

Prepared By

COMSEARCH

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

Prepared For

**Intelsat License LLC
Castle Rock, Colorado**

Temporary Transmit/Receive Earth Station
Operation Dates: 03/05/2015 - 09/05/2015

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. Verbal and written coordination was conducted with the below listed carriers on March 2, 2015.

Company

Adcom 911
AirLife Denver
Arvada Police Dept.
BNSF Railway Company
Black Hawk Police Department
Black Hills Corporation
Boulder, County of
CBS Communication Services Inc
CBS Television Stations
Cellular Inc. Network Corporation
City of Aurora
City of Colorado Springs
City of Lakewood, CO
Colorado Interstate Gas Company
Colorado Springs Utilities
County of Pueblo
Douglas County Sheriff's Office
Eagle-Net Alliance
Entravision Holdings, LLC
FONES WEST DIGITAL SYSTEMS INC.
Federal Communications Commission
Flat Wireless, LLC
Gilpin County Sheriff's Office
Gogo LLC
Gray Television Licensee, LLC
Infrastructure Networks, Inc.
Intermountain Rural Electric Association
Kellin Communications
LP Broadband, Inc.
Live Wire Networks, Inc.

Company (Continued)

MHO Networks
Multimedia Holdings Corporation
NE Colorado Cellular, Inc.
New Cingular Wireless PCS LLC -Colorado
New Cingular Wireless PCS, LLC - KS/MO
Nex-Tech Wireless, LLC
Nucla Naturita Telephone Company
Qwest Corporation
Roggen Telephone Enterprises, Inc.
Sangre de Cristo Communications, LLC
Sprint Communications Company, LP
Sprint Spectrum LP DBA Sprint PCS
Sprintcom, Inc
State of Colorado
Sunflower Electric Power Corporation
Tallgrass Operations, LLC
Tri-State Generation & Transmission Assn
Tribune Broadcasting Denver License, LLC
University Corp for Atmospheric Research
Verizon Wireless (VAW) LLC -CO/ID/MT/WY
WWC Holding Co., Inc. - Mountain Region
Xcel Energy Services, Inc.

There are no unresolved interference objections with the station contained in these applications.

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

COMSEARCH
Earth Station Data Sheet

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Date: 03/04/2015
Job Number: 150302COMSJC01

Administrative Information

Status TEMPORARY (Operation from 03/05/2015 to 09/05/2015)
Call Sign TEMP09
Licensee Code INTELS
Licensee Name Intelsat License LLC

Site Information **CASTLE ROCK, COLORADO**

Venue Name
Latitude (NAD 83) 39° 16' 33.0" N
Longitude (NAD 83) 104° 48' 34.0" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 2088.0 m / 6850.4 ft

Link Information

Satellite Type Geostationary
Mode TO - Transmit-Only
Modulation Analog and Digital
Satellite Arc 33° W to 177° West Longitude
Azimuth Range 101.8° to 258.5°
Corresponding Elevation Angles 5.3° / 5.0°
Antenna Centerline (AGL) 5.49 m / 18.0 ft

Antenna Information

Manufacturer Vertex
Model 9.0 Meter
Gain / Diameter 53.8 dBi / 9.0 m
3-dB / 15-dB Beamwidth 0.20° / 0.40°

Transmit

Max Available RF Power (dBW/4 kHz) 3.7
(dBW/MHz) 27.7

Maximum EIRP (dBW/4 kHz) 57.5
(dBW/MHz) 81.5
(dBW) 80.8

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**
850KFXD / 6420.0
850KFXD / 6425.0

Max Great Circle Coordination Distance 480.8 km / 298.7 mi
Precipitation Scatter Contour Radius 300.3 km / 186.6 mi

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Earth Station Data Sheet

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Coordination Values	CASTLE ROCK, CO	
Licensee Name	Intelsat License LLC	
Latitude (NAD 83)	39° 16' 33.0" N	
Longitude (NAD 83)	104° 48' 34.0" W	
Ground Elevation (AMSL)	2088.0 m / 6850.4 ft	
Antenna Centerline (AGL)	5.49 m / 18.0 ft	
Antenna Model	Vertex 9.0 Meter	
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	3.7 (dBW/4 kHz)	

