

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: 09/20/2011 - 12/20/2011

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 August 5, 2011.

Company

AIRCELL, LLC - GOGO, LLC
 Accelerated Internet LLC
 Action Communications Inc.
 Adcom 911
 Arvada, City of
 Blanca Telephone Company
 Board of Cnty Comm of Rio Blanco Cnty
 Boulder, County of
 CHEETAH ACCESS TECHNOLOGIES, INC
 Castle Rock, Town of - Utilities
 Cellular Inc. Network Corporation
 Cellular, Inc. Financial Corporation
 CenturyTel of Eagle, Inc.
 City of Aurora
 City of Aurora, Water Department
 Clear Creek, County of
 Clearwire Spectrum Holdings III, LLC
 Colorado 7-Saguache Limited Partnership
 Colorado RSA No. 3 Limited Partnership
 Commnet Four Corners, LLC
 DENVER CITY & COUNTY OF COLORADO
 DENVER, CITY AND COUNTY OF
 Denver Educational Broadcasting Inc.
 ENTRAVISION HOLDINGS, LLC
 Eastern Colorado Independent Networks
 El Paso County Information Technologies
 Elbert County School District C-1
 Federal Communications Commission
 FiberTower Network Services Corp.
 Flow Data, Inc.

Company (Continued)

GARFIELD COUNTY EMERGENCY COMMUNICATIONS
Gogo LLC
Grainland Cooperative
Great Western Communications, LLC
Holy Cross Electric Association, Inc.
Intermountain Rural Electric Association
International Communications Group, Inc.
James Cable Partners L.P.
KLZ RADIO, INC.
LAKEWOOD, CITY OF
LP Broadband, Inc.
METROPOLITAN AREA NETWORKS, INC.
MHO Networks
Millhouse Electronics Inc
Montrose, County of
NE Colorado Cellular, Inc.
New Cingular Wireless PCS LLC -Colorado
New Cingular Wireless PCS, LLC (was WWC)
Nex-Tech Wireless, LLC
Open Range Communications
PACIFICORP
PDC Energy
PITKIN COUNTY TRANSLATOR DEPARTMENT
Platte River Power Authority
Pueblo, City of
QWEST CORPORATION
RED ROCKS DATA CENTER
ROUTT COUNTY COMMUNICATIONS
Roggen Telephone Enterprises, Inc.
SALEM MEDIA OF COLORADO, INC
SAN ISABEL ELECTRIC ASSOCIATION INC.
SCOTTS BLUFF, COUNTY OF
SUMMIT, COUNTY OF
San Isabel Cellular Of Colorado L.P.
SkyWerx Industries, LLC
Smoky Hill Cellular of Colorado LP
South Metro Fire Rescue
Sprint Communications Company, LP
State of Colorado
State of Wyoming - Dept of Transportatio
Stelera Wireless, LLC
TXWI NET LLC
Taos Net, LLC.
Teller County
Thompson School District
Union Pacific Railroad Company
Union Telephone Company, Inc.
Verizon Wireless - Mountain Region

Company

WESTMINSTER CITY COLORADO
West Metro Fire Protection District
Westminster, City of Public Works & Util
XTO Energy, Inc.
Zirkel Wireless, LLC

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: 08/25/2011
Job Number: 110805COMSJC13

Administrative Information

Status: TEMPORARY (Operation from 09/20/2011 to 12/20/2011)
Call Sign: TEMP12
Licensee Code: INTELS
Licensee Name: Intelsat License LLC

Site Information

CASTLE ROCK, COLORADO

Venue Name
Latitude (NAD 83): 39° 16' 38.0" N
Longitude (NAD 83): 104° 48' 26.9" W
Climate Zone: A
Rain Zone: 2
Ground Elevation (AMSL): 2091.1 m / 6860.6 ft

Link Information

Satellite Type: Low Earth Orbit
Mode: TR - Transmit-Receive
Modulation: No Modulation
Minimum Elevation Angle: 5.0°
Azimuth Range: 0.0° to 360°
Antenna Centerline (AGL): 9.45 m / 31.0 ft

Antenna Information

Manufacturer
Model
Gain / Diameter
3-dB / 15-dB Beamwidth

Receive

NEC
12.5 Meter
62.0 dBi / 12.5 m
0.20° / 0.40°

Transmit

NEC
12.5 Meter
64.0 dBi / 12.5 m
0.20° / 0.40°

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

4.7
28.7

Maximum EIRP (dBW/4 kHz)
(dBW/MHz)
(dBW)

68.7
92.0
92.0

Interference Objectives: Long Term -156.0 dBW/MHz 20%
Short Term -146.0 dBW/MHz 0.01%

-151.0 dBW/4 kHz 20%
-128.0 dBW/4 kHz 0.0025%

Frequency Information

Emission / Frequency Range (MHz)

