

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: 10/02/2015 - 10/23/2015

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 August 31, 2015.

Company

3G Wireless, LLC
AERIAL VIDEO SYSTEMS
AT&T COMMON SYSTEMS
Ascent Media Network Services, LLC
Borgeson, Tom R.
Broadcast Sports Inc.
CBTV, INC.
COMSEARCH
Casper, John
Catholic Television Apostolate
Chicago Comnet Corp
Cincinnati Bell Wireless LLC
Citywide News Network, Inc.
Cohen, Elena
Colorado Public TV - KBDI
Cowboys Stadium LP
Denver Digital Television, LLC
Entravision Holdings, LLC
FULL GOSPEL OUTREACH, INC.
GSN News, Inc
Goodyear Tire & Rubber Company
Gray Television Licensee, LLC
HF Enterprises, Inc
Hallco Unlimited, Inc.
Hawaiian Telcom, Inc.
Heiden, William

Indiana Bell Telephone Company
Information & Display Systems, Inc.
Information Super Station, LLC
International Communications Group, Inc.
KWGN, LLC
LIN Television Corporation
MERCURY COMMUNICATIONS
Micronet Communications, Inc.
Moreen, Steven K
NEW ENGLAND DIGITAL DISTRIBUTION, INC.
NEW ENGLAND SATELLITE SYSTEMS INC
NSM Surveillance
NorthWest Suburbs Community Access Corp
OHIO BELL TELEPHONE COMPANY
Onboard Images
Paxson Communications Corporation
Pikes Peak Television, Inc.
Plum TV, LLC
Production & Satellite Services, Inc.
Public Television Communications Center
QUICK LINK CONNECTIONS INC
REMOTE FACILITIES CONSULTING SERVICES
RF Central, LLC
RF Film, Inc
Radiofone, Inc.
Radyn, Inc.
Randy Hermes Production
Regulus Media Services, Inc.
Remote Broadcasts, Inc.
Rocky Mountain Public Broadcasting Netwo
SBE - DE, S. NJ, Philly, S.E. PA
Sangre De Cristo Communications, LLC
Smoky Hills Public Television Corp.
Speedshotz, Inc
Syncom Media Group, Inc
Total RF Marketing Inc
Tribune Broadcasting Denver License, LLC
Unisat, Inc.
VERIZON SOUTH INC.
Verizon New York, Inc.
Verizon North Inc.
Verizon Northwest Inc.
Verizon Pennsylvania, Inc.
Verizon Washington DC, Inc.
Village Video Productions Inc

Westar Satellite Services LP
Western Technical Services
Wexler Video, Inc.
Winged Vision Inc
Wolfe Air Aviation
Word of God Fellowship, Inc
Metro Networks Communications, Inc.
Bellsouth Telecommunications, Inc.
CNG Communications, Inc.
Carolina Telephone and Telegraph Co
CenturyTel of the Southwest, Inc.
Clear Channel Broadcasting Licenses, Inc
DCI II, INC.
Direct Broadcast Services, Inc.
Gray Television Licensee LLC (Gray TV)
Hawaiian Telcom, Inc.
Illinois Bell Telephone Company
Kentucky RSA #3 Cellular General Partner
Kentucky RSA #4 Cellular General Partner
Michigan Bell Telephone Company
Multimedia Holdings Corporation
Navajo Communications Company
Pacific Bell Tel Com dba AT&T California
Penn Service Microwave Co., Inc.
Plateau Telecommunications, Inc.
Qwest Corporation
RCC Minnesota Inc. - MN NE ND SD
Scripps Media, Inc. - KMGH TV
Southwestern Bell Telephone L.P.
Time Warner Cable Pacific West LLC
United Telephone - Southeast
Verizon California Inc.
Verizon Maryland, Inc.
Verizon New England Inc.
Verizon New Jersey, Inc.
Verizon Virginia, Inc.
Vyvx, LLC
Wisconsin Bell, Inc.
CBS Television Stations
ION MEDIA DENVER LICENSE, INC.
Alascom Inc

Society of Broadcast Engineers Frequency Coordinators

Colorado: Front Range Region
Western Slope Region

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: 08/31/2015
Job Number: 150831COMSGE02

Administrative Information

Status TEMPORARY (Operation from 10/02/2015 to 10/23/2015)
Call Sign KL-92
Licensee Code INTELS
Licensee Name Intelsat License LLC

Site Information **CASTLE ROCK, CO**

Venue Name
Latitude (NAD 83) 39° 16' 35.2" N
Longitude (NAD 83) 104° 48' 22.9" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 2096.23 m / 6877.4 ft

Link Information

Satellite Type Geostationary
Mode TO - Transmit-Only
Modulation 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 **Transmit - FCC32**

Manufacturer NEC
Model 12.5 Meter
Gain / Diameter 63.7 dBi / 12.5 m
3-dB / 15-dB Beamwidth 0.12° / 0.22°

