

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: 03/15/2013 - 09/15/2013

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 February 26, 2013.

Company

Adcom 911
AirLife Denver
BNSF Railway Company
Black Hawk Police Department
Black Hills Corporation
Boulder, County of
CBS Communications Services Inc.
CBS Television Stations
Cellular Inc. Network Corporation
City of Aurora
City of Colorado Springs
Colorado Interstate Gas Company
Colorado Springs Utilities
Community TV of Colorado License
Entravision Holdings, LLC
FONES WEST DIGITAL SYSTEMS INC.
Federal Communications Commission
Gilpin County Sheriff's Office
Gray Television Licensee, Inc (KKTU)
Gray Television Licensee, Inc. (KKTU)
Great Western Communications, LLC
Intermountain Rural Electric Association
International Communications Group, Inc.
KMIGT - Heartland
LAKEWOOD, CITY OF
MHO Networks
Multimedia Holdings Corporation
NE Colorado Cellular, Inc.
New Cingular Wireless PCS LLC -Colorado
Nex-Tech Wireless, LLC

Company (Continued)

Pueblo, County of
QWEST CORPORATION
SANGRE DE CRISTO COMMUNICATIONS, INC.
Smoky Hill Cellular of Colorado LP
Sprint Communications Company, LP
Sprint Spectrum LP DBA Sprint PCS
State of Colorado
Stelera Wireless, LLC
Tri State Generation & Transmission
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: 03/08/2013
Job Number: 130226COMSJC05

Administrative Information

Status TEMPORARY (Operation from 03/15/2013 to 09/15/2013)
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 Digital
Satellite Arc 43° W to 150° West Longitude
Azimuth Range 108.7° to 237.8°
Corresponding Elevation Angles 13.0° / 25.2°
Antenna Centerline (AGL) 5.49 m / 18.0 ft

Antenna Information

Manufacturer Vertex Comm.
Model 9 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

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 / 6173.7
850KFXD / 6176.3

Max Great Circle Coordination Distance 254.5 km / 158.1 mi
Precipitation Scatter Contour Radius 272.6 km / 169.4 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 Communications 9 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)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
Transmit 6.1 GHz				
0	5.33	108.57	-10.00	100.00
5	4.79	103.60	-10.00	100.00
10	3.89	98.63	-10.00	100.00
15	4.21	93.70	-10.00	100.00
20	4.17	88.76	-10.00	100.00
25	3.79	83.83	-10.00	100.00
30	3.74	78.89	-10.00	100.00
35	3.58	73.97	-10.00	100.00
40	3.47	69.05	-10.00	100.00
45	2.58	64.21	-10.00	101.35
50	2.50	59.32	-10.00	102.77
55	2.25	54.48	-10.00	107.82
60	1.37	49.76	-10.00	128.29
65	0.83	45.07	-9.35	147.31
70	0.00	40.53	-8.20	202.25
75	0.00	35.88	-6.87	205.68
80	0.00	31.31	-5.39	211.48
85	0.00	26.88	-3.73	218.30
90	0.00	22.66	-1.88	226.30
95	0.23	18.66	0.23	232.83
100	0.00	15.61	2.17	245.26
105	0.00	13.50	3.74	252.56
110	0.00	13.04	4.12	254.52
115	0.28	14.13	3.25	242.00
120	0.38	16.83	1.35	222.69
125	0.31	20.37	-0.73	220.64
130	0.55	23.64	-2.34	195.36
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	1.43	37.29	-7.29	134.92
160	1.46	39.28	-7.85	133.39
165	1.45	40.92	-8.30	132.26
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
185	2.58	41.72	-8.51	106.66

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Earth Station Data Sheet

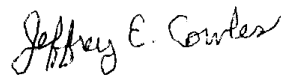
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Max Available RF Power	3.7 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
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	2.77	31.23	-5.36	114.61
220	3.32	27.95	-4.16	109.05
225	3.28	25.23	-3.05	113.97
230	3.48	23.02	-2.05	114.31
235	3.45	21.92	-1.52	116.79
240	3.40	21.90	-1.51	117.76
245	3.51	22.79	-1.94	114.20
250	3.49	24.74	-2.84	111.18
255	3.67	27.27	-3.89	103.70
260	3.61	30.56	-5.13	100.05
265	3.61	34.18	-6.34	100.00
270	3.96	37.91	-7.47	100.00
275	4.00	42.02	-8.59	100.00
280	4.02	46.28	-9.63	100.00
285	4.72	50.44	-10.00	100.00
290	5.69	54.68	-10.00	100.00
295	5.86	59.23	-10.00	100.00
300	5.20	63.97	-10.00	100.00
305	5.14	68.62	-10.00	100.00
310	5.33	73.26	-10.00	100.00
315	5.45	77.93	-10.00	100.00
320	4.95	82.65	-10.00	100.00
325	4.63	87.35	-10.00	100.00
330	4.54	92.03	-10.00	100.00
335	5.10	96.73	-10.00	100.00
340	5.38	101.44	-10.00	100.00
345	5.86	106.17	-10.00	100.00
350	5.86	110.86	-10.00	100.00
355	5.67	113.54	-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 8, 2013