

STA Extension/Prior Use STA Request

E000232 provides service to the Defense Media Center (“DMC”) located at March AFB. E000232 provides Armed Forces Radio (“AFR”) and Armed Forces Television (“AFT”) to U.S. Military installations throughout the Pacific Rim. Due to operational and budgetary changes, DMC was required to change the satellite it uses to distribute AFR and AFT to ISS19, or possibly ISS8. This change took place on February 19, 2015.

An application to modify the license for E000232 was filed on April 1, 2014, File Number SES-MOD-20150401-00187, and amended on April 8, 2015, by letter. Allen Communications requests an extension of the special temporary authority in SES-STA-20150213-00075 as extended by SES-STA-20150318-00170, as a prior use STA for the modification application. A copy the modification application’s schedule B, including the letter amendment is attached.

Extension of the STA will permit continuity of AFR and AFT service throughout the Pacific Rim.

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

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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)

45. Name of Person Signing
William Allen

46. 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).

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

FOR OFFICIAL USE ONLY

Location of Earth Station Site

E1: Site Identifier:	9.3 M	E5. Call Sign:	E000232
E2: Contact Name	Bill Allen	E6. Phone Number:	562-902-7691
E3. Street:	1363 Z Street Broadcast Center	E7. City:	March Air Res. Base
E4. State	CA	E8. County:	Riverside
E10. Area of Operation:		E9. Zip Code	92518
E11. Latitude:	33 ° 54 ' 21.7 " N		
E12. Longitude:	117 ° 14 ' 57.8 " W		
E13. Lat/Lon Coordinates are:	<input type="radio"/> NAD-27	<input checked="" type="radio"/> NAD-83	<input type="radio"/> N/A
E14. Site Elevation (AMSL):	468.5 meters		

E15. 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 measurement? If NO, provide as a technical analysis showing compliance with two-degree spacing policy.

Yes No N/A

E16. 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?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	<input type="radio"/> Yes <input checked="" type="radio"/> No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as FreqCoord	<input checked="" type="radio"/> Yes <input type="radio"/> No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	<input checked="" type="radio"/> Yes <input type="radio"/> No
E20. 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.	<input type="radio"/> Yes <input checked="" type="radio"/> No

POINTS OF COMMUNICATION

Satellite Name:PERMITTED LIST If you selected OTHER, please enter the following:	
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier:	
E26. Common Name:	E27. Country:

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size	E41/42. Antenna Gain Transmint and/or Recieve(____dBi at ____GHz)	
9.3 M	9.3 M	2	Andrew Corp	ESA93	9.3	50.7 dBi at 4	
9.3 M	9.3 M	2	Andrew Corp	ESA93	9.3	53.9 dBi at 6	

E28. Antenna Id	E33/34. Diameter Minor/Major(meters)	E35. Above Ground Level(meters)	E36. Above Sea Level(meters)	E37. Building Height Above Ground Level(meters)	E38. Total Input Power at antenna flange(Watts)	E39. Maximum Antenna Height Above Rooftop(meters)	E40. Total EIRP for al carriers(dBW)
9.3 M	0.0/0.0	10.0	478.5	0.0	0.0	0.0	72.8

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands(MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier(dBW)	E49. Maximum ERIP Density per Carrier(dBW/4kHz)
9.3 M	3482 3878	R	Horizontal and Vertical	1M23G7W	0.0	0.0
E50. Modulation and Services BPSK, QPSK, 8PSK, QAM, FEC Rates 1/2 - 7/8, Variuos Data Rates, Various Information						
9.3 M	3482 3878	R	Horizontal and Vertical	36M0G7W	0.0	0.0
E50. Modulation and Services BPSK, QPSK, 8PSK, QAM, FEC Rates 1/2 - 7/8, Variuos Data Rates, Various Information						
9.3 M	6067 6103	T	Horizontal and Vertical	1M23G7W	58.2	33.3
E50. Modulation and Services BPSK, QPSK, 8PSK, QAM, FEC Rates 1/2 - 7/8, Variuos Data Rates, Various Information						
9.3 M	6067 6103	T	Horizontal and Vertical	36M0G7W	72.8	33.3
E50. Modulation and Services BPSK, QPSK, 8PSK, QAM, FEC Rates 1/2 - 7/8, Variuos Data Rates, Various Information						

