{Distance to the Far Field Region} & R_{\#} = 0.60 D^2 / \lambda \\ & = 1415.7 \text{ m} \end{aligned} \quad (1)$$

The maximum main beam power density in the far field can be determined from the following equation:

$$\begin{aligned} \text{On-Axis Power Density in the Far Field} & S_{\#} = G P / (4 \pi R_{\#}^2) \\ & = 1.046 \text{ W/m}^2 \\ & = 0.105 \text{ mW/cm}^2 \end{aligned} \quad (2)$$

2. Near Field Calculation

Power flux density is considered to be at a maximum value throughout the entire length of the defined Near Field region. The region is contained within a cylindrical volume having the same diameter as the antenna. Past the boundary of the Near Field region, the power density from the antenna decreases linearly with respect to increasing distance.

The distance to the end of the Near Field can be determined from the following equation:

$$\begin{aligned} \text{Extent of the Near Field} & R_{\#f} = D^2 / (4 \lambda) \\ & = 589.9 \text{ m} \end{aligned} \quad (3)$$

The maximum power density in the Near Field can be determined from the following equation:

$$\begin{aligned} \text{Near Field Power Density} & S_{\#f} = 16.0 \eta P / (\pi D^2) \\ & = 2.443 \text{ W/m}^2 \\ & = 0.244 \text{ mW/cm}^2 \end{aligned} \quad (4)$$

3. Transition Region Calculation

The Transition region is located between the Near and Far Field regions. The power density begins to decrease linearly with increasing distance in the Transition region. While the power density decreases inversely with distance in the Transition region, the power density decreases inversely with the square of the distance in the Far Field region. The maximum power density in the Transition region will not exceed that calculated for the Near Field region. The power density calculated in Section 1 is the highest power density the antenna can produce in any of the regions away from the antenna. The power density at a distance R_t can be determined from the following equation:

$$\begin{aligned} \text{Transition Region Power Density} & S_t = S_{\#f} R_{\#f} / R_t \\ & = 0.244 \text{ mW/cm}^2 \end{aligned} \quad (5)$$

4. Region between the Main Reflector and the Subreflector

Transmissions from the feed assembly are directed toward the subreflector surface, and are reflected back toward the main reflector. The most common feed assemblies are waveguide flanges, horns or subreflectors. The energy between the subreflector and the reflector surfaces can be calculated by determining the power density at the subreflector surface. This can be determined from the following equation:

$$\begin{aligned} \text{Power Density at the Subreflector} & & S_{sr} &= 4000 P / A_{sr} & (6) \\ & & &= 26.048 \text{ mW/cm}^2 \end{aligned}$$

5. Main Reflector Region

The power density in the main reflector is determined in the same manner as the power density at the subreflector. The area is now the area of the main reflector aperture and can be determined from the following equation:

$$\begin{aligned} \text{Power Density at the Main Reflector Surface} & & S_{\text{surface}} &= 4 P / A_{\text{surface}} & (7) \\ & & &= 3.199 \text{ W/m}^2 \\ & & &= 0.320 \text{ mW/cm}^2 \end{aligned}$$

6. Region between the Main Reflector and the Ground

Assuming uniform illumination of the reflector surface, the power density between the antenna and the ground can be determined from the following equation:

$$\begin{aligned} \text{Power Density between Reflector and Ground} & & S_g &= P / A_{\text{surface}} & (8) \\ & & &= 0.800 \text{ W/m}^2 \\ & & &= 0.080 \text{ mW/cm}^2 \end{aligned}$$

7. Summary of Calculations

Table 4. Summary of Expected Radiation levels for Uncontrolled Environment

Region	Calculated Maximum Radiation Power Density Level (mW/cm ²)		Hazard Assessment
	Calculated Maximum Radiation Power Density Level (mW/cm ²)	Hazard Assessment	
1. Far Field ($R_{fr} = 1415.7$ m)	S_{fr}	0.105	Satisfies FCC MPE
2. Near Field ($R_{nr} = 589.9$ m)	S_{nr}	0.244	Satisfies FCC MPE
3. Transition Region ($R_{nr} < R_t < R_{fr}$)	S_t	0.244	Satisfies FCC MPE
4. Between Main Reflector and Subreflector	S_{sr}	26.048	Potential Hazard
5. Main Reflector	$S_{surface}$	0.320	Satisfies FCC MPE
6. Between Main Reflector and Ground	S_g	0.080	Satisfies FCC MPE

Table 5. Summary of Expected Radiation levels for Controlled Environment

Region	Calculated Maximum Radiation Power Density Level (mW/cm ²)		Hazard Assessment
	Calculated Maximum Radiation Power Density Level (mW/cm ²)	Hazard Assessment	
1. Far Field ($R_{fr} = 1415.7$ m)	S_{fr}	0.105	Satisfies FCC MPE
2. Near Field ($R_{nr} = 589.9$ m)	S_{nr}	0.244	Satisfies FCC MPE
3. Transition Region ($R_{nr} < R_t < R_{fr}$)	S_t	0.244	Satisfies FCC MPE
4. Between Main Reflector and Subreflector	S_{sr}	26.048	Potential Hazard
5. Main Reflector	$S_{surface}$	0.320	Satisfies FCC MPE
6. Between Main Reflector and Ground	S_g	0.080	Satisfies FCC MPE

It is the applicant's responsibility to ensure that the public and operational personnel are not exposed to harmful levels of radiation.

