EXHIBIT A

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: 11/01/2017 - 12/01/2017

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 07, 2017.

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
CbTV, Inc.
CenturyTel of the Southwest, Inc.
Chicago Comnet Corp
Cincinnati Bell Wireless LLC
Citywide News Network, Inc.
Cohen, Elena
Colorado Public TV - KBDI
Cowboys Stadium LP
DCI II, INC.
Direct Broadcast Services, Inc.
Entravision Holdings, LLC
Federal Communication Commission
Frontier California Inc.
Full Gospel Outreach, Inc.
Global Telecom & Technology Americas, In
Goodyear Tire & Rubber Company
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.
NEW ENGLAND SATELLITE SYSTEMS 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
SBE Coordinator
Scripps Media, Inc. - KMGH TV
Southwestern Bell Telephone L.P.
Speedshotz, Inc
Syncom Media Group, Inc
TTWN Networks, LLC
Time Warner Cable Pacific West 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.
Village Video Productions Inc
Vyvx, LLC
Westar Satellite Services LP
Western Technical Services
Wexler Video, Inc.
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:	09/07/2017
Job Number:	170907COMSGE02

Administrative Information	
Status	TEMPORARY (Operation from 11/01/2017 to 12/01/2017)
Call Sign	TEMP12
Licensee Code	INTELS
Licensee Name	Intelsat License LLC

Site Information	**CASTLE ROCK, CO**
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	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		12.5 meter	
Gain / Diameter		64.0 dBi / 12.5 m	
3-dB / 15-dB Beamwidth		0.12° / 0.22°	
Max Available RF Power	(dBW/4 kHz)	-1.8	
	(dBW/MHz)	22.2	
Maximum EIRP	(dBW/4 kHz)	62.2	
	(dBW/MHz)	86.2	
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 / 13249.0
Max Great Circle Coordination Distance	459.7 km / 285.6 mi
Precipitation Scatter Contour Radius	143.8 km / 89.4 mi

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	-1.8 (dBW/4 kHz)		

Transmit 13.0 GHz

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	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	102.32
70	1.20	31.99	-5.63	111.42
75	0.35	27.18	-3.86	158.58
80	0.00	22.37	-1.74	184.83
85	0.00	17.56	0.89	194.57
90	0.00	12.89	4.24	205.05
95	0.21	8.46	8.81	222.04
100	0.24	5.38	13.74	445.59
105	0.00	6.23	12.13	297.40
110	0.22	9.56	7.49	216.15
115	0.25	13.23	3.96	200.96
120	0.29	16.84	1.34	187.18
125	0.25	20.41	-0.75	183.53
130	0.47	23.69	-2.36	152.33
135	0.41	27.03	-3.79	152.74
140	0.46	30.11	-4.97	143.99
145	0.42	33.07	-5.99	144.17
150	0.58	35.62	-6.79	130.41
155	0.83	37.80	-7.44	118.29
160	0.93	39.75	-7.98	112.75
165	0.98	41.35	-8.41	109.31
170	1.00	42.55	-8.72	107.94
175	0.88	43.40	-8.94	111.94
180	0.85	43.69	-9.01	113.35
185	0.93	43.36	-8.93	110.23

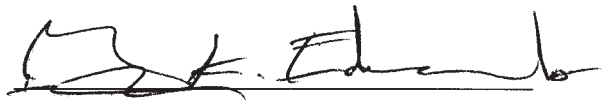
Coordination Values	**CASTLE ROCK, CO**		
Licensee Name	Intelsat License LLC		
Latitude (NAD 83)	39° 16' 38.0" N		
Longitude (NAD 83)	104° 48' 26.9" W		
Ground Elevation (AMSL)	2087.36 m / 6848.3 ft		
Antenna Centerline (AGL)	7.74 m / 25.4 ft		
Antenna Model	NEC 12.5 meter		
Antenna Mode	Transmit 13.0 GHz		
Interference Objectives: Long Term	-151.0 dBW/4 kHz	20%	
Short Term	-128.0 dBW/4 kHz	0.0025%	
Max Available RF Power	-1.8 (dBW/4 kHz)		

Transmit 13.0 GHz

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
190	1.35	42.21	-8.63	100.00
195	1.09	41.25	-8.39	106.53
200	1.41	39.33	-7.87	100.38
205	1.52	37.21	-7.27	100.00
210	1.99	34.48	-6.44	100.00
215	1.80	31.99	-5.63	100.00
220	2.46	28.60	-4.41	100.00
225	2.38	25.58	-3.20	100.00
230	2.63	22.15	-1.63	100.00
235	2.58	18.79	0.15	100.00
240	2.67	15.21	2.45	105.38
245	2.80	11.52	5.46	113.60
250	2.91	7.76	9.75	127.13
255	2.95	4.02	16.91	260.56
260	3.09	2.45	22.28	459.65
265	3.14	6.77	11.24	128.58
270	4.17	11.53	5.46	100.00
275	4.14	16.52	1.55	100.00
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.