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/Western Limit	E56. Earth Station Azimuth Angle Eastern	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon(dBW/4kHz)
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				Limit		Limit		
9.3 M	Geostationary	3482 3878	194.0/194.0	262.5	2.3	262.5	2.3	0.0
	Geostationary	6067 6103	194.0/194.0	262.5	2.3	262.5	2.3	-3.6

REMOTE CONTROL POINT LOCATION

E61. Call Sign NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E66. Phone Number	
E62. Street Address			
E63. City	E68. County	E67/68. State/Country /	E64. Zip Code

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember - You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

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.

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April 8, 2015

FRANK R. JAZZO
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International Bureau
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

**Re: Earth Station E000232
Modification Application SES-MOD-20150401-00187
Amendment**

Dear Sir or Madam:

On behalf of Allen Holdings, Inc., d/b/a Allen Communications, licensee of earth station E000232, we hereby amend the satellite name from "Permitted List" to Intelsat 19 (ISS-19) at 194 degrees W/166 degrees E in the above-referenced modification application. In addition, the downlink frequencies should be corrected in E43/44, E50, E52/53 to 3842-3878 MHz in the above-referenced modification application.

Should any questions arise concerning this amendment, please communicate with this office.

Very truly yours,



Frank R. Jazzo
Counsel for Allen Holdings, Inc.,
d/b/a Allen Communications

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Allen Holdings, Inc
MARCHAFB, CA
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
March 12, 2015

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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

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-receive earth station.

Company

California, State of
Southern California Gas Company

No other 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.

Coordination data for this earth station was sent to the below listed carriers with a letter dated 02/11/2015.

Company

ABC Holding Company Inc.
AT&T California
AirSites2000, LLC
American Tower, LLC
Anaheim City, of
BNSF Railway Company
CCO SoCal I, LLC
CNG Communications, Inc.
California, State of
Calvary Chapel of Costa Mesa
Cellco Partnership - California
City of Los Angeles Dept Water & Power
Coachella Valley Water District
Coast Community College District
DRS Technical Services
Entravision Holdings, LLC
Glendale, City of
ION Media Los Angeles License, Inc.
KTLA, LLC
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 County Metro Transit Auth
Los Angeles SMSA Ltd. Partnership
MHO Networks
MOBILE RELAY ASSOCIATES INC
MONTEBELLO CITY CALIFORNIA
Metropolitan Water Dist of So California
NRJ TV LA License Co, LLC
New Cingular Wireless PCS - Los Angeles
New Cingular Wireless PCS LLC -San Diego
Nextel of California Inc.
Norris, Samuel O
Orange, County of, CA
QUALCOMM INC.
Regional 3Cs
Riverside, County of
San Bernardino County of California
San Diego Broadband
San Diego County Water Authority

San Diego Gas & Electric Company
San Diego, City of
San Diego, County of
Skyriver Communications
Southern California Edison Company
Southern California Gas Company
Southern California Regional Rail Auth.
Station Venture Operations, LP
T-Mobile License LLC
TV MICROWAVES CO
Turn Wireless, LLC
Ultimate Internet Access, Inc
Union Pacific Railroad Company
University of California, HPWREN
Verizon California Inc.
Verizon Wireless (VAW) LLC (Southern CA)
Western Technical Services
White, Fred K

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: 03/12/2015
Job Number: 150211COMSTC06

Administrative Information

Call Sign E000232
Licensee Name Allen Holdings, Inc

Site Information

MARCHAFB, CA

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 TR - Transmit-Receive
Modulation Digital
Satellite Arc 194° W to 194° West Longitude
Azimuth Range 262.5° to 262.5°
Corresponding Elevation Angles 2.3° / 2.3°
Antenna Centerline (AGL) 5.49 m / 18.0 ft

Antenna Information

Receive - A40931

Transmit - A60931

Manufacturer	COMMSCOPE	COMMSCOPE
Model	ESA9.3-46	ESA9.3-46
Gain / Diameter	50.7 dBi / 9.3 m	53.9 dBi / 9.3 m
3-dB / 15-dB Beamwidth	0.52° / 1.00°	0.30° / 0.60°