8. Conclusions

Based on the above analysis it is concluded that harmful levels of radiation will not exist in regions normally occupied by the public or the earth station's operating personnel. The transmitter will be turned off during antenna maintenance so that the FCC MPE of 5.0 mW/cm² will be complied with for those regions with close proximity to the reflector that exceed acceptable levels.

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Allen Holdings, Inc
MARCH AFB, CA
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
July 15, 2011

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1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Further, there will be no restrictions of its operation due to interference considerations.

2. SUMMARY OF RESULTS

There was no great circle interference cases were identified during the interference study of the proposed earth station.

No carriers reported potential interference cases.

3. SUPPLEMENTAL SHOWING

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations. An information only coordination data for this earth station was sent to the below listed carriers with a letter dated 07/15/2011.

Company
ANAHEIM CITY, COMMUNICATIONS DIVISION
AT&T California
AirSites2000, LLC
BNSF Railway Company
CNG Communications, Inc.
COAST COMMUNITY COLLEGE DISTRICT
California, State of
Cello Partnership - California
Coachella Valley Water District
Cox Communications - San Diego Mkt
FALCON CABLEVISION, A CALIFORNIA L.P.
KTLA INC
LOS ANGELES CITY WATER & POWER
LOS ANGELES UNIFIED SCHOOL DISTRICT
Los Angeles City Info Technology Agency
Los Angeles County Dept of Public Works
Los Angeles County FCC Licensing Section
Los Angeles SMSA Ltd. Partnership
METROPOLITAN AREA NETWORKS, INC.
MONTEBELLO CITY CALIFORNIA
Metropolitan Water Dist of So California
NEXTEL OF CALIFORNIA INC
New Cingular Wireless PCS - Los Angeles
New Cingular Wireless PCS LLC -San Diego
Nextweb Inc
ORANGE, COUNTY OF, CA
QUALCOMM INC.
Regional 3Cs
Riverside, County of
SAN DIEGO COUNTY
SAN DIEGO, CITY OF
SKYRIVER COMMUNICATIONS INC
SOUTHERN CALIFORNIA REGIONAL RAIL AUTH.
San Bernardino County of California
San Diego Gas & Electric Company
Southern California Edison Company
Southern California Gas Company
T-Mobile License LLC
TV MICROWAVES CO
Turn Wireless, LLC
University of California,HPWREN
Verizon California Inc.
Verizon Wireless (VAW) LLC (CA)
Western Pacific Mobile Microwave
Western Technical Services

4. EARTH STATION COORDINATION DATA

This section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours.

COMSEARCH
Earth Station Data Sheet
 19700 Janelia Farm Boulevard, Ashburn, VA 20147
 (703)726-5500 <http://www.comsearch.com>

Date: 07/15/2011
 Job Number: 110715COMSTC11

Administrative Information

Call Sign E000232
 Licensee Name Allen Holdings, Inc

Site Information **MARCH AFB, CA**

Venue Name
 Latitude (NAD 83) 33° 54' 21.7" N
 Longitude (NAD 83) 117° 14' 57.8" W
 Climate Zone A
 Rain Zone 4
 Ground Elevation (AMSL) 468.5 m / 1537.1 ft

Link Information

Satellite Type Geostationary
 Mode TO - Transmit-Only
 Modulation Digital
 Satellite Arc 177° W to 177° West Longitude
 Azimuth Range 252.0° to 252.0°
 Corresponding Elevation Angles 16.4° / 16.4°
 Antenna Centerline (AGL) 5.49 m / 18.0 ft

Antenna Information

Manufacturer VERTEX COMMUNICATIONS
 Model 11 KPC
 Gain / Diameter 55.4 dBi / 11.0 m
 3-dB / 15-dB Beamwidth 0.30° / 0.60°

Max Available RF Power	(dBW/4 KHz)		
	(dBW/MHz)		
		<u>1M23GTW - 9M00GTW</u>	
		-14.7	-14.7
		9.3	9.3

Maximum EIRP	(dBW/4 KHz)	40.7
	(dBW/MHz)	64.7
	(dBW)	65.6
		40.7
		64.7
		74.22

Interference Objectives: Long Term -154.0 dBW/4 KHz 20%
 Short Term -131.0 dBW/4 KHz 0.0025%