BY: 

Gary K. Edwards
Senior Manager
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147

DATED: September 27, 2017

EXHIBIT B

Intelsat License LLC
Castle Rock, Colorado

NEC 12.5 Meter 12.5 Meter Earth Station

1. Background

This Exhibit is presented to demonstrate the extent to which the Intelsat License LLC ("Intelsat") satellite earth station in Castle Rock, Colorado is in compliance with the Federal Communications Commision ("FCC") Report and Order 96-377. The potential inteference from the earth station to U.S. Navy shipboard radiolocation operations ("RADAR") and the National Aeronautics and Space Administration ("NASA") space research activities in the 13.75-14.0 GHz band is addressed in this exhibit. The parameters for the earth station are:

Coordinates (NAD83):	39° 16' 38" N, 104°48' 26.9" W
Satellite Arc Range for Earth Station:	HispaSat-1F at 33˚W to 177˚W
Frequency Band:	13.75-14.00 GHz
Polarizations:	Linear & Circular
Emissions:	1M00F7D
Modulation:	FM/BPSK
Maximum Aggregate Uplink EIRP:	86.2dBW for all Carriers
Transmit Antenna Characteristics	
Antenna Size:	12.5 Meters in Diameter
Anenna Type/Model:	NEC 12.5 Meter
Gain:	64 dBi
RF Power into Antenna Flange:	22.2 dBW or -1.8 dBW/4kHz
Minimum Elevation Angle:	5.3˚ @ 101.8˚ Azimuth
	5˚ @ 258.5˚ Azimuth
Side Lobe Antenna Gain	FCC Reference Pattern

Because the above uplink spectrum is shared with the Federal Government, coordination in this band requires resolution data pertaining to potential interference between the earth stations and both U.S. Navy Department and NASA systems. Potential intefference from the earth station could impact the U.S. Navy and/or NASA systems in two areas. These areas are noted in GCC Report and Order 96-377 dated September 1996, and consist of (1) Radiolocation and Radio Navigation, (2) Data Relay Satellites.

Summary of Coordination Issues:

a.) Potential Impact to Government Radiolocation (Shipboard Radar)
b.) Potential Impact to NASA Tracking and Data Relay Satellite Systems ("TDRSS")

2. Potential Impact to Government Radiolocation (Shipboard Radar)

Radiolocation operations ("RADAR") may occur anywhere in the 13.4-14.0 GHz frequency band aboard ocean-going U.S. Navy ships. FCC order 96-377 allocates the top 250MHz of this 600 MHz band to the Fixed Satellite Service ("FSS") on a co-primary basis with the radiolocation operations and provides for an interference protection level of -167 dBW/m^2/4kHz.

The closest distance to the shoreline from Castle Rock, Colorado earth station is approximately 1350 km. Therefore, there should be no interference to the US Navy RADAR from the Castle Rock, Colorado facility due to distance and terrain between Castle Rock and the shoreline.

3. Potential Impact to NASA's Tracking and Data Relay Satellite System

The geographic location of the Intelsat earth station in Castle Rock, Colorado is outside the 390 km radius coordination contour surrounding NASA's White Sands, New Mexico ground station complex. Therefore the TDRSS space-to-earth link will not be impacted by the Intelsat earth station in Castle Rock, Colorado.

The TDRSS space-to-space link in the 13.772 to 13.778 GHz band is assumed to be protected if an earth station produces and EIRP of less than 71 dBW/6MHz in this band. The 12.5 meter earth station antenna will not transmit in this band. Therefore, there will be no potential interference to the TDRSS space-to-space link.

4. Coordination Result Summary and Conclusions

The results of the analysis and calculation performed in this exhibit indicate that compatible operation between the earth station at the Castle Rock, Colorado facility and U.S. Navy and NASA TDRSS space-to-earth and space-to-space links are possible. No interference to U.S. Navy RADAR or NASA TDRSS operations from the Castle Rock, Colorado site earth station should occur.