				1M23G7W - 36M0G7W	
Max Available RF Power	(dBW/4 kHz)			-20.6	-20.6
	(dBW/MHz)			3.4	3.4
Maximum EIRP	(dBW/4 kHz)			33.3	33.3
	(dBW/MHz)			57.3	57.3
	(dBW)			72.8	58.2
Interference Objectives:	Long Term	-156.0 dBW/MHz	20%	-154.0 dBW/4 kHz	20%
	Short Term	-146.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz	0.0025%

Frequency Information

Receive 4.0 GHz

Transmit 6.1 GHz

Emission / Frequency Range (MHz)	1M23G7W - 36M0G7W / 3482.0 - 3878.0	1M23G7W - 36M0G7W / 6067.0 - 6103.0
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Max Great Circle Coordination Distance	799.5 km / 496.8 mi	315.6 km / 196.1 mi
Precipitation Scatter Contour Radius	508.2 km / 315.7 mi	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

MARCHAFB, 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 Commscope ESA9.3-46
Antenna Mode Receive 4.0 GHz Transmit 6.1 GHz
Interference Objectives: Long Term -156.0 dBW/MHz 20% -154.0 dBW/4 kHz 20%
Short Term -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%
Max Available RF Power -20.6 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.81	97.48	-10.30	228.91	-10.10	100.00
5	1.80	102.48	-10.30	198.67	-10.10	100.00
10	0.92	107.48	-10.30	222.99	-10.10	100.00
15	1.14	112.48	-11.79	207.40	-11.59	100.00
20	2.69	117.48	-14.29	155.26	-15.09	100.00
25	3.04	122.48	-15.30	143.31	-17.10	100.00
30	2.35	127.48	-15.30	158.14	-17.10	100.00
35	1.92	132.48	-15.30	170.82	-17.10	100.00
40	1.83	137.48	-15.30	173.63	-17.10	100.00
45	1.52	142.48	-15.30	182.86	-17.10	100.00
50	0.90	147.46	-15.30	203.06	-17.10	100.00
55	0.62	152.44	-15.30	214.70	-17.10	100.00
60	0.54	157.42	-15.30	219.21	-17.10	100.00
65	0.81	162.43	-15.30	205.06	-17.10	100.00
70	0.92	167.41	-15.30	202.18	-17.10	100.00
75	0.51	172.28	-13.93	227.54	-15.27	100.00
80	0.00	176.61	-11.66	274.97	-12.13	110.12
85	0.00	176.63	-11.65	275.02	-12.12	110.15
90	0.00	172.18	-13.99	261.16	-15.36	102.12
95	0.57	167.40	-15.30	217.26	-17.10	100.00
100	0.76	162.45	-15.30	207.46	-17.10	100.00
105	0.61	157.46	-15.30	215.55	-17.10	100.00
110	1.14	152.49	-15.30	194.23	-17.10	100.00
115	1.93	147.51	-15.30	170.68	-17.10	100.00
120	2.38	142.51	-15.30	157.42	-17.10	100.00
125	2.57	137.51	-15.30	153.22	-17.10	100.00
130	1.77	132.51	-15.30	175.44	-17.10	100.00
135	0.76	127.50	-15.30	207.54	-17.10	100.00
140	0.00	122.49	-15.30	253.82	-17.10	100.00
145	0.00	117.49	-14.30	259.43	-15.09	102.76
150	0.00	112.50	-11.80	274.10	-11.60	111.47
155	0.00	107.50	-10.30	283.38	-10.10	115.27
160	0.00	102.51	-10.30	283.38	-10.10	115.27
165	0.00	97.51	-10.30	283.38	-10.10	115.27
170	0.00	92.51	-10.30	283.38	-10.10	115.27
175	0.00	87.52	-10.30	283.38	-10.10	115.27
180	0.00	82.52	-10.30	283.38	-10.10	115.27
185	0.00	77.53	-10.30	283.38	-10.10	115.27