Frequency Information

Emission / Frequency Range (MHz) **Transmit 6.1 GHz**
 1M23GTW - 9M00GTW / 5850.0 - 5925.0

Max Great Circle Coordination Distance 137.8 km / 85.6 mi
 Precipitation Scatter Contour Radius 100.0 km / 62.1 mi

COMSEARCH
Earth Station Data Sheet
 19700 Janelia Farm Boulevard, Ashburn, VA 20147
 (703) 726-5500 <http://www.comsearch.com>

Coordination Values	MARCH AFB, CA
Licensee Name	Allen Holdings, Inc
Latitude (NAD 83)	33° 54' 21.7" N
Longitude (NAD 83)	117° 14' 57.8" W
Ground Elevation (AMSL)	468.5 m / 1537.1 ft
Antenna Centerline (AGL)	5.49 m / 18.0 ft
Antenna Model	VERTEX COMMUNICATIONS 11 KPC
Antenna Mode	Transmit 6.1 GHz
Interference Objectives:	Long Term -154.0 dBW/4 KHz 20%
	Short Term -131.0 dBW/4 KHz 0.0025%
Max Available RF Power	-14.7 (dBW/4 KHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.85	107.34	-9.60	100.00
5	1.82	112.24	-10.95	100.00
10	0.93	116.93	-12.60	100.00
15	1.14	121.72	-12.60	100.00
20	2.69	126.76	-12.60	100.00
25	3.05	131.60	-12.60	100.00
30	2.37	136.16	-12.60	100.00
35	1.92	140.68	-12.60	100.00
40	1.90	145.22	-12.60	100.00
45	1.48	149.46	-12.60	100.00
50	0.88	153.33	-12.60	100.00
55	0.62	157.00	-12.60	100.00
60	0.54	160.24	-12.60	100.00
65	0.80	162.97	-12.60	100.00
70	0.92	164.43	-12.60	100.00
75	0.54	163.89	-12.60	100.00
80	0.00	161.82	-12.60	124.08
85	0.00	159.19	-12.60	124.08
90	0.00	155.84	-12.60	124.08
95	0.50	152.28	-12.60	100.19
100	0.78	148.24	-12.60	100.00
105	0.62	143.80	-12.60	100.00
110	1.07	139.45	-12.60	100.00
115	1.87	135.06	-12.60	100.00
120	2.38	130.47	-12.60	100.00
125	2.52	125.73	-12.60	100.00
130	1.78	120.83	-12.60	100.00
135	0.78	115.91	-12.60	100.00
140	0.00	111.04	-10.23	130.36
145	0.00	106.27	-9.60	132.04
150	0.00	101.49	-9.60	132.04
155	0.00	96.69	-9.60	132.04
160	0.00	91.90	-10.22	130.38
165	0.00	87.10	-10.60	129.36
170	0.00	82.30	-11.14	127.93
175	0.00	77.51	-12.10	125.40
180	0.00	72.73	-12.60	124.08
185	0.00	67.96	-12.60	124.08

COMSEARCH
Earth Station Data Sheet
 19700 Janelia Farm Boulevard, Ashburn, VA 20147
 (703)726-5500 <http://www.comsearch.com>

Coordination Values	MARCH AFB, CA
Licensee Name	Allen Holdings, Inc
Latitude (NAD 83)	33° 54' 21.7" N
Longitude (NAD 83)	117° 14' 57.8" W
Ground Elevation (AMSL)	468.5 m / 1537.1 ft
Antenna Centerline (AGL)	5.49 m / 18.0 ft
Antenna Model	VERTEX COMMUNICATIONS 11 KPC
Antenna Mode	Transmit 6.1 GHz
Interference Objectives: Long Term	-154.0 dBW/4 KHz 20%
Short Term	-131.0 dBW/4 KHz 0.0025%
Max Available RF Power	-14.7 (dBW/4 KHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	63.21	-12.60	124.08
195	0.27	58.43	-12.60	118.56
200	0.55	53.66	-12.06	100.00
205	0.48	48.99	-10.20	107.82
210	0.43	44.37	-8.47	116.33
215	0.55	39.77	-7.51	111.10
220	0.56	35.30	-5.72	115.65
225	0.54	30.98	-4.80	119.12
230	0.49	26.88	-3.35	125.32
235	0.51	23.08	-1.45	129.93
240	0.54	19.76	0.54	133.13
245	0.59	17.22	2.07	135.06
250	0.65	15.84	2.90	134.75
255	0.74	15.91	2.85	131.65
260	0.78	17.49	1.91	127.04
265	0.72	20.26	0.25	125.07
270	0.72	23.70	-1.82	118.99
275	0.53	27.70	-3.68	122.61
280	0.32	31.97	-4.99	133.63
285	0.23	36.35	-6.14	137.80
290	0.00	40.90	-7.78	135.75
295	0.00	45.46	-8.78	134.24
300	0.00	50.08	-10.63	129.28
305	0.20	54.71	-12.48	124.23
310	0.00	59.46	-12.60	124.08
315	0.00	64.20	-12.60	124.08
320	0.22	68.93	-12.60	122.28
325	0.61	73.68	-12.60	100.00
330	2.95	78.35	-11.93	100.00
335	3.92	83.19	-10.96	100.00
340	2.72	88.08	-10.60	100.00
345	1.57	92.92	-10.02	100.00
350	0.62	97.72	-9.60	102.57
355	0.57	102.52	-9.60	104.82

