

# FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT MINOR NOTIFICATION

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

Prepared By:  
COMSEARCH  
19700 Janelia Farm Boulevard  
Ashburn, VA 20147  
June 12, 2019

## TABLE OF CONTENTS

1. CONCLUSIONS .....	3
2. SUMMARY OF RESULTS .....	4
3. SUPPLEMENTAL SHOWING .....	5
4. EARTH STATION COORDINATION DATA.....	7
5. CERTIFICATION.....	11

# 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. Operation will be restricted to the bandwidth shown in Section 4 of this report.

## **2. SUMMARY OF RESULTS**

All great circle interference cases were previously resolved for this site.

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.

All great circle interference cases were previously resolved for this site.

#### Company

ABC Holding Company Inc.  
AT&T Mobility Spectrum LLC - Southern CA  
Air Sites 2000 LLC  
Anaheim City, of  
BNSF Railway Company  
CCO SoCal I, LLC  
California Internet Solutions, Inc.  
California Internet, L.P  
California, State of  
Calvary Chapel of Costa Mesa  
Cellco Partnership - Southern California  
City of Los Angeles Dept Water & Power  
City of Montebello  
City of West Covina  
Coachella Valley Water District  
Coast Community College District  
DM Ventures, Inc. dba Warp2Biz  
DRS Global Enterprise Solutions, Inc.  
Entravision Holdings, LLC  
Frontier California Inc.  
Glendale City California  
Global Telecom & Technology Americas, In  
ION Media Los Angeles License, Inc.  
Imperial Irrigation District  
KTLA, LLC  
LDM Engineering  
Lightwave Broadband LLC  
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 Regional Interoperable Comm  
Los Angeles SMSA Ltd. Partnership  
Los Angeles Unified School District  
MHO Networks  
Metropolitan Water Dist of So California  
Mobile Relay Associates Inc.  
New Cingular Wireless PCS - Los Angeles  
New Cingular Wireless PCS LLC -San Diego  
Nextel of California Inc.  
Norris, Samuel O

Northrop Grumman Systems Corp.  
Nrx TV La License Co, LLC  
Olympic Wireless, LLC  
Orange, County of, CA  
Pacific Bell Tel Com dba AT&T California  
Pacific Lightwave Inc  
Regional 3Cs  
Riverside, County of  
San Bernardino County of California  
San Diego Broadband  
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.  
Spectrum Link, Inc.  
Station Venture Operations, LP  
T-Mobile License LLC  
TV Microwaves Company  
Turn Wireless, LLC  
Ultimate Internet Access, Inc  
Union Pacific Railroad Company  
University of California, HPWREN  
Venture Technologies Group, LLC  
Verizon Wireless (VAW) LLC (Southern CA)  
Western Broadband Inc.  
Wiline Spectrum Holdings LLC  
Wisprenn

## **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: 06/12/2019  
Job Number: 190612COMSTC03

---

### Administrative Information

Call Sign E000232  
Licensee Code SALLCO  
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 53° W to 143° West Longitude  
Azimuth Range 105.1° to 220.8°  
Corresponding Elevation Angles 12.6° / 41.9°  
Antenna Centerline (AGL) 5.49 m / 18.0 ft

---

### Antenna Information

#### Transmit - A60931

Manufacturer ANDREW CORPORATION  
Model ESA9.3-46  
Gain / Diameter 53.9 dBi / 9.3 m  
3-dB / 15-dB Beamwidth 0.30° / 0.60°

Max Available RF Power (dBW/4 kHz) 1M23G7W - 9M00G7W -14.7 -14.7  
(dBW/MHz) 9.3 9.3

Maximum EIRP (dBW/4 kHz) 39.2 39.2  
(dBW/MHz) 63.2 63.2  
(dBW) 64.1 72.7

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

---

### Frequency Information

#### Transmit 6.1 GHz

Emission / Frequency Range (MHz) 1M23G7W - 9M00G7W / 5992.0 - 6098.0 Band Edges  
1M23G7W - 9M00G7W / 6148.0 - 6359.0 Band Edges  
1M23G7W - 9M00G7W / 6391.0 - 6425.0 Band Edges

Max Great Circle Coordination Distance 144.8 km / 90.0 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>

---

<b>Coordination Values</b>	<b>MARCH AFB, CA</b>
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	Andrew Corporation ESA9.3-46
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	0.81	104.73	-10.10	100.00
5	1.80	99.88	-10.10	100.00
10	0.92	94.96	-10.10	100.00
15	1.14	90.06	-10.10	100.00
20	2.69	85.14	-10.10	100.00
25	3.04	80.20	-10.10	100.00
30	2.35	75.31	-10.10	100.00
35	1.92	70.43	-10.10	100.00
40	1.83	65.54	-10.10	100.00
45	1.52	60.68	-10.10	100.00
50	0.90	55.90	-10.10	100.00
55	0.62	51.11	-10.10	101.06
60	0.54	46.32	-9.36	106.74
65	0.81	41.49	-8.40	100.00
70	0.92	36.73	-6.79	100.00
75	0.51	32.21	-5.54	118.23
80	0.00	27.89	-5.10	143.74
85	0.00	23.58	-5.10	143.74
90	0.00	19.57	-4.76	144.82
95	0.57	15.67	-1.64	126.21
100	0.76	12.91	0.99	125.30
105	0.61	12.04	1.86	133.74
110	1.14	12.51	1.39	112.19
115	1.93	14.58	-0.68	100.00
120	2.38	18.02	-3.52	100.00
125	2.57	21.75	-5.10	100.00
130	1.77	26.00	-5.10	100.00
135	0.76	30.28	-5.16	107.84
140	0.00	34.26	-5.95	141.11
145	0.00	37.57	-7.13	137.61
150	0.00	40.65	-8.23	134.50
155	0.00	43.43	-8.79	134.23
160	0.00	45.85	-9.27	132.92
165	0.00	47.85	-9.67	131.85
170	0.00	49.34	-9.97	131.05
175	0.00	50.27	-10.10	130.70
180	0.00	50.59	-10.10	130.70
185	0.00	50.27	-10.10	130.70

# COMSEARCH

## Earth Station Data Sheet

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

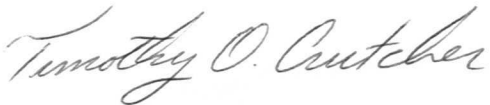
---

<b>Coordination Values</b>	<b>MARCH AFB, CA</b>
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	Andrew Corporation ESA9.3-46
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	49.34	-9.97	131.05
195	0.27	47.61	-9.62	126.36
200	0.55	45.47	-9.19	106.88
205	0.48	43.85	-8.87	111.39
210	0.44	42.63	-8.63	115.54
215	0.56	41.69	-8.44	108.12
220	0.56	41.37	-8.37	108.57
225	0.55	41.54	-8.41	108.86
230	0.50	42.24	-8.55	110.90
235	0.51	43.34	-8.77	109.68
240	0.54	44.86	-9.07	107.53
245	0.60	46.74	-9.45	103.74
250	0.66	48.97	-9.89	100.00
255	0.74	51.47	-10.10	100.00
260	0.77	54.27	-10.10	100.00
265	0.73	57.32	-10.10	100.00
270	0.72	60.52	-10.10	100.00
275	0.54	63.93	-10.10	104.98
280	0.33	67.45	-10.10	120.12
285	0.22	71.00	-10.10	128.69
290	0.00	74.64	-10.10	130.70
295	0.00	78.28	-10.10	130.70
300	0.00	81.95	-10.10	130.70
305	0.23	85.64	-10.10	128.52
310	0.00	89.37	-10.10	130.70
315	0.00	93.09	-10.10	130.70
320	0.22	96.82	-10.10	128.95
325	0.58	100.58	-10.10	103.18
330	2.92	104.77	-10.10	100.00
335	3.88	108.80	-10.10	100.00
340	2.69	112.17	-11.40	100.00
345	1.57	115.33	-13.37	100.00
350	0.61	114.47	-12.78	100.00
355	0.56	109.60	-10.10	103.72

## 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.

A handwritten signature in cursive script that reads "Timothy O. Crutcher".

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

DATED: June 12, 2019