COMSEARCH

Earth Station Data Sheet

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

Coordination Values

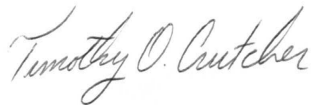
MARCHAFB, CA

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	Commscope ESA9.3-46			
Antenna Mode	Receive 4.0 GHz		Transmit 6.1 GHz	
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	-154.0 dBW/4 kHz	20%
Short Term	-146.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power			-20.6 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	72.53	-10.30	283.38	-10.10	115.27
195	0.27	67.53	-10.30	274.87	-10.10	109.79
200	0.55	62.53	-10.30	245.03	-10.10	100.00
205	0.48	57.53	-10.30	250.23	-10.10	100.00
210	0.44	52.54	-10.30	255.17	-10.10	100.00
215	0.56	47.54	-9.81	246.81	-9.61	100.00
220	0.56	42.54	-8.32	256.12	-8.61	100.00
225	0.55	37.55	-6.81	266.00	-7.12	100.00
230	0.50	32.56	-5.81	276.03	-5.61	103.16
235	0.51	27.57	-5.30	278.46	-5.10	103.85
240	0.54	22.58	-5.30	276.42	-5.10	102.51
245	0.60	17.59	-3.37	285.21	-3.17	104.72
250	0.66	12.62	1.08	314.45	1.28	113.95
255	0.74	7.67	7.36	359.83	7.23	127.21
260	0.77	2.93	16.97	445.73	17.17	160.02
265	0.73	2.93	17.00	799.55	17.20	315.65
270	0.72	7.64	7.41	361.81	7.26	128.26
275	0.54	12.60	1.10	323.51	1.30	119.64
280	0.33	17.59	-3.37	314.34	-3.17	122.86
285	0.22	22.57	-5.30	314.31	-5.10	126.29
290	0.00	27.57	-5.30	317.55	-5.10	128.30
295	0.00	32.56	-5.81	313.95	-5.61	126.95
300	0.00	37.54	-6.81	306.39	-7.12	122.98
305	0.23	42.52	-8.31	292.85	-8.60	116.97
310	0.00	47.53	-9.81	286.52	-9.61	116.54
315	0.00	52.52	-10.30	283.38	-10.10	115.27
320	0.22	57.51	-10.30	280.70	-10.10	113.56
325	0.58	62.50	-10.30	243.20	-10.10	100.00
330	2.92	67.49	-10.30	171.83	-10.10	100.00
335	3.88	72.49	-10.30	148.94	-10.10	100.00
340	2.69	77.49	-10.30	177.22	-10.10	100.00
345	1.57	82.49	-10.30	204.67	-10.10	100.00
350	0.61	87.49	-10.30	240.79	-10.10	100.00
355	0.56	92.48	-10.30	243.95	-10.10	100.00

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: March 12, 2015

WAIVER REQUEST

Allen Holdings, Inc. d/b/a Allen Communications seeks a waiver of the minimum angle of antenna elevation requirements in §25.205(a).

E000232 provides service to the Defense Media Center (“DMC”) located at March AFB. E000232 provides Armed Forces Radio (“AFR”) and Armed Forces Television (“AFT”) to U.S. Military installations throughout the Pacific Rim. Due to operational and budgetary changes, DMC is temporarily required to change the satellite it uses to distribute AFR and AFT.

As demonstrated in the attached Interference Case Summary, transmissions at the requested levels will not cause any interference.

Table
Interference Case Summary – Case between 258 and 266 Degrees
MARCHAFB, CALIFORNIA

