

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: 11/09/2018 - 12/09/2018

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 September 20, 2018.

Company

3G Wireless, LLC
AERIAL VIDEO SYSTEMS
Alascom Inc
Ascent Media Network Services, LLC
Bellsouth Telecommunications, Inc.
Borgeson, Tom R.
Broadcast Sports Inc.
CBS Television Stations
Carolina Telephone and Telegraph Co
Casper, John
CenturyTel of the Southwest, Inc.
Chicago Comnet Corp
Cincinnati Bell Wireless LLC
Citywide News Network, Inc.
Colorado Public TV - KBDI
Cowboys Stadium LP
DCI II, INC.
Direct Broadcast Services, Inc.
Entravision Holdings, LLC
Federal Communication Commission
Frontier California Inc.
Global Telecom & Technology Americas, In
Gray Television Licensee LLC (Gray TV)
Gray Television Licensee, LLC
HF Enterprises, Inc
Hallco Unlimited, Inc.
Hawaiian Telcom, Inc.
Heiden, William
Illinois Bell Telephone Company
Indiana Bell Telephone Company
Information & Display Systems, Inc.
Information Super Station, LLC
International Communications Group, Inc.
Ion Media Denver License, Inc.
KWGN, LLC
Kentucky RSA #3 Cellular General Partner

Kentucky RSA #4 Cellular General Partner
MERCURY COMMUNICATIONS
Michigan Bell Telephone Company
Moreen, Steven K
Multimedia Holdings Corporation
NEW ENGLAND DIGITAL DISTRIBUTION, INC.
NEXSTAR BROADCASTING, INC.
NSM Surveillance
Navajo Communications Company
NorthWest Suburbs Community Access Corp
Ohio Bell GTelephone Company
Onboard Images
Pacific Bell Tel Com dba AT&T California
Penn Service Microwave Co., Inc.
Pikes Peak Television, Inc.
Plateau Telecommunications, Inc.
Plum TV, LLC
Production & Satellite Services, Inc.
Quick Link Connections Inc.
Qwest Corporation
RCC Minnesota Inc. - MN NE ND SD
REMOTE FACILITIES CONSULTING SERVICES
RF Central, LLC
RF Film, Inc
Radiofone, Inc.
Randy Hermes Production
Remote Broadcasts, Inc.
Rocky Mountain Public Broadcasting Netwo
SIMCHAT TORAH BEIT MIDRASH
Sangre De Cristo Communications, LLC
Scripps Media, Inc. - KMGH TV
Southwestern Bell Telephone L.P.
Speedshotz, Inc
Syncom Media Group, Inc
TTWN Networks, LLC
Tribune Broadcasting Denver License, LLC
Unisat, Inc.
United Telephone - Southeast
VERIZON SOUTH 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.
Vyvx, LLC
Westar Satellite Services LP
Winged Vision Inc
Wisconsin Bell Telephone Company
Wolfe Air Aviation
Word of God Fellowship, 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

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

Date: 09/20/2018
Job Number: 180920COMSGE04

Administrative Information

Status: TEMPORARY (Operation from 11/09/2018 to 12/09/2018)
Call Sign: TEMP12
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' 22.8" W
Climate Zone: A
Rain Zone: 2
Ground Elevation (AMSL): 2084.27 m / 6838.2 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): 7.74 m / 25.4 ft

Antenna Information

Transmit - FCC32

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

Max Available RF Power (dBW/4 kHz): -2.7
(dBW/MHz): 21.3

Maximum EIRP (dBW/4 kHz): 61.3
(dBW/MHz): 85.3

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): 1M00GXD / 12756.0
1M00GXD / 13244.0

Max Great Circle Coordination Distance: 451.3 km / 280.4 mi
Precipitation Scatter Contour Radius: 132.3 km / 82.2 mi

| | | |
|------------------------------------|------------------------|---------|
| Coordination Values | CASTLE ROCK, CO | |
| Licensee Name | Intelsat License LLC | |
| Latitude (NAD 83) | 39° 16' 35.2" N | |
| Longitude (NAD 83) | 104° 48' 22.8" W | |
| Ground Elevation (AMSL) | 2084.27 m / 6838.2 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 | -2.7 (dBW/4 kHz) | |

| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Transmit 13.0 GHz | |
|-------------|-----------------------|----------------------------|--------------------|----------------------------|
| | | | Horizon Gain (dBi) | Coordination Distance (km) |
| 0 | 5.12 | 101.50 | -10.00 | 100.00 |
| 5 | 5.89 | 96.76 | -10.00 | 100.00 |
| 10 | 6.04 | 91.76 | -10.00 | 100.00 |
| 15 | 5.37 | 86.76 | -10.00 | 100.00 |
| 20 | 4.24 | 81.76 | -10.00 | 100.00 |
| 25 | 3.75 | 76.76 | -10.00 | 100.00 |
| 30 | 3.49 | 71.77 | -10.00 | 100.00 |
| 35 | 3.11 | 66.77 | -10.00 | 100.00 |
| 40 | 2.91 | 61.78 | -10.00 | 100.00 |
| 45 | 2.80 | 56.79 | -10.00 | 100.00 |
| 50 | 2.31 | 51.82 | -10.00 | 100.00 |
| 55 | 1.62 | 46.87 | -9.77 | 100.00 |
| 60 | 1.10 | 41.93 | -8.56 | 103.47 |
| 65 | 0.57 | 37.02 | -7.21 | 128.22 |
| 70 | 0.00 | 32.15 | -5.68 | 166.36 |
| 75 | 0.00 | 27.24 | -3.88 | 173.31 |
| 80 | 0.00 | 22.37 | -1.74 | 181.45 |
| 85 | 0.00 | 17.56 | 0.89 | 191.26 |
| 90 | 0.00 | 12.89 | 4.24 | 201.73 |
| 95 | 0.27 | 8.43 | 8.86 | 212.77 |
| 100 | 0.26 | 5.36 | 13.78 | 437.24 |
| 105 | 0.22 | 6.05 | 12.46 | 290.52 |
| 110 | 0.24 | 9.55 | 7.50 | 210.56 |
| 115 | 0.30 | 13.20 | 3.98 | 193.60 |
| 120 | 0.35 | 16.80 | 1.37 | 178.09 |
| 125 | 0.29 | 20.38 | -0.73 | 175.63 |
| 130 | 0.53 | 23.65 | -2.34 | 144.52 |
| 135 | 0.45 | 27.00 | -3.78 | 145.83 |
| 140 | 0.52 | 30.07 | -4.95 | 136.48 |
| 145 | 0.46 | 33.04 | -5.98 | 137.96 |
| 150 | 0.62 | 35.59 | -6.78 | 127.19 |
| 155 | 0.90 | 37.74 | -7.42 | 112.89 |
| 160 | 0.97 | 39.72 | -7.98 | 108.73 |
| 165 | 1.08 | 41.26 | -8.39 | 104.27 |
| 170 | 1.24 | 42.32 | -8.66 | 100.00 |
| 175 | 0.93 | 43.35 | -8.93 | 107.57 |
| 180 | 1.01 | 43.53 | -8.97 | 104.51 |
| 185 | 1.51 | 42.78 | -8.78 | 100.00 |

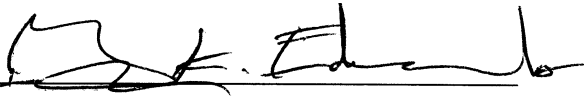
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|------------------------------------|------------------------|---------|
| Coordination Values | CASTLE ROCK, CO | |
| Licensee Name | Intelsat License LLC | |
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| Antenna Model | NEC 12.5 meter | |
| 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 | -2.7 (dBW/4 kHz) | |

| Azimuth (°) | Horizon Elevation (°) | Antenna Discrimination (°) | Transmit 13.0 GHz | |
|-------------|-----------------------|----------------------------|--------------------|----------------------------|
| | | | Horizon Gain (dBi) | Coordination Distance (km) |
| 190 | 1.49 | 42.08 | -8.60 | 100.00 |
| 195 | 1.30 | 41.06 | -8.33 | 100.00 |
| 200 | 1.18 | 39.53 | -7.92 | 103.14 |
| 205 | 1.27 | 37.43 | -7.33 | 102.68 |
| 210 | 1.26 | 35.07 | -6.62 | 104.80 |
| 215 | 1.48 | 32.24 | -5.71 | 102.01 |
| 220 | 1.82 | 29.09 | -4.59 | 100.00 |
| 225 | 2.35 | 25.61 | -3.21 | 100.00 |
| 230 | 2.67 | 22.12 | -1.62 | 100.00 |
| 235 | 2.71 | 18.70 | 0.20 | 100.00 |
| 240 | 2.64 | 15.23 | 2.43 | 102.81 |
| 245 | 2.77 | 11.54 | 5.44 | 110.78 |
| 250 | 2.77 | 7.86 | 9.61 | 126.06 |
| 255 | 2.86 | 4.08 | 16.73 | 254.22 |
| 260 | 2.91 | 2.60 | 21.64 | 451.30 |
| 265 | 2.91 | 6.83 | 11.14 | 128.92 |
| 270 | 3.03 | 11.67 | 5.33 | 105.92 |
| 275 | 3.52 | 16.56 | 1.52 | 100.00 |
| 280 | 3.86 | 21.53 | -1.32 | 100.00 |
| 285 | 3.74 | 26.52 | -3.59 | 100.00 |
| 290 | 3.94 | 31.51 | -5.46 | 100.00 |
| 295 | 4.08 | 36.51 | -7.06 | 100.00 |
| 300 | 3.79 | 41.51 | -8.45 | 100.00 |
| 305 | 3.76 | 46.51 | -9.69 | 100.00 |
| 310 | 4.49 | 51.50 | -10.00 | 100.00 |
| 315 | 5.11 | 56.50 | -10.00 | 100.00 |
| 320 | 5.53 | 61.50 | -10.00 | 100.00 |
| 325 | 5.13 | 66.50 | -10.00 | 100.00 |
| 330 | 4.38 | 71.50 | -10.00 | 100.00 |
| 335 | 4.02 | 76.50 | -10.00 | 100.00 |
| 340 | 3.96 | 81.50 | -10.00 | 100.00 |
| 345 | 4.29 | 86.50 | -10.00 | 100.00 |
| 350 | 4.57 | 91.50 | -10.00 | 100.00 |
| 355 | 4.75 | 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.

BY: _



Gary K. Edwards
Senior Manager
COMSEARCH
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DATED: October 22, 2018