

Prepared By

COMSEARCH

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

Prepared For

PanAmSat Licensee Corp.

Temporary Transmit/Receive Earth Station
Operation Dates: 08/15/2010 - 02/15/2011

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 July 1, 2009.

Company

AIRCELL, LLC
Abraham Divestiture Company LLC
Accelerated Internet LLC dba ResortInter
Adcom 911
Arvada, City of
Boulder, County of
CHEETAH ACCESS TECHNOLOGIES, INC
Castle Rock, Town of - Utilities
Citizens Telecommunications Co of Utah
City of Aurora
City of Aurora, Water Department
Clearwire Spectrum Holdings III, LLC
Colorado RSA No. 3 Limited Partnership
Commnet Four Corners, LLC
DENVER, CITY AND COUNTY OF
Denver Educational Broadcasting Inc.
ENTRAVISION HOLDINGS, LLC
Eastern Colorado Independent Networks
El Paso County Information Technologies
Elbert County School District C-1
Emery Telcom Video LLC
FiberTower Network Services Corp.
Intermountain Rural Electric Association
International Communications Group, Inc.
Jab Wireless, Inc.
KLZ RADIO, INC.
LAKEWOOD, CITY OF
LP Broadband, Inc.
MESA NETWORKS, INC
METROPOLITAN AREA NETWORKS, INC.
MHO Networks
Motorola, Inc.

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MESA NETWORKS, INC
METROPOLITAN AREA NETWORKS, INC.
MHO Networks
Motorola, Inc.

Company (Continued)

National Digital TV Ctr - Comcast Media
New Cingular Wireless PCS LLC -Colorado
Nucla Naturita Telephone Company
Open Range Communications
Pueblo, City of
QWEST CORPORATION
RED ROCKS DATA CENTER
Royce's Electronics Inc
SUMMIT, COUNTY OF
San Isabel Cellular Of Colorado L.P.
Sangre DeCristo Cellular Inc.
Smoky Hill Cellular of Colorado LP
Sprint Communications Co., LP
State of Colorado
Stelera Wireless, LLC
UNIVERSITY OF UTAH
UTAH, STATE OF
Union Telephone Company, Inc.
University of Utah - Education Network
Verizon Wireless - Mountain Region
Vyvx , LLC - Colorado
WESTMINSTER CITY COLORADO
WISPER TELECOMMUNICATIONS
WWC Holding Co., Inc
West Metro Fire Protection District
Wheatland Electric Cooperative
Aspen Television, LLC
BARRINGTON COLORADO SPRINGS LICENSE LLC
BETA BROADCASTING, INC.
CBS Television Stations
COLORADO PUBLIC TELEVISION, INC. KDBI-TV
COMMUNITY TV OF COLORADO LICENSE, LLC
DENVER DIGITAL TELEVISION, LLC
FRONT RANGE EDUCATIONAL MEDIA CORP.
FULL GOSPEL OUTREACH, INC.
Gray Television Licensee, Inc.
Gray Television Licensee, Inc. (KKTU)
ION MEDIA DENVER LICENSE, INC.
JONES EARTH SEGMENT INC
KWGN TV, Inc.
MCGRAW-HILL BROADCASTING COMP - KMGH
Multimedia Holdings Corporation
NBC TELEMUNDO LICENSE CO.
PIKES PEAK TELEVISION, INC.
Pikes Peak Broadcasting Company Inc.
ROCKY MOUNTAIN PUBLIC BROADCASTING
SANDE FAMILY TRUST
SANGRE DE CRISTO COMMUNICATIONS, INC.
SMOKY HILLS PUBLIC TELEVISION
Sagamorehill Broadcasting of WY N CO LLC

Company (Continued)

Time Warner NY Cable LLC
Trinity Broadcasting Network Inc
Trinity Broadcasting of Denver, Inc.
Vyvx, LLC
WORD OF GOD FELLOWSHIP, INC.

