

EXHIBIT C

**FREQUENCY COORDINATION AND INTERFERENCE
ANALYSIS REPORT**

Prepared for

**PanAmSat Licensee Corp
Napa, California
Call Sign: KA450**

Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, Virginia 20147
December 28, 2009

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1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Further, there will be no restrictions of its operation due to interference considerations.

2. SUMMARY OF RESULTS

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-receive earth station.

Company

AT&T California
Marin County of California

No other carriers reported potential interference cases.

3. SUPPLEMENTAL SHOWING

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.

Coordination data for this earth station was sent to the below listed carriers with a letter dated November 19, 2009.

Company

AT&T California
Alameda County of California
CONTRA COSTA COUNTY COMMUNICATIONS DEPT.
Cagal Cellular Communications Corp.
California Rural Service Area #1, Inc.
California, State of
Citizens Telecommunications of CA Inc.
Clearwire Spectrum Holdings II, LLC
Clearwire Spectrum Holdings III, LLC
Clearwire Spectrum Holdings LLC
Coastal Sierra, Inc/Skyline Broadband
County of San Mateo
DigitalPath, Inc
EAST BAY MUNICIPAL UTILITY DISTRICT
Edge Wireless LLC- Northern California
Fixed Wireless Holdings, LLC
GTE Mobilnet of California LTD Partnersh
HAYWARD, CITY OF
International Communications Group, Inc.
M.U.T. Licensing, LLC
MENDOCINO COUNTY OF
METROPOLITAN AREA NETWORKS, INC.
Marin County of California
MetroPCS California, LLC
Napa, City of
New Cingular Wireless PCS LLC - N CAL
Nextlink Wireless, Inc
Nextweb Inc
Nor Cal Reg Pub Safety Traing Coll - JPA
ROMAN CATHOLIC COMMUNICATIONS CORP
Radio License Holding VIII, LLC
Redding MSA Limited Partnership
Regents of the University of California

Company (Continued)

SAN FRANCISCO CITY & COUNTY CALIFORNIA

SAN JOSE CITY OF (ECOMM)

Sacramento County

Sacramento Valley Limited Partnership

San Joaquin County

Sonoma County, California

Towerstream, Inc

WiLine Networks Inc.

enXco, Inc.

4. EARTH STATION COORDINATION DATA

This 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
 (703)726-5500 <http://www.comsearch.com>

Date: 12/28/2009
 Job Number: 091119COMSJC05

Administrative Information

Status: ENGINEER PROPOSAL
 Call Sign: KA450
 Licensee Code: PANAS
 Licensee Name: PanAmSat Licensee Corp

Site Information

NAPA, CALIFORNIA

Venue Name:
 Latitude (NAD 83): 38° 14' 42.7" N
 Longitude (NAD 83): 122° 16' 48.9" W
 Climate Zone: B
 Rain Zone: 3
 Ground Elevation (AMSL): 7.92 m / 26.0 ft

Link Information

Satellite Type: Geostationary
 Mode: TR - Transmit-Receive
 Modulation: Digital
 Satellite Arc: 180° W to 188° West Longitude
 Azimuth Range: 248.6° to 254.4°
 Corresponding Elevation Angles: 16.5° / 10.3°
 Antenna Centerline (AGL): 5.49 m / 18.0 ft

Antenna Information

Manufacturer:
 Model:
 Gain / Diameter:
 3-dB / 15-dB Beamwidth:

Receive

Vertex Corporation
 9 KPK
 59.2 dBi / 9.0 m
 0.20° / 0.38°

Transmit

Vertex Corporation
 9 KPK
 60.4 dBi / 9.0 m
 0.16° / 0.32°

32K0G7W to 36M0G7W

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

-14.0 -25.9
 -5.0 -1.9

Maximum EIRP (dBW/4 kHz)
 (dBW/MHz)
 (dBW)

46.4 34.5
 55.4 58.5
 55.4 74.0

Interference Objectives: Long Term
 Short Term

-156.0 dBW/MHz 20%
 -146.0 dBW/MHz 0.01%

-151.0 dBW/4 kHz 20%
 -128.0 dBW/4 kHz 0.0025%

Frequency Information

Emission / Frequency Range (MHz)