Max Available RF Power (dBW/4 kHz) 4.7
(dBW/MHz) 28.7

Maximum EIRP (dBW/4 kHz) 68.4
(dBW/MHz) 92.4
(dBW) 92.0

Interference Objectives: Long Term -151.0 dBW/4 kHz 20%
Short Term -128.0 dBW/4 kHz 0.0025%

Frequency Information **Transmit 13.0 GHz**

Emission / Frequency Range (MHz) 850KFXD / 12752.0 - 12764.0
850KFXD / 12811.0 - 13247.0

Max Great Circle Coordination Distance 531.9 km / 330.5 mi
Precipitation Scatter Contour Radius 317.8 km / 197.4 mi

Coordination Values		CASTLE ROCK, CO
Licensee Name		Intelsat License LLC
Latitude (NAD 83)		39° 16' 35.2" N
Longitude (NAD 83)		104° 48' 22.9" W
Ground Elevation (AMSL)		2096.23 m / 6877.4 ft
Antenna Centerline (AGL)		5.49 m / 18.0 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)

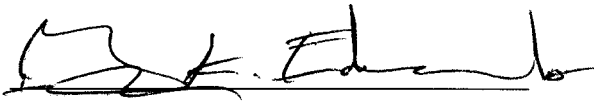
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 13.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	3.80	101.49	-10.00	100.00
5	3.93	96.75	-10.00	100.00
10	4.09	91.76	-10.00	100.00
15	3.41	86.76	-10.00	100.00
20	2.42	81.77	-10.00	100.00
25	2.15	76.78	-10.00	100.00
30	2.12	71.79	-10.00	100.00
35	2.00	66.80	-10.00	100.00
40	1.97	61.81	-10.00	100.00
45	1.82	56.83	-10.00	102.94
50	1.32	51.87	-10.00	114.51
55	0.63	46.94	-9.79	139.13
60	0.37	42.00	-8.58	165.85
65	0.00	37.09	-7.23	188.60
70	0.00	32.15	-5.68	194.32
75	0.00	27.24	-3.88	200.86
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	0.00	8.59	8.64	252.27
100	0.00	5.61	13.28	516.01
105	0.00	6.23	12.13	345.15
110	0.00	9.71	7.32	245.85
115	0.00	13.40	3.82	229.76
120	0.25	16.87	1.32	214.55
125	0.00	20.58	-0.84	210.45
130	0.44	23.71	-2.38	184.85
135	0.36	27.06	-3.81	186.26
140	0.42	30.14	-4.98	175.36
145	0.36	33.12	-6.00	177.23
150	0.50	35.69	-6.81	157.80
155	0.78	37.85	-7.45	139.94
160	0.84	39.83	-8.01	134.84
165	0.96	41.37	-8.42	129.22
170	1.12	42.43	-8.69	123.35
175	0.84	43.44	-8.95	131.64
180	0.82	43.72	-9.02	132.72
185	0.67	43.62	-8.99	140.08

Coordination Values		CASTLE ROCK, CO	
Licensee Name		Intelsat License LLC	
Latitude (NAD 83)		39° 16' 35.2" N	
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Ground Elevation (AMSL)		2096.23 m / 6877.4 ft	
Antenna Centerline (AGL)		5.49 m / 18.0 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)
190	1.30	42.25	-8.65	118.98
195	0.64	41.67	-8.50	143.16
200	1.05	39.65	-7.96	127.66
205	0.93	37.72	-7.41	132.95
210	0.83	35.42	-6.73	139.98
215	1.01	32.62	-5.84	135.05
220	1.11	29.63	-4.79	136.08
225	1.92	25.92	-3.34	121.92
230	2.11	22.52	-1.81	123.45
235	2.22	19.04	0.01	128.13
240	2.14	15.58	2.19	137.05
245	2.33	11.83	5.17	145.17
250	2.35	8.15	9.23	165.91
255	2.46	4.35	16.05	314.62
260	2.48	2.95	20.25	531.92
265	2.51	6.97	10.92	171.00
270	2.52	11.76	5.24	141.40
275	2.74	16.65	1.46	123.96
280	3.08	21.58	-1.35	107.63
285	3.10	26.56	-3.61	100.00
290	3.29	31.54	-5.47	100.00
295	3.30	36.53	-7.07	100.00
300	3.13	41.53	-8.46	100.00
305	3.03	46.53	-9.69	100.00
310	3.51	51.51	-10.00	100.00
315	3.75	56.51	-10.00	100.00
320	4.22	61.50	-10.00	100.00
325	3.95	66.50	-10.00	100.00
330	3.30	71.50	-10.00	100.00
335	3.04	76.50	-10.00	100.00
340	2.98	81.50	-10.00	100.00
345	3.09	86.50	-10.00	100.00
350	3.26	91.50	-10.00	100.00
355	3.38	96.49	-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.

BY: 

Gary K. Edwards
Senior Manager
COMSEARCH
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DATED: September 21, 2015