Society of Broadcast Engineers

Colorado – Front Range
Colorado – Western Slope

There are no unresolved interference objections with the stations contained in this application.

The following section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours.

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
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Date: 07/14/2010
Job Number: 100701COMSJC03

Administrative Information

Status: TEMPORARY (Operation from 08/15/2010 to 02/15/2011)
Call Sign: TEMP02
Licensee Code: PANAS
Licensee Name: PanAmSat Licensee Corp

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: TR - Transmit-Receive
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

Receive

Transmit

Manufacturer	NEC	NEC	
Model	12.5 Meter	12.5 Meter	
Gain / Diameter	62.0 dBi / 12.5 m	64.0 dBi / 12.5 m	
3-dB / 15-dB Beamwidth	0.14° / 0.26°	0.11° / 0.20°	
Max Available RF Power (dBW/4 kHz)		4.7	
(dBW/MHz)		28.0	
Maximum EIRP (dBW/4 kHz)		68.7	
(dBW/MHz)		92.0	
(dBW)		92.0	
Interference Objectives:	Long Term	-156.0 dBW/MHz 20%	-151.0 dBW/4 kHz 20%
	Short Term	-146.0 dBW/MHz 0.01%	-128.0 dBW/4 kHz 0.0025%

Frequency Information

Receive 12.0 GHz

Transmit 14.0 GHz

Emission / Frequency Range (MHz)	180KF2D / 11201.0	850KF2D / 12751.0
	180KF2D / 11202.0	850KF2D / 13249.0
Max Great Circle Coordination Distance	694.4 km / 431.4 mi	526.1 km / 326.9 mi
Precipitation Scatter Contour Radius	604.0 km / 375.3 mi	290.5 km / 180.5 mi

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Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147

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Coordination Values

CASTLE ROCK, CO

Licensee Name	PanAmSat Licensee Corp		
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	Receive 12.0 GHz		Transmit 14.0 GHz
Interference Objectives:	Long Term	-156.0 dBW/MHz 20%	-151.0 dBW/4 kHz 20%
	Short Term	-146.0 dBW/MHz 0.01%	-128.0 dBW/4 kHz 0.0025%
Max Available RF Power			4.7 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 12.0 GHz		Transmit 14.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	5.50	101.50	-10.00	100.00	-10.00	100.00
5	5.74	96.76	-10.00	100.00	-10.00	100.00
10	6.26	91.76	-10.00	100.00	-10.00	100.00
15	6.12	86.76	-10.00	100.00	-10.00	100.00
20	6.37	81.76	-10.00	100.00	-10.00	100.00
25	6.17	76.76	-10.00	100.00	-10.00	100.00
30	5.39	71.76	-10.00	100.00	-10.00	100.00
35	5.41	66.76	-10.00	100.00	-10.00	100.00
40	4.52	61.76	-10.00	101.17	-10.00	100.00
45	3.79	56.77	-10.00	111.12	-10.00	100.00
50	2.88	51.80	-10.00	126.85	-10.00	100.00
55	2.60	46.82	-9.76	131.57	-9.76	100.00
60	2.48	41.83	-8.54	138.93	-8.54	100.00
65	1.38	36.94	-7.19	178.50	-7.19	119.80
70	1.20	31.99	-5.63	191.05	-5.63	129.28
75	0.38	27.18	-3.85	237.91	-3.85	179.59
80	0.00	22.37	-1.74	267.52	-1.74	204.26
85	0.00	17.56	0.89	281.56	0.89	214.69
90	0.00	12.89	4.24	297.58	4.24	228.71
95	0.00	8.59	8.65	326.75	8.65	247.60
100	0.24	5.38	13.74	674.55	13.74	510.06
105	0.00	6.23	12.13	455.42	12.13	339.31
110	0.00	9.71	7.32	317.34	7.32	241.51
115	0.22	13.25	3.94	293.51	3.94	225.38
120	0.26	16.86	1.33	277.25	1.33	210.48
125	0.24	20.42	-0.75	268.84	-0.75	204.63
130	0.44	23.71	-2.37	239.06	-2.37	179.52
135	0.41	27.03	-3.80	235.35	-3.80	176.97
140	0.48	30.10	-4.96	222.85	-4.96	164.69
145	0.42	33.07	-5.99	223.93	-5.99	166.73
150	0.56	35.64	-6.80	210.07	-6.80	150.37
155	0.84	37.79	-7.43	196.53	-7.43	133.93
160	0.92	39.77	-7.99	190.61	-7.99	130.21
165	1.00	41.34	-8.41	184.47	-8.41	125.38
170	1.03	42.52	-8.71	182.17	-8.71	123.73
175	0.87	43.41	-8.94	188.56	-8.94	129.16
180	0.82	43.71	-9.01	190.73	-9.01	129.80
185	0.94	43.35	-8.92	185.18	-8.92	126.34

