

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-Only Earth Station  
Operation Dates: 04/23/2015 - 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

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

Date: 03/19/2015  
Job Number: 150310COMSJC01

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### Administrative Information

Status TEMPORARY (Operation from 04/23/2015 to 07/10/2015)  
Call Sign TEMP07  
Licensee Code INTELS  
Licensee Name Intelsat License LLC

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### 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

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### 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

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### 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%

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### Frequency Information

Emission / Frequency Range (MHz) **Transmit 13.0 GHz**  
850KFXD / 12751.0  
850KFXD / 13249.0

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

# COMSEARCH

## Earth Station Data Sheet

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<b>Coordination Values</b>	<b>CASTLE ROCK, CO</b>	
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 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)
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  
Engineer III, Telecommunications  
COMSEARCH  
19700 Janelia Farm Blvd.  
Ashburn, Va. 20147

DATED: March 19, 2015