Exhibit C

PETITION FOR WAIVER OF SECTIONS 25.137 AND 25.114

Pursuant to Section 25.137 of the Federal Communications Commission's ("Commission" or "FCC") rules, earth station applicants "requesting authority to communicate with a non-U.S. licensed space station" to serve the United States must demonstrate that U.S.-licensed satellite systems have effective competitive opportunities to provide analogues services in certain countries and must provide the same legal and technical information for the non-U.S.-licensed space station as required by Section 25.114 for U.S.-licensed space stations.[1] Intelsat License LLC ("Intelsat") herein seeks authority to provide launch and early orbit phase ("LEOP") services—not commercial services—to the United States, and thus believes that Section 25.137 does not apply.[2]

To the extent the Commission determines, however, that Intelsat's request for authority to provide LEOP services on a special temporary basis is a request to serve the United States with a non-U.S.-licensed satellite, Intelsat respectfully requests a waiver of Sections 25.137 and 25.114 of the Commission's rules.[3] The Commission may grant a waiver for good cause shown.[4] The Commission typically grants a waiver where the particular facts make strict compliance inconsistent with the public interest.[5] In granting a waiver, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.[6] Waiver is therefore appropriate if special circumstances warrant a deviation from the general rule, and such a deviation will serve the public interest.

In this case, good cause exists for a waiver of both Section 25.137 and Section 25.114 of the FCC's rules. With respect to Section 25.114, Intelsat seeks authority only to provide LEOP services for the Hispasat 1F satellite. The information sought by Section 25.114 is not relevant to LEOP services. Moreover, Intelsat does not have—and would not easily be able to obtain—such information because Intelsat is not the operator of the Hispasat 1F satellite, nor is Intelsat in contractual privity with that operator. Rather, an affiliate of

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[1] 47 C.F.R. § 25.137.

[2] *See EchoStar Satellite Operating Company Application for Special Temporary Authority Related to Moving the EchoStar 6 Satellite from the 77° W.L. Orbital Location to the 96.2º W.L. Orbital Location, and to Operate at the 96.2° W.L. Orbital Location*, Order and Authorization, 28 FCC Rcd. 4229 (2013) (noting that operating TT&C earth stations in the United States with a foreign-licensed satellite does not constitute "DBS service").

[3] 47 C.F.R. §§ 25.137 and 25.114.

[4] 47 C.F.R. § 1.3.

[5] *N.E. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) ("*Northeast Cellular*").

[6] *WAIT Radio v. FCC*, 419 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.

Intelsat has a contract with the SSL, the manufacturer of the Hispasat 1F satellite, to conduct LEOP services.

The information required under Section 25.114 of the FCC's rules is not necessary to determine potential harmful interference. The Schedule S information for this satellite would pertain to the operation of the Hispasat 1F satellite at its final orbital location. However, the present application for LEOP services involves communications *prior* to the satellite attaining its final location in the geostationary orbit. In other words, during the LEOP mission, the earth station will not be communicating with a satellite located in the geostationary orbit. Rather, it will be transmitting to a satellite traveling on its "transfer orbit" or "LEOP path," which starts immediately following its separation from a launch vehicle, and ends when the satellite reaches its geostationary orbital location. Moreover, as with any STA, Intelsat will perform the LEOP services on a non-interference basis.

Because it is not relevant to the service for which Intelsat seeks authorization, and because obtaining the information would be a hardship, Intelsat seeks a waiver of all the information required by Section 25.114 of the Commission's rules. Intelsat has provided in this STA request the required technical information that is relevant to the LEOP services for which Intelsat seeks authorization.

Good cause also exists to waive Section 25.137 of the agency's rules. Section 25.137 is designed to ensure that "U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services" in other countries.[7] Here, there is no service being provided by the satellite; it is simply being placed in its orbital location after separating from the launch vehicle. Thus, the purpose of Section 25.137 would not be served by applying these rules to LEOP services. For example, Section 25.137(d)(4) requires earth station applicants requesting authority to operate with a non-U.S.-licensed space station that is not in orbit and operating to post a bond.[8] The underlying purpose of Section 25.137(d)(4)—to provide parity between U.S.-licensed and non-U.S.-licensed commercial satellite systems in discouraging orbital location warehousing—would not be served by requiring Intelsat to post a bond to provide approximately 30 days of LEOP services to the Hispasat 1F satellite.

It is Intelsat's understanding that Hispasat 1F is licensed by Spain, which is a WTO-member country. Thus, the purpose of Section 25.137—to ensure that U.S. satellite operators enjoy "effective competitive opportunities" to serve certain foreign markets—will not be undermined by grant of this waiver request.

Finally, Intelsat notes that it expects to operate with the Hispasat 1F satellite using its U.S. earth station for a period of approximately 30 days. Requiring Intelsat to obtain copious technical and legal information from an unrelated party, where there is no risk of harmful interference and the operations will cease after approximately 30 days, would

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[7] 47 C.F.R. § 25.137(a).

[8] *See* 47 C.F.R. §25.137(d)(4).

pose undue hardship without serving underlying policy objectives. Given these particular facts, the waiver sought herein is plainly appropriate.