

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: 04/14/2015 - 07/10/2015

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 10, 2015.

Company

3G Wireless, LLC
AERIAL VIDEO SYSTEMS
AT&T California
Alascom Inc
Ascent Media Network Services, LLC
Bellsouth Telecommunications, Inc.
BFI Licenses, LLC
Borgeson, Tom R.
Broadcast Sports Inc.
CBS Television Stations
CBTV, INC.
Circuit of the Americas, LLC
CNG Communications, Inc.
COLORADO PUBLIC TELEVISION, INC. KDBI-TV
CP Communications, LLC
Carolina Telephone and Telegraph Co
Casper, John
Catholic Television Apostolate
CenturyTel of the Southwest, Inc.
Chicago Comnet Corp
Cincinnati Bell Wireless LLC
Citywide News Network, Inc.
Cohen, Elena
Cowboys Stadium LP
DCI II, INC.
Denver Digital Television, LLC
Direct Broadcast Services, Inc.
Entravision Holdings, LLC
FULL GOSPEL OUTREACH, INC.
Federal Communications Commission
Fishman Brothers Enterprises

Company (Continued)

GOODYEAR TIRE AND RUBBER COMPANY
GSN News, Inc
Gray Television Licensee LLC (Gray TV)
Gray Television Licensee, LLC
HF Enterprises, Inc
Hallco Unlimited, Inc.
Hawaiian Telcom, Inc.
Heiden, William
Interlink Network Corp.
ION MEDIA DENVER LICENSE, INC.
Illinois Bell Telephone Company
Indiana Bell Telephone Company
Information & Display Systems, Inc.
Information Super Station, LLC
International Communications Group, Inc.
KWGN, LLC
Kentucky RSA #3 Cellular General Partner
Kentucky RSA #4 Cellular General Partner
LIN Television Corporation
Loop Inc.
MERCURY COMMUNICATIONS
Metro Networks Communications, Inc.
Metrosat Communications Inc.
Michigan Bell Telephone Company
Microwave Video Systems, LLC
Moreen, Steven K
Multimedia Holdings Corporation
NEW ENGLAND DIGITAL DISTRIBUTION, INC.
NEW ENGLAND SATELLITE SYSTEMS INC
NSM Surveillance
Navajo Communications Company
NorthWest Suburbs Community Access Corp
OHIO BELL TELEPHONE COMPANY
Onboard Images
Pacific Television Center
Penn Service Microwave Co., Inc.
Pikes Peak Television, Inc.
Plateau Telecommunications, Inc.
Plum TV, LLC
Production & Satellite Services, Inc.
Public Television Communications Center
QUICK LINK CONNECTIONS INC
Qwest Corporation
RCC Minnesota Inc. - MN NE ND SD
REMOTE FACILITIES CONSULTING SERVICES
RF Central, LLC
RF Film, Inc
RF Technology, LLC
Radiofone, Inc.
Randy Hermes Production
Regulus Media Services, Inc.
Remote Broadcasts, Inc.
Rocky Mountain Public Broadcasting Netwo

Company (Continued)

Sangre De Cristo Communications, LLC
Scripps Media, Inc. - KMGH TV
Smoky Hills Public Television Corp.
Southwestern Bell Telephone L.P.
Speedshotz, Inc
Syncom Media Group, Inc
Time Warner Cable Pacific West LLC
Total RF Marketing Inc
Tribune Broadcasting Denver License, LLC
TV Microwaves Co.
Unisat, Inc.
United Telephone - Southeast
VERIZON SOUTH INC.
Verizon California Inc.
Verizon Maryland, Inc.
Verizon New England Inc.
Verizon New Jersey, Inc.
Verizon New York, Inc.
Verizon North Inc.
Verizon Northwest Inc.
Verizon Pennsylvania, Inc.
Verizon Virginia, Inc.
Verizon Washington DC, Inc.
Village Video Productions Inc
Vyvx, LLC
Westar Satellite Services LP
Western Technical Services
Wexler Video, Inc.
Winged Vision Inc
Wisconsin Bell, Inc.
Wolfe Air Aviation
Word of God Fellowship, Inc

Society of Broadcast Engineers Frequency Coordinators

Colorado: Front Range Region
 Western Slope Region

Kansas: Entire State Except Kansas City Area

Nebraska: Eastern Region

New Mexico: Entire State (1 GHz Up)

Wyoming: Entire State

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: 03/16/2015
Job Number: 150310COMSJC03

Administrative Information

Status TEMPORARY (Operation from 04/14/2015 to 07/10/2015)
Call Sign TEMP07
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) 2087.36 m / 6848.3 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) 7.74 m / 25.4 ft

Antenna Information

Manufacturer NEC
Model 12.5 Meter
Gain / Diameter 64.0 dBi / 12.5 m
3-dB / 15-dB Beamwidth 0.12° / 0.22°

