Contoru-to-Contour Allocations Study
Washington State University

REFERENCE	CH# 217D - 91.3 MHz, Pwr= 0.0645 kW DA, HAAT= 318.1 M, COR= 898 M	DISPLAY DATES
46 27 26.0 N.	Average Protected F(50-50)= 16.56 km	DATA 06-23-11
117 06 00.0 W.	Standard Directional	SEARCH 06-23-11

CH CALL	TYPE ANT	AZI	DIST	LAT	PWR(kW)	INT(km)	PRO(km)	*IN*	*OUT*
CITY	STATE	<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
215D K215EB	LIC DC_	0.0	0.0	46 27 26.0	0.052	0.1	2.4	-2.6*	-2.5* <-#
Clarkston	WA	0.0	BLFT20041118ACK	117 06 00.0	318	898	Washington State Universit		
219C1 KRFA-FM	LIC _VX	21.6	26.9	46 40 54.0	28.000	6.7	57.8	18.4	-31.0* <-$
Moscow	ID	201.7	BLED20090312ABT	116 58 13.0	282	1128	Washington State Universit		
216C KPBX-FM	LIC _CN	0.6	123.8	47 34 13.0	56.000	134.8	91.7	-14.3*	28.4
Spokane	WA	180.6	BMLED19831028AB	117 05 00.0	725	1571	Spokane Public Radio, Inc.		
217C2 KGTS	LIC _CX	238.2	97.7	45 59 20.0	7.000	95.8	34.5	-7.4	24.2
College Place	WA	57.4	BLED20021217ABR	118 10 29.0	381	1139	Walla Walla College		
217D K217DR	LIC _V_	131.0	100.2	45 51 42.0	0.010	59.0	15.9	19.5	15.2
Grangeville	ID	311.7	BMLFT20051031AFJ	116 07 25.0	737	1891	Calvary Chapel Of Twin Fal		
214A KZUU	LIC _CX	351.2	30.8	46 43 51.0	0.420	1.4	8.1	26.8	22.6
Pullman	WA	171.2	BLED20090210AAL	117 09 42.0	30	821	Washington State Universit		
215C1 KKRH	LIC _CX	131.0	100.2	45 51 42.0	1.900	2.9	58.3	76.4	41.3
Grangeville	ID	311.7	BLED20110330ACC	116 07 25.0	709	1883	Calvary Chapel Of Grangevi		
215D K215AB	LIC _C_	110.9	87.6	46 10 17.0	0.133	0.8	12.3	70.2	74.8
Kamiah	ID	291.7	BLFT20041220ACF	116 02 15.0	206	964	Alacca Bible Conference		
220D K220JL	LIC DC_	243.6	106.0	46 01 35.0	0.135	0.8	5.8	96.5	100.0
Walla Walla	WA	62.7	BLFT20090529AQR	118 19 46.0	-60	315	Edgewater Broadcasting, In		
218C1 KPLG	LIC _CX	58.3	198.3	47 22 22.0	1.800	89.1	60.9	99.3	132.3
Plains	MT	239.9	BMLED20040607AAB	114 51 31.0	1232	2084	Hi-line Radio Fellowship,		
220C3 KSFC	CP NCX	348.6	153.9	47 48 48.0	2.200	3.0	42.2	148.3	111.6
Spokane	WA	168.3	BMPED20091215AES	117 30 23.0	335	958	Spokane Public Radio, Inc.		
215C2 KRBM	LIC _EY	237.3	175.4	45 35 21.0	25.000	6.9	59.9	159.4	115.3
Pendleton	OR	55.9	BLED19871019KC	118 59 53.0	180	723	Oregon Public Broadcasting		
220A KSFC	LIC _CX	348.6	153.9	47 48 48.0	0.450	1.5	30.1	149.8	123.7
Spokane	WA	168.3	BMLED20090112AVK	117 30 23.0	348	972	Spokane Public Radio, Inc.		
219C3 KBLD	LIC _CN	256.0	163.8	46 04 58.0	1.800	2.6	37.1	155.7	126.6
Kennewick	WA	74.5	BLED19980102KA	119 09 39.0	296	640	Calvary Chapel Of Tri-citi		

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.
"#" applicant's existing facility, "$" See detailed exhibit showing no interference to people

HOW TO READ THE FM COMPUTER PRINT-OUT

Translator Reference Station

The computer printout should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table. Contour distances are in kilometers and are predicted using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90. The column labeled "* OUT *" shows the greatest distance in kilometers of overlap (or smallest distance of clearance) between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing contour overlap. Since translators are able to receive interference there is no "In" or incoming column in this report.

Listed antenna heights and power are the specific antenna heights and power from the FCC database.

Under the "AZI" column, the first row of numbers indicate the True North azimuths from the reference station toward the database stations, while the numbers in the second row indicate the reverse bearings from the database stations to the reference station. Bearings are calculated using spherical trigonometry.

The columns labeled "INT" and "PRO" contain the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

For I.F. relationships the minimum spacings the "IN" and "OUT" columns change their significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column follows the **available clear space** separation in kilometers. Minimum separation distances when displayed are taken from Sec 73.207 of the rules as amended. Canadian and Mexican separation distances, U/D ratios and protected contour values are from the US/Mexican Working Agreement and the US/Canada Working Agreement".