Receive 11.0 GHz

262KN0N / 11199.5
262KN0N / 12498.0
262KN0N / 12499.0

Transmit 14.0 GHz

850KN0N / 14250.0
850KN0N / 14499.8

Max Great Circle Coordination Distance
Precipitation Scatter Contour Radius

319.2 km / 198.3 mi
462.5 km / 287.3 mi

214.8 km / 133.5 mi
249.3 km / 154.9 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' 38.0" N		
Longitude (NAD 83)	104° 48' 26.9" W		
Ground Elevation (AMSL)	2091.1 m / 6860.6 ft		
Antenna Centerline (AGL)	9.45 m / 31.0 ft		
Antenna Model	NEC 12.5 Meter		
Antenna Mode	Receive 11.0 GHz		Transmit 14.0 GHz
Interference Objectives:	Long Term	-156.0 dBW/MHz	20%
	Short Term	-146.0 dBW/MHz	0.01%
Max Available RF Power			-151.0 dBW/4 kHz 20% -128.0 dBW/4 kHz 0.0025% 4.7 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 11.0 GHz		Transmit 14.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	4.74	81.35	4.50	319.20	4.50	214.80
5	4.78	76.82	4.50	319.20	4.50	214.80
10	5.17	72.36	4.50	319.20	4.50	214.80
15	5.03	67.86	4.50	319.20	4.50	214.80
20	5.27	63.47	4.50	319.20	4.50	214.80
25	5.07	59.02	4.50	319.20	4.50	214.80
30	4.81	54.61	4.50	319.20	4.50	214.80
35	4.30	50.15	4.50	319.20	4.50	214.80
40	3.43	45.59	4.50	319.20	4.50	214.80
45	2.98	41.26	4.50	319.20	4.50	214.80
50	2.14	36.84	4.50	319.20	4.50	214.80
55	2.05	32.98	4.50	319.20	4.50	214.80
60	1.93	29.39	4.50	319.20	4.50	214.80
65	0.82	25.44	4.50	319.20	4.50	214.80
70	0.76	22.81	4.50	319.20	4.50	214.80
75	0.00	20.33	4.50	319.20	4.50	214.80
80	0.00	19.61	4.50	319.20	4.50	214.80
85	0.00	20.09	4.50	319.20	4.50	214.80
90	0.00	21.70	4.50	319.20	4.50	214.80
95	0.00	24.21	4.50	319.20	4.50	214.80
100	0.00	27.37	4.50	319.20	4.50	214.80
105	0.00	30.99	4.50	319.20	4.50	214.80
110	0.00	34.92	4.50	319.20	4.50	214.80
115	0.00	39.07	4.50	319.20	4.50	214.80
120	0.23	43.46	4.50	319.20	4.50	214.80
125	0.00	47.78	4.50	319.20	4.50	214.80
130	0.42	52.39	4.50	319.20	4.50	214.80
135	0.36	56.92	4.50	319.20	4.50	214.80
140	0.42	61.52	4.50	319.20	4.50	214.80
145	0.37	66.13	4.50	319.20	4.50	214.80
150	0.50	70.80	4.50	319.20	4.50	214.80
155	0.77	75.49	4.50	319.20	4.50	214.80
160	0.85	80.17	4.50	319.20	4.50	214.80
165	0.93	84.85	4.50	319.20	4.50	214.80
170	0.96	89.53	4.50	319.20	4.50	214.80
175	0.83	94.21	4.50	319.20	4.50	214.80
180	0.77	98.90	4.50	319.20	4.50	214.80
185	0.68	103.58	4.50	319.20	4.50	214.80

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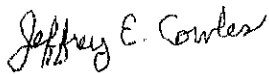
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Antenna Mode	Receive 11.0 GHz		Transmit 14.0 GHz
Interference Objectives:	Long Term	-156.0 dBW/MHz 20%	-151.0 dBW/4 kHz 20%
	Short Term	-146.0 dBW/MHz 0.01%	-128.0 dBW/4 kHz 0.0025%
Max Available RF Power	4.7 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 11.0 GHz		Transmit 14.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	1.31	108.17	4.50	319.20	4.50	214.80
195	0.61	112.90	4.50	319.20	4.50	214.80
200	1.21	117.40	4.50	319.20	4.50	214.80
205	1.05	122.00	4.50	319.20	4.50	214.80
210	1.60	126.37	4.50	319.20	4.50	214.80
215	1.29	130.90	4.50	319.20	4.50	214.80
220	2.02	134.98	4.50	319.20	4.50	214.80
225	2.10	139.15	4.50	319.20	4.50	214.80
230	2.28	143.09	4.50	319.20	4.50	214.80
235	2.27	146.89	4.50	319.20	4.50	214.80
240	2.41	150.27	4.50	319.20	4.50	214.80
245	2.52	153.21	4.50	319.20	4.50	214.80
250	2.66	155.50	4.50	319.20	4.50	214.80
255	2.68	157.08	4.50	319.20	4.50	214.80
260	2.71	157.69	4.50	319.20	4.50	214.80
265	2.81	157.16	4.50	319.20	4.50	214.80
270	3.49	155.13	4.50	319.20	4.50	214.80
275	3.48	152.96	4.50	319.20	4.50	214.80
280	3.58	150.06	4.50	319.20	4.50	214.80
285	3.81	146.62	4.50	319.20	4.50	214.80
290	4.05	142.87	4.50	319.20	4.50	214.80
295	3.87	139.11	4.50	319.20	4.50	214.80
300	3.81	135.08	4.50	319.20	4.50	214.80
305	4.15	130.76	4.50	319.20	4.50	214.80
310	4.93	126.22	4.50	319.20	4.50	214.80
315	5.81	121.64	4.50	319.20	4.50	214.80
320	6.45	117.13	4.50	319.20	4.50	214.80
325	6.01	112.84	4.50	319.20	4.50	214.80
330	5.21	108.54	4.50	319.20	4.50	214.80
335	4.42	104.13	4.50	319.20	4.50	214.80
340	4.30	99.59	4.50	319.20	4.50	214.80
345	4.19	95.03	4.50	319.20	4.50	214.80
350	4.15	90.46	4.50	319.20	4.50	214.80
355	4.49	85.89	4.50	319.20	4.50	214.80

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
Engineer III, Telecommunications
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DATED: August 25, 2011