Case #	Path ID	Band (GHz)	Distance (km)	Azimuth (°)	ES Disc (°)	ES Gain (dBi)	LOS Loss (dB)	OH Loss 20% (dB)	OH Loss 0.01% (dB)	Revised Margin 20% (dB)	Revised Margin 0.01% (dB)	Center Freq MHz
2	PALOS VERDE ANAHEIM	6.1	102.2	260.4	2.9	17.2	24.5	59.4	10.9	CLEAR	CLEAR	6315.84
3	BUENA VISTA BOX SPRING N	6.1	30.7	264.4	2.9	17.2	21.2	67.4	33.2	CLEAR	CLEAR	6345.49
4	SIERRA PK GEP	6.1	37.9	260.7	2.9	17.2	19.6	14.0	5.8	5.6	CLEAR	5974.85
7	SIGNAL HILL ANAHEIM PAS	6.1	85.4	262.3	2.9	17.2	18.2	59.4	8.0	CLEAR	CLEAR	6315.84
23	YORBA LIN 2 SIERRA PEAK	6.1	53.0	264.4	2.9	17.2	12.1	63.3	10.6	CLEAR	CLEAR	6197.24
30	SIERRA PEAK ARC	6.1	37.9	260.7	2.9	17.2	7.6	14.4	6.2	CLEAR	CLEAR	6123.24
32	ANAHEIM YORBA LINDA	6.1	62.5	262.5	2.9	17.2	7.6	61.2	50.1	CLEAR	CLEAR	6226.89
36	ANAHEIM PAS ANAHEIM	6.1	60.6	259.2	3.7	15.5	5.5	58.9	47.7	CLEAR	CLEAR	6315.84
41	SIERRA PEAK COLTON	6.1	37.9	260.6	2.9	17.2	2.2	13.6	5.4	CLEAR	CLEAR	6063.80
43	SIERRA PEAK COLTON	6.1	37.9	260.6	2.9	17.2	2.2	13.6	5.4	CLEAR	CLEAR	5945.20
44	SIERRA PEAK COLTON	6.1	37.9	260.6	2.9	17.2	2.2	14.1	5.9	CLEAR	CLEAR	6034.15
45	SIERRA PEAK COLTON	6.1	37.9	260.6	2.9	17.2	2.2	13.6	5.4	CLEAR	CLEAR	6093.45
46	SIERRA PEAK COLTON	6.1	37.9	260.6	2.9	17.2	2.2	14.1	5.9	CLEAR	CLEAR	6152.75
59	SEAL BEACH LA PALMA	6.1	79.1	258.1	4.7	13.5	-0.9	57.3	46.2	CLEAR	CLEAR	6004.50
63	SAN PEDRO HI MT LEE	6.1	102.2	260.4	2.9	17.2	-2.8	59.5	12.0	CLEAR	CLEAR	6423.75
64	SEAL BEACH HUNTINGTN BCH	6.1	79.1	258.1	4.7	13.5	-3.0	57.3	46.2	CLEAR	CLEAR	5945.20
66	SERRANO SUB SANTIAGO PK	6.1	50.7	260.4	2.9	17.2	-3.3	77.8	26.8	CLEAR	CLEAR	6375.14
71	SIERRA PEAK HEAPS PEAK	6.1	37.8	260.6	2.9	17.2	-3.9	14.6	6.5	CLEAR	CLEAR	6004.50

All cases clear with OH loss or frequency separation

Antenna Type: Commscope ESA9.3-46
Uplink Power: -20.6 dBW/4 kHz
Satellite Arc: 194.0 W to 194.0 W
Objectives: Long Term: -154.0 dBW/4 kHz Short Term: -131.0 dBW/4 kHz

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Allen Holdings, Inc
MARCHAFB, CA
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
March 12, 2015

TABLE OF CONTENTS

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3. SUPPLEMENTAL SHOWING	5
4. EARTH STATION COORDINATION DATA.....	7
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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

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-receive earth station.

Company

California, State of
Southern California Gas Company

No other 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.

Coordination data for this earth station was sent to the below listed carriers with a letter dated 02/11/2015.

Company

ABC Holding Company Inc.
AT&T California
AirSites2000, LLC
American Tower, LLC
Anaheim City, of
BNSF Railway Company
CCO SoCal I, LLC
CNG Communications, Inc.
California, State of
Calvary Chapel of Costa Mesa
Cellco Partnership - California
City of Los Angeles Dept Water & Power
Coachella Valley Water District
Coast Community College District
DRS Technical Services
Entravision Holdings, LLC
Glendale, City of
ION Media Los Angeles License, Inc.
KTLA, LLC
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 County Metro Transit Auth
Los Angeles SMSA Ltd. Partnership
MHO Networks
MOBILE RELAY ASSOCIATES INC
MONTEBELLO CITY CALIFORNIA
Metropolitan Water Dist of So California
NRJ TV LA License Co, LLC
New Cingular Wireless PCS - Los Angeles
New Cingular Wireless PCS LLC -San Diego
Nextel of California Inc.
Norris, Samuel O
Orange, County of, CA
QUALCOMM INC.
Regional 3Cs
Riverside, County of
San Bernardino County of California
San Diego Broadband
San Diego County Water Authority

