



COMSEARCH

A CommScope Company

September 17, 2010

Re: The Boeing Company
KENT, WA (3.9 Meter)
Ka-Band Transmit-Receive Earth Station
Job Number: 100917COMSGE06

Dear Frequency Coordinator:

This notice is being provided in accordance with Section 25.203(c) of the FCC Rules and Regulations. We are forwarding the attached coordination data on behalf of The Boeing Company, P.O. Box 3707 Seattle, WA 98124 for a Ka-Band Transmit-Receive Earth Station to be located in KENT, WA.

The coordination notice is being circulated to the owners (or their protection agents) of all existing or proposed terrestrial facilities operating in a shared frequency band within the coordination contours of the proposed station(s).

We respectfully request that you examine this data for its interference potential with your system(s). In the event that your analysis identifies potential interference cases that have not been resolved, please contact us by October 22, 2010.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards
Senior Manager
gedwards@comsearch.com

Enclosure(s)

Date: 09/17/2010
 Job Number: <PCNJobCode>

Administrative Information

Status ENGINEER PROPOSAL
 Call Sign <PCNCallSign>
 Licensee Code S00114
 Licensee Name The Boeing Company

Site Information

KENT, WA

Venue Name
 Latitude (NAD 83) 47° 25' 8.0" N
 Longitude (NAD 83) 122° 15' 10.0" W
 Climate Zone A
 Rain Zone 3
 Ground Elevation (AMSL) 8.11 m / 26.6 ft

Link Information

Satellite Type Geostationary
 Mode TR - Transmit-Receive
 Modulation Digital
 Satellite Arc 55° W to 180° West Longitude
 Azimuth Range 107.2° to 245.1°
 Corresponding Elevation Angles 6.5° / 12.7°
 Antenna Centerline (AGL) 3.66 m / 12.0 ft

Antenna Information

Receive - FCC32

Transmit - FCC32

Manufacturer	Vertex RSI 3.9 Meter	Vertex RSI 3.9 Meter
Model	FMA	FMA
Gain / Diameter	56.7 dBi / 3.9 m	59.3 dBi / 3.9 m
3-dB / 15-dB Beamwidth	0.23° / 0.48°	0.17° / 0.36°
Max Available RF Power	(dBW/4 kHz) (dBW/MHz)	-24.0 0.0
Maximum EIRP	(dBW/4 kHz) (dBW/MHz)	35.3 59.3
Interference Objectives:	Long Term	-156.0 dBW/MHz 20%
	Short Term	-146.0 dBW/MHz 0.01%
		-151.0 dBW/4 kHz 20%
		-128.0 dBW/4 kHz 0.0025%

Frequency Information

Receive 18.0 GHz

Transmit 29.0 GHz

Emission / Frequency Range (MHz)	18M0G7D - 39M0G7D / 18300.0 - 18800.0	18M0G7D - 39M0G7D / 28350.0 - 28600.0
	18M0G7D - 39M0G7D / 19700.0 - 20200.0	18M0G7D - 39M0G7D / 29250.0 - 30000.0

Max Great Circle Coordination Distance	266.7 km / 165.7 mi	143.8 km / 89.3 mi
Precipitation Scatter Contour Radius	100.0 km / 62.1 mi	100.0 km / 62.1 mi

Coordination Values		KENT, WA			
Licensee Name		Boeing Company			
Latitude (NAD 83)		47° 25' 8.0" N			
Longitude (NAD 83)		122° 15' 10.0" W			
Ground Elevation (AMSL)		8.11 m / 26.6 ft			
Antenna Centerline (AGL)		3.66 m / 12.0 ft			
Antenna Model		Vertex RSI 3.9 Meter			
Antenna Mode		Receive 18.0 GHz		Transmit 29.0 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		-24.0 (dBW/4 kHz)			

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 18.0 GHz		Transmit 29.0 GHz		Coordination Distance (km)
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)	
0	0.71	107.07	-10.00	105.38	-10.00	100.00	
5	0.99	102.10	-10.00	100.00	-10.00	100.00	
10	0.77	97.12	-10.00	102.96	-10.00	100.00	
15	0.70	92.15	-10.00	105.87	-10.00	100.00	
20	0.00	87.18	-10.00	136.18	-10.00	100.00	
25	0.00	82.21	-10.00	136.18	-10.00	100.00	
30	0.24	77.24	-10.00	132.60	-10.00	100.00	
35	0.79	72.25	-10.00	101.78	-10.00	100.00	
40	0.94	67.27	-10.00	100.00	-10.00	100.00	
45	1.21	62.29	-10.00	100.00	-10.00	100.00	
50	1.22	57.32	-10.00	100.00	-10.00	100.00	
55	1.25	52.35	-10.00	100.00	-10.00	100.00	
60	1.56	47.36	-9.88	100.00	-9.88	100.00	
65	1.70	42.38	-8.68	100.00	-8.68	100.00	
70	1.69	37.43	-7.33	100.00	-7.33	100.00	
75	1.70	32.48	-5.79	100.00	-5.79	100.00	
80	1.79	27.54	-4.00	100.00	-4.00	100.00	
85	1.77	22.64	-1.87	100.00	-1.87	100.00	
90	1.77	17.79	0.75	103.95	0.75	100.00	
95	1.87	13.01	4.14	112.04	4.14	100.00	
100	1.87	8.53	8.72	127.05	8.72	100.00	
105	1.74	5.25	14.01	266.67	14.01	143.76	
110	1.55	5.73	13.05	196.76	13.05	112.40	
115	1.56	8.80	8.38	132.09	8.38	100.00	
120	1.48	11.97	5.05	123.86	5.05	100.00	
125	1.37	15.05	2.56	118.40	2.56	100.00	
130	1.38	17.92	0.67	112.64	0.67	100.00	
135	1.48	20.58	-0.84	106.23	-0.84	100.00	
140	1.23	23.35	-2.21	108.29	-2.21	100.00	
145	0.98	25.93	-3.35	111.32	-3.35	100.00	
150	0.85	28.19	-4.25	114.13	-4.25	100.00	
155	0.81	30.12	-4.97	113.94	-4.97	100.00	
160	0.22	32.27	-5.72	146.61	-5.72	100.00	
165	0.00	33.79	-6.22	147.10	-6.22	100.00	
170	0.00	34.74	-6.52	146.19	-6.52	100.00	
175	0.00	35.32	-6.70	145.65	-6.70	100.00	
180	0.00	35.51	-6.76	145.47	-6.76	100.00	
185	0.00	35.32	-6.70	145.65	-6.70	100.00	

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Max Available RF Power		-24.0 (dBW/4 kHz)			

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 18.0 GHz		Transmit 29.0 GHz		Coordination Distance (km)
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)	
190	0.69	34.06	-6.31	115.57	-6.31	100.00	
195	0.97	32.85	-5.91	105.01	-5.91	100.00	
200	1.01	31.53	-5.47	104.66	-5.47	100.00	
205	1.26	29.71	-4.82	100.50	-4.82	100.00	
210	1.39	27.71	-4.07	100.00	-4.07	100.00	
215	1.42	25.55	-3.18	101.00	-3.18	100.00	
220	1.70	22.95	-2.02	100.00	-2.02	100.00	
225	1.56	20.50	-0.80	104.38	-0.80	100.00	
230	1.82	17.56	0.89	103.11	0.89	100.00	
235	2.00	14.55	2.93	105.22	2.93	100.00	
240	2.22	11.61	5.38	108.97	5.38	100.00	
245	2.46	10.22	6.76	109.29	6.76	100.00	
250	2.55	11.25	5.72	104.17	5.72	100.00	
255	2.46	14.21	3.19	100.00	3.19	100.00	
260	2.28	18.12	0.54	100.00	0.54	100.00	
265	2.10	22.46	-1.78	100.00	-1.78	100.00	
270	2.25	26.89	-3.74	100.00	-3.74	100.00	
275	2.41	31.48	-5.45	100.00	-5.45	100.00	
280	2.58	36.18	-6.96	100.00	-6.96	100.00	
285	2.69	40.95	-8.31	100.00	-8.31	100.00	
290	2.47	45.83	-9.53	100.00	-9.53	100.00	
295	2.59	50.67	-10.00	100.00	-10.00	100.00	
300	2.77	55.52	-10.00	100.00	-10.00	100.00	
305	2.82	60.41	-10.00	100.00	-10.00	100.00	
310	2.74	65.33	-10.00	100.00	-10.00	100.00	
315	2.48	70.25	-10.00	100.00	-10.00	100.00	
320	2.48	75.17	-10.00	100.00	-10.00	100.00	
325	2.48	80.08	-10.00	100.00	-10.00	100.00	
330	2.12	85.01	-10.00	100.00	-10.00	100.00	
335	1.72	89.93	-10.00	100.00	-10.00	100.00	
340	1.31	94.83	-10.00	100.00	-10.00	100.00	
345	1.00	99.72	-10.00	100.00	-10.00	100.00	
350	0.40	104.57	-10.00	121.50	-10.00	100.00	
355	0.71	109.47	-10.00	105.12	-10.00	100.00	