Transmit

Max Available RF Power (dBW/4 kHz) 4.7
(dBW/MHz) 28.7
Maximum EIRP (dBW/4 kHz) 68.7
(dBW/MHz) 92.7
(dBW) 92.0
Interference Objectives: Long Term -151.0 dBW/4 kHz 20%
Short Term -128.0 dBW/4 kHz 0.0025%

Frequency Information

Emission / Frequency Range (MHz) **Transmit 13.0 GHz**
850KFXD / 13241.0
850KFXD / 13243.0

Max Great Circle Coordination Distance 535.6 km / 332.8 mi
Precipitation Scatter Contour Radius 317.8 km / 197.4 mi

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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)	2087.36 m / 6848.3 ft	
Antenna Centerline (AGL)	7.74 m / 25.4 ft	
Antenna Model	NEC 12.5 Meter	
Antenna Mode	Transmit 13.0 GHz	
Interference Objectives:	Long Term	-151.0 dBW/4 kHz 20%
	Short Term	-128.0 dBW/4 kHz 0.0025%
Max Available RF Power	4.7 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 13.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	5.43	101.50	-10.00	100.00
5	5.55	96.76	-10.00	100.00
10	5.61	91.76	-10.00	100.00
15	6.07	86.76	-10.00	100.00
20	5.89	81.76	-10.00	100.00
25	5.78	76.76	-10.00	100.00
30	5.84	71.76	-10.00	100.00
35	5.61	66.76	-10.00	100.00
40	4.76	61.76	-10.00	100.00
45	4.09	56.76	-10.00	100.00
50	3.20	51.79	-10.00	100.00
55	2.70	46.81	-9.76	100.00
60	2.48	41.83	-8.54	100.00
65	1.40	36.93	-7.19	121.27
70	1.20	31.99	-5.63	130.62
75	0.35	27.18	-3.86	186.64
80	0.00	22.37	-1.74	206.99
85	0.00	17.56	0.89	217.33
90	0.00	12.89	4.24	231.63
95	0.21	8.46	8.81	251.80
100	0.24	5.38	13.74	519.51
105	0.00	6.23	12.13	346.64
110	0.22	9.56	7.49	244.93
115	0.25	13.23	3.96	225.20
120	0.29	16.84	1.34	210.34
125	0.25	20.41	-0.75	206.17
130	0.47	23.69	-2.36	181.48
135	0.41	27.03	-3.79	181.19
140	0.46	30.11	-4.97	171.70
145	0.42	33.07	-5.99	171.47
150	0.58	35.62	-6.79	153.04
155	0.83	37.80	-7.44	137.29
160	0.93	39.75	-7.98	130.99
165	0.98	41.35	-8.41	128.18
170	1.00	42.55	-8.72	126.66
175	0.88	43.40	-8.94	130.86
180	0.85	43.69	-9.01	131.34

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Antenna Model	NEC 12.5 Meter		
Antenna Mode	Transmit 13.0 GHz		
Interference Objectives:	Long Term	-151.0 dBW/4 kHz	20%
	Short Term	-128.0 dBW/4 kHz	0.0025%
Max Available RF Power	4.7 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 13.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
185	0.93	43.36	-8.93	129.05
190	1.35	42.21	-8.63	117.89
195	1.09	41.25	-8.39	125.24
200	1.41	39.33	-7.87	118.90
205	1.52	37.21	-7.27	118.05
210	1.99	34.48	-6.44	109.96
215	1.80	31.99	-5.63	117.00
220	2.46	28.60	-4.41	107.97
225	2.38	25.58	-3.20	113.52
230	2.63	22.15	-1.63	114.48
235	2.58	18.79	0.15	121.87
240	2.67	15.21	2.45	128.70
245	2.80	11.52	5.46	136.71
250	2.91	7.76	9.75	153.47
255	2.95	4.02	16.91	312.74
260	3.09	2.45	22.28	535.59
265	3.14	6.77	11.24	155.94
270	4.17	11.53	5.46	114.15
275	4.14	16.52	1.55	101.16
280	4.12	21.52	-1.32	100.00
285	4.42	26.50	-3.58	100.00
290	4.73	31.50	-5.46	100.00
295	4.37	36.50	-7.06	100.00
300	4.24	41.50	-8.45	100.00
305	4.59	46.50	-9.69	100.00
310	5.61	51.50	-10.00	100.00
315	6.51	56.51	-10.00	100.00
320	7.34	61.52	-10.00	100.00
325	7.22	66.51	-10.00	100.00
330	6.96	71.51	-10.00	100.00
335	6.27	76.50	-10.00	100.00
340	5.49	81.50	-10.00	100.00
345	4.96	86.50	-10.00	100.00
350	4.97	91.50	-10.00	100.00
355	5.13	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 16, 2015