

**GUSA Licensee LLC**  
**Response to FCC Form 312, Schedule B, Question E18**  
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Attachment 1: Comsearch Frequency Coordination and Interference Analysis Report

Attachment 2: Information on Microwave Landing System Sites

**ATTACHMENT 1**

**FREQUENCY COORDINATION AND INTERFERENCE  
ANALYSIS REPORT**

Prepared for  
**GUSA Licensee, LLC**  
**RENO - REN3, NV**  
**Satellite Earth Station**

Prepared By:  
COMSEARCH  
19700 Janelia Farm Boulevard  
Ashburn, VA 20147  
October 16, 2020

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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.

### 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 09/14/2020.

Company

Bennett Kessler II Trust  
California TV License Company, LLC  
California, State of  
Channel 33, Inc.  
DeerField Media (Reno) Licensee, LLC  
Elko Television District  
Gray Television Licensee LLC  
Hearst Stations, Inc. (KCRA)  
Humboldt County  
KRXI Licensee, LLC  
KTVU, Fox Television Stations Inc.  
KUVS License Partnership, G.P.  
KVIE, Inc.  
KXTV, LLC  
Maxair Media, LLC  
NBC Telemundo License Co. - KNTV  
NBC Telemundo License LLC  
Paradise (KCUV-TV) License, Inc  
Sacramento Television Stations, Inc  
Sarkes Tarzian, Inc.  
Serestar Communications Corporation  
Sierra Communications, LLC  
Sinclair-California Licensee, LLC  
Southern California Edison Company  
State of Nevada, Enterprise IT Services  
Tribune Media Company  
Unimas Sacramento LLC

## **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: 10/16/2020  
Job Number: 200914COMSGE03

### Administrative Information

Status ENGINEER PROPOSAL  
Call Sign  
Licensee Code ZAIRSA  
Licensee Name GUSA Licensee, LLC

### Site Information

#### RENO - REN3, NV

Venue Name  
Latitude (NAD 83) 39° 33' 15.9" N  
Longitude (NAD 83) 119° 29' 49.9" W  
Climate Zone A  
Rain Zone 3  
Ground Elevation (AMSL) 1344.29 m / 4410.4 ft

### Link Information

Satellite Type Low Earth Orbit  
Mode TR - Transmit-Receive  
Modulation Analog and Digital  
Minimum Elevation Angle 5.0°  
Azimuth Range 0.0° to 360°  
Antenna Centerline (AGL) 5.7 m / 18.7 ft

### Antenna Information

#### Receive - FCC32

#### Transmit - FCC32

Manufacturer	Seatel	Seatel	
Model	Tracker T 6000	Tracker T 6000	
Gain / Diameter	49.4 dBi / 6.0 m	47.6 dBi / 6.0 m	
3-dB / 15-dB Beamwidth	0.44° / 0.88°	0.60° / 2.00°	
Max Available RF Power (dBW/4 kHz)		10.9	
(dBW/MHz)		20.9	
Maximum EIRP (dBW/4 kHz)		58.5	
(dBW/MHz)		68.5	
Interference Objectives:	Long Term	-153.0 dBW/MHz 20%	-140.0 dBW/4 kHz 20%
	Short Term	-143.0 dBW/MHz 0.01%	-103.0 dBW/4 kHz 0.0025%

### Frequency Information

#### Receive 7.0 GHz

#### Transmit 5.1 GHz

Emission / Frequency Range (MHz)	2M50G7D / 6900.0 - 7055.0	4M50G7D / 5096.0 - 5250.0
	1M23G7W - 1M23XXX / 6900.0 - 7055.0	1M23G7W - 1M23XXX / 5096.0 - 5250.0
	200KG7D / 6900.0 - 7055.0	76K0F2D / 5091.0 - 5092.0
	70K0G7D / 6875.9 - 6879.1	50K0N0N / 5091.0 - 5092.0
	50K0N0N / 6900.0 - 7055.0	40K0G2D / 5091.0 - 5092.0
	7K00G1D / 6875.9 - 6879.1	

Max Great Circle Coordination Distance 226.0 km / 140.4 mi 285.0 km / 177.1 mi  
Precipitation Scatter Contour Radius 349.2 km / 217.0 mi 100.0 km / 62.1 mi