San Diego Gas & Electric Company
San Diego, City of
San Diego, County of
Skyriver Communications
Southern California Edison Company
Southern California Gas Company
Southern California Regional Rail Auth.
Station Venture Operations, LP
T-Mobile License LLC
TV MICROWAVES CO
Turn Wireless, LLC
Ultimate Internet Access, Inc
Union Pacific Railroad Company
University of California, HPWREN
Verizon California Inc.
Verizon Wireless (VAW) LLC (Southern CA)
Western Technical Services
White, Fred K

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: 03/12/2015
Job Number: 150211COMSTC06

Administrative Information

Call Sign E000232
Licensee Name Allen Holdings, Inc

Site Information

MARCHAFB, CA

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 TR - Transmit-Receive
Modulation Digital
Satellite Arc 194° W to 194° West Longitude
Azimuth Range 262.5° to 262.5°
Corresponding Elevation Angles 2.3° / 2.3°
Antenna Centerline (AGL) 5.49 m / 18.0 ft

Antenna Information

Receive - A40931

Transmit - A60931

Manufacturer	COMMSCOPE	COMMSCOPE
Model	ESA9.3-46	ESA9.3-46
Gain / Diameter	50.7 dBi / 9.3 m	53.9 dBi / 9.3 m
3-dB / 15-dB Beamwidth	0.52° / 1.00°	0.30° / 0.60°

				1M23G7W - 36M0G7W	
Max Available RF Power	(dBW/4 kHz)			-20.6	-20.6
	(dBW/MHz)			3.4	3.4
Maximum EIRP	(dBW/4 kHz)			33.3	33.3
	(dBW/MHz)			57.3	57.3
	(dBW)			72.8	58.2
Interference Objectives:	Long Term	-156.0 dBW/MHz	20%	-154.0 dBW/4 kHz	20%
	Short Term	-146.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz	0.0025%

Frequency Information

Receive 4.0 GHz

Transmit 6.1 GHz

Emission / Frequency Range (MHz)	1M23G7W - 36M0G7W / 3482.0 - 3878.0	1M23G7W - 36M0G7W / 6067.0 - 6103.0
----------------------------------	-------------------------------------	-------------------------------------

Max Great Circle Coordination Distance	799.5 km / 496.8 mi	315.6 km / 196.1 mi
Precipitation Scatter Contour Radius	508.2 km / 315.7 mi	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

MARCHAFB, 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 Commscope ESA9.3-46
Antenna Mode Receive 4.0 GHz Transmit 6.1 GHz
Interference Objectives: Long Term -156.0 dBW/MHz 20% -154.0 dBW/4 kHz 20%
Short Term -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%
Max Available RF Power -20.6 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.81	97.48	-10.30	228.91	-10.10	100.00
5	1.80	102.48	-10.30	198.67	-10.10	100.00
10	0.92	107.48	-10.30	222.99	-10.10	100.00
15	1.14	112.48	-11.79	207.40	-11.59	100.00
20	2.69	117.48	-14.29	155.26	-15.09	100.00
25	3.04	122.48	-15.30	143.31	-17.10	100.00
30	2.35	127.48	-15.30	158.14	-17.10	100.00
35	1.92	132.48	-15.30	170.82	-17.10	100.00
40	1.83	137.48	-15.30	173.63	-17.10	100.00
45	1.52	142.48	-15.30	182.86	-17.10	100.00
50	0.90	147.46	-15.30	203.06	-17.10	100.00
55	0.62	152.44	-15.30	214.70	-17.10	100.00
60	0.54	157.42	-15.30	219.21	-17.10	100.00
65	0.81	162.43	-15.30	205.06	-17.10	100.00
70	0.92	167.41	-15.30	202.18	-17.10	100.00
75	0.51	172.28	-13.93	227.54	-15.27	100.00
80	0.00	176.61	-11.66	274.97	-12.13	110.12
85	0.00	176.63	-11.65	275.02	-12.12	110.15
90	0.00	172.18	-13.99	261.16	-15.36	102.12
95	0.57	167.40	-15.30	217.26	-17.10	100.00
100	0.76	162.45	-15.30	207.46	-17.10	100.00
105	0.61	157.46	-15.30	215.55	-17.10	100.00
110	1.14	152.49	-15.30	194.23	-17.10	100.00
115	1.93	147.51	-15.30	170.68	-17.10	100.00
120	2.38	142.51	-15.30	157.42	-17.10	100.00
125	2.57	137.51	-15.30	153.22	-17.10	100.00
130	1.77	132.51	-15.30	175.44	-17.10	100.00
135	0.76	127.50	-15.30	207.54	-17.10	100.00
140	0.00	122.49	-15.30	253.82	-17.10	100.00
145	0.00	117.49	-14.30	259.43	-15.09	102.76
150	0.00	112.50	-11.80	274.10	-11.60	111.47
155	0.00	107.50	-10.30	283.38	-10.10	115.27
160	0.00	102.51	-10.30	283.38	-10.10	115.27
165	0.00	97.51	-10.30	283.38	-10.10	115.27
170	0.00	92.51	-10.30	283.38	-10.10	115.27
175	0.00	87.52	-10.30	283.38	-10.10	115.27
180	0.00	82.52	-10.30	283.38	-10.10	115.27
185	0.00	77.53	-10.30	283.38	-10.10	115.27