The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. "Z" indicates a 73.215 directional. An "N" indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt or an "X" if the commission is not sure, otherwise it will be an "N" or left blank.
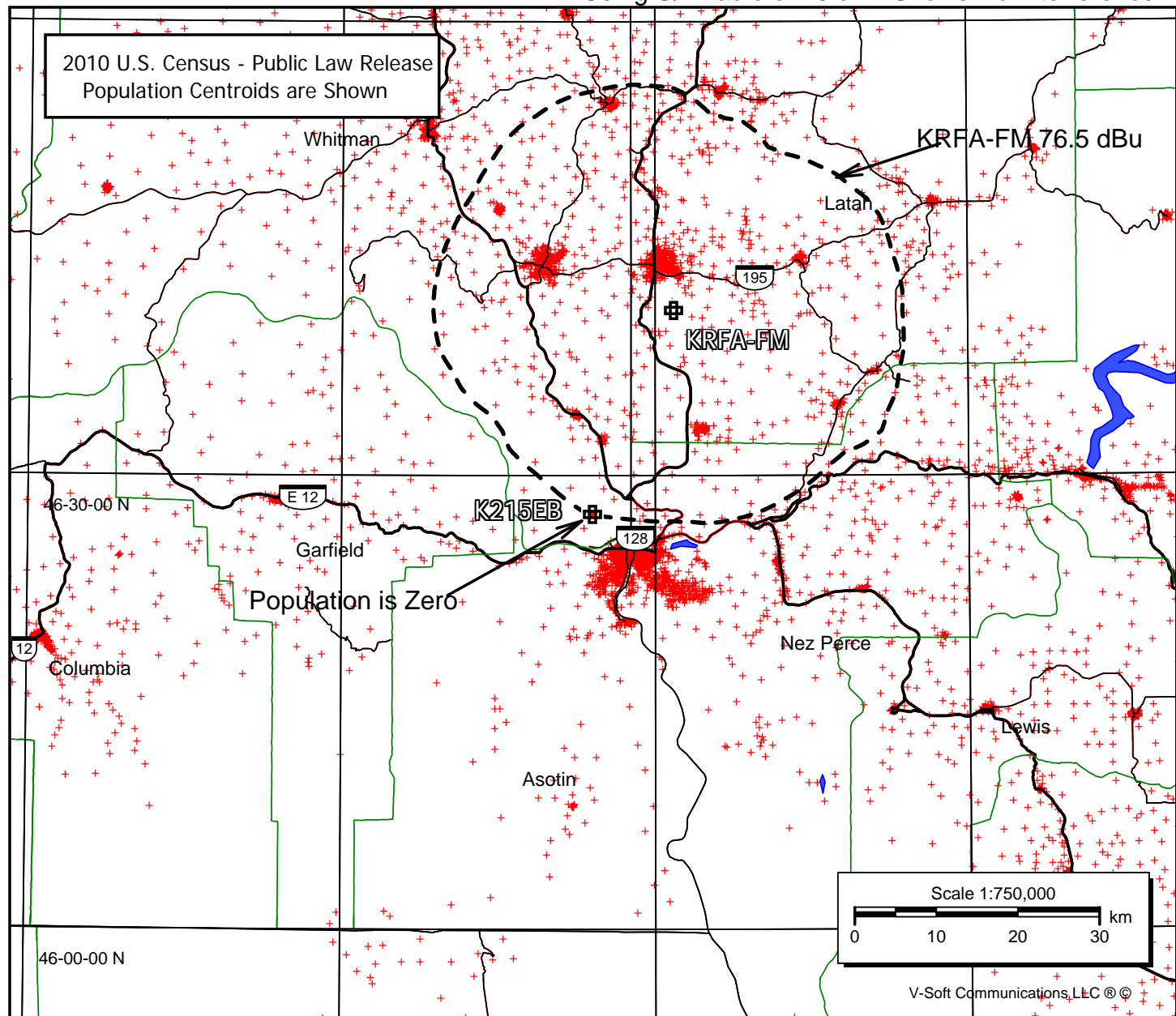
Using U/D radio of 40 dB - Shows No Interference

K215EB
BLFT20041118ACK
Latitude: 46-27-26 N
Longitude: 117-06-00 W
ERP: 0.065 kW
Channel: 215
Frequency: 90.9 MHz
AMSL Height: 898.0 m
Elevation: 890.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

KRFA-FM
BLED20090312ABT
Latitude: 46-40-54 N
Longitude: 116-58-13 W
ERP: 28.00 kW
Channel: 219
Frequency: 91.7 MHz
AMSL Height: 1128.0 m
Elevation: 1097.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

V Doug Vernier
401 Main Street, Suite 213
Cedar Falls, Iowa 50613
Telecommunication Consultants
dvernier@v-soft.com   (319)266-8402

2010 U.S. Census - Public Law Release
Population Centroids are Shown

Whitman

KRFA-FM 76.5 dBu

Latah

195

KRFA-FM

46-30-00 N

E 12

Garfield

K215EB

128

Population is Zero

Nez Perce

12

Columbia

Lewis

Asotin

46-00-00 N

Scale 1:750,000

km
0   10   20   30

V-Soft Communications, LLC ® ©

K215EB
BLFT20041118ACK
Latitude: 46-27-26 N
Longitude: 117-06-00 W
ERP: 0.065 kW
Channel: 215
Frequency: 90.9 MHz
AMSL Height: 898.0 m
Elevation: 890.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

KRFA-FM
BLED20090312ABT
Latitude: 46-40-54 N
Longitude: 116-58-13 W
ERP: 28.00 kW
Channel: 219
Frequency: 91.7 MHz
AMSL Height: 1128.0 m
Elevation: 1097.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

Stout Rd

KRFA 76.5 dBu

116.5 dBu

K215EB

Population is Zero

84.7 Meters

Doug Vernier
401 Main Street, Suite 213
Cedar Falls, Iowa 50613
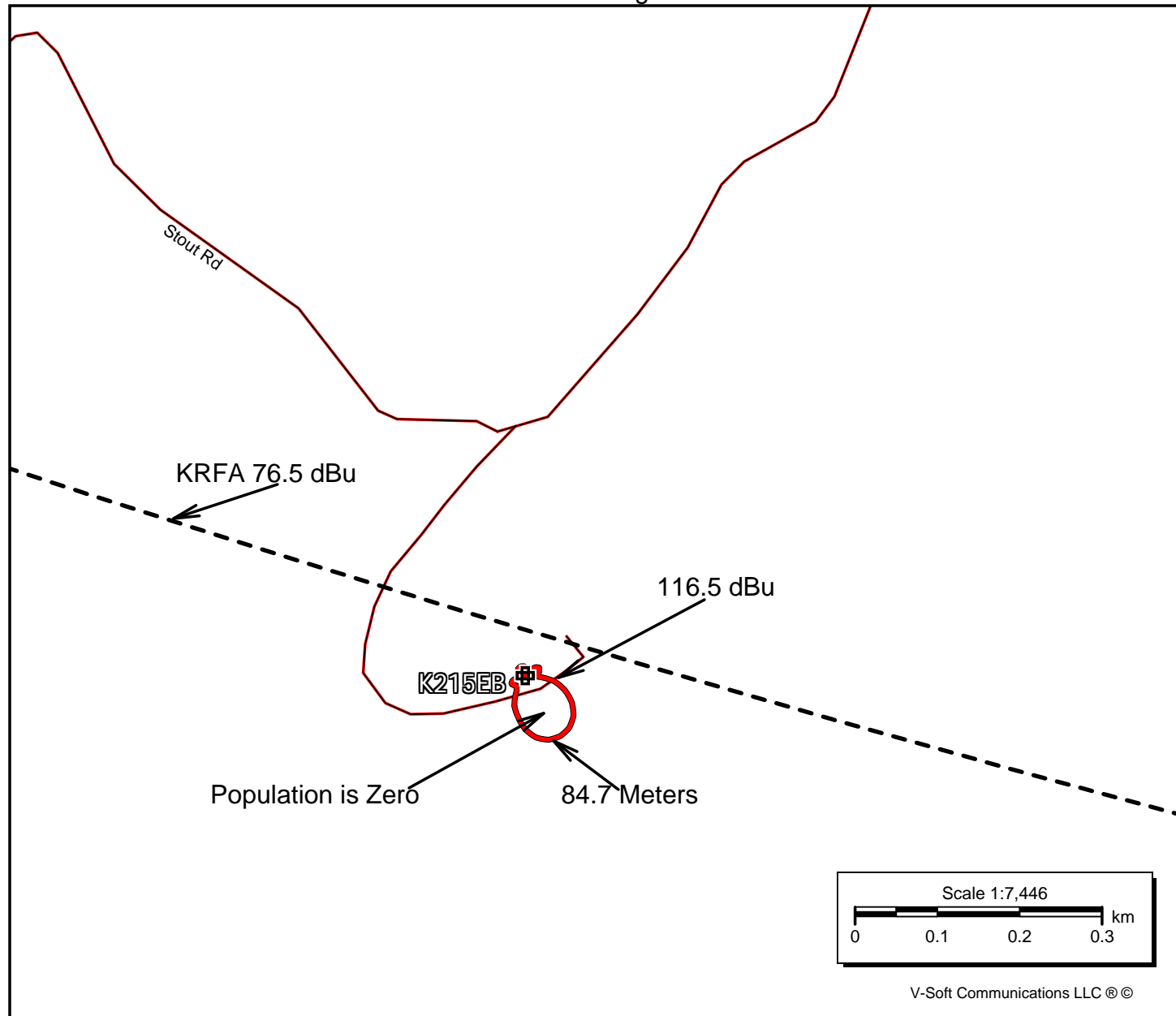**Telecommunication Consultants**
dvernier@v-soft.com   (319)266-8402

Scale 1:7,446

km

0   0.1   0.2   0.3

V-Soft Communications LLC ® ©

TOPOGRAPHIC MAP

Topographic Map shows no tall buildings or major roads near the site.

Co-Channel, Contour-to-Contour Study
Washington State University

FMCommander Single Allocation Study - 06-22-2011 - FCC NGDC 30 Sec
K215EB's Overlaps (In= 19.54 km, Out= 15.24 km)

K215EB CH 217 D DA   K217DR CH 217 D   BMLFT20051031AFJ
Lat= 46 27 26.0,   Lng= 117 06 00.0   Lat= 45 51 42.0,   Lng= 116 07 25.0
0.065 kW 318.1 M HAAT, 898 M COR   0.01 kW 737 M HAAT, 1891 M COR
Prot.= 60 dBu, Intef.= 40 dBu   Prot.= 60 dBu, Intef.= 40 dBu
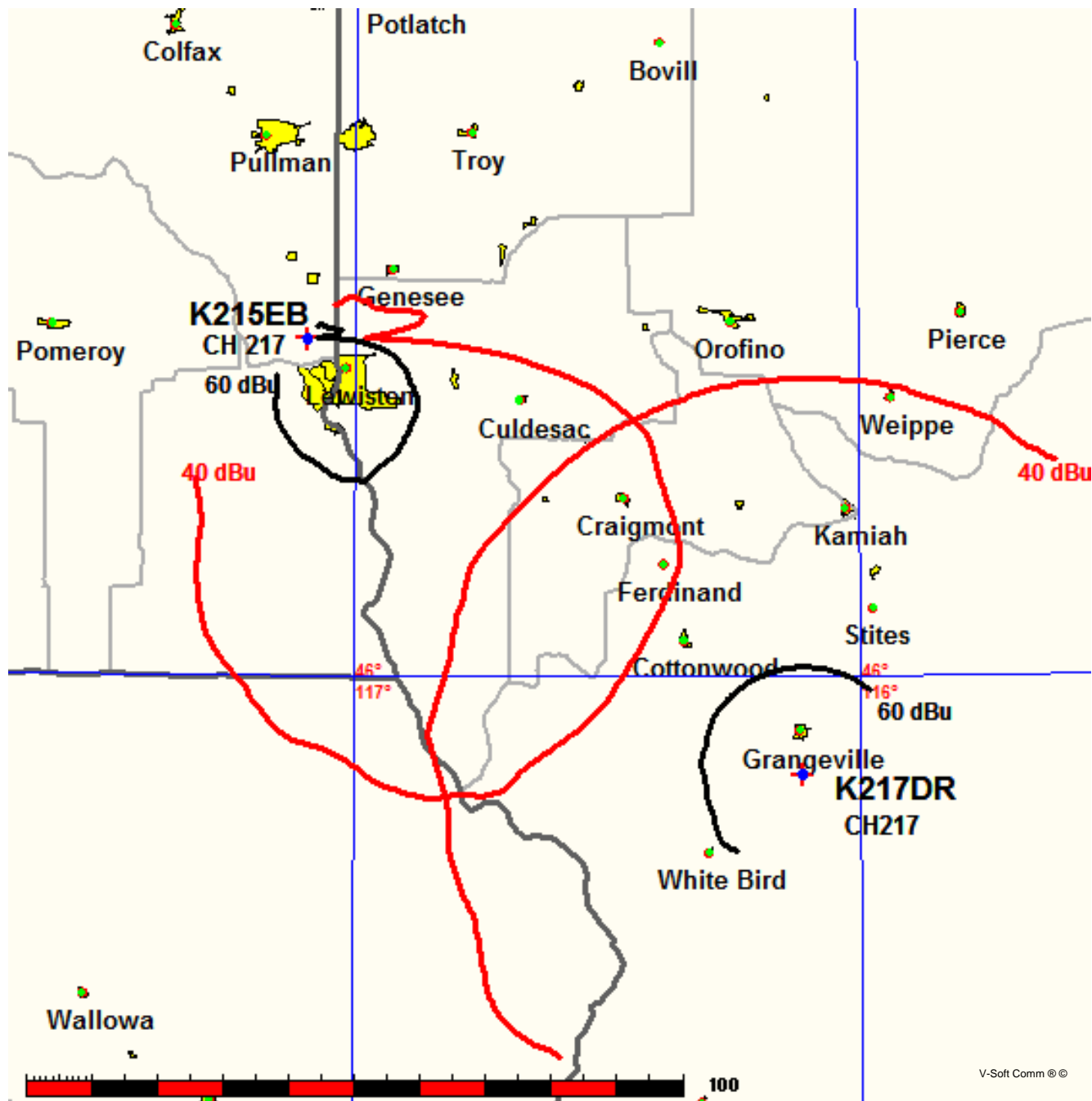
K217DR   BMLFT20051031AFJ   K215EB

Channel = 217D   Channel = 217D
Max ERP = 0.01 kW   Max ERP = 0.0645 kW
RCAMSL = 1891 M   RCAMSL = 898 M
N. Lat. 45 51 42.0   N. Lat. 46 27 26.0
W. Lng. 116 07 25.0   W. Lng. 117 06 00.0
Protected   Interfering
   60 dBu   40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
252.0	000.0100	0726.6	015.0	139.0	000.0606	0552.8	093.5	32.63	
253.0	000.0100	0726.4	015.0	138.9	000.0605	0552.6	093.2	32.69	
254.0	000.0100	0725.2	015.0	138.9	000.0605	0552.3	093.0	32.74	
255.0	000.0100	0726.1	015.0	138.8	000.0604	0552.1	092.8	32.81	
256.0	000.0100	0729.3	015.1	138.8	000.0604	0551.8	092.5	32.87	
257.0	000.0100	0731.4	015.1	138.7	000.0603	0551.6	092.3	32.93	
258.0	000.0100	0731.3	015.1	138.6	000.0602	0551.3	092.0	32.99	
259.0	000.0100	0728.3	015.1	138.5	000.0601	0551.0	091.8	33.04	
260.0	000.0100	0722.5	015.0	138.4	000.0600	0550.7	091.6	33.09	
261.0	000.0100	0715.1	014.9	138.3	000.0599	0550.3	091.4	33.13	
262.0	000.0100	0710.7	014.9	138.2	000.0598	0550.0	091.2	33.17	
263.0	000.0100	0710.4	014.9	138.1	000.0597	0549.8	091.0	33.23	
264.0	000.0100	0711.0	014.9	138.0	000.0596	0549.6	090.8	33.28	
265.0	000.0100	0712.6	014.9	137.9	000.0596	0549.4	090.6	33.34	
266.0	000.0100	0714.7	014.9	137.8	000.0595	0549.2	090.4	33.39	
267.0	000.0100	0719.1	015.0	137.7	000.0594	0549.0	090.1	33.45	
268.0	000.0100	0725.4	015.0	137.7	000.0593	0548.8	089.9	33.52	
269.0	000.0100	0732.5	015.1	137.6	000.0592	0548.6	089.6	33.58	
270.0	000.0100	0741.9	015.2	137.5	000.0592	0548.5	089.4	33.65	
271.0	000.0100	0751.2	015.3	137.4	000.0591	0548.3	089.1	33.72	
272.0	000.0100	0760.5	015.3	137.3	000.0590	0548.1	088.9	33.79	
273.0	000.0100	0773.1	015.4	137.3	000.0589	0548.0	088.6	33.86	
274.0	000.0100	0784.5	015.5	137.2	000.0589	0547.8	088.4	33.93	
275.0	000.0100	0795.5	015.6	137.1	000.0588	0547.6	088.1	34.00	
276.0	000.0100	0801.8	015.6	137.0	000.0587	0547.4	087.9	34.05	
277.0	000.0100	0798.7	015.6	136.8	000.0585	0547.3	087.8	34.09	
278.0	000.0100	0795.5	015.6	136.7	000.0584	0547.0	087.6	34.12	
279.0	000.0100	0791.3	015.6	136.5	000.0583	0546.9	087.5	34.15	
280.0	000.0100	0785.3	015.5	136.4	000.0581	0546.7	087.3	34.18	
281.0	000.0100	0782.3	015.5	136.2	000.0580	0546.5	087.2	34.21	
282.0	000.0100	0780.8	015.5	136.1	000.0578	0546.4	087.0	34.24	
283.0	000.0100	0776.8	015.5	135.9	000.0577	0546.3	086.9	34.27	
284.0	000.0100	0771.8	015.4	135.8	000.0575	0546.2	086.8	34.29	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
285.0	000.0100	0769.2	015.4	135.6	000.0574	0546.1	086.7	34.32
286.0	000.0100	0769.0	015.4	135.4	000.0572	0546.0	086.5	34.35
287.0	000.0100	0771.2	015.4	135.3	000.0571	0545.9	086.4	34.38
288.0	000.0100	0775.0	015.4	135.1	000.0569	0545.7	086.2	34.42
289.0	000.0100	0779.4	015.5	135.0	000.0568	0545.7	086.1	34.46
290.0	000.0100	0785.4	015.5	134.9	000.0567	0545.6	085.9	34.50
291.0	000.0100	0791.8	015.6	134.7	000.0565	0545.4	085.8	34.53
292.0	000.0100	0797.9	015.6	134.5	000.0564	0545.4	085.6	34.57
293.0	000.0100	0803.5	015.7	134.4	000.0562	0545.3	085.5	34.60
294.0	000.0100	0808.8	015.7	134.2	000.0561	0545.2	085.3	34.63
295.0	000.0100	0813.1	015.7	134.1	000.0559	0545.1	085.2	34.66
296.0	000.0100	0817.1	015.8	133.9	000.0558	0545.0	085.1	34.68
297.0	000.0100	0822.4	015.8	133.7	000.0556	0544.8	085.0	34.70
298.0	000.0100	0831.0	015.8	133.6	000.0555	0544.7	084.8	34.73
299.0	000.0100	0841.8	015.9	133.4	000.0553	0544.6	084.7	34.77
300.0	000.0100	0852.9	016.0	133.2	000.0552	0544.4	084.6	34.79
301.0	000.0100	0859.7	016.0	133.0	000.0550	0544.2	084.5	34.81
302.0	000.0100	0862.5	016.1	132.9	000.0548	0544.0	084.4	34.82
303.0	000.0100	0862.9	016.1	132.7	000.0547	0543.8	084.3	34.82
304.0	000.0100	0862.0	016.0	132.5	000.0545	0543.6	084.3	34.81
305.0	000.0100	0860.5	016.0	132.3	000.0543	0543.4	084.3	34.81
306.0	000.0100	0858.1	016.0	132.1	000.0541	0543.2	084.2	34.80
307.0	000.0100	0854.7	016.0	131.9	000.0540	0543.0	084.2	34.78
308.0	000.0100	0850.8	016.0	131.7	000.0538	0542.8	084.2	34.76
309.0	000.0100	0847.6	016.0	131.5	000.0536	0542.6	084.2	34.74
310.0	000.0100	0845.6	015.9	131.3	000.0535	0542.4	084.2	34.72
311.0	000.0100	0844.5	015.9	131.2	000.0533	0542.3	084.2	34.71
312.0	000.0100	0843.5	015.9	131.0	000.0531	0542.1	084.2	34.69
313.0	000.0100	0842.4	015.9	130.8	000.0529	0542.0	084.2	34.67
314.0	000.0100	0841.7	015.9	130.6	000.0528	0541.9	084.3	34.65
315.0	000.0100	0841.6	015.9	130.4	000.0526	0541.9	084.3	34.63
316.0	000.0100	0842.0	015.9	130.2	000.0524	0541.8	084.3	34.60
317.0	000.0100	0842.6	015.9	130.0	000.0523	0541.8	084.3	34.58
318.0	000.0100	0843.5	015.9	129.8	000.0520	0541.9	084.4	34.55
319.0	000.0100	0844.4	015.9	129.6	000.0517	0542.0	084.4	34.52
320.0	000.0100	0845.5	015.9	129.5	000.0514	0542.2	084.4	34.49
321.0	000.0100	0846.5	016.0	129.3	000.0511	0542.5	084.5	34.46
322.0	000.0100	0847.5	016.0	129.1	000.0509	0542.8	084.5	34.42
323.0	000.0100	0848.4	016.0	128.9	000.0506	0543.1	084.6	34.39
324.0	000.0100	0849.4	016.0	128.7	000.0503	0543.4	084.6	34.35
325.0	000.0100	0850.6	016.0	128.5	000.0501	0543.8	084.7	34.31
326.0	000.0100	0851.9	016.0	128.3	000.0498	0544.1	084.8	34.27
327.0	000.0100	0852.9	016.0	128.2	000.0495	0544.5	084.9	34.23
328.0	000.0100	0853.7	016.0	128.0	000.0493	0545.0	084.9	34.19
329.0	000.0100	0854.4	016.0	127.8	000.0490	0545.4	085.0	34.15
330.0	000.0100	0855.0	016.0	127.6	000.0487	0545.9	085.1	34.11
331.0	000.0100	0855.4	016.0	127.5	000.0485	0546.4	085.2	34.06
332.0	000.0100	0855.4	016.0	127.3	000.0482	0546.9	085.3	34.01
333.0	000.0100	0855.1	016.0	127.1	000.0480	0547.5	085.5	33.97
334.0	000.0100	0854.6	016.0	126.9	000.0477	0548.0	085.6	33.91
335.0	000.0100	0854.4	016.0	126.8	000.0475	0548.5	085.7	33.86

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
336.0	000.0100	0854.9	016.0	126.6	000.0473	0549.1	085.8	33.81
337.0	000.0100	0855.9	016.0	126.5	000.0470	0549.7	086.0	33.76
338.0	000.0100	0856.3	016.0	126.3	000.0468	0550.3	086.1	33.71
339.0	000.0100	0856.1	016.0	126.1	000.0466	0550.9	086.3	33.65
340.0	000.0100	0856.4	016.0	126.0	000.0463	0551.5	086.4	33.60
341.0	000.0100	0857.5	016.0	125.8	000.0461	0552.0	086.6	33.54
342.0	000.0100	0858.7	016.0	125.7	000.0459	0552.5	086.7	33.48
343.0	000.0100	0859.8	016.0	125.5	000.0457	0553.1	086.9	33.42
344.0	000.0100	0862.1	016.1	125.4	000.0455	0553.7	087.0	33.36
345.0	000.0100	0864.9	016.1	125.2	000.0453	0554.2	087.2	33.31
346.0	000.0100	0866.4	016.1	125.1	000.0451	0554.7	087.4	33.24
347.0	000.0100	0866.1	016.1	124.9	000.0449	0555.2	087.6	33.18
348.0	000.0100	0866.0	016.1	124.8	000.0447	0555.8	087.7	33.11
349.0	000.0100	0866.6	016.1	124.7	000.0445	0556.3	087.9	33.04
350.0	000.0100	0866.4	016.1	124.5	000.0443	0556.8	088.1	32.97
351.0	000.0100	0864.9	016.1	124.4	000.0441	0557.2	088.3	32.90
352.0	000.0100	0863.7	016.1	124.3	000.0440	0557.7	088.5	32.83
353.0	000.0100	0862.7	016.1	124.2	000.0438	0558.1	088.8	32.76
354.0	000.0100	0861.8	016.0	124.0	000.0436	0558.6	089.0	32.69
355.0	000.0100	0862.2	016.1	123.9	000.0435	0559.0	089.2	32.61
356.0	000.0100	0863.0	016.1	123.8	000.0433	0559.4	089.4	32.54
357.0	000.0100	0864.3	016.1	123.7	000.0432	0559.8	089.6	32.46
358.0	000.0100	0865.1	016.1	123.6	000.0430	0560.1	089.8	32.39
359.0	000.0100	0866.1	016.1	123.5	000.0429	0560.5	090.1	32.31
000.0	000.0100	0866.6	016.1	123.4	000.0427	0560.8	090.3	32.24
001.0	000.0100	0865.7	016.1	123.3	000.0426	0561.1	090.5	32.16
002.0	000.0100	0864.8	016.1	123.2	000.0425	0561.4	090.8	32.08
003.0	000.0100	0866.1	016.1	123.1	000.0423	0561.7	091.0	32.00
004.0	000.0100	0867.5	016.1	123.0	000.0422	0562.0	091.2	31.92
005.0	000.0100	0868.6	016.1	122.9	000.0421	0562.2	091.5	31.84
006.0	000.0100	0869.8	016.1	122.8	000.0420	0562.4	091.7	31.76
007.0	000.0100	0871.5	016.1	122.7	000.0419	0562.7	092.0	31.68
008.0	000.0100	0873.3	016.1	122.7	000.0417	0562.9	092.2	31.59
009.0	000.0100	0874.7	016.1	122.6	000.0416	0563.1	092.5	31.51
010.0	000.0100	0876.5	016.1	122.5	000.0415	0563.3	092.7	31.43
011.0	000.0100	0878.3	016.2	122.4	000.0414	0563.4	093.0	31.35

3rd adjacent - Contour-to-Contour Study
Washington State University

FMCommander Single Allocation Study - 06-22-2011 - FCC NGDC 30 Sec
K215EB's Overlaps (In= 26.75 km, Out= 22.6 km)

K215EB CH 217 D DA   KZUU CH 214 A   BLED20090210AAL
Lat= 46 27 26.0,   Lng= 117 06 00.0   Lat= 46 43 51.0,   Lng= 117 09 42.0
0.065 kW 318.1 M HAAT, 898 M COR   0.42 kW 30.4 M HAAT, 820.5 M COR
Prot.= 60 dBu, Intef.= 100 dBu   Prot.= 60 dBu, Intef.= 100 dBu
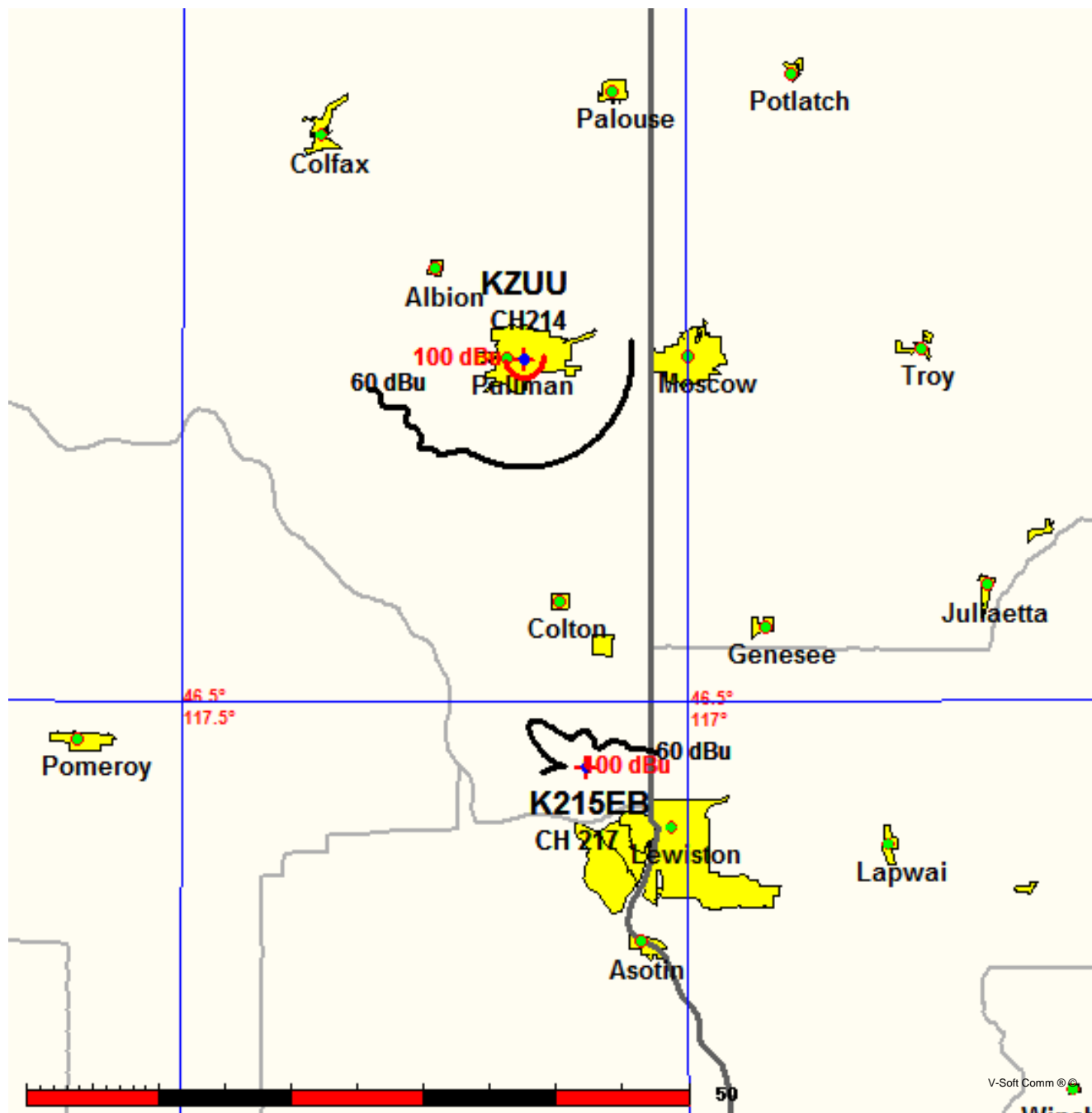
KZUU   BLED20090210AAL   K215EB

Channel = 214A   Channel = 217D
Max ERP = 0.42 kW   Max ERP = 0.0645 kW
RCAMSL = 820.5 M   RCAMSL = 898 M
N. Lat. 46 43 51.0   N. Lat. 46 27 26.0
W. Lng. 117 09 42.0   W. Lng. 117 06 00.0
Protected   Interfering
   60 dBu   100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
111.0	000.4200	-0033.6	008.1	005.9	000.0007	0062.9	027.7	17.98	
112.0	000.4200	-0031.6	008.1	005.8	000.0007	0062.9	027.5	18.08	
113.0	000.4200	-0030.2	008.1	005.7	000.0007	0062.9	027.4	18.18	
114.0	000.4200	-0028.1	008.1	005.6	000.0007	0062.8	027.3	18.29	
115.0	000.4200	-0024.7	008.1	005.5	000.0007	0062.8	027.1	18.40	
116.0	000.4200	-0021.2	008.1	005.4	000.0007	0062.9	027.0	18.52	
117.0	000.4200	-0017.9	008.1	005.3	000.0007	0062.9	026.9	18.64	
118.0	000.4200	-0014.5	008.1	005.2	000.0007	0063.1	026.7	18.77	
119.0	000.4200	-0011.0	008.1	005.1	000.0007	0063.2	026.6	18.91	
120.0	000.4200	-0007.7	008.1	004.9	000.0007	0063.5	026.5	19.05	
121.0	000.4200	-0004.8	008.1	004.8	000.0007	0063.7	026.3	19.20	
122.0	000.4200	-0002.4	008.1	004.7	000.0007	0064.0	026.2	19.36	
123.0	000.4200	-0000.4	008.1	004.5	000.0007	0064.4	026.1	19.52	
124.0	000.4200	0000.6	008.1	004.4	000.0007	0064.7	026.0	19.69	
125.0	000.4200	0000.7	008.1	004.2	000.0007	0065.1	025.8	19.85	
126.0	000.4200	0000.1	008.1	004.1	000.0007	0065.4	025.7	20.02	
127.0	000.4200	-0000.6	008.1	003.9	000.0008	0065.8	025.6	20.19	
128.0	000.4200	-0001.4	008.1	003.7	000.0008	0066.2	025.5	20.36	
129.0	000.4200	-0002.1	008.1	003.5	000.0008	0066.5	025.4	20.53	
130.0	000.4200	-0002.8	008.1	003.3	000.0008	0066.9	025.3	20.69	
131.0	000.4200	-0003.3	008.1	003.2	000.0008	0067.2	025.1	20.87	
132.0	000.4200	-0004.1	008.1	003.0	000.0008	0067.7	025.0	21.04	
133.0	000.4200	-0005.8	008.1	002.7	000.0008	0068.0	024.9	21.21	
134.0	000.4200	-0008.5	008.1	002.5	000.0008	0068.1	024.8	21.35	
135.0	000.4200	-0011.4	008.1	002.3	000.0008	0068.0	024.7	21.46	
136.0	000.4200	-0014.4	008.1	002.1	000.0008	0067.7	024.6	21.55	
137.0	000.4200	-0017.7	008.1	001.9	000.0008	0067.4	024.5	21.64	
138.0	000.4200	-0021.2	008.1	001.6	000.0009	0067.0	024.4	21.72	
139.0	000.4200	-0024.3	008.1	001.4	000.0009	0066.7	024.3	21.80	
140.0	000.4200	-0026.4	008.1	001.1	000.0009	0066.4	024.2	21.88	
141.0	000.4200	-0027.8	008.1	000.9	000.0009	0066.0	024.1	21.96	
142.0	000.4200	-0028.5	008.1	000.6	000.0009	0065.6	024.0	22.04	
143.0	000.4200	-0029.0	008.1	000.4	000.0009	0065.3	023.9	22.12	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
144.0	000.4200	-0028.9	008.1	000.1	000.0009	0064.9	023.9	22.19
145.0	000.4200	-0028.7	008.1	359.8	000.0009	0064.5	023.8	22.25
146.0	000.4200	-0028.7	008.1	359.5	000.0009	0064.2	023.7	22.30
147.0	000.4200	-0028.8	008.1	359.2	000.0009	0063.8	023.6	22.36
148.0	000.4200	-0029.0	008.1	359.0	000.0010	0063.5	023.5	22.40
149.0	000.4200	-0029.0	008.1	358.7	000.0010	0063.1	023.5	22.45
150.0	000.4200	-0028.9	008.1	358.4	000.0010	0062.8	023.4	22.49
151.0	000.4200	-0028.8	008.1	358.1	000.0010	0062.4	023.3	22.54
152.0	000.4200	-0028.4	008.1	357.7	000.0010	0062.0	023.3	22.57
153.0	000.4200	-0026.5	008.1	357.4	000.0010	0061.9	023.2	22.65
154.0	000.4200	-0022.6	008.1	357.1	000.0010	0062.1	023.2	22.75
155.0	000.4200	-0017.3	008.1	356.8	000.0010	0062.4	023.1	22.88
156.0	000.4200	-0011.7	008.1	356.5	000.0010	0062.7	023.1	22.99
157.0	000.4200	-0006.7	008.1	356.1	000.0010	0063.0	023.0	23.10
158.0	000.4200	-0002.9	008.1	355.8	000.0010	0063.2	023.0	23.20
159.0	000.4200	-0000.5	008.1	355.5	000.0011	0063.3	022.9	23.28
160.0	000.4200	0001.1	008.1	355.1	000.0011	0063.0	022.9	23.32
161.0	000.4200	0002.3	008.1	354.8	000.0011	0062.3	022.8	23.31
162.0	000.4200	0003.3	008.1	354.4	000.0011	0061.6	022.8	23.28
163.0	000.4200	0004.1	008.1	354.1	000.0011	0060.8	022.8	23.24
164.0	000.4200	0005.4	008.1	353.7	000.0011	0060.0	022.8	23.19
165.0	000.4200	0007.6	008.1	353.4	000.0011	0059.2	022.7	23.14
166.0	000.4200	0010.6	008.1	353.0	000.0011	0058.5	022.7	23.10
167.0	000.4200	0012.8	008.1	352.7	000.0011	0057.9	022.7	23.07
168.0	000.4200	0013.2	008.1	352.3	000.0012	0057.3	022.7	23.04
169.0	000.4200	0012.7	008.1	352.0	000.0012	0056.8	022.7	23.01
170.0	000.4200	0011.8	008.1	351.6	000.0012	0056.4	022.7	22.99
171.0	000.4200	0010.5	008.1	351.3	000.0012	0056.0	022.7	22.98
172.0	000.4200	0009.5	008.1	350.9	000.0012	0055.7	022.7	22.98
173.0	000.4200	0009.6	008.1	350.6	000.0012	0055.5	022.7	22.98
174.0	000.4200	0009.7	008.1	350.2	000.0012	0055.4	022.7	22.99
175.0	000.4200	0010.2	008.1	349.8	000.0012	0055.2	022.7	22.98
176.0	000.4200	0011.3	008.1	349.5	000.0012	0055.0	022.7	22.96
177.0	000.4200	0013.1	008.1	349.1	000.0012	0054.9	022.7	22.93
178.0	000.4200	0014.8	008.1	348.8	000.0012	0054.7	022.8	22.90
179.0	000.4200	0016.0	008.1	348.4	000.0012	0054.5	022.8	22.86
180.0	000.4200	0014.7	008.1	348.1	000.0012	0054.2	022.8	22.81
181.0	000.4200	0013.5	008.1	347.7	000.0013	0054.0	022.8	22.76
182.0	000.4200	0012.5	008.1	347.4	000.0013	0053.9	022.9	22.73
183.0	000.4200	0013.9	008.1	347.1	000.0013	0053.8	022.9	22.70
184.0	000.4200	0015.1	008.1	346.7	000.0013	0053.8	022.9	22.68
185.0	000.4200	0016.0	008.1	346.4	000.0013	0053.8	023.0	22.66
186.0	000.4200	0015.8	008.1	346.1	000.0013	0053.8	023.0	22.64
187.0	000.4200	0015.0	008.1	345.7	000.0013	0053.8	023.1	22.62
188.0	000.4200	0014.9	008.1	345.4	000.0013	0053.8	023.1	22.58
189.0	000.4200	0014.8	008.1	345.1	000.0013	0053.6	023.2	22.53
190.0	000.4200	0014.1	008.1	344.8	000.0013	0053.4	023.3	22.46
191.0	000.4200	0013.1	008.1	344.5	000.0013	0053.2	023.3	22.39
192.0	000.4200	0012.3	008.1	344.2	000.0013	0052.9	023.4	22.30
193.0	000.4200	0012.2	008.1	343.9	000.0013	0052.5	023.4	22.19
194.0	000.4200	0011.1	008.1	343.6	000.0013	0052.1	023.5	22.08

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
195.0	000.4200	0009.7	008.1	343.3	000.0013	0051.6	023.6	21.95
196.0	000.4200	0008.3	008.1	343.0	000.0013	0051.1	023.7	21.81
197.0	000.4200	0007.4	008.1	342.7	000.0013	0050.5	023.7	21.66
198.0	000.4200	0007.3	008.1	342.4	000.0013	0050.0	023.8	21.52
199.0	000.4200	0009.1	008.1	342.1	000.0013	0049.5	023.9	21.37
200.0	000.4200	0011.8	008.1	341.9	000.0013	0049.0	024.0	21.22
201.0	000.4200	0013.5	008.1	341.6	000.0013	0048.5	024.1	21.07
202.0	000.4200	0013.5	008.1	341.4	000.0013	0048.0	024.2	20.92
203.0	000.4200	0012.9	008.1	341.1	000.0013	0047.5	024.3	20.76
204.0	000.4200	0013.9	008.1	340.9	000.0013	0047.0	024.4	20.61
205.0	000.4200	0016.0	008.1	340.6	000.0013	0046.5	024.5	20.46
206.0	000.4200	0017.3	008.1	340.4	000.0013	0046.1	024.6	20.31
207.0	000.4200	0017.3	008.1	340.2	000.0013	0045.7	024.7	20.17
208.0	000.4200	0017.5	008.1	339.9	000.0013	0045.4	024.8	20.03
209.0	000.4200	0019.7	008.1	339.7	000.0013	0045.1	024.9	19.91
210.0	000.4200	0023.3	008.1	339.5	000.0013	0044.8	025.0	19.78
211.0	000.4200	0026.7	008.1	339.3	000.0013	0044.6	025.1	19.67
212.0	000.4200	0029.3	008.1	339.1	000.0013	0044.4	025.2	19.56
213.0	000.4200	0030.8	008.2	338.7	000.0014	0044.0	025.3	19.47
214.0	000.4200	0031.9	008.3	338.3	000.0014	0043.7	025.3	19.39
215.0	000.4200	0032.6	008.4	338.0	000.0014	0043.4	025.4	19.30
216.0	000.4200	0033.3	008.5	337.6	000.0014	0043.2	025.4	19.20
217.0	000.4200	0034.6	008.7	337.1	000.0014	0042.8	025.5	19.11
218.0	000.4200	0036.2	008.9	336.5	000.0014	0042.3	025.5	19.02
219.0	000.4200	0037.8	009.1	336.0	000.0014	0042.0	025.6	18.93
220.0	000.4200	0039.3	009.3	335.5	000.0014	0041.8	025.6	18.87
221.0	000.4200	0040.8	009.5	334.9	000.0014	0041.7	025.7	18.82
222.0	000.4200	0041.7	009.6	334.6	000.0014	0041.8	025.8	18.77
223.0	000.4200	0041.8	009.6	334.4	000.0014	0041.8	026.0	18.69
224.0	000.4200	0041.9	009.6	334.3	000.0014	0041.9	026.1	18.61
225.0	000.4200	0042.2	009.6	334.0	000.0014	0042.1	026.3	18.55
226.0	000.4200	0043.1	009.8	333.7	000.0014	0042.3	026.4	18.55
227.0	000.4200	0044.4	009.9	333.3	000.0014	0042.8	026.5	18.57
228.0	000.4200	0046.1	010.1	332.8	000.0014	0043.4	026.6	18.64
229.0	000.4200	0048.0	010.3	332.2	000.0014	0043.9	026.7	18.69
230.0	000.4200	0048.5	010.4	332.0	000.0014	0044.0	026.9	18.62