

Contour-to-Contour - Straight Line Between Stations Analysis

REFERENCE		U-Mass, Boston/Maynard School Committee								DISPLAY DATES	
42 25 17 N.		CH#	219A	-	91.7 MHz,	Pwr=	0.5 kW,	HAAT=	23.5 M,	COR=	100 M
71 27 10 W.		Average Protected F(50-50)= 8.5 km								DATA	04-08-06
		Ave. F(50-10) 40 dBu= 28.5 54 dBu= 12.0 80 dBu= 2.7 100 dBu= 1.6								SEARCH	04-09-06
CH	CALL	TYPE	STATE	AZI	DIST	LAT.	Pwr(kW)	COR(M)	PRO(km)	*IN*	*OUT*
CITY				<--	FILE #	LNG.	HAAT(M)	INT(km)	LICENSEE	(Overlap	in km)
219A	WAVM. A	APP	HN	311.8	0.09	42 25 19	0.250	76	7.1	-28.17*	-21.41*<--
Maynard		MA		131.8	BPED19990726MA	71 27 13	18	23.8	Maynard School	Committee	
219A	AP219	APP	DCN	321.5	6.04	42 27 50	0.174	154	11.3	-36.93	-19.16*
Stow		MA		141.5	BNPED20000118ABW	71 29 55	92	38.6	University Of	Massachusetts	
219A	AP219	APP	VDX	79.0	18.43	42 27 10	0.199	84	6.7	-13.89	-22.08**
Lexington		MA		259.1	BNPED20000118AAG	71 13 58	25	22.4	Csn International		
219A	AP219	APP	VDX	79.0	18.43	42 27 10	0.199	84	6.7	-13.89	-22.08**
Lexington		MA		259.1	BNPED20000118AAG	71 13 58	25	22.4	Csn International		
219A	AP219	APP	DCX	303.5	23.17	42 32 09	0.018	162	5.5	0.32	2.18***
Lunenburg		MA		123.3	BNPED20000118ACZ	71 41 18	67	18.0	Living Proof, Inc.		
219A	WVWM	LIC	CN	78.6	47.14	42 30 14	0.130	31	6.0	17.20	7.22
Sal em		MA		258.9	BLLED19791203AJ	70 53 26	-1	20.0	Sal em State College	Board	
219A	WNEF	LIC	DEX	40.3	64.93	42 51 56	0.461	122	15.2	3.46	16.30
Newburyport		MA		220.6	BLLED20051118AGI	70 56 17	102	51.5	University Of	Massachusetts	
219B1	WHUS	LIC	DEN	224.9	94.92	41 48 50	1.703	313	24.8	11.94	42.04
Storrs		CT		44.3	BLLED19990413KA	72 15 36	141	74.6	The Board Of Trustees, The		
218A	WMFO	LIC	DC	93.1	27.37	42 24 27	0.002	70	2.1	13.87	10.52
Medford		MA		273.4	BMLED20050809ACP	71 07 15	8	2.9	Tufts University		
218A	WUML	LIC	DCN	22.8	27.81	42 39 07	0.711	114	12.9	0.39	3.10
Lowell		MA		202.9	BLLED19940406KC	71 19 15	58	19.0	University Of	Massachusetts	
220A	WUMB-FM	LIC	CN	117.5	39.39	42 15 27	0.660	88	11.9	10.92	11.65
Boston		MA		297.8	BLLED19880722KA	71 01 44	51	17.4	University Of	Massachusetts	
217A	WDJM-FM	LIC	CN	175.1	14.03	42 17 44	0.100	99	6.2	3.58	6.30
Framingham		MA		355.2	BLLED19840709DD	71 26 18	36	0.7	Framingham State College		
222B	WPRO-FM^	LIC	CN	181.4	68.49	41 48 18	50.000	212	62.7	54.34	4.13
Providence		RI		1.4	BMLED19920605KA	71 28 24	134	5.6	Citadel Broadcasting	Compa	
273B	WCRB<	LIC	NC	123.9	22.69	42 18 27	8.100	395	64.1	15.0R	7.7M
Wal tham		MA		304.1	BLH19981216KA	71 13 27	343	58.7	Charles River Broadcasting		
06Z1C	WRGB	LI	HN	277.4	210.31	42 38 12	93.300	555	117.0	159.0R	51.3M
Schenectady		NY		95.7	BLCT2492	73 59 45	473	1.6	Freedom Broadcasting Of	Ne	
06-C	WCSH	LI	D N	20.4	170.65	43 51 30	53.312	763	119.9	159.0R	11.7M
Portland		ME		200.9	BLCT19990713KG	70 42 41	599	2.3	Pacific And Southern Compa		
06+1C	WLNETV	LI	CY	166.6	94.15	41 35 48	100.000	308	103.2	159.0R	-64.8M
New Bedford		MA		346.8	BLCT19920604KF	71 11 24	296	2.8	Freedom Broadcasting Of	So	
06 1E	WEDY-D	CPM	HN	225.2	171.21	41 19 42	0.400	130	28.9	159.0R	12.2M
New Haven		CT		44.2	BMPEDT20020305AA	72 54 25	91	2.3	Connecticut Public Broadca		

ERP and HAAT are on direct line to and from reference station.
 * affixed to TV6 Margin= no direct-line contour overlap.
 ***affixed to 'IN' or 'Out' values = site inside protected contour.
 "<" = station meets FCC minimum distance spacing for its class.
 ^ = Power and antenna height 'Max classed' as per Sec 73.215 protection requirements
 ** = Lost on First Cut 307B analysis, Not part of settlement.
 *** = Lunenburg is using settlement facilities operating parameters
 <-- = Applicant shares frequency with WAVM

HOW TO READ THE FM COMPUTER PRINT-OUT

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, while the 40, 54, 80 and 100 dBu contours are interference contours derived from the Commission's F(50-10) table. Contour distances are in kilometers and are predicted using spline interpolation from data points identical to those published in Report No. RS 76-01 by Gary C. Kalagian. Critical contour distances are determined 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.

The column listed "* IN *" is the sum of the reference station's 60 dBu protected contour and the data file station's interference contour subtracted from the distance between the stations. (All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90.) Therefore, the column is a measure of incoming interference. Negative distances in this column indicate the presence of contour overlap. Listed antenna heights are the average heights of eight standard radials as found in the Commission's records, unless otherwise noted in which case the specific antenna heights and the DA power, if applicable, along the straight line azimuths between the reference station and the database station are used and visa versa. The column labeled "* OUT *" shows the distance in kilometers of overlap or 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.

Under the "AZIMUTH" column, the first row of numbers indicate the True North bearings 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.

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 "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".

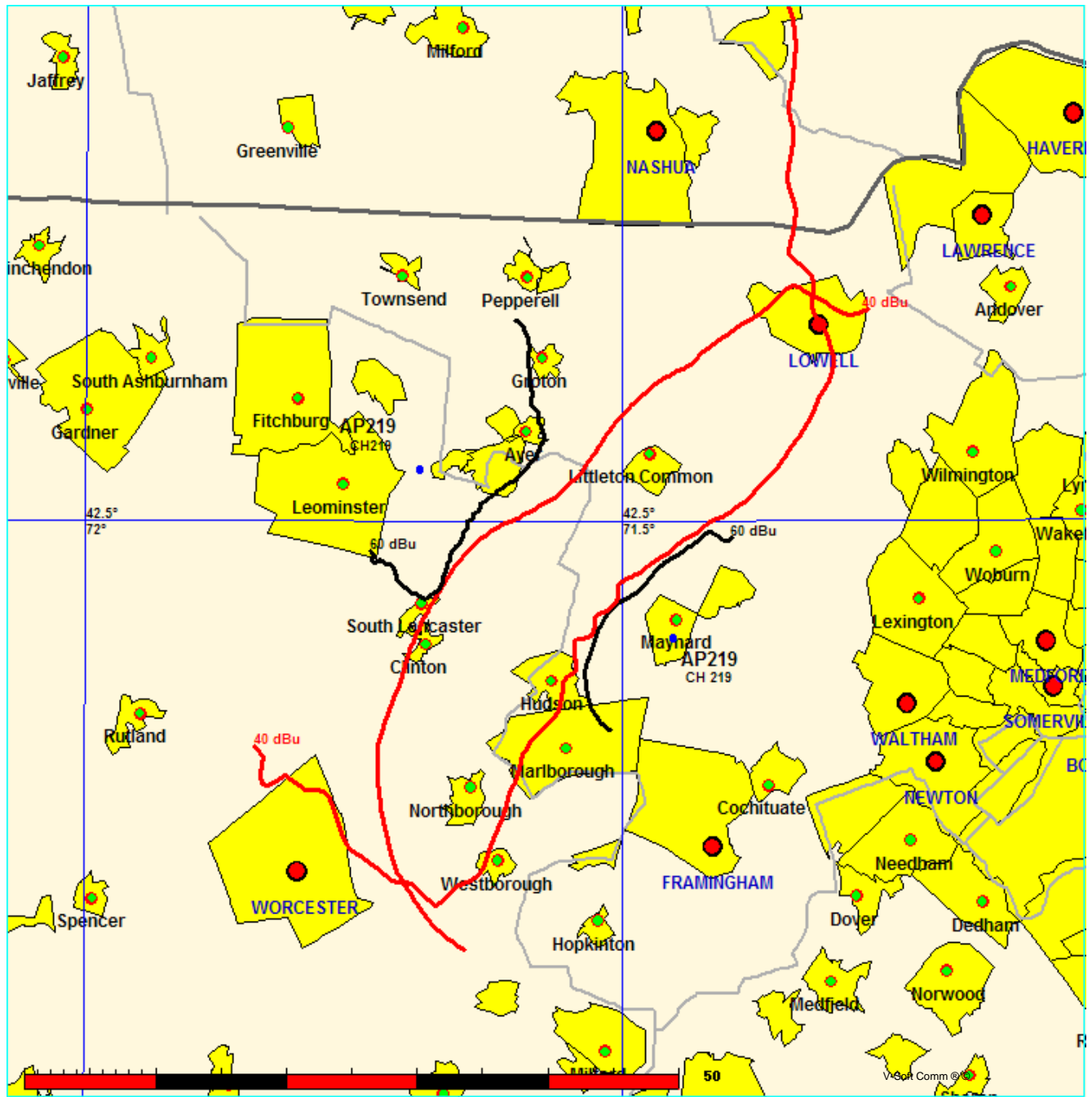
U-Mass, Boston/Maynard School Committee
Relationship with Amended Living Proof, Inc Lunenburg App.
Lunenburg is using settlement facilities

FMCommander Allocation Study
04-10-2006

AP219 CH 219 A
0.5 kW 100 M COR DA
Prot. = 60 dBu
Intef. = 40 dBu

AP219 CH 219 A BNPED20000118ACZ
0.572 kW, 162 M COR DA
Prot. = 60 dBu
Intef. = 40 dBu

Scale = 1:750,000



04-10-2006

30 Arc-Sec. Terrain Data

FMOver Analysis

AP219

Channel = 219A

Max ERP = 0.5 kW

RCAMSL = 100 M

N. Lat = 42 25 17

W. Lng = 71 27 10

Protected

60 dBu

AP219 BNPED20000118ACZ

Channel = 219A

Max ERP = 0.572 kW

RCAMSL = 162 M

N. Lat = 42 32 09

W. Lng = 71 41 18

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
243.0	000.3188	0024.7	007.5	141.9	000.0316	0055.9	020.5	38.94
244.0	000.3102	0025.2	007.5	141.7	000.0313	0055.9	020.4	38.99
245.0	000.3018	0025.6	007.4	141.5	000.0310	0055.4	020.3	38.96
246.0	000.2934	0025.9	007.4	141.3	000.0306	0055.4	020.2	39.01
247.0	000.2852	0026.1	007.3	141.0	000.0302	0055.4	020.1	39.05
248.0	000.2770	0025.8	007.3	140.8	000.0299	0055.4	019.9	39.08
249.0	000.2690	0025.1	007.2	140.5	000.0295	0055.4	019.8	39.11
250.0	000.2612	0024.2	007.2	140.2	000.0291	0054.3	019.7	38.94
251.0	000.2494	0023.2	007.1	139.9	000.0286	0054.3	019.7	38.94
252.0	000.2382	0022.5	007.0	139.5	000.0282	0054.3	019.6	38.95
253.0	000.2275	0021.6	006.9	139.2	000.0277	0053.0	019.5	38.73
254.0	000.2172	0020.5	006.8	138.8	000.0273	0053.0	019.4	38.73
255.0	000.2074	0019.0	006.8	138.5	000.0269	0052.5	019.3	38.64
256.0	000.1981	0017.6	006.7	138.1	000.0265	0052.5	019.3	38.63
257.0	000.1892	0016.4	006.6	137.7	000.0261	0052.5	019.2	38.61
258.0	000.1807	0015.6	006.5	137.4	000.0257	0053.5	019.1	38.77
259.0	000.1725	0014.6	006.5	137.0	000.0253	0053.5	019.1	38.75
260.0	000.1648	0013.0	006.4	136.6	000.0249	0053.5	019.0	38.73
261.0	000.1574	0010.8	006.3	136.3	000.0245	0055.8	019.0	39.08
262.0	000.1535	0008.2	006.3	136.0	000.0241	0055.8	018.9	39.08
263.0	000.1496	0005.8	006.2	135.7	000.0238	0055.8	018.8	39.07
264.0	000.1458	0004.2	006.2	135.4	000.0235	0058.4	018.8	39.46
265.0	000.1420	0003.0	006.2	135.1	000.0232	0058.4	018.7	39.45
266.0	000.1383	0002.3	006.1	134.8	000.0229	0058.4	018.7	39.43
267.0	000.1347	0002.0	006.1	134.4	000.0225	0060.6	018.6	39.70
268.0	000.1311	0001.7	006.0	134.1	000.0222	0060.6	018.6	39.68
269.0	000.1275	0001.0	006.0	133.8	000.0219	0060.6	018.5	39.65
270.0	000.1240	0000.3	005.9	133.5	000.0215	0061.9	018.5	39.79
271.0	000.1209	-0000.4	005.9	133.2	000.0212	0061.9	018.4	39.76
272.0	000.1179	-0001.0	005.9	132.9	000.0209	0061.9	018.4	39.73
273.0	000.1149	-0001.2	005.8	132.5	000.0206	0061.9	018.4	39.69
274.0	000.1120	-0001.4	005.8	132.2	000.0203	0062.3	018.3	39.70
275.0	000.1090	-0001.8	005.8	131.9	000.0200	0062.3	018.3	39.66
276.0	000.1062	-0001.2	005.7	131.6	000.0196	0062.3	018.3	39.61
277.0	000.1033	-0000.5	005.7	131.3	000.0193	0062.1	018.2	39.54
278.0	000.1005	-0000.5	005.6	130.9	000.0190	0062.1	018.2	39.49
279.0	000.0978	-0000.8	005.6	130.6	000.0187	0062.1	018.2	39.44

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
280.0	000.0950	-0001.0	005.6	130.3	000.0184	0062.2	018.2	39.39
281.0	000.0933	-0001.0	005.5	130.0	000.0181	0062.2	018.2	39.35
282.0	000.0915	-0000.6	005.5	129.7	000.0181	0062.2	018.1	39.37
283.0	000.0898	0000.2	005.5	129.3	000.0181	0063.1	018.1	39.49
284.0	000.0880	0001.4	005.5	129.0	000.0181	0063.1	018.1	39.51
285.0	000.0863	0002.8	005.4	128.7	000.0181	0063.1	018.1	39.52
286.0	000.0846	0004.0	005.4	128.4	000.0181	0064.3	018.1	39.68
287.0	000.0829	0005.2	005.4	128.1	000.0181	0064.3	018.1	39.69
288.0	000.0813	0006.4	005.3	127.8	000.0181	0064.3	018.1	39.69
289.0	000.0796	0007.0	005.3	127.5	000.0181	0065.3	018.1	39.82
290.0	000.0780	0007.0	005.3	127.2	000.0181	0065.3	018.1	39.82
291.0	000.0762	0006.8	005.3	126.9	000.0181	0065.3	018.1	39.82
292.0	000.0745	0006.1	005.2	126.6	000.0181	0065.3	018.1	39.82
293.0	000.0728	0005.2	005.2	126.3	000.0181	0066.0	018.1	39.89
294.0	000.0711	0004.3	005.2	126.0	000.0181	0066.0	018.1	39.88
295.0	000.0694	0003.3	005.1	125.7	000.0181	0066.0	018.1	39.86
296.0	000.0677	0002.7	005.1	125.4	000.0181	0066.4	018.1	39.90
297.0	000.0661	0002.5	005.1	125.1	000.0181	0066.4	018.1	39.88
298.0	000.0644	0003.0	005.0	124.8	000.0181	0066.4	018.2	39.86
299.0	000.0628	0003.8	005.0	124.5	000.0181	0066.6	018.2	39.87
300.0	000.0612	0004.7	005.0	124.2	000.0181	0066.6	018.2	39.84
301.0	000.0594	0005.7	004.9	123.9	000.0181	0066.6	018.2	39.82
302.0	000.0576	0006.3	004.9	123.7	000.0181	0066.6	018.3	39.79
303.0	000.0558	0006.3	004.8	123.4	000.0181	0066.4	018.3	39.73
304.0	000.0541	0005.8	004.8	123.1	000.0181	0066.4	018.4	39.70
305.0	000.0523	0005.0	004.8	122.9	000.0181	0066.4	018.4	39.66
306.0	000.0506	0003.8	004.7	122.6	000.0181	0066.4	018.4	39.62
307.0	000.0490	0002.4	004.7	122.4	000.0181	0065.5	018.5	39.48
308.0	000.0473	0001.7	004.6	122.1	000.0181	0065.5	018.5	39.43
309.0	000.0457	0001.8	004.6	121.9	000.0181	0065.5	018.6	39.39
310.0	000.0441	0002.3	004.5	121.7	000.0181	0065.5	018.7	39.34
311.0	000.0433	0002.8	004.5	121.4	000.0181	0064.0	018.7	39.13
312.0	000.0425	0003.2	004.5	121.2	000.0181	0064.0	018.7	39.10
313.0	000.0417	0004.1	004.5	121.0	000.0181	0064.0	018.8	39.07
314.0	000.0409	0005.2	004.5	120.8	000.0181	0064.0	018.8	39.04
315.0	000.0401	0005.4	004.4	120.6	000.0181	0064.0	018.8	39.00
316.0	000.0393	0004.9	004.4	120.4	000.0181	0062.8	018.9	38.82
317.0	000.0386	0004.9	004.4	120.1	000.0181	0062.8	018.9	38.78
318.0	000.0378	0005.8	004.4	119.9	000.0182	0062.8	019.0	38.76
319.0	000.0370	0006.7	004.4	119.7	000.0184	0062.8	019.0	38.76
320.0	000.0363	0006.5	004.3	119.6	000.0185	0062.8	019.1	38.77
321.0	000.0367	0005.0	004.3	119.3	000.0188	0062.0	019.1	38.71
322.0	000.0370	0003.2	004.4	119.1	000.0190	0062.0	019.1	38.74
323.0	000.0374	0002.7	004.4	118.9	000.0192	0062.0	019.1	38.77
324.0	000.0378	0004.6	004.4	118.7	000.0194	0062.0	019.1	38.80
325.0	000.0381	0007.7	004.4	118.4	000.0196	0061.7	019.2	38.80
326.0	000.0385	0010.1	004.4	118.2	000.0198	0061.7	019.2	38.82
327.0	000.0389	0011.7	004.4	118.0	000.0200	0061.7	019.2	38.84
328.0	000.0393	0012.9	004.4	117.8	000.0203	0061.7	019.2	38.87
329.0	000.0397	0014.1	004.4	117.6	000.0205	0061.7	019.3	38.89
330.0	000.0400	0015.5	004.4	117.4	000.0207	0061.8	019.3	38.91

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
331.0	000.0417	0017.1	004.5	117.1	000.0209	0061.8	019.3	38.95
332.0	000.0433	0018.3	004.5	116.8	000.0212	0061.8	019.3	39.01
333.0	000.0450	0019.1	004.6	116.6	000.0215	0061.8	019.3	39.06
334.0	000.0468	0019.8	004.6	116.3	000.0218	0061.8	019.3	39.11
335.0	000.0485	0021.3	004.7	116.0	000.0221	0061.8	019.3	39.15
336.0	000.0503	0023.6	004.7	115.7	000.0223	0061.8	019.4	39.20
337.0	000.0521	0025.9	004.8	115.5	000.0226	0061.8	019.4	39.23
338.0	000.0540	0027.8	004.8	115.2	000.0229	0061.8	019.4	39.26
339.0	000.0559	0028.9	004.8	114.9	000.0232	0061.8	019.4	39.30
340.0	000.0578	0029.3	004.9	114.6	000.0235	0061.8	019.5	39.32
341.0	000.0604	0029.1	004.9	114.4	000.0238	0061.5	019.5	39.33
342.0	000.0631	0028.5	005.0	114.1	000.0241	0061.5	019.5	39.37
343.0	000.0658	0027.8	005.1	113.8	000.0244	0061.5	019.5	39.40
344.0	000.0686	0027.2	005.1	113.5	000.0248	0061.1	019.6	39.38
345.0	000.0714	0027.2	005.2	113.2	000.0251	0061.1	019.6	39.40
346.0	000.0743	0027.5	005.2	112.9	000.0254	0061.1	019.6	39.43
347.0	000.0773	0027.4	005.3	112.6	000.0257	0061.1	019.7	39.45
348.0	000.0803	0027.0	005.3	112.3	000.0260	0060.8	019.7	39.43
349.0	000.0834	0026.6	005.4	112.1	000.0263	0060.8	019.8	39.44
350.0	000.0865	0026.1	005.4	111.8	000.0266	0060.8	019.8	39.44
351.0	000.0904	0025.8	005.5	111.5	000.0270	0060.8	019.9	39.45
352.0	000.0943	0025.9	005.6	111.2	000.0273	0060.8	019.9	39.46
353.0	000.0983	0027.0	005.6	110.9	000.0276	0060.8	020.0	39.47
354.0	000.1023	0027.5	005.7	110.6	000.0279	0060.8	020.1	39.47
355.0	000.1065	0027.3	005.7	110.4	000.0283	0061.2	020.1	39.51
356.0	000.1107	0026.9	005.8	110.1	000.0286	0061.2	020.2	39.50
357.0	000.1151	0026.9	005.8	109.8	000.0289	0061.2	020.3	39.49
358.0	000.1195	0027.0	005.9	109.6	000.0292	0061.2	020.3	39.47
359.0	000.1240	0027.8	005.9	109.4	000.0295	0061.8	020.4	39.53
000.0	000.1285	0028.5	006.0	109.1	000.0298	0061.8	020.5	39.51
001.0	000.1326	0029.1	006.0	108.9	000.0301	0061.8	020.6	39.48
002.0	000.1368	0029.0	006.1	108.7	000.0304	0061.8	020.7	39.45
003.0	000.1410	0028.8	006.1	108.5	000.0306	0062.2	020.8	39.47

04-10-2006 30 Arc-Sec. Sec. Terrain Data

AP219 BNPED20000118ACZ
Channel = 219A
Max ERP = 0.572 kW
RCAMSL = 162 M
N. Lat = 42 32 09
W. Lng = 71 41 18
Protected
60 dBu

AP219
Channel = 219A
Max ERP = 0.5 kW
RCAMSL = 100 M
N. Lat = 42 25 17
W. Lng = 71 27 10
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
063.0	000.1400	0077.4	009.9	328.6	000.0395	0014.1	020.2	34.68
064.0	000.1377	0078.7	009.9	328.7	000.0396	0014.1	020.0	34.82
065.0	000.1354	0078.9	009.9	328.6	000.0395	0014.1	019.8	34.95
066.0	000.1331	0078.2	009.8	328.3	000.0394	0012.9	019.7	35.06
067.0	000.1309	0077.4	009.7	327.9	000.0393	0012.9	019.5	35.18
068.0	000.1286	0077.3	009.7	327.7	000.0392	0012.9	019.4	35.29
069.0	000.1264	0078.2	009.7	327.7	000.0392	0012.9	019.2	35.43
070.0	000.1242	0079.8	009.8	327.7	000.0392	0012.9	019.0	35.57
071.0	000.1203	0081.3	009.8	327.6	000.0391	0012.9	018.8	35.71
072.0	000.1164	0082.8	009.8	327.5	000.0391	0012.9	018.7	35.84
073.0	000.1127	0084.2	009.8	327.4	000.0390	0011.7	018.5	35.97
074.0	000.1089	0085.5	009.8	327.2	000.0390	0011.7	018.4	36.09
075.0	000.1053	0086.8	009.8	327.0	000.0389	0011.7	018.2	36.22
076.0	000.1017	0087.8	009.7	326.8	000.0388	0011.7	018.0	36.33
077.0	000.0981	0088.2	009.7	326.4	000.0387	0010.1	017.9	36.43
078.0	000.0947	0088.0	009.6	325.9	000.0385	0010.1	017.8	36.50
079.0	000.0912	0087.4	009.4	325.3	000.0383	0007.7	017.7	36.57
080.0	000.0879	0086.6	009.3	324.7	000.0380	0007.7	017.6	36.62
081.0	000.0857	0085.9	009.2	324.2	000.0378	0004.6	017.5	36.68
082.0	000.0835	0085.4	009.1	323.7	000.0377	0004.6	017.4	36.74
083.0	000.0813	0084.7	009.0	323.1	000.0375	0002.7	017.3	36.80
084.0	000.0792	0083.6	008.9	322.5	000.0372	0002.7	017.2	36.83
085.0	000.0770	0082.6	008.8	321.9	000.0370	0003.2	017.2	36.86
086.0	000.0750	0081.3	008.6	321.3	000.0368	0005.0	017.1	36.87
087.0	000.0729	0080.3	008.5	320.6	000.0365	0005.0	017.1	36.89
088.0	000.0709	0079.5	008.4	320.0	000.0363	0006.5	017.0	36.90
089.0	000.0689	0078.6	008.3	319.4	000.0367	0006.7	017.0	36.99
090.0	000.0669	0077.7	008.2	318.8	000.0372	0006.7	016.9	37.07
091.0	000.0642	0076.7	008.0	318.1	000.0377	0005.8	016.9	37.13
092.0	000.0615	0076.0	007.9	317.5	000.0382	0004.9	016.9	37.20
093.0	000.0589	0075.2	007.8	316.8	000.0387	0004.9	016.9	37.26
094.0	000.0564	0074.7	007.7	316.2	000.0392	0004.9	016.9	37.31
095.0	000.0539	0074.4	007.5	315.6	000.0396	0004.9	016.9	37.37
096.0	000.0515	0073.8	007.4	315.0	000.0401	0005.4	016.9	37.41

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
097.0	000.0491	0072.5	007.3	314.4	000.0406	0005.2	016.9	37.44
098.0	000.0468	0071.1	007.1	313.7	000.0411	0005.2	017.0	37.45
099.0	000.0445	0069.5	007.0	313.1	000.0416	0004.1	017.1	37.45
100.0	000.0423	0067.6	006.8	312.4	000.0421	0003.2	017.1	37.43
101.0	000.0408	0066.3	006.7	311.9	000.0426	0003.2	017.2	37.44
102.0	000.0394	0065.6	006.6	311.4	000.0430	0002.8	017.2	37.46
103.0	000.0380	0064.7	006.5	310.9	000.0434	0002.8	017.2	37.47
104.0	000.0366	0063.5	006.4	310.4	000.0438	0002.3	017.3	37.47
105.0	000.0352	0062.3	006.2	309.9	000.0442	0002.3	017.3	37.47
106.0	000.0338	0061.5	006.2	309.5	000.0450	0001.8	017.4	37.51
107.0	000.0325	0061.7	006.1	309.1	000.0456	0001.8	017.4	37.57
108.0	000.0312	0062.2	006.1	308.7	000.0462	0001.8	017.4	37.62
109.0	000.0299	0061.8	006.0	308.3	000.0468	0001.7	017.4	37.65
110.0	000.0287	0061.2	005.9	307.9	000.0475	0001.7	017.5	37.68
111.0	000.0275	0060.8	005.8	307.5	000.0481	0002.4	017.5	37.70
112.0	000.0264	0060.8	005.8	307.1	000.0488	0002.4	017.5	37.74
113.0	000.0253	0061.1	005.7	306.8	000.0493	0002.4	017.6	37.77
114.0	000.0242	0061.5	005.7	306.4	000.0499	0003.8	017.6	37.81
115.0	000.0231	0061.8	005.6	306.1	000.0505	0003.8	017.6	37.83
116.0	000.0221	0061.8	005.6	305.7	000.0511	0003.8	017.7	37.85
117.0	000.0210	0061.8	005.5	305.4	000.0517	0005.0	017.7	37.85
118.0	000.0200	0061.7	005.4	305.0	000.0522	0005.0	017.8	37.86
119.0	000.0191	0062.0	005.4	304.7	000.0528	0005.0	017.8	37.87
120.0	000.0181	0062.8	005.4	304.4	000.0533	0005.8	017.8	37.89
121.0	000.0181	0064.0	005.4	304.1	000.0538	0005.8	017.8	37.98
122.0	000.0181	0065.5	005.5	303.8	000.0544	0005.8	017.7	38.07
123.0	000.0181	0066.4	005.5	303.5	000.0549	0005.8	017.7	38.14
124.0	000.0181	0066.6	005.5	303.2	000.0555	0006.3	017.7	38.19
125.0	000.0181	0066.4	005.5	302.9	000.0560	0006.3	017.7	38.22
126.0	000.0181	0066.0	005.5	302.6	000.0566	0006.3	017.7	38.25
127.0	000.0181	0065.3	005.5	302.3	000.0571	0006.3	017.7	38.26
128.0	000.0181	0064.3	005.4	302.0	000.0576	0006.3	017.8	38.26
129.0	000.0181	0063.1	005.4	301.7	000.0581	0006.3	017.8	38.25
130.0	000.0181	0062.2	005.3	301.4	000.0586	0005.7	017.9	38.25
131.0	000.0191	0062.1	005.4	301.1	000.0592	0005.7	017.8	38.34
132.0	000.0200	0062.3	005.5	300.8	000.0599	0005.7	017.8	38.42
133.0	000.0210	0061.9	005.5	300.4	000.0605	0004.7	017.8	38.49
134.0	000.0221	0060.6	005.5	300.1	000.0611	0004.7	017.8	38.52
135.0	000.0231	0058.4	005.5	299.8	000.0615	0004.7	017.8	38.51
136.0	000.0242	0055.8	005.4	299.6	000.0619	0004.7	017.9	38.47
137.0	000.0253	0053.5	005.4	299.4	000.0623	0003.8	018.0	38.43
138.0	000.0264	0052.5	005.4	299.1	000.0627	0003.8	018.0	38.43
139.0	000.0275	0053.0	005.5	298.7	000.0633	0003.8	018.0	38.51
140.0	000.0287	0054.3	005.6	298.3	000.0640	0003.0	017.9	38.62
141.0	000.0302	0055.4	005.7	297.8	000.0647	0003.0	017.8	38.74
142.0	000.0318	0055.9	005.8	297.4	000.0654	0002.5	017.8	38.82
143.0	000.0333	0055.3	005.8	297.1	000.0660	0002.5	017.8	38.84
144.0	000.0350	0053.9	005.8	296.8	000.0664	0002.5	017.8	38.83
145.0	000.0366	0052.6	005.8	296.5	000.0669	0002.7	017.9	38.81
146.0	000.0383	0052.4	005.9	296.1	000.0675	0002.7	017.9	38.85
147.0	000.0400	0053.3	006.0	295.7	000.0683	0002.7	017.9	38.93

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
148.0	000.0418	0054.5	006.1	295.2	000.0691	0003.3	017.8	39.03
149.0	000.0436	0055.4	006.2	294.7	000.0699	0003.3	017.8	39.11
150.0	000.0455	0055.5	006.3	294.2	000.0706	0004.3	017.8	39.15
151.0	000.0479	0055.2	006.4	293.8	000.0713	0004.3	017.8	39.18
152.0	000.0503	0054.8	006.4	293.5	000.0720	0005.2	017.8	39.19
153.0	000.0528	0054.3	006.5	293.1	000.0726	0005.2	017.9	39.20
154.0	000.0554	0053.7	006.5	292.7	000.0732	0005.2	017.9	39.20
155.0	000.0580	0053.0	006.5	292.4	000.0738	0006.1	018.0	39.19
156.0	000.0607	0052.4	006.6	292.1	000.0744	0006.1	018.0	39.18
157.0	000.0635	0051.9	006.6	291.7	000.0750	0006.1	018.1	39.17
158.0	000.0663	0052.0	006.7	291.3	000.0757	0006.8	018.1	39.19
159.0	000.0692	0052.1	006.8	290.8	000.0765	0006.8	018.1	39.21
160.0	000.0721	0052.4	006.8	290.4	000.0773	0007.0	018.2	39.23
161.0	000.0755	0053.6	007.0	289.8	000.0784	0007.0	018.2	39.29
162.0	000.0791	0055.7	007.2	288.9	000.0797	0007.0	018.1	39.40
163.0	000.0827	0057.2	007.4	288.2	000.0809	0006.4	018.1	39.46
164.0	000.0864	0058.1	007.5	287.6	000.0819	0006.4	018.1	39.49
165.0	000.0902	0059.4	007.7	286.9	000.0830	0005.2	018.2	39.54
166.0	000.0940	0062.1	008.0	286.0	000.0846	0004.0	018.1	39.63
167.0	000.0979	0065.0	008.3	285.0	000.0863	0002.8	018.1	39.73
168.0	000.1020	0066.9	008.5	284.2	000.0877	0001.4	018.2	39.77
169.0	000.1061	0069.1	008.7	283.3	000.0892	0000.2	018.2	39.81
170.0	000.1102	0071.7	009.0	282.4	000.0908	-0000.6	018.2	39.86
171.0	000.1160	0073.9	009.2	281.4	000.0925	-0001.0	018.3	39.89
172.0	000.1220	0074.4	009.4	280.8	000.0936	-0001.0	018.4	39.86
173.0	000.1281	0073.5	009.4	280.5	000.0942	-0001.0	018.5	39.77
174.0	000.1343	0072.4	009.5	280.2	000.0947	-0001.0	018.7	39.68
175.0	000.1407	0071.5	009.5	279.9	000.0953	-0001.0	018.8	39.59
176.0	000.1473	0071.7	009.7	279.4	000.0966	-0000.8	019.0	39.54
177.0	000.1540	0072.3	009.8	278.9	000.0981	-0000.8	019.1	39.50
178.0	000.1608	0071.6	009.9	278.6	000.0989	-0000.8	019.2	39.40
179.0	000.1678	0068.3	009.8	278.8	000.0983	-0000.8	019.4	39.23
180.0	000.1749	0064.8	009.6	279.1	000.0974	-0000.8	019.6	39.03
181.0	000.1841	0061.2	009.5	279.4	000.0966	-0000.8	019.8	38.85
182.0	000.1935	0058.9	009.5	279.5	000.0964	-0001.0	020.0	38.71
183.0	000.2031	0057.4	009.5	279.5	000.0965	-0000.8	020.1	38.58

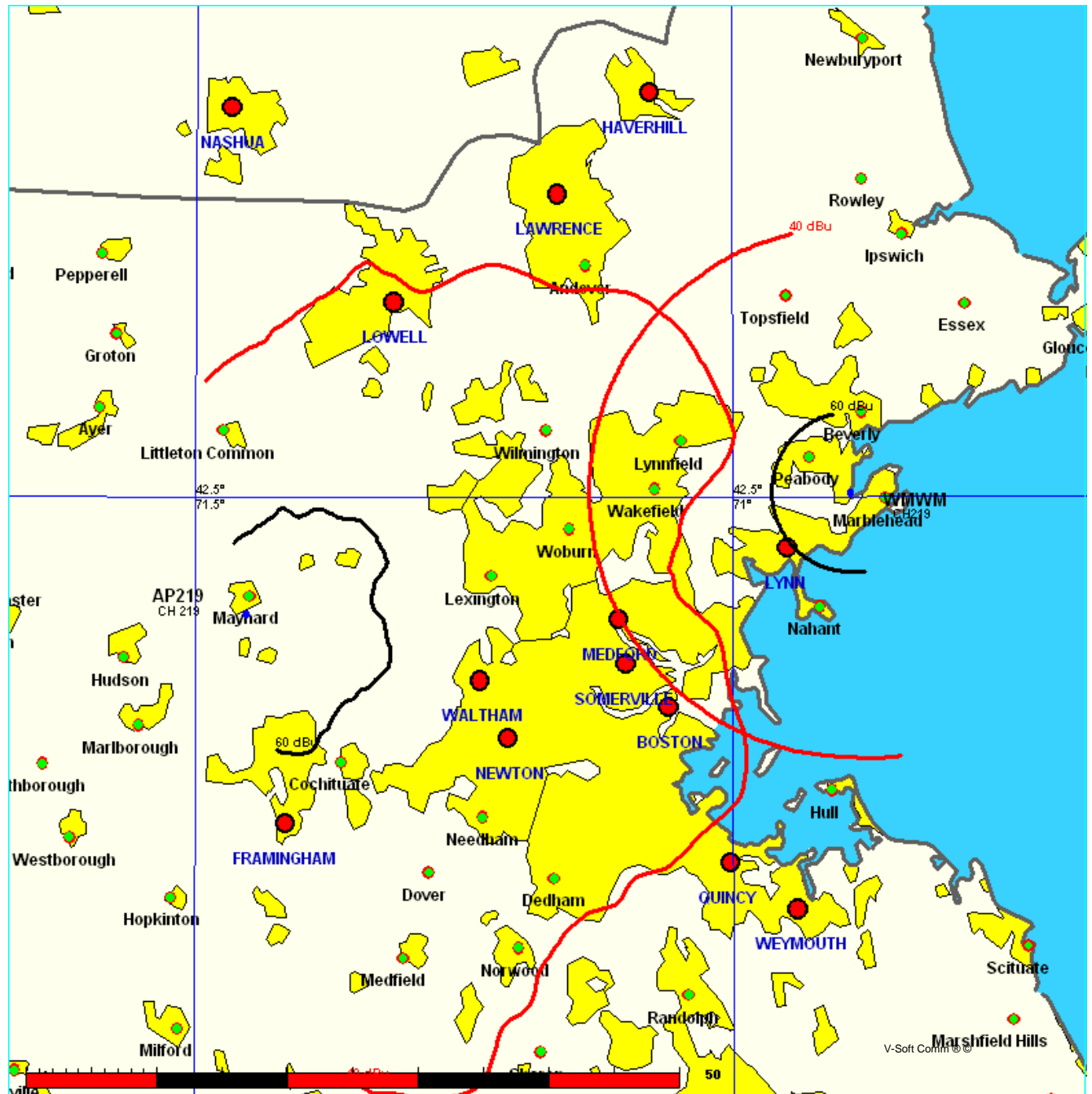
Relationship with WMWM, Salem, MA
U-Mass, Boston/Maynard School Committee

FMCommander Allocation Study
04-09-2006

AP219 CH 219 A
0.5 kW 100 M COR DA
Prot. = 60 dBu
Intef. = 40 dBu

WMWM CH 219 A BLED19791203AJ
0.13 kW, 31 M COR
Prot. = 60 dBu
Intef. = 40 dBu

Scale = 1:750,000



04-09-2006

30 Arc-Sec. Terrain Data

FMOver Analysis

AP219

Channel = 219A

Max ERP = 0.5 kW

RCAMSL = 100 M

N. Lat = 42 25 17

W. Lng = 71 27 10

Protected

60 dBu

WMWM BLED19791203AJ

Channel = 219A

Max ERP = 0.13 kW

RCAMSL = 31 M

N. Lat = 42 30 14

W. Lng = 70 53 26

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
019.0	000.2148	0045.7	008.5	268.6	000.1300	-0002.7	043.5	28.64
020.0	000.2198	0045.4	008.5	268.6	000.1300	-0002.7	043.3	28.68
021.0	000.2242	0044.4	008.4	268.4	000.1300	-0002.8	043.2	28.71
022.0	000.2288	0043.7	008.4	268.3	000.1300	-0002.8	043.1	28.74
023.0	000.2333	0043.3	008.4	268.2	000.1300	-0002.8	043.0	28.78
024.0	000.2379	0042.9	008.4	268.2	000.1300	-0002.8	042.8	28.82
025.0	000.2426	0042.3	008.4	268.0	000.1300	-0002.8	042.7	28.85
026.0	000.2472	0041.5	008.3	267.9	000.1300	-0002.8	042.6	28.88
027.0	000.2520	0040.9	008.3	267.8	000.1300	-0002.8	042.5	28.92
028.0	000.2568	0040.6	008.3	267.7	000.1300	-0002.8	042.4	28.95
029.0	000.2616	0040.6	008.3	267.6	000.1300	-0002.8	042.2	29.00
030.0	000.2665	0041.4	008.5	267.7	000.1300	-0002.8	042.0	29.05
031.0	000.2727	0042.8	008.7	267.8	000.1300	-0002.8	041.8	29.13
032.0	000.2790	0044.6	008.9	268.0	000.1300	-0002.8	041.5	29.21
033.0	000.2854	0046.5	009.2	268.2	000.1300	-0002.8	041.2	29.29
034.0	000.2918	0048.1	009.4	268.3	000.1300	-0002.8	041.0	29.37
035.0	000.2984	0049.2	009.6	268.3	000.1300	-0002.8	040.7	29.44
036.0	000.3050	0049.8	009.7	268.3	000.1300	-0002.8	040.5	29.51
037.0	000.3117	0050.0	009.8	268.3	000.1300	-0002.8	040.3	29.56
038.0	000.3184	0050.0	009.9	268.2	000.1300	-0002.8	040.2	29.62
039.0	000.3252	0049.8	009.9	268.0	000.1300	-0002.8	040.0	29.66
040.0	000.3321	0049.7	009.9	267.9	000.1300	-0002.8	039.9	29.71
041.0	000.3387	0049.7	010.0	267.8	000.1300	-0002.8	039.7	29.76
042.0	000.3453	0049.5	010.0	267.7	000.1300	-0002.8	039.6	29.81
043.0	000.3520	0049.4	010.0	267.5	000.1300	-0002.8	039.4	29.86
044.0	000.3587	0049.5	010.1	267.4	000.1300	-0003.2	039.2	29.91
045.0	000.3655	0050.0	010.2	267.3	000.1300	-0003.2	039.1	29.97
046.0	000.3724	0051.0	010.4	267.2	000.1300	-0003.2	038.8	30.05
047.0	000.3793	0052.3	010.5	267.2	000.1300	-0003.2	038.6	30.13
048.0	000.3863	0053.6	010.7	267.2	000.1300	-0003.2	038.3	30.22
049.0	000.3934	0054.8	010.9	267.1	000.1300	-0003.2	038.1	30.30
050.0	000.4005	0055.8	011.0	267.0	000.1300	-0003.2	037.8	30.38
051.0	000.4055	0056.6	011.1	266.9	000.1300	-0003.2	037.6	30.45
052.0	000.4106	0057.1	011.2	266.7	000.1300	-0003.2	037.4	30.51
053.0	000.4157	0057.4	011.3	266.5	000.1300	-0002.9	037.3	30.56
054.0	000.4208	0057.6	011.3	266.3	000.1300	-0002.9	037.1	30.61
055.0	000.4260	0057.7	011.4	266.0	000.1300	-0002.9	037.0	30.66

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
056.0	000.4311	0057.9	011.4	265.8	000.1300	-0002.9	036.9	30.71
057.0	000.4364	0058.0	011.5	265.6	000.1300	-0002.9	036.7	30.76
058.0	000.4416	0057.9	011.5	265.3	000.1300	-0002.4	036.6	30.80
059.0	000.4469	0057.7	011.5	265.0	000.1300	-0002.4	036.5	30.83
060.0	000.4522	0057.3	011.5	264.7	000.1300	-0002.4	036.4	30.86
061.0	000.4569	0056.9	011.5	264.5	000.1300	-0001.9	036.4	30.89
062.0	000.4616	0056.7	011.5	264.2	000.1300	-0001.9	036.3	30.92
063.0	000.4663	0056.5	011.5	263.9	000.1300	-0001.9	036.2	30.94
064.0	000.4710	0056.2	011.5	263.6	000.1300	-0001.9	036.1	30.97
065.0	000.4758	0055.9	011.5	263.3	000.1300	-0001.5	036.1	30.99
066.0	000.4806	0055.6	011.5	263.0	000.1300	-0001.5	036.0	31.01
067.0	000.4854	0055.3	011.5	262.7	000.1300	-0001.5	035.9	31.03
068.0	000.4902	0055.0	011.5	262.3	000.1300	-0001.5	035.9	31.05
069.0	000.4951	0054.6	011.5	262.0	000.1300	-0001.5	035.9	31.06
070.0	000.5000	0054.1	011.5	261.7	000.1300	-0001.5	035.8	31.07
071.0	000.4999	0053.4	011.4	261.4	000.1300	-0001.5	035.9	31.05
072.0	000.4998	0052.1	011.2	261.0	000.1300	-0001.5	036.0	31.02
073.0	000.4997	0050.3	011.0	260.7	000.1300	-0001.5	036.2	30.96
074.0	000.4996	0048.0	010.8	260.3	000.1300	-0001.5	036.4	30.87
075.0	000.4995	0045.5	010.5	260.0	000.1300	-0001.5	036.7	30.77
076.0	000.4994	0043.6	010.3	259.7	000.1300	-0001.5	036.9	30.70
077.0	000.4993	0042.3	010.1	259.4	000.1300	-0001.3	037.1	30.64
078.0	000.4992	0041.6	010.0	259.1	000.1300	-0001.3	037.1	30.61
079.0	000.4991	0041.1	009.9	258.8	000.1300	-0001.3	037.2	30.59
080.0	000.4990	0040.8	009.9	258.6	000.1300	-0001.3	037.3	30.58
081.0	000.4991	0040.1	009.8	258.3	000.1300	-0000.6	037.3	30.55
082.0	000.4992	0039.5	009.7	258.1	000.1300	-0000.6	037.4	30.51
083.0	000.4993	0039.0	009.7	257.8	000.1300	-0000.6	037.5	30.49
084.0	000.4994	0038.6	009.6	257.6	000.1300	-0000.6	037.6	30.47
085.0	000.4995	0038.9	009.7	257.3	000.1300	0000.0	037.6	30.47
086.0	000.4996	0039.1	009.7	257.0	000.1300	0000.0	037.6	30.47
087.0	000.4997	0039.3	009.7	256.8	000.1300	0000.0	037.6	30.47
088.0	000.4998	0039.9	009.8	256.5	000.1300	0000.0	037.5	30.49
089.0	000.4999	0041.1	009.9	256.2	000.1300	0000.5	037.4	30.52
090.0	000.5000	0042.5	010.1	255.9	000.1300	0000.5	037.3	30.57
091.0	000.5000	0043.9	010.3	255.5	000.1300	0000.5	037.1	30.61
092.0	000.5000	0045.4	010.5	255.2	000.1300	0001.2	037.0	30.65
093.0	000.5000	0046.2	010.6	254.9	000.1300	0001.2	037.0	30.66
094.0	000.5000	0046.8	010.6	254.6	000.1300	0001.2	037.0	30.67
095.0	000.5000	0047.1	010.7	254.3	000.1300	0001.7	037.0	30.66
096.0	000.5000	0047.4	010.7	254.0	000.1300	0001.7	037.1	30.64
097.0	000.5000	0047.8	010.8	253.7	000.1300	0001.7	037.1	30.63
098.0	000.5000	0048.3	010.8	253.4	000.1300	0002.3	037.1	30.63
099.0	000.5000	0048.8	010.9	253.1	000.1300	0002.3	037.1	30.62
100.0	000.5000	0049.4	010.9	252.8	000.1300	0002.3	037.2	30.61
101.0	000.5000	0050.4	011.1	252.4	000.1300	0003.0	037.1	30.61
102.0	000.5000	0051.5	011.2	252.1	000.1300	0003.0	037.1	30.62
103.0	000.5000	0052.5	011.3	251.7	000.1300	0003.0	037.1	30.61
104.0	000.5000	0053.3	011.4	251.4	000.1300	0003.5	037.2	30.60
105.0	000.5000	0053.8	011.4	251.1	000.1300	0003.5	037.2	30.58
106.0	000.5000	0054.4	011.5	250.8	000.1300	0003.5	037.3	30.56

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
107.0	000.5000	0054.9	011.5	250.5	000.1300	0004.1	037.4	30.53
108.0	000.5000	0055.2	011.6	250.2	000.1300	0004.1	037.5	30.50
109.0	000.5000	0055.5	011.6	249.9	000.1300	0004.1	037.6	30.46
110.0	000.5000	0055.6	011.6	249.7	000.1300	0004.1	037.7	30.42
111.0	000.5000	0055.3	011.6	249.5	000.1300	0004.7	037.9	30.37
112.0	000.5000	0054.5	011.5	249.3	000.1300	0004.7	038.1	30.30
113.0	000.5000	0053.6	011.4	249.2	000.1300	0004.7	038.3	30.23
114.0	000.5000	0052.6	011.3	249.1	000.1300	0004.7	038.5	30.16
115.0	000.5000	0051.9	011.2	249.0	000.1300	0004.7	038.7	30.10
116.0	000.5000	0051.2	011.1	248.9	000.1300	0004.7	038.9	30.03
117.0	000.5000	0050.7	011.1	248.8	000.1300	0004.7	039.1	29.97
118.0	000.5000	0050.3	011.0	248.6	000.1300	0004.7	039.2	29.92
119.0	000.5000	0049.9	011.0	248.5	000.1300	0004.9	039.4	29.86
120.0	000.5000	0049.4	010.9	248.4	000.1300	0004.9	039.6	29.80
121.0	000.5000	0048.5	010.8	248.3	000.1300	0004.9	039.8	29.73
122.0	000.5000	0047.3	010.7	248.3	000.1300	0004.9	040.0	29.66
123.0	000.5000	0046.1	010.5	248.4	000.1300	0004.9	040.3	29.58
124.0	000.5000	0045.2	010.4	248.3	000.1300	0004.9	040.5	29.52
125.0	000.5000	0044.9	010.4	248.2	000.1300	0004.9	040.7	29.47
126.0	000.5000	0045.1	010.4	248.1	000.1300	0004.9	040.8	29.42
127.0	000.5000	0045.3	010.5	247.9	000.1300	0004.9	040.9	29.38
128.0	000.5000	0045.0	010.4	247.8	000.1300	0004.9	041.1	29.32
129.0	000.5000	0044.3	010.3	247.8	000.1300	0004.9	041.3	29.26
130.0	000.5000	0043.2	010.2	247.8	000.1300	0004.9	041.5	29.20
131.0	000.5000	0042.6	010.1	247.8	000.1300	0004.9	041.7	29.14
132.0	000.5000	0042.3	010.1	247.8	000.1300	0004.9	041.9	29.09
133.0	000.5000	0042.2	010.1	247.7	000.1300	0004.9	042.1	29.04
134.0	000.5000	0042.1	010.1	247.6	000.1300	0004.9	042.2	28.99
135.0	000.5000	0042.1	010.1	247.5	000.1300	0004.9	042.4	28.94
136.0	000.5000	0042.4	010.1	247.4	000.1300	0005.0	042.6	28.90
137.0	000.5000	0042.7	010.1	247.2	000.1300	0005.0	042.7	28.86
138.0	000.5000	0043.0	010.2	247.1	000.1300	0005.0	042.9	28.81
139.0	000.5000	0043.2	010.2	247.0	000.1300	0005.0	043.0	28.77

04-09-2006 30 Arc-Sec. Sec. Terrain Data

WMWM BLED19791203AJ
 Channel = 219A
 Max ERP = 0.13 kW
 RCAMSL = 31 M
 N. Lat = 42 30 14
 W. Lng = 70 53 26
 Protected
 60 dBu

AP219
 Channel = 219A
 Max ERP = 0.5 kW
 RCAMSL = 100 M
 N. Lat = 42 25 17
 W. Lng = 71 27 10
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
199.0	000.1300	0028.0	006.0	085.3	000.4995	0038.9	044.4	35.90
200.0	000.1300	0027.9	006.0	085.3	000.4995	0038.9	044.3	35.92
201.0	000.1300	0027.8	006.0	085.2	000.4995	0038.9	044.2	35.95
202.0	000.1300	0027.7	006.0	085.1	000.4995	0038.9	044.2	35.98
203.0	000.1300	0027.7	006.0	085.1	000.4995	0038.9	044.1	36.01
204.0	000.1300	0027.9	006.0	085.0	000.4995	0038.9	044.0	36.03
205.0	000.1300	0028.1	006.0	084.9	000.4995	0038.9	043.9	36.06
206.0	000.1300	0028.1	006.0	084.9	000.4995	0038.9	043.8	36.09
207.0	000.1300	0028.0	006.0	084.8	000.4995	0038.9	043.7	36.12
208.0	000.1300	0028.2	006.0	084.7	000.4995	0038.9	043.6	36.14
209.0	000.1300	0028.5	006.0	084.7	000.4995	0038.9	043.5	36.17
210.0	000.1300	0028.5	006.0	084.6	000.4995	0038.9	043.4	36.20
211.0	000.1300	0028.3	006.0	084.5	000.4994	0038.6	043.3	36.16
212.0	000.1300	0028.2	006.0	084.4	000.4994	0038.6	043.3	36.19
213.0	000.1300	0028.4	006.0	084.3	000.4994	0038.6	043.2	36.21
214.0	000.1300	0028.2	006.0	084.2	000.4994	0038.6	043.1	36.24
215.0	000.1300	0027.6	006.0	084.2	000.4994	0038.6	043.0	36.26
216.0	000.1300	0026.8	006.0	084.1	000.4994	0038.6	042.9	36.28
217.0	000.1300	0025.8	006.0	084.0	000.4994	0038.6	042.9	36.31
218.0	000.1300	0025.3	006.0	083.9	000.4994	0038.6	042.8	36.33
219.0	000.1300	0025.6	006.0	083.8	000.4994	0038.6	042.7	36.36
220.0	000.1300	0026.1	006.0	083.7	000.4994	0038.6	042.6	36.38
221.0	000.1300	0026.0	006.0	083.6	000.4994	0038.6	042.6	36.40
222.0	000.1300	0025.3	006.0	083.5	000.4993	0039.0	042.5	36.49
223.0	000.1300	0024.0	006.0	083.4	000.4993	0039.0	042.4	36.51
224.0	000.1300	0022.8	006.0	083.2	000.4993	0039.0	042.4	36.54
225.0	000.1300	0022.6	006.0	083.1	000.4993	0039.0	042.3	36.56
226.0	000.1300	0022.8	006.0	083.0	000.4993	0039.0	042.2	36.58
227.0	000.1300	0022.5	006.0	082.9	000.4993	0039.0	042.2	36.60
228.0	000.1300	0021.6	006.0	082.8	000.4993	0039.0	042.1	36.62
229.0	000.1300	0020.9	006.0	082.7	000.4993	0039.0	042.0	36.63
230.0	000.1300	0020.8	006.0	082.6	000.4993	0039.0	042.0	36.65
231.0	000.1300	0020.9	006.0	082.4	000.4992	0039.5	041.9	36.76
232.0	000.1300	0020.8	006.0	082.3	000.4992	0039.5	041.9	36.78

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
233.0	000.1300	0020.6	006.0	082.2	000.4992	0039.5	041.8	36.80
234.0	000.1300	0020.0	006.0	082.1	000.4992	0039.5	041.8	36.81
235.0	000.1300	0019.1	006.0	081.9	000.4992	0039.5	041.7	36.83
236.0	000.1300	0017.9	006.0	081.8	000.4992	0039.5	041.7	36.84
237.0	000.1300	0016.4	006.0	081.7	000.4992	0039.5	041.6	36.86
238.0	000.1300	0014.7	006.0	081.5	000.4992	0039.5	041.6	36.87
239.0	000.1300	0012.8	006.0	081.4	000.4991	0040.1	041.5	37.01
240.0	000.1300	0010.3	006.0	081.3	000.4991	0040.1	041.5	37.02
241.0	000.1300	0007.7	006.0	081.1	000.4991	0040.1	041.5	37.03
242.0	000.1300	0005.4	006.0	081.0	000.4991	0040.1	041.4	37.04
243.0	000.1300	0003.9	006.0	080.9	000.4991	0040.1	041.4	37.06
244.0	000.1300	0003.6	006.0	080.7	000.4991	0040.1	041.4	37.07
245.0	000.1300	0003.9	006.0	080.6	000.4991	0040.1	041.3	37.08
246.0	000.1300	0004.5	006.0	080.4	000.4990	0040.8	041.3	37.20
247.0	000.1300	0005.0	006.0	080.3	000.4990	0040.8	041.3	37.21
248.0	000.1300	0004.9	006.0	080.2	000.4990	0040.8	041.3	37.22
249.0	000.1300	0004.7	006.0	080.0	000.4990	0040.8	041.2	37.23
250.0	000.1300	0004.1	006.0	079.9	000.4990	0040.8	041.2	37.23
251.0	000.1300	0003.5	006.0	079.7	000.4990	0040.8	041.2	37.24
252.0	000.1300	0003.0	006.0	079.6	000.4990	0040.8	041.2	37.24
253.0	000.1300	0002.3	006.0	079.4	000.4991	0041.1	041.2	37.31
254.0	000.1300	0001.7	006.0	079.3	000.4991	0041.1	041.2	37.31
255.0	000.1300	0001.2	006.0	079.1	000.4991	0041.1	041.1	37.31
256.0	000.1300	0000.5	006.0	079.0	000.4991	0041.1	041.1	37.32
257.0	000.1300	0000.0	006.0	078.8	000.4991	0041.1	041.1	37.32
258.0	000.1300	-0000.6	006.0	078.7	000.4991	0041.1	041.1	37.32
259.0	000.1300	-0001.3	006.0	078.6	000.4991	0041.1	041.1	37.32
260.0	000.1300	-0001.5	006.0	078.4	000.4992	0041.6	041.1	37.41
261.0	000.1300	-0001.5	006.0	078.3	000.4992	0041.6	041.1	37.41
262.0	000.1300	-0001.5	006.0	078.1	000.4992	0041.6	041.1	37.41
263.0	000.1300	-0001.5	006.0	078.0	000.4992	0041.6	041.1	37.40
264.0	000.1300	-0001.9	006.0	077.8	000.4992	0041.6	041.2	37.40
265.0	000.1300	-0002.4	006.0	077.7	000.4992	0041.6	041.2	37.40
266.0	000.1300	-0002.9	006.0	077.5	000.4992	0041.6	041.2	37.39
267.0	000.1300	-0003.2	006.0	077.4	000.4993	0042.3	041.2	37.53
268.0	000.1300	-0002.8	006.0	077.2	000.4993	0042.3	041.2	37.52
269.0	000.1300	-0002.7	006.0	077.1	000.4993	0042.3	041.2	37.51
270.0	000.1300	-0002.6	006.0	077.0	000.4993	0042.3	041.3	37.51
271.0	000.1300	-0002.4	006.0	076.8	000.4993	0042.3	041.3	37.50
272.0	000.1300	-0002.3	006.0	076.7	000.4993	0042.3	041.3	37.49
273.0	000.1300	-0002.3	006.0	076.5	000.4993	0042.3	041.3	37.48
274.0	000.1300	-0002.0	006.0	076.4	000.4994	0043.6	041.4	37.70
275.0	000.1300	-0001.4	006.0	076.3	000.4994	0043.6	041.4	37.69
276.0	000.1300	-0000.6	006.0	076.1	000.4994	0043.6	041.4	37.68
277.0	000.1300	0000.2	006.0	076.0	000.4994	0043.6	041.5	37.67
278.0	000.1300	0000.9	006.0	075.8	000.4994	0043.6	041.5	37.66
279.0	000.1300	0001.8	006.0	075.7	000.4994	0043.6	041.5	37.64
280.0	000.1300	0002.5	006.0	075.6	000.4994	0043.6	041.6	37.63
281.0	000.1300	0002.8	006.0	075.4	000.4995	0045.5	041.6	37.94
282.0	000.1300	0002.7	006.0	075.3	000.4995	0045.5	041.7	37.92
283.0	000.1300	0002.3	006.0	075.2	000.4995	0045.5	041.7	37.91

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
284.0	000.1300	0001.7	006.0	075.1	000.4995	0045.5	041.8	37.89
285.0	000.1300	0001.0	006.0	074.9	000.4995	0045.5	041.8	37.88
286.0	000.1300	0000.5	006.0	074.8	000.4995	0045.5	041.9	37.86
287.0	000.1300	0000.3	006.0	074.7	000.4995	0045.5	041.9	37.84
288.0	000.1300	0000.0	006.0	074.6	000.4995	0045.5	042.0	37.82
289.0	000.1300	-0000.5	006.0	074.4	000.4996	0048.0	042.0	38.21
290.0	000.1300	-0001.2	006.0	074.3	000.4996	0048.0	042.1	38.19
291.0	000.1300	-0002.1	006.0	074.2	000.4996	0048.0	042.2	38.17
292.0	000.1300	-0002.8	006.0	074.1	000.4996	0048.0	042.2	38.14
293.0	000.1300	-0002.6	006.0	074.0	000.4996	0048.0	042.3	38.12
294.0	000.1300	-0001.4	006.0	073.9	000.4996	0048.0	042.4	38.10
295.0	000.1300	0000.2	006.0	073.8	000.4996	0048.0	042.4	38.08
296.0	000.1300	0001.6	006.0	073.7	000.4996	0048.0	042.5	38.05
297.0	000.1300	0002.5	006.0	073.6	000.4996	0048.0	042.6	38.03
298.0	000.1300	0003.0	006.0	073.4	000.4997	0050.3	042.6	38.38
299.0	000.1300	0003.5	006.0	073.3	000.4997	0050.3	042.7	38.35
300.0	000.1300	0004.3	006.0	073.2	000.4997	0050.3	042.8	38.32
301.0	000.1300	0005.2	006.0	073.2	000.4997	0050.3	042.9	38.30
302.0	000.1300	0006.1	006.0	073.1	000.4997	0050.3	042.9	38.27
303.0	000.1300	0006.5	006.0	073.0	000.4997	0050.3	043.0	38.25
304.0	000.1300	0006.3	006.0	072.9	000.4997	0050.3	043.1	38.22
305.0	000.1300	0006.0	006.0	072.8	000.4997	0050.3	043.2	38.19
306.0	000.1300	0006.2	006.0	072.7	000.4997	0050.3	043.3	38.16
307.0	000.1300	0007.1	006.0	072.6	000.4997	0050.3	043.4	38.14
308.0	000.1300	0008.4	006.0	072.5	000.4997	0050.3	043.4	38.11
309.0	000.1300	0009.7	006.0	072.5	000.4998	0052.1	043.5	38.34
310.0	000.1300	0010.4	006.0	072.4	000.4998	0052.1	043.6	38.31
311.0	000.1300	0010.8	006.0	072.3	000.4998	0052.1	043.7	38.28
312.0	000.1300	0010.6	006.0	072.2	000.4998	0052.1	043.8	38.25
313.0	000.1300	0010.3	006.0	072.2	000.4998	0052.1	043.9	38.22
314.0	000.1300	0010.1	006.0	072.1	000.4998	0052.1	044.0	38.19
315.0	000.1300	0010.4	006.0	072.0	000.4998	0052.1	044.1	38.16
316.0	000.1300	0010.8	006.0	072.0	000.4998	0052.1	044.2	38.13
317.0	000.1300	0010.9	006.0	071.9	000.4998	0052.1	044.3	38.09
318.0	000.1300	0010.7	006.0	071.9	000.4998	0052.1	044.4	38.06
319.0	000.1300	0010.4	006.0	071.8	000.4998	0052.1	044.4	38.03

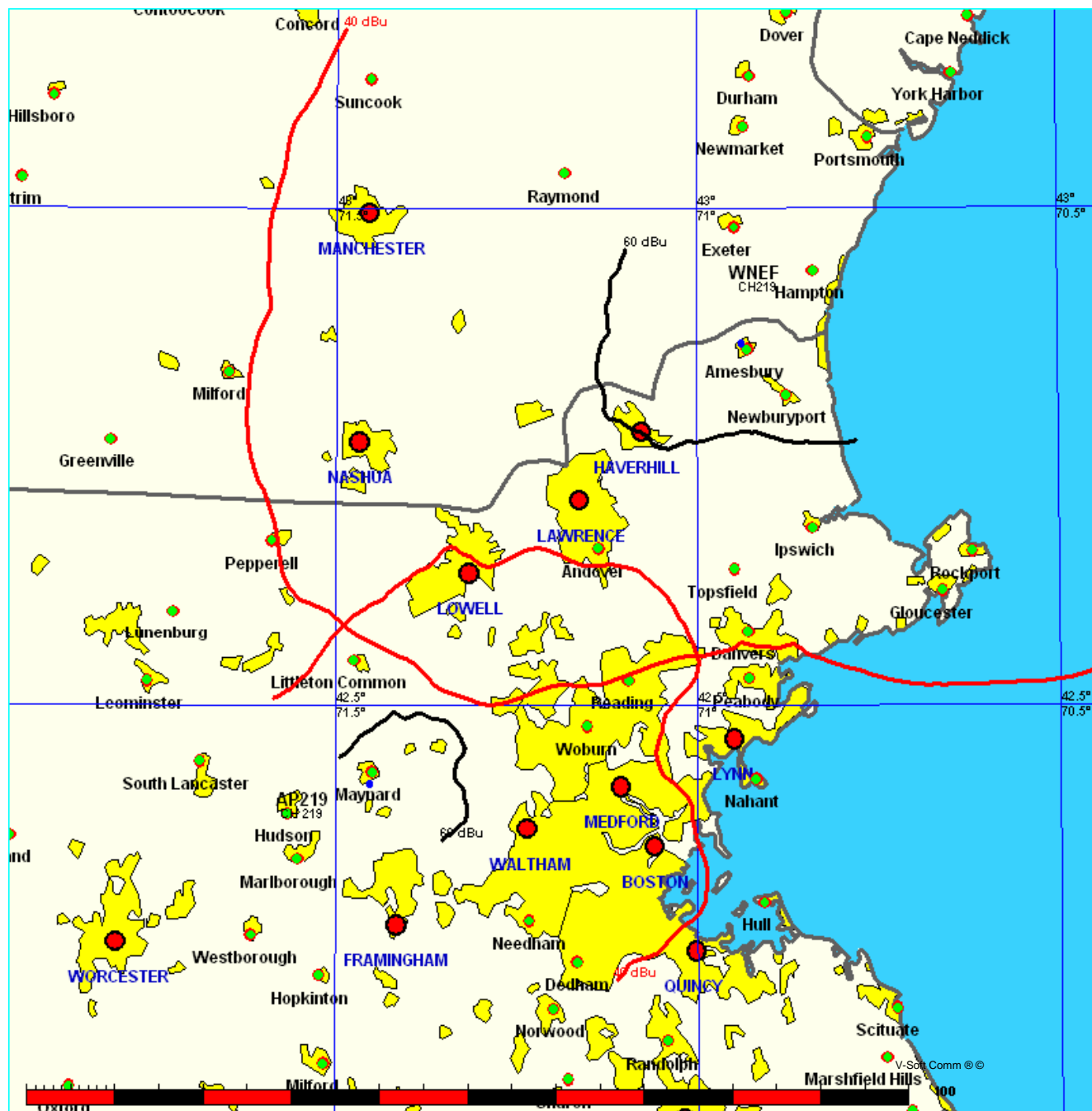
Relationship with WNEF, Newburyport, MA
U-Mass, Boston/Maynard School Committee

FMCommander Allocation Study
04-09-2006

AP219 CH 219 A
0.5 kW 100 M COR DA
Prot. = 60 dBu
Intef. = 40 dBu

WNEF CH 219 A BLED20051118AGI
1.0 kW, 122 M COR DA
Prot. = 60 dBu
Intef. = 40 dBu

Scale = 1:1,125,000



04-09-2006

30 Arc-Sec. Terrain Data

FMOver Analysis

AP219

Channel = 219A

Max ERP = 0.5 kW

RCAMSL = 100 M

N. Lat = 42 25 17

W. Lng = 71 27 10

Protected

60 dBu

WNEF

BLED20051118AGI

Channel = 219A

Max ERP = 1 kW

RCAMSL = 122 M

N. Lat = 42 51 56

W. Lng = 70 56 17

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
340.0	000.0578	0029.3	004.9	224.5	000.5566	0090.2	062.7	36.00
341.0	000.0604	0029.1	004.9	224.5	000.5569	0090.2	062.6	36.03
342.0	000.0631	0028.5	005.0	224.5	000.5572	0090.2	062.5	36.07
343.0	000.0658	0027.8	005.1	224.5	000.5574	0090.2	062.4	36.10
344.0	000.0686	0027.2	005.1	224.5	000.5575	0090.2	062.2	36.14
345.0	000.0714	0027.2	005.2	224.5	000.5576	0090.2	062.1	36.17
346.0	000.0743	0027.5	005.2	224.5	000.5575	0090.2	062.0	36.20
347.0	000.0773	0027.4	005.3	224.5	000.5574	0090.2	061.9	36.24
348.0	000.0803	0027.0	005.3	224.5	000.5573	0090.2	061.8	36.27
349.0	000.0834	0026.6	005.4	224.5	000.5570	0090.2	061.7	36.30
350.0	000.0865	0026.1	005.4	224.5	000.5567	0090.2	061.6	36.34
351.0	000.0904	0025.8	005.5	224.5	000.5565	0090.2	061.5	36.37
352.0	000.0943	0025.9	005.6	224.5	000.5562	0092.8	061.4	36.58
353.0	000.0983	0027.0	005.6	224.5	000.5559	0092.8	061.3	36.62
354.0	000.1023	0027.5	005.7	224.5	000.5555	0092.8	061.2	36.65
355.0	000.1065	0027.3	005.7	224.4	000.5549	0092.8	061.0	36.69
356.0	000.1107	0026.9	005.8	224.4	000.5544	0092.8	060.9	36.72
357.0	000.1151	0026.9	005.8	224.4	000.5537	0092.8	060.8	36.75
358.0	000.1195	0027.0	005.9	224.4	000.5529	0092.8	060.7	36.78
359.0	000.1240	0027.8	005.9	224.3	000.5521	0092.8	060.6	36.82
000.0	000.1285	0028.5	006.0	224.3	000.5511	0092.8	060.5	36.85
001.0	000.1326	0029.1	006.0	224.3	000.5501	0092.8	060.4	36.87
002.0	000.1368	0029.0	006.1	224.2	000.5490	0092.8	060.3	36.90
003.0	000.1410	0028.8	006.1	224.2	000.5478	0092.8	060.2	36.93
004.0	000.1453	0029.9	006.2	224.1	000.5466	0092.8	060.1	36.96
005.0	000.1496	0031.3	006.4	224.1	000.5470	0092.8	059.9	37.03
006.0	000.1540	0032.3	006.5	224.1	000.5468	0092.8	059.7	37.09
007.0	000.1585	0032.7	006.6	224.1	000.5459	0092.8	059.6	37.13
008.0	000.1630	0033.2	006.7	224.1	000.5450	0092.8	059.4	37.17
009.0	000.1676	0033.9	006.8	224.0	000.5442	0092.8	059.3	37.22
010.0	000.1723	0034.7	006.9	224.0	000.5434	0092.8	059.1	37.27
011.0	000.1768	0035.5	007.0	224.0	000.5425	0092.8	058.9	37.32
012.0	000.1813	0036.4	007.1	223.9	000.5417	0092.8	058.7	37.38
013.0	000.1859	0037.2	007.3	223.9	000.5406	0092.8	058.6	37.43
014.0	000.1906	0037.9	007.4	223.8	000.5391	0092.8	058.4	37.47
015.0	000.1953	0038.7	007.5	223.8	000.5377	0092.8	058.2	37.52
016.0	000.2001	0040.1	007.7	223.8	000.5371	0092.8	058.0	37.60

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
017.0	000.2049	0042.3	008.0	223.8	000.5372	0092.8	057.7	37.71
018.0	000.2098	0044.5	008.3	223.8	000.5374	0092.8	057.4	37.84
019.0	000.2148	0045.7	008.5	223.7	000.5359	0092.8	057.1	37.90
020.0	000.2198	0045.4	008.5	223.6	000.5327	0092.8	057.1	37.91
021.0	000.2242	0044.4	008.4	223.4	000.5287	0096.0	057.1	38.10
022.0	000.2288	0043.7	008.4	223.3	000.5249	0096.0	057.0	38.08
023.0	000.2333	0043.3	008.4	223.1	000.5215	0096.0	057.0	38.07
024.0	000.2379	0042.9	008.4	223.0	000.5180	0096.0	056.9	38.06
025.0	000.2426	0042.3	008.4	222.8	000.5143	0096.0	056.9	38.03
026.0	000.2472	0041.5	008.3	222.7	000.5105	0096.0	056.9	38.00
027.0	000.2520	0040.9	008.3	222.5	000.5069	0096.0	056.9	37.97
028.0	000.2568	0040.6	008.3	222.4	000.5034	0098.9	056.9	38.16
029.0	000.2616	0040.6	008.3	222.3	000.5002	0098.9	056.8	38.17
030.0	000.2665	0041.4	008.5	222.2	000.4974	0098.9	056.6	38.20
031.0	000.2727	0042.8	008.7	222.0	000.4948	0098.9	056.4	38.27
032.0	000.2790	0044.6	008.9	221.9	000.4922	0098.9	056.1	38.35
033.0	000.2854	0046.5	009.2	221.8	000.4894	0098.9	055.8	38.43
034.0	000.2918	0048.1	009.4	221.7	000.4861	0098.9	055.5	38.50
035.0	000.2984	0049.2	009.6	221.5	000.4825	0098.9	055.4	38.54
036.0	000.3050	0049.8	009.7	221.4	000.4786	0101.1	055.2	38.71
037.0	000.3117	0050.0	009.8	221.2	000.4746	0101.1	055.1	38.71
038.0	000.3184	0050.0	009.9	221.0	000.4704	0101.1	055.1	38.69
039.0	000.3252	0049.8	009.9	220.9	000.4662	0101.1	055.0	38.67
040.0	000.3321	0049.7	009.9	220.7	000.4619	0101.1	055.0	38.65
041.0	000.3387	0049.7	010.0	220.5	000.4577	0102.6	054.9	38.72
042.0	000.3453	0049.5	010.0	220.3	000.4534	0102.6	054.9	38.69
043.0	000.3520	0049.4	010.0	220.1	000.4491	0102.6	054.9	38.66
044.0	000.3587	0049.5	010.1	219.9	000.4451	0102.6	054.8	38.64
045.0	000.3655	0050.0	010.2	219.7	000.4416	0102.6	054.8	38.64
046.0	000.3724	0051.0	010.4	219.5	000.4378	0102.6	054.6	38.65
047.0	000.3793	0052.3	010.5	219.3	000.4340	0103.3	054.5	38.72
048.0	000.3863	0053.6	010.7	219.1	000.4300	0103.3	054.3	38.74
049.0	000.3934	0054.8	010.9	218.9	000.4259	0103.3	054.2	38.75
050.0	000.4005	0055.8	011.0	218.7	000.4219	0103.3	054.1	38.75
051.0	000.4055	0056.6	011.1	218.4	000.4179	0104.0	054.0	38.78
052.0	000.4106	0057.1	011.2	218.2	000.4139	0104.0	054.0	38.75
053.0	000.4157	0057.4	011.3	218.0	000.4101	0104.0	054.0	38.71
054.0	000.4208	0057.6	011.3	217.8	000.4063	0104.0	054.0	38.67
055.0	000.4260	0057.7	011.4	217.6	000.4026	0104.0	054.0	38.62
056.0	000.4311	0057.9	011.4	217.3	000.3988	0105.2	054.0	38.66
057.0	000.4364	0058.0	011.5	217.1	000.3951	0105.2	054.0	38.61
058.0	000.4416	0057.9	011.5	216.9	000.3915	0105.2	054.1	38.55
059.0	000.4469	0057.7	011.5	216.7	000.3881	0105.2	054.1	38.49
060.0	000.4522	0057.3	011.5	216.5	000.3848	0105.2	054.2	38.42
061.0	000.4569	0056.9	011.5	216.3	000.3816	0106.5	054.3	38.44
062.0	000.4616	0056.7	011.5	216.1	000.3783	0106.5	054.4	38.37
063.0	000.4663	0056.5	011.5	215.9	000.3751	0106.5	054.5	38.30
064.0	000.4710	0056.2	011.5	215.8	000.3720	0106.5	054.6	38.23
065.0	000.4758	0055.9	011.5	215.6	000.3689	0106.5	054.7	38.15
066.0	000.4806	0055.6	011.5	215.4	000.3659	0106.8	054.8	38.10
067.0	000.4854	0055.3	011.5	215.2	000.3629	0106.8	054.9	38.03

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
068.0	000.4902	0055.0	011.5	215.0	000.3601	0106.8	055.0	37.95
069.0	000.4951	0054.6	011.5	214.9	000.3573	0106.8	055.1	37.87
070.0	000.5000	0054.1	011.5	214.7	000.3548	0106.8	055.2	37.79
071.0	000.4999	0053.4	011.4	214.6	000.3529	0106.8	055.4	37.69
072.0	000.4998	0052.1	011.2	214.5	000.3516	0106.8	055.6	37.59
073.0	000.4997	0050.3	011.0	214.5	000.3511	0105.8	055.9	37.41
074.0	000.4996	0048.0	010.8	214.5	000.3515	0106.8	056.3	37.36
075.0	000.4995	0045.5	010.5	214.6	000.3523	0106.8	056.6	37.24
076.0	000.4994	0043.6	010.3	214.6	000.3525	0106.8	056.9	37.13
077.0	000.4993	0042.3	010.1	214.6	000.3522	0106.8	057.1	37.04
078.0	000.4992	0041.6	010.0	214.5	000.3512	0105.8	057.3	36.88
079.0	000.4991	0041.1	009.9	214.4	000.3499	0105.8	057.5	36.81
080.0	000.4990	0040.8	009.9	214.3	000.3484	0105.8	057.6	36.73
081.0	000.4991	0040.1	009.8	214.3	000.3474	0105.8	057.8	36.65
082.0	000.4992	0039.5	009.7	214.2	000.3465	0105.8	058.0	36.57
083.0	000.4993	0039.0	009.7	214.1	000.3455	0105.8	058.2	36.50
084.0	000.4994	0038.6	009.6	214.1	000.3444	0105.8	058.3	36.43
085.0	000.4995	0038.9	009.7	213.9	000.3422	0105.8	058.4	36.36
086.0	000.4996	0039.1	009.7	213.8	000.3402	0105.8	058.5	36.29
087.0	000.4997	0039.3	009.7	213.7	000.3383	0105.8	058.7	36.22
088.0	000.4998	0039.9	009.8	213.5	000.3358	0105.8	058.8	36.16
089.0	000.4999	0041.1	009.9	213.3	000.3324	0103.7	058.8	35.96
090.0	000.5000	0042.5	010.1	213.1	000.3286	0103.7	058.9	35.90
091.0	000.5000	0043.9	010.3	212.8	000.3249	0103.7	058.9	35.83
092.0	000.5000	0045.4	010.5	212.6	000.3212	0103.7	059.0	35.75
093.0	000.5000	0046.2	010.6	212.4	000.3186	0101.1	059.1	35.51
094.0	000.5000	0046.8	010.6	212.3	000.3163	0101.1	059.2	35.43
095.0	000.5000	0047.1	010.7	212.2	000.3145	0101.1	059.4	35.35
096.0	000.5000	0047.4	010.7	212.1	000.3129	0101.1	059.5	35.28
097.0	000.5000	0047.8	010.8	212.0	000.3110	0101.1	059.7	35.20
098.0	000.5000	0048.3	010.8	211.8	000.3091	0101.1	059.8	35.12
099.0	000.5000	0048.8	010.9	211.7	000.3072	0101.1	060.0	35.04
100.0	000.5000	0049.4	010.9	211.6	000.3054	0101.1	060.1	34.96

04-09-2006 30 Arc-Sec. Sec. Terrain Data

WNEF BLED20051118AGI
Channel = 219A
Max ERP = 1 kW
RCAMSL = 122 M
N. Lat = 42 51 56
W. Lng = 70 56 17
Protected
60 dBu

AP219
Channel = 219A
Max ERP = 0.5 kW
RCAMSL = 100 M
N. Lat = 42 25 17
W. Lng = 71 27 10
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
161.0	000.1189	0111.3	011.3	049.6	000.3979	0055.8	060.0	32.77
162.0	000.1140	0111.2	011.2	049.5	000.3966	0054.8	059.9	32.70
163.0	000.1092	0111.2	011.1	049.3	000.3954	0054.8	059.8	32.72
164.0	000.1045	0110.9	010.9	049.1	000.3941	0054.8	059.6	32.75
165.0	000.0999	0110.7	010.8	048.9	000.3927	0054.8	059.5	32.76
166.0	000.0954	0110.8	010.7	048.7	000.3915	0054.8	059.4	32.78
167.0	000.0910	0111.2	010.6	048.6	000.3902	0054.8	059.3	32.80
168.0	000.0867	0110.9	010.5	048.4	000.3888	0053.6	059.2	32.70
169.0	000.0825	0109.9	010.3	048.1	000.3872	0053.6	059.1	32.70
170.0	000.0784	0109.1	010.1	047.9	000.3857	0053.6	059.0	32.70
171.0	000.0776	0109.7	010.1	047.8	000.3850	0053.6	058.9	32.74
172.0	000.0768	0110.9	010.2	047.7	000.3845	0053.6	058.7	32.78
173.0	000.0761	0111.6	010.2	047.7	000.3839	0053.6	058.6	32.82
174.0	000.0753	0111.7	010.2	047.5	000.3830	0053.6	058.4	32.85
175.0	000.0745	0111.6	010.1	047.4	000.3821	0052.3	058.3	32.73
176.0	000.0738	0111.5	010.1	047.3	000.3813	0052.3	058.2	32.76
177.0	000.0730	0111.4	010.1	047.1	000.3803	0052.3	058.1	32.78
178.0	000.0723	0111.2	010.0	047.0	000.3794	0052.3	058.0	32.80
179.0	000.0715	0110.8	010.0	046.9	000.3784	0052.3	057.9	32.82
180.0	000.0708	0110.5	009.9	046.7	000.3774	0052.3	057.8	32.84
181.0	000.0745	0110.2	010.1	046.7	000.3771	0052.3	057.6	32.89
182.0	000.0783	0109.2	010.1	046.6	000.3767	0052.3	057.4	32.94
183.0	000.0822	0107.8	010.2	046.5	000.3761	0052.3	057.2	32.98
184.0	000.0862	0106.5	010.3	046.4	000.3754	0051.0	057.0	32.88
185.0	000.0903	0105.2	010.3	046.3	000.3748	0051.0	056.9	32.92
186.0	000.0945	0104.4	010.4	046.3	000.3742	0051.0	056.7	32.96
187.0	000.0988	0103.0	010.4	046.1	000.3734	0051.0	056.6	33.00
188.0	000.1032	0101.3	010.5	046.0	000.3726	0051.0	056.4	33.02
189.0	000.1076	0099.7	010.5	045.9	000.3717	0051.0	056.3	33.05
190.0	000.1122	0098.3	010.5	045.8	000.3708	0051.0	056.1	33.08
191.0	000.1181	0097.2	010.6	045.7	000.3700	0051.0	056.0	33.12
192.0	000.1242	0096.2	010.7	045.5	000.3693	0051.0	055.8	33.16
193.0	000.1304	0095.6	010.8	045.4	000.3685	0050.0	055.6	33.09
194.0	000.1368	0095.1	010.9	045.3	000.3678	0050.0	055.4	33.14

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
195.0	000.1433	0094.9	011.0	045.2	000.3670	0050.0	055.3	33.18
196.0	000.1499	0095.1	011.1	045.1	000.3663	0050.0	055.1	33.23
197.0	000.1567	0095.4	011.2	045.0	000.3656	0050.0	054.8	33.29
198.0	000.1637	0095.9	011.4	044.9	000.3648	0050.0	054.6	33.34
199.0	000.1708	0096.3	011.5	044.8	000.3640	0050.0	054.4	33.40
200.0	000.1781	0096.8	011.7	044.6	000.3631	0050.0	054.2	33.45
201.0	000.1874	0097.1	011.8	044.5	000.3623	0050.0	054.0	33.50
202.0	000.1970	0097.3	012.0	044.4	000.3613	0049.5	053.7	33.50
203.0	000.2068	0097.1	012.1	044.2	000.3603	0049.5	053.5	33.54
204.0	000.2168	0096.6	012.2	044.1	000.3591	0049.5	053.4	33.58
205.0	000.2271	0096.1	012.3	043.9	000.3579	0049.5	053.2	33.61
206.0	000.2376	0095.5	012.4	043.7	000.3566	0049.5	053.0	33.65
207.0	000.2483	0094.8	012.5	043.5	000.3553	0049.4	052.9	33.66
208.0	000.2593	0094.3	012.6	043.3	000.3540	0049.4	052.7	33.69
209.0	000.2705	0094.6	012.8	043.1	000.3527	0049.4	052.5	33.73
210.0	000.2820	0096.1	013.0	042.9	000.3515	0049.4	052.2	33.80
211.0	000.2967	0098.4	013.3	042.8	000.3504	0049.4	051.9	33.89
212.0	000.3118	0101.1	013.7	042.6	000.3492	0049.4	051.5	33.99
213.0	000.3273	0103.7	014.0	042.4	000.3479	0049.5	051.1	34.10
214.0	000.3432	0105.8	014.3	042.2	000.3465	0049.5	050.8	34.18
215.0	000.3594	0106.8	014.6	041.9	000.3449	0049.5	050.5	34.24
216.0	000.3760	0106.5	014.7	041.7	000.3431	0049.5	050.3	34.27
217.0	000.3930	0105.2	014.8	041.4	000.3412	0049.7	050.2	34.29
218.0	000.4104	0104.0	014.9	041.1	000.3393	0049.7	050.1	34.30
219.0	000.4281	0103.3	015.0	040.8	000.3374	0049.7	050.0	34.31
220.0	000.4462	0102.6	015.1	040.5	000.3354	0049.7	049.9	34.32
221.0	000.4696	0101.1	015.2	040.2	000.3335	0049.7	049.8	34.33
222.0	000.4936	0098.9	015.2	039.9	000.3314	0049.7	049.8	34.30
223.0	000.5183	0096.0	015.1	039.6	000.3293	0049.7	049.8	34.26
224.0	000.5435	0092.8	015.1	039.3	000.3273	0049.8	049.9	34.21
225.0	000.5693	0090.2	015.0	039.0	000.3253	0049.8	050.0	34.16
226.0	000.5957	0088.4	015.0	038.7	000.3232	0049.8	050.0	34.13
227.0	000.6227	0087.3	015.1	038.4	000.3211	0050.0	050.0	34.13
228.0	000.6503	0086.7	015.2	038.1	000.3190	0050.0	049.9	34.12
229.0	000.6785	0086.3	015.3	037.8	000.3167	0050.0	049.8	34.12
230.0	000.7073	0086.1	015.5	037.4	000.3145	0050.0	049.7	34.12
231.0	000.7343	0085.9	015.6	037.1	000.3122	0050.0	049.7	34.11
232.0	000.7618	0085.8	015.8	036.7	000.3098	0050.0	049.6	34.10
233.0	000.7898	0085.7	015.9	036.4	000.3075	0049.8	049.5	34.06
234.0	000.8183	0085.2	016.0	036.0	000.3052	0049.8	049.5	34.03
235.0	000.8473	0084.3	016.1	035.7	000.3030	0049.8	049.5	33.99
236.0	000.8768	0083.4	016.2	035.4	000.3008	0049.2	049.6	33.87
237.0	000.9069	0083.1	016.3	035.0	000.2985	0049.2	049.5	33.84
238.0	000.9374	0083.7	016.5	034.6	000.2958	0049.2	049.4	33.83
239.0	000.9685	0085.1	016.8	034.2	000.2929	0048.1	049.3	33.68
240.0	001.0000	0086.9	017.2	033.7	000.2897	0048.1	049.1	33.69
241.0	001.0000	0088.6	017.4	033.3	000.2870	0046.5	049.0	33.43
242.0	001.0000	0089.5	017.5	032.9	000.2847	0046.5	049.1	33.38
243.0	001.0000	0089.4	017.5	032.6	000.2827	0046.5	049.3	33.30
244.0	001.0000	0088.4	017.4	032.3	000.2812	0044.6	049.5	32.94
245.0	001.0000	0087.0	017.2	032.2	000.2800	0044.6	049.8	32.84

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
246.0	001.0000	0085.5	017.0	032.0	000.2788	0044.6	050.1	32.73
247.0	001.0000	0084.3	016.9	031.8	000.2776	0044.6	050.4	32.64
248.0	001.0000	0083.3	016.8	031.6	000.2764	0044.6	050.7	32.55
249.0	001.0000	0082.5	016.7	031.4	000.2751	0042.8	050.9	32.20
250.0	001.0000	0082.1	016.6	031.2	000.2737	0042.8	051.1	32.12
251.0	001.0000	0081.8	016.6	030.9	000.2723	0042.8	051.3	32.04
252.0	001.0000	0081.7	016.6	030.7	000.2708	0042.8	051.5	31.96
253.0	001.0000	0082.2	016.6	030.4	000.2690	0041.4	051.7	31.68
254.0	001.0000	0083.2	016.8	030.1	000.2670	0041.4	051.8	31.62
255.0	001.0000	0083.9	016.8	029.8	000.2655	0041.4	051.9	31.55
256.0	001.0000	0084.2	016.9	029.5	000.2642	0041.4	052.1	31.48
257.0	001.0000	0084.1	016.9	029.3	000.2632	0040.6	052.3	31.29
258.0	001.0000	0083.8	016.8	029.1	000.2623	0040.6	052.6	31.22
259.0	001.0000	0083.4	016.8	029.0	000.2614	0040.6	052.8	31.14
260.0	001.0000	0083.2	016.7	028.8	000.2606	0040.6	053.1	31.06
261.0	001.0000	0082.6	016.7	028.7	000.2599	0040.6	053.4	30.98
262.0	001.0000	0081.9	016.6	028.5	000.2594	0040.6	053.6	30.90
263.0	001.0000	0080.8	016.5	028.5	000.2590	0040.6	053.9	30.80
264.0	001.0000	0080.1	016.4	028.4	000.2585	0040.6	054.2	30.72
265.0	001.0000	0079.6	016.3	028.3	000.2580	0040.6	054.5	30.64
266.0	001.0000	0078.9	016.2	028.2	000.2575	0040.6	054.8	30.56
267.0	001.0000	0078.1	016.1	028.1	000.2572	0040.6	055.1	30.48
268.0	001.0000	0077.1	016.0	028.0	000.2570	0040.6	055.4	30.40
269.0	001.0000	0076.1	015.9	028.0	000.2568	0040.6	055.7	30.32
270.0	001.0000	0075.2	015.8	028.0	000.2566	0040.6	056.0	30.24
271.0	001.0000	0073.7	015.6	028.0	000.2567	0040.6	056.3	30.16
272.0	001.0000	0072.1	015.4	028.0	000.2569	0040.6	056.6	30.08
273.0	001.0000	0070.6	015.3	028.1	000.2570	0040.6	056.9	30.01
274.0	001.0000	0069.2	015.1	028.1	000.2572	0040.6	057.2	29.93
275.0	001.0000	0069.7	015.2	027.9	000.2564	0040.6	057.4	29.86
276.0	001.0000	0070.3	015.3	027.8	000.2556	0040.6	057.7	29.79
277.0	001.0000	0071.0	015.3	027.6	000.2548	0040.6	057.9	29.73
278.0	001.0000	0071.7	015.4	027.4	000.2540	0040.9	058.1	29.70
279.0	001.0000	0072.2	015.5	027.3	000.2534	0040.9	058.3	29.63
280.0	001.0000	0072.7	015.5	027.2	000.2528	0040.9	058.6	29.56
281.0	001.0000	0073.1	015.6	027.0	000.2522	0040.9	058.8	29.49

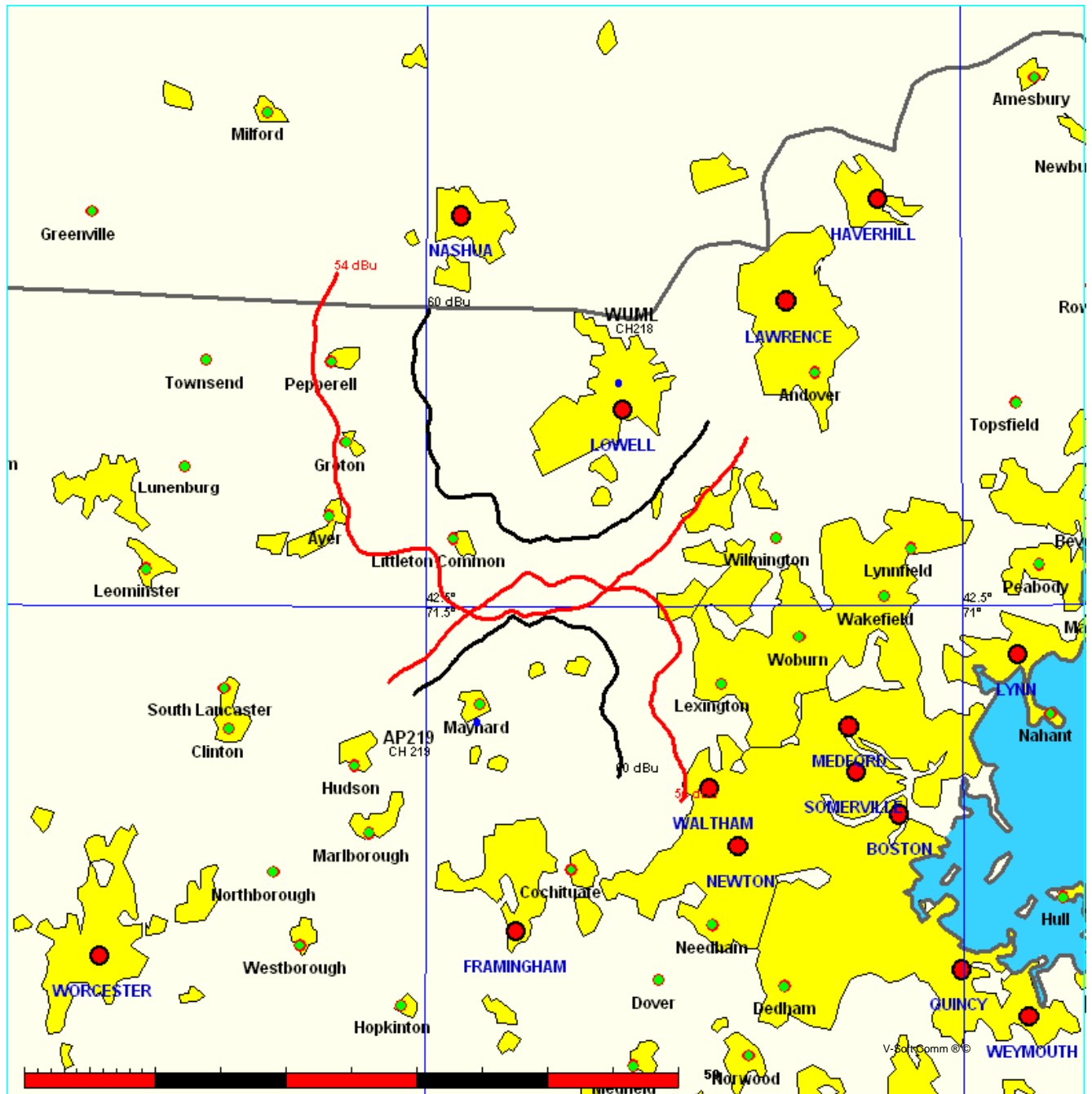
Relationship with