Receive 11.0 GHz

32K0G7W - 36M0G7W / 10950.0 - 11200.0
 32K0G7W - 36M0G7W / 11450.0 - 11700.0

Transmit 14.0 GHz

32K0G7W - 36M0G7W / 14000.0 - 14500.0

Max Great Circle Coordination Distance
 Precipitation Scatter Contour Radius

496.7 km / 308.6 mi
 388.7 km / 241.5 mi

203.1 km / 126.2 mi
 100.0 km / 62.1 mi

COMSEARCH

Earth Station Data Sheet

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

Coordination Values

NAPA, CA

Licensee Name	PanAmSat Licensee Corp				
Latitude (NAD 83)	38° 14' 42.7" N				
Longitude (NAD 83)	122° 16' 48.9" W				
Ground Elevation (AMSL)	7.92 m / 26.0 ft				
Antenna Centerline (AGL)	5.49 m / 18.0 ft				
Antenna Model	Vertex Corporation 9 KPK				
Antenna Mode	Receive 11.0 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			-14.0 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 11.0 GHz		Transmit 14.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	105.35	-10.00	307.68	-10.00	125.11
5	0.00	110.26	-10.00	307.68	-10.00	125.11
10	0.88	115.24	-10.00	205.56	-10.00	100.00
15	0.66	120.13	-10.00	229.56	-10.00	100.00
20	0.48	125.01	-10.00	250.43	-10.00	100.00
25	0.48	129.89	-10.00	251.20	-10.00	100.00
30	1.25	134.88	-10.00	177.85	-10.00	100.00
35	2.41	139.95	-10.00	139.22	-10.00	100.00
40	1.74	144.69	-10.00	156.77	-10.00	100.00
45	2.83	149.76	-10.00	129.50	-10.00	100.00
50	2.83	154.56	-10.00	129.56	-10.00	100.00
55	3.37	159.45	-10.00	119.44	-10.00	100.00
60	3.77	164.23	-10.00	114.05	-10.00	100.00
65	4.57	167.57	-10.00	106.42	-10.00	100.00
70	4.70	168.17	-10.00	105.52	-10.00	100.00
75	4.49	166.47	-10.00	106.99	-10.00	100.00
80	4.18	163.33	-10.00	109.10	-10.00	100.00
85	4.07	159.58	-10.00	109.80	-10.00	100.00
90	3.85	155.35	-10.00	112.64	-10.00	100.00
95	3.07	150.65	-10.00	124.56	-10.00	100.00
100	3.38	146.28	-10.00	119.24	-10.00	100.00
105	3.12	141.59	-10.00	123.64	-10.00	100.00
110	3.50	137.01	-10.00	117.24	-10.00	100.00
115	4.24	132.41	-10.00	108.71	-10.00	100.00
120	4.93	127.72	-10.00	104.00	-10.00	100.00
125	5.23	122.91	-10.00	101.43	-10.00	100.00
130	4.91	118.01	-10.00	104.13	-10.00	100.00
135	4.88	113.13	-10.00	104.31	-10.00	100.00
140	5.20	108.27	-10.00	101.74	-10.00	100.00
145	4.81	103.35	-10.00	104.78	-10.00	100.00
150	5.36	98.48	-10.00	100.29	-10.00	100.00
155	5.37	93.57	-10.00	100.17	-10.00	100.00
160	5.09	88.67	-10.00	102.73	-10.00	100.00
165	4.05	83.79	-10.00	109.95	-10.00	100.00
170	3.87	78.92	-10.00	112.38	-10.00	100.00
175	3.63	74.06	-10.00	116.26	-10.00	100.00
180	3.28	69.23	-10.00	120.87	-10.00	100.00
185	3.00	64.42	-10.00	125.92	-10.00	100.00

COMSEARCH

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19700 Janelia Farm Boulevard, Ashburn, VA 20147
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Coordination Values

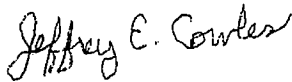
NAPA, CA

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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			-14.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 11.0 GHz		Transmit 14.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	3.00	59.59	-10.00	125.90	-10.00	100.00
195	2.51	54.87	-10.00	136.70	-10.00	100.00
200	2.51	50.11	-10.00	136.65	-10.00	100.00
205	2.07	45.49	-9.45	148.05	-9.45	100.00
210	2.06	40.84	-8.28	153.26	-8.28	100.00
215	1.58	36.43	-7.04	179.52	-7.04	100.00
220	0.69	32.37	-5.75	254.50	-5.75	100.00
225	0.24	28.40	-4.33	347.77	-4.33	140.07
230	0.24	24.52	-2.74	363.40	-2.74	143.79
235	0.00	21.13	-1.12	391.53	-1.12	155.03
240	0.00	17.51	0.92	413.92	0.92	164.16
245	0.00	13.89	3.43	441.17	3.43	176.69
250	0.35	10.86	6.11	426.23	6.11	167.02
255	0.22	10.08	6.92	496.72	6.92	203.05
260	0.33	11.41	5.57	426.96	5.57	167.67
265	0.43	14.44	3.01	366.31	3.01	144.56
270	0.50	18.35	0.41	323.65	0.41	128.06
275	0.49	22.72	-1.91	304.89	-1.91	121.00
280	0.50	27.29	-3.90	287.77	-3.90	114.29
285	0.48	31.99	-5.63	278.09	-5.63	110.35
290	0.87	36.67	-7.11	225.61	-7.11	100.00
295	1.00	41.47	-8.44	202.54	-8.44	100.00
300	0.90	46.35	-9.65	205.46	-9.65	100.00
305	1.14	51.20	-10.00	183.19	-10.00	100.00
310	0.78	56.14	-10.00	216.78	-10.00	100.00
315	0.89	61.04	-10.00	204.41	-10.00	100.00
320	1.06	65.94	-10.00	187.38	-10.00	100.00
325	1.22	70.86	-10.00	179.18	-10.00	100.00
330	0.92	75.80	-10.00	201.80	-10.00	100.00
335	0.00	80.76	-10.00	307.68	-10.00	125.11
340	0.00	85.68	-10.00	307.68	-10.00	125.11
345	0.00	90.59	-10.00	307.68	-10.00	125.11
350	0.00	95.51	-10.00	307.68	-10.00	125.11
355	0.00	100.43	-10.00	307.68	-10.00	125.11

5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, 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 Boulevard
Ashburn, Va. 20147

DATED: December 28, 2009