5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



Timothy O. Crutcher
Frequency Planner
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147

DATED: July 15, 2011

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SATELLITE SPACE AND 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 E000232		B1b. Site identifier (HUB, REMOTE1, etc.)		B1c. Telephone Number (562)-902-7691		B1j. Geographic Coordinates N/S, Deg. - Min. - Sec. - E/W		B1k. Lat./Lon. Coordinates are:		
B1d. Mailing Street Address of Station or Area of Operation 1363 Z Street, Broadcast Center, March Air Res. Base				B1e. Name of Contact Person Bill Allen				Lat. 33° - 54' - 21.7" N		<input type="checkbox"/> NAD-27
				Lon. 117° - 14' - 57.8" W				<input checked="" type="checkbox"/> NAD-83		
B1f. City Riverside		B1g. County Riverside		B1h. State Ca	B1i. Zip Code 92518		B1l. Site Elevation (AMSL) 468.5			

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
NSS9 @ 177 W.L.		

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. license satellite system. Use additional sheets as needed.

Satellite Name	List of Destination Points

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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)
		1	Vertex Comm.	KPC	11.0	55.4 dBi @ 6 GHz

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.	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)				
		12	480.5	N/A	N/A	76	74.22

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.

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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)
11.0M	5850-5925	177.0° W	177.0° W	16.4°	16.4°	252.0°	252.0°	-11.8

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.

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B7. Particulars of Operation (Full particulars are required for each r.f. carrier): Use additional pages as needed.

(a) Antenna ID*	(b) Frequency Limits (MHz)	(c) T/R Mode **	(d) Antenna Polarization (H,V,L,R)	(e) Emission Designator	(f) Maximum EIRP per Carrier (dBW)	(g) Maximum EIRP Density per Carrier (dBW/4kHz)	(h) Description of Modulation and Services
11.0M	5850.00 – 5925.00	T	L,C	1M23G7W	65.6	40.7	BPSK, QPSK, 8PSK, QAM, FEC Rates 1/2 - 7/8, Various Data Rates, Various Information
11.0M	5850.00 – 5925.00	T	L,C	9M00G7W	74.22	40.7	BPSK, QPSK, 8PSK, QAM, FEC Rates 1/2 - 7/8, Various Data Rates, Various Information

*-4.7
dBW
Fluency*

Notes: * Provide the ANTENNA-ID from table B4 to identify the antenna to which each frequency band and emission is associated. For VSAT networks, include frequencies and emissions for all HUB and REMOTE units.
** Indicate whether the earth station transmits or receives in each frequency band.

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If VSAT Network, provide the SITE-ID (Item B1b) of the station that B8-B13 are in response to (HUB, REMOTE1, etc.): _____

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.	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> 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 measurement?	<input type="checkbox"/> YES	N/A <input type="checkbox"/> NO												
B10. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO												
Remote Control Point Location:														
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="4" style="padding: 2px;">B10a. Street Address</td> </tr> <tr> <td style="width:33%; padding: 2px;">B10b. City</td> <td style="width:25%; padding: 2px;">B10c. County</td> <td style="width:25%; padding: 2px;">B10.d. State/Country</td> <td style="width:17%; padding: 2px;">B10e. Zip Code</td> </tr> <tr> <td colspan="2" style="padding: 2px;">B10f. Telephone Number</td> <td colspan="2" style="padding: 2px;">B10g. Call Sign of Control Station (if appropriate)</td> </tr> </table>			B10a. Street Address				B10b. City	B10c. County	B10.d. State/Country	B10e. Zip Code	B10f. Telephone Number		B10g. Call Sign of Control Station (if appropriate)	
B10a. Street Address														
B10b. City	B10c. County	B10.d. State/Country	B10e. Zip Code											
B10f. Telephone Number		B10g. Call Sign of Control Station (if appropriate)												
B11. Is frequency coordination required? If YES, attach a frequency coordination report as an exhibit.	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> 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.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO												
B13. FAA Notification - (See 47 CFT Part 17 and 47 CFT 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? EXISTING FACILITY FAILURE TO COMPLY WITH 47 CFT PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO												