

FREQUENCY COORDINATION AND INTERFERENCE
ANALYSIS REPORT

Prepared for

SKYPORT INTERNATIONAL, INC.
HOUSTON, TEXAS

Satellite Earth Station

Prepared By:
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NOVEMBER 29, 2004

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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, based upon the restrictions noted in the Summary of Results (Section 2).

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 most cases.

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 and frequency separation are considered on the interfering paths, sufficient losses exist to negate harmful interference from occurring with the proposed transmit-receive earth station. Further, the transmit band will be limited to frequencies 5970.5 to 6078.2 MHz, 6108.7 to 6182.0 MHz, 6212.5 to 6330.2 MHz, and 6360.8 to 6425.0 MHz.

Company

NONE

No 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.

Expedited coordination data for this earth station was e-mailed and/or faxed to the below listed carriers with a letter dated November 15, 2004.

Company

AT&T COMM. OF THE SOUTH CENTRAL STATES

Alda Gold Inc.
American National Insurance Company
Bell Atlantic Mobile Sys of Allentown
CENTERPOINT ENERGY, INC
Cable One, Inc.
Cameron Telephone Company
Central Telephone Company of Texas
Cingular Wireless of Texas RSA #16 Ltd
Corban Networks, Inc.
Dobson Cellular Systems, Inc.
EPEC COMMUNICATIONS CORPORATION
GTE Mobilnet of South Texas LTD Partners
GTE Mobilnet of Texas RSA #17 LTD Prtnsh
HOUSTON NEWS CHANNEL, L.P.
IWL COMMUNICATIONS, INC.
LOWER COLORADO RIVER AUTHORITY
MCI Worldcom Network Services, Inc.
PATHNET, INC. - DEBTOR IN POSSESSION
San Antonio MTA, L.P.
Stratos Offshore Services Company
Transcontinental Gas Pipeline Corp.
Union Pacific Railroad Company
VERESTAR, INC
Verizon Southwest Inc.
Verizon Wireless Texas, LLC

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.

Date: 11/24/2004
Job Number: 041115COMSJC03
Administrative Information
Status ENGINEER PROPOSAL
Call Sign E000361
Licensee Code SKYINT
Licensee Name SkyPort International, Inc.
Site Information HOUSTON, TEXAS
Venue Name
Latitude (NAD 83) 29° 36' 35.5" N
Longitude (NAD 83) 95° 10' 29.7" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 11.28 m / 37.0 ft
Link Information
Satellite Type Geostationary
Mode TR - Transmit-Receive

Modulation Digital

Satellite Arc 21° W to 143° West Longitude

Azimuth Range 98.0° to 245.9°

Corresponding Elevation Angles 5.1° / 28.0°

Antenna Centerline (AGL) 3.96 m / 13.0 ft

Antenna Information Receive Transmit

Manufacturer Vertex Corporation Vertex Corporation

Model 6.1 KPC 6.1 KPC

Gain / Diameter 46.3 dBi / 6.1 m 50.3 dBi / 6.1 m

3-dB / 15-dB Beamwidth 0.82° / 1.72° 0.56° / 1.06°

Max Available RF Power (dBW/4 kHz) -15.0
(dBW/MHz) 9.0

Maximum EIRP (dBW/4 kHz) 35.3
(dBW/MHz) 59.3

Interference Objectives: Long Term -156.0 dBW/MHz 20% -154.0 dBW/4 kHz 20%

Short Term -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%

Frequency Information Receive 4.0 GHz Transmit 6.1 GHz

Emission / Frequency Range (MHz) 1M54G7W - 45M0G7W / 3700.0 - 4200.0 1M54G7W - 45M0G7W / 5970.5 - 6078.2

1M54G7W - 45M0G7W / 6108.7 - 6182.0

1M54G7W - 45M0G7W / 6212.5 - 6330.2

1M54G7W - 45M0G7W / 6360.8 - 6425.0

Max Great Circle Coordination Distance 509.7 km / 316.7 mi 214.1 km / 133.0 mi

Precipitation Scatter Contour Radius 618.9 km / 384.5 mi 100.0 km / 62.1 mi

Coordination Values HOUSTON, TX

Licensee Name SkyPort International, Inc.

Latitude (NAD 83) 29° 36' 35.5" N

Longitude (NAD 83) 95° 10' 29.7" W

Ground Elevation (AMSL) 11.28 m / 37.0 ft

Antenna Centerline (AGL) 3.96 m / 13.0 ft

Antenna Model Vertex Corporation 6.1 KPC

Antenna Mode Receive 4.0 GHz Transmit 6.1 GHz

Interference Objectives: Long Term -156.0 dBW/MHz 20% -154.0 dBW/4 kHz 20%

Short Term -146.0 dBW/MHz 0.01% -131.0 dBW/4 kHz 0.0025%

Max Available RF Power -15.0 (dBW/4 kHz)

		Receive 4.0 GHz	Transmit 6.1 GHz			
	Horizon	Antenna	Horizon	Coordination	Horizon	
	Coordination					
Azimuth (°)	Elevation (°)		Discrimination (°)		Gain (dBi)	Distance (km)
	Gain (dBi)	Distance (km)				
0	0.00	97.94	-10.00	285.28	-10.00	130.16
5	0.00	92.96	-10.00	285.28	-10.00	130.16
10	0.00	87.98	-10.00	285.28	-10.00	130.16
15	0.00	83.00	-10.00	285.28	-10.00	130.16