COMSEARCH

Earth Station Data Sheet

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

Coordination Values

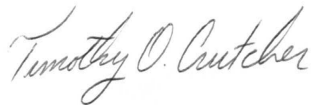
MARCHAFB, CA

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	Commscope ESA9.3-46				
Antenna Mode	Receive 4.0 GHz			Transmit 6.1 GHz	
Interference Objectives: Long Term	-156.0 dBW/MHz	20%		-154.0 dBW/4 kHz	20%
Short Term	-146.0 dBW/MHz	0.01%		-131.0 dBW/4 kHz	0.0025%
Max Available RF Power				-20.6 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	72.53	-10.30	283.38	-10.10	115.27
195	0.27	67.53	-10.30	274.87	-10.10	109.79
200	0.55	62.53	-10.30	245.03	-10.10	100.00
205	0.48	57.53	-10.30	250.23	-10.10	100.00
210	0.44	52.54	-10.30	255.17	-10.10	100.00
215	0.56	47.54	-9.81	246.81	-9.61	100.00
220	0.56	42.54	-8.32	256.12	-8.61	100.00
225	0.55	37.55	-6.81	266.00	-7.12	100.00
230	0.50	32.56	-5.81	276.03	-5.61	103.16
235	0.51	27.57	-5.30	278.46	-5.10	103.85
240	0.54	22.58	-5.30	276.42	-5.10	102.51
245	0.60	17.59	-3.37	285.21	-3.17	104.72
250	0.66	12.62	1.08	314.45	1.28	113.95
255	0.74	7.67	7.36	359.83	7.23	127.21
260	0.77	2.93	16.97	445.73	17.17	160.02
265	0.73	2.93	17.00	799.55	17.20	315.65
270	0.72	7.64	7.41	361.81	7.26	128.26
275	0.54	12.60	1.10	323.51	1.30	119.64
280	0.33	17.59	-3.37	314.34	-3.17	122.86
285	0.22	22.57	-5.30	314.31	-5.10	126.29
290	0.00	27.57	-5.30	317.55	-5.10	128.30
295	0.00	32.56	-5.81	313.95	-5.61	126.95
300	0.00	37.54	-6.81	306.39	-7.12	122.98
305	0.23	42.52	-8.31	292.85	-8.60	116.97
310	0.00	47.53	-9.81	286.52	-9.61	116.54
315	0.00	52.52	-10.30	283.38	-10.10	115.27
320	0.22	57.51	-10.30	280.70	-10.10	113.56
325	0.58	62.50	-10.30	243.20	-10.10	100.00
330	2.92	67.49	-10.30	171.83	-10.10	100.00
335	3.88	72.49	-10.30	148.94	-10.10	100.00
340	2.69	77.49	-10.30	177.22	-10.10	100.00
345	1.57	82.49	-10.30	204.67	-10.10	100.00
350	0.61	87.49	-10.30	240.79	-10.10	100.00
355	0.56	92.48	-10.30	243.95	-10.10	100.00