			Transmit 6.1 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
0	5.33	101.50	-10.00	100.00
5	4.79	96.75	-10.00	100.00
10	3.89	91.75	-10.00	100.00
15	4.01	86.75	-10.00	100.00
20	3.85	81.76	-10.00	100.00
25	3.58	76.76	-10.00	100.00
30	3.74	71.76	-10.00	100.00
35	3.35	66.77	-10.00	100.00
40	2.87	61.78	-10.00	100.00
45	2.58	56.80	-10.00	101.35
50	2.50	51.81	-10.00	102.77
55	1.71	46.86	-9.77	120.66
60	1.36	41.91	-8.56	133.51
65	0.54	37.02	-7.21	174.30
70	0.00	32.15	-5.68	210.33
75	0.00	27.24	-3.88	217.69
80	0.00	22.36	-1.74	226.94
85	0.00	17.56	0.89	239.06
90	0.00	12.89	4.25	255.17
95	0.23	8.45	8.82	277.55
100	0.00	5.60	13.29	468.28
105	0.00	6.23	12.13	340.17
110	0.00	9.71	7.32	272.10
115	0.28	13.21	3.97	245.64
120	0.36	16.79	1.37	224.87
125	0.30	20.38	-0.73	220.99
130	0.52	23.66	-2.35	196.73
135	0.43	27.02	-3.79	198.43
140	0.55	30.04	-4.94	183.61
145	1.02	32.60	-5.83	152.33
150	1.54	34.84	-6.55	134.84
155	1.39	37.33	-7.30	136.03
160	1.46	39.28	-7.85	133.39
165	1.44	40.92	-8.30	132.32
170	1.53	42.03	-8.59	129.10
175	1.93	42.37	-8.68	119.17
180	2.33	42.21	-8.64	111.10

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Earth Station Data Sheet

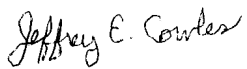
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Antenna Mode	Transmit 6.1 GHz	
Interference Objectives: Long Term	-154.0 dBW/4 kHz	20%
Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	3.7 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
185	2.57	41.73	-8.51	106.70
190	2.96	40.65	-8.23	100.38
195	3.16	39.31	-7.86	100.00
200	3.18	37.74	-7.42	100.00
205	2.89	36.04	-6.92	106.43
210	2.65	33.93	-6.26	113.42
215	2.70	31.28	-5.38	115.74
220	3.32	27.95	-4.16	109.05
225	3.28	24.91	-2.91	114.53
230	3.48	21.53	-1.32	116.96
235	3.42	18.19	0.50	124.87
240	3.40	14.71	2.81	133.87
245	3.51	11.04	5.93	143.40
250	3.53	7.37	10.31	164.23
255	3.67	3.54	18.28	292.58
260	3.61	2.06	24.13	480.76
265	3.77	6.62	11.48	164.82
270	3.98	11.54	5.44	134.00
275	4.00	16.53	1.54	118.60
280	4.02	21.52	-1.32	107.60
285	4.64	26.50	-3.58	100.00
290	5.69	31.50	-5.46	100.00
295	5.86	36.51	-7.06	100.00
300	5.20	41.50	-8.45	100.00
305	5.01	46.50	-9.69	100.00
310	5.30	51.50	-10.00	100.00
315	5.39	56.50	-10.00	100.00
320	4.95	61.50	-10.00	100.00
325	4.63	66.50	-10.00	100.00
330	4.54	71.50	-10.00	100.00
335	4.47	76.50	-10.00	100.00
340	5.31	81.50	-10.00	100.00
345	5.69	86.50	-10.00	100.00
350	5.73	91.50	-10.00	100.00
355	5.67	96.50	-10.00	100.00

Certification

I hereby certify that I am the technically qualified person responsible for the preparation of the frequency coordination data contained in this report. I am familiar with Parts 101 and 25 of the FCC Rules and Regulations and I have either prepared or reviewed the frequency coordination data submitted with this report, and that it is complete and correct to the best of my knowledge and belief.



Jeffrey E. Cowles
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DATED: March 4, 2015