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Antenna Model	NEC 12.5 Meter		
Antenna Mode	Receive 12.0 GHz		Transmit 14.0 GHz
Interference Objectives:	Long Term	-156.0 dBW/MHz 20%	-151.0 dBW/4 kHz 20%
	Short Term	-146.0 dBW/MHz 0.01%	-128.0 dBW/4 kHz 0.0025%
Max Available RF Power	4.7 (dBW/4 kHz)		

Azimuth (°)	Receive 12.0 GHz		Transmit 14.0 GHz			
	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	1.35	42.21	-8.64	172.37	-8.64	116.00
195	1.01	41.32	-8.40	184.10	-8.40	125.07
200	1.29	39.43	-7.90	177.90	-7.90	119.72
205	1.60	37.14	-7.25	171.04	-7.25	114.09
210	2.15	34.35	-6.40	156.44	-6.40	104.67
215	1.65	32.11	-5.66	177.32	-5.66	118.11
220	2.33	28.70	-4.45	161.85	-4.45	107.82
225	2.38	25.58	-3.20	169.80	-3.20	111.23
230	2.62	22.15	-1.63	172.07	-1.63	112.22
235	2.54	18.81	0.14	182.99	0.14	120.10
240	2.65	15.22	2.44	191.69	2.44	126.54
245	2.81	11.51	5.47	202.58	5.47	133.19
250	2.90	7.77	9.73	219.61	9.73	149.48
255	2.92	4.04	16.84	418.45	16.84	305.26
260	2.98	2.54	21.89	694.35	21.89	526.09
265	3.21	6.75	11.27	221.43	11.27	150.07
270	4.19	11.53	5.46	174.58	5.46	111.60
275	4.04	16.53	1.55	153.06	1.55	100.00
280	4.10	21.52	-1.32	138.51	-1.32	100.00
285	4.35	26.50	-3.58	126.67	-3.58	100.00
290	4.60	31.50	-5.46	116.30	-5.46	100.00
295	4.31	36.50	-7.06	114.13	-7.06	100.00
300	4.35	41.50	-8.45	108.60	-8.45	100.00
305	4.88	46.50	-9.69	100.00	-9.69	100.00
310	5.66	51.50	-10.00	100.00	-10.00	100.00
315	6.90	56.52	-10.00	100.00	-10.00	100.00
320	7.54	61.53	-10.00	100.00	-10.00	100.00
325	7.12	66.51	-10.00	100.00	-10.00	100.00
330	6.30	71.50	-10.00	100.00	-10.00	100.00
335	5.53	76.50	-10.00	100.00	-10.00	100.00
340	5.03	81.50	-10.00	100.00	-10.00	100.00
345	4.92	86.50	-10.00	100.00	-10.00	100.00
350	5.02	91.50	-10.00	100.00	-10.00	100.00
355	5.32	96.50	-10.00	100.00	-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
Principal Frequency Planner
COMSEARCH
19700 Janelia Farm Blvd.
Ashburn, Va. 20147

DATED: July 14, 2010