5. CERTIFICATION

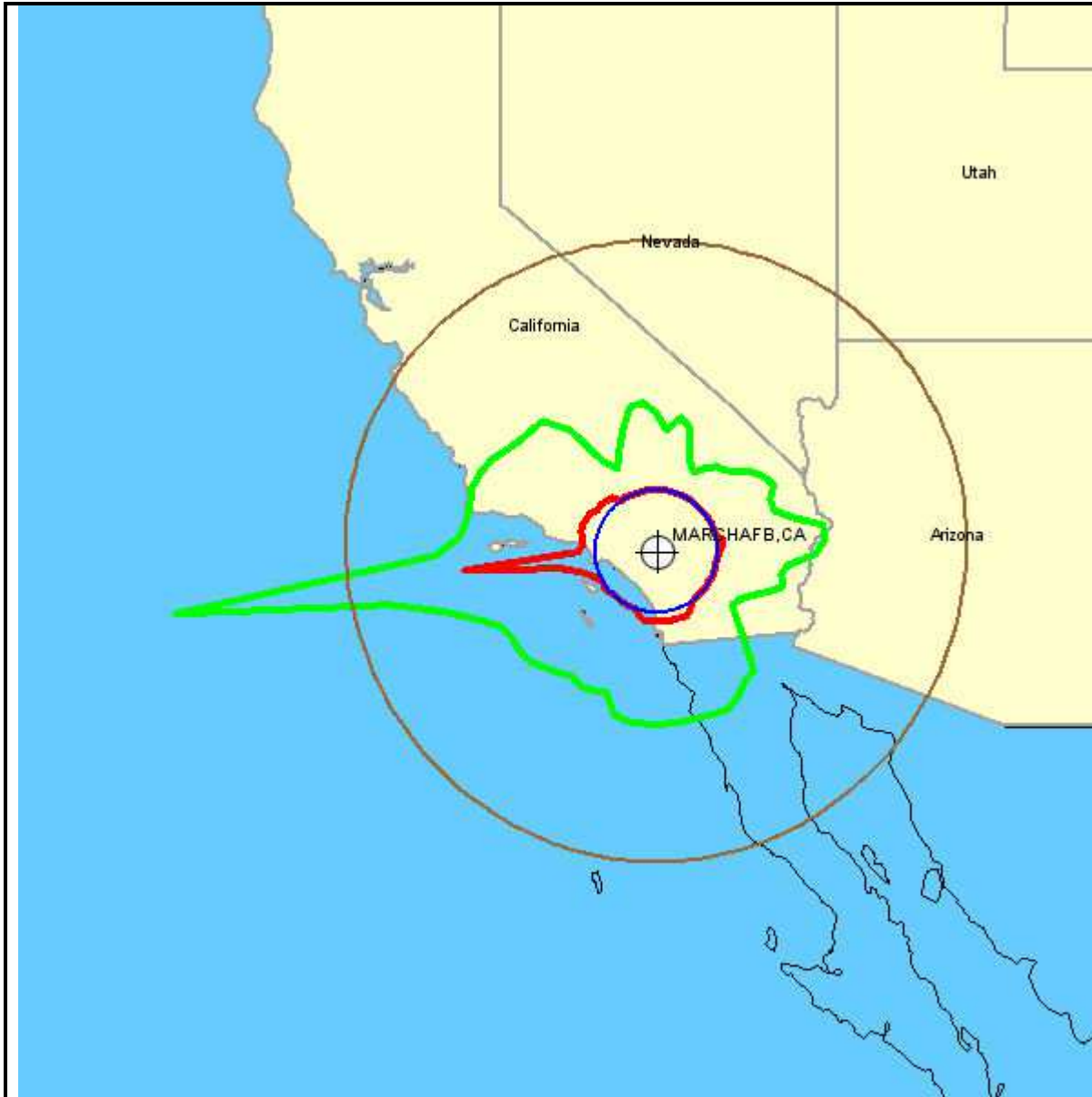
I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA 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: March 12, 2015

Allen Holdings, Inc



Legend:

Scale: 1:11,000,000

Great Circle: 6.1 GHz 

4.0 GHz 

Precipitation Scatter: 6.1 GHz 

4.0 GHz 

Earth Station Site: 



COMSEARCH®
19700 Janelia Farm Boulevard
Ashburn, VA 20147