20	0.00	78.02	-10.00	285.28	-10.00	130.16
25	0.00	73.04	-10.00	285.28	-10.00	130.16
30	0.00	68.06	-10.00	285.28	-10.00	130.16
35	0.00	63.09	-10.00	285.28	-10.00	130.16
40	0.00	58.11	-10.00	285.28	-10.00	130.16
45	0.00	53.14	-10.00	285.28	-10.00	130.16
50	0.00	48.17	-10.00	285.28	-10.00	130.16
55	0.00	43.21	-8.89	292.44	-8.89	133.14
60	0.00	38.26	-7.57	301.22	-7.57	135.51
65	0.00	33.32	-6.07	311.54	-6.07	139.86
70	0.00	28.39	-4.33	324.47	-4.33	145.23
75	0.00	23.49	-2.27	339.47	-2.27	152.06
80	0.00	18.65	0.23	358.40	0.23	161.08
85	0.00	13.91	3.42	383.44	3.42	175.01
90	0.00	9.43	7.64	418.02	7.64	191.29
95	0.00	5.86	12.80	465.02	12.80	209.47
100	0.00	5.44	13.61	509.69	13.61	214.07
105	0.00	8.64	8.58	426.28	8.58	194.91
110	0.00	12.88	4.25	389.52	4.25	178.22
115	0.00	17.12	1.16	365.60	1.16	164.61
120	0.00	21.30	-1.21	347.43	-1.21	155.80
125	0.00	25.41	-3.13	333.20	-3.13	149.17
130	0.00	29.44	-4.72	321.65	-4.72	143.99
135	0.00	33.36	-6.08	311.43	-6.08	139.81
140	0.00	37.15	-7.25	303.38	-7.25	136.41
145	0.00	40.76	-8.26	296.62	-8.26	133.60
150	0.00	44.15	-9.12	290.93	-9.12	132.52
155	0.00	47.25	-9.86	286.17	-9.86	130.54
160	0.00	49.99	-10.00	285.28	-10.00	130.16
165	0.00	52.28	-10.00	285.28	-10.00	130.16
170	0.00	54.01	-10.00	285.28	-10.00	130.16
175	0.00	55.10	-10.00	285.28	-10.00	130.16
180	0.00	55.47	-10.00	285.28	-10.00	130.16

Coordination Values	HOUSTON, TX				
Licensee Name	SkyPort International, Inc.				
Latitude (NAD 83)	29° 36' 35.5" N				
Longitude (NAD 83)	95° 10' 29.7" W				
Ground Elevation (AMSL)	11.28 m / 37.0 ft				
Antenna Centerline (AGL)	3.96 m / 13.0 ft				
Antenna Model	Vertex Corporation 6.1 KPC				
Antenna Mode	Receive 4.0 GHz		Transmit 6.1 GHz		
Interference Objectives:	Long Term	-156.0 dBW/MHz	20%	-154.0 dBW/4 kHz	
	20%				
	Short Term	-146.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	-15.0 (dBW/4 kHz)				

		Receive 4.0 GHz	Transmit 6.1 GHz		
Horizon		Antenna	Horizon	Coordination	Horizon
Coordination					
Azimuth (°)	Elevation (°)	Discrimination (°)		Gain (dBi)	Distance (km)
Gain (dBi)	Distance (km)				
185	0.00	55.10	-10.00	285.28	-10.00 130.16
190	0.00	54.01	-10.00	285.28	-10.00 130.16
195	0.00	52.28	-10.00	285.28	-10.00 130.16

200	0.00	49.99	-10.00	285.28	-10.00	130.16
205	0.00	47.25	-9.86	286.18	-9.86	130.54
210	0.00	44.15	-9.12	290.92	-9.12	132.51
215	0.00	40.76	-8.26	296.62	-8.26	133.60
220	0.00	37.43	-7.33	302.82	-7.33	136.18
225	0.00	34.45	-6.43	309.01	-6.43	138.78
230	0.00	31.91	-5.60	315.45	-5.60	141.28
235	0.00	29.92	-4.90	320.40	-4.90	143.43
240	0.00	28.60	-4.41	323.89	-4.41	144.98
245	0.00	28.06	-4.20	325.40	-4.20	145.65
250	0.00	28.32	-4.30	324.67	-4.30	145.32
255	0.00	29.37	-4.70	321.83	-4.70	144.06
260	0.00	31.14	-5.33	317.33	-5.33	142.09
265	0.00	33.50	-6.12	311.13	-6.12	139.69
270	0.00	36.34	-7.01	305.02	-7.01	137.10
275	0.00	39.55	-7.93	298.80	-7.93	134.50
280	0.00	43.05	-8.85	292.70	-8.85	133.25
285	0.00	46.78	-9.75	286.86	-9.75	130.83
290	0.00	50.68	-10.00	285.28	-10.00	130.16
295	0.00	54.71	-10.00	285.28	-10.00	130.16
300	0.00	58.85	-10.00	285.28	-10.00	130.16
305	0.00	63.06	-10.00	285.28	-10.00	130.16
310	0.00	67.34	-10.00	285.28	-10.00	130.16
315	0.00	71.66	-10.00	285.28	-10.00	130.16
320	0.00	76.02	-10.00	285.28	-10.00	130.16
325	0.00	80.41	-10.00	285.28	-10.00	130.16
330	0.00	84.81	-10.00	285.28	-10.00	130.16
335	0.00	89.22	-10.00	285.28	-10.00	130.16
340	0.00	93.63	-10.00	285.28	-10.00	130.16
345	0.00	98.04	-10.00	285.28	-10.00	130.16
350	0.00	102.43	-10.00	285.28	-10.00	130.16
355	0.00	102.92	-10.00	285.28	-10.00	130.16

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
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ASHBURN, VA 20147

DATED: NOVEMBER 29, 2004

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