# COMSEARCH

## Earth Station Data Sheet

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### Coordination Values

### RENO - REN3, NV

Licensee Name GUSA Licensee, LLC  
Latitude (NAD 83) 39° 33' 15.9" N  
Longitude (NAD 83) 119° 29' 49.9" W  
Ground Elevation (AMSL) 1344.29 m / 4410.4 ft  
Antenna Centerline (AGL) 5.7 m / 18.7 ft  
Antenna Model Seatel 6 meter  
Antenna Mode Receive 7.0 GHz Transmit 5.1 GHz  
Interference Objectives: Long Term -153.0 dBW/MHz 20% -140.0 dBW/4 kHz 20%  
Short Term -143.0 dBW/MHz 0.01% -103.0 dBW/4 kHz 0.0025%  
Max Available RF Power 10.9 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 7.0 GHz		Transmit 5.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	5.93	74.04	10.40	226.00	10.40	285.00
5	6.31	70.20	10.40	226.00	10.40	285.00
10	5.99	66.24	10.40	226.00	10.40	285.00
15	4.76	61.98	10.40	226.00	10.40	285.00
20	4.62	58.14	10.40	226.00	10.40	285.00
25	4.24	54.29	10.40	226.00	10.40	285.00
30	3.31	50.24	10.40	226.00	10.40	285.00
35	2.57	46.38	10.40	226.00	10.40	285.00
40	2.78	43.29	10.40	226.00	10.40	285.00
45	2.09	39.83	10.40	226.00	10.40	285.00
50	2.99	37.95	10.40	226.00	10.40	285.00
55	2.57	35.45	10.40	226.00	10.40	285.00
60	3.05	34.27	10.40	226.00	10.40	285.00
65	4.20	34.39	10.40	226.00	10.40	285.00
70	3.83	33.68	10.40	226.00	10.40	285.00
75	3.32	33.48	10.40	226.00	10.40	285.00
80	1.89	33.07	10.40	226.00	10.40	285.00
85	1.40	34.25	10.40	226.00	10.40	285.00
90	1.40	36.45	10.40	226.00	10.40	285.00
95	1.72	39.34	10.40	226.00	10.40	285.00
100	2.62	42.94	10.40	226.00	10.40	285.00
105	3.21	46.52	10.40	226.00	10.40	285.00
110	2.57	49.58	10.40	226.00	10.40	285.00
115	2.27	53.07	10.40	226.00	10.40	285.00
120	2.15	56.82	10.40	226.00	10.40	285.00
125	2.40	60.83	10.40	226.00	10.40	285.00
130	2.78	64.94	10.40	226.00	10.40	285.00
135	2.74	68.98	10.40	226.00	10.40	285.00
140	2.50	73.05	10.40	226.00	10.40	285.00
145	2.69	77.24	10.40	226.00	10.40	285.00
150	2.78	81.43	10.40	226.00	10.40	285.00
155	3.39	85.66	10.40	226.00	10.40	285.00
160	3.98	89.84	10.40	226.00	10.40	285.00
165	3.66	94.01	10.40	226.00	10.40	285.00
170	4.10	98.12	10.40	226.00	10.40	285.00
175	4.34	102.20	10.40	226.00	10.40	285.00
180	5.09	106.13	10.40	226.00	10.40	285.00
185	4.70	110.22	10.40	226.00	10.40	285.00

# COMSEARCH

## Earth Station Data Sheet

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### Coordination Values

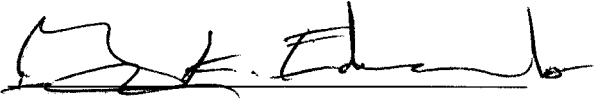
### RENO - REN3, NV

Licensee Name GUSA Licensee, LLC  
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Short Term -143.0 dBW/MHz 0.01% -103.0 dBW/4 kHz 0.0025%  
Max Available RF Power 10.9 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 7.0 GHz		Transmit 5.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	4.15	114.34	10.40	226.00	10.40	285.00
195	4.97	117.95	10.40	226.00	10.40	285.00
200	6.53	121.03	10.40	226.00	10.40	285.00
205	7.11	124.27	10.40	226.00	10.40	285.00
210	8.52	126.79	10.40	226.00	10.40	285.00
215	9.33	129.31	10.40	226.00	10.40	285.00
220	8.95	132.35	10.40	226.00	10.40	285.00
225	8.88	134.91	10.40	226.00	10.40	285.00
230	8.15	137.69	10.40	226.00	10.40	285.00
235	6.73	140.80	10.40	226.00	10.40	285.00
240	5.86	143.05	10.40	226.00	10.40	285.00
245	4.81	145.01	10.40	226.00	10.40	285.00
250	3.78	146.37	10.40	226.00	10.40	285.00
255	3.10	146.74	10.40	226.00	10.40	285.00
260	2.04	146.79	10.40	226.00	10.40	285.00
265	2.29	144.95	10.40	226.00	10.40	285.00
270	1.64	143.35	10.40	226.00	10.40	285.00
275	1.71	140.67	10.40	226.00	10.40	285.00
280	1.87	137.57	10.40	226.00	10.40	285.00
285	1.44	134.56	10.40	226.00	10.40	285.00
290	2.00	130.73	10.40	226.00	10.40	285.00
295	2.49	126.83	10.40	226.00	10.40	285.00
300	2.61	122.99	10.40	226.00	10.40	285.00
305	3.22	118.88	10.40	226.00	10.40	285.00
310	2.72	115.08	10.40	226.00	10.40	285.00
315	3.29	110.88	10.40	226.00	10.40	285.00
320	3.55	106.75	10.40	226.00	10.40	285.00
325	3.21	102.69	10.40	226.00	10.40	285.00
330	4.04	98.45	10.40	226.00	10.40	285.00
335	3.92	94.31	10.40	226.00	10.40	285.00
340	4.38	90.16	10.40	226.00	10.40	285.00
345	5.09	86.06	10.40	226.00	10.40	285.00
350	5.53	82.02	10.40	226.00	10.40	285.00
355	5.87	78.02	10.40	226.00	10.40	285.00

## 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.

BY: 

Gary K. Edwards  
Senior Manager  
COMSEARCH  
19700 Janelia Farm Boulevard  
Ashburn, VA 20147

DATED: October 16, 2020

**ATTACHMENT 2**

**Information on Microwave Landing System Sites**

For the Reno, Nevada, Globalstar gateway site, there is one MLS site, i.e., Category III airport, within the 213 nautical mile transmit coordination distance. The Reno site is located at 39-33-15.9 N, 119-29-49.9 W. The airport is:

Travis AFB	Travis Airforce Base, Fairfield, CA approximately 165 nautical miles from Reno
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This site falls outside the 39.8 nautical mile maximum trigger distance for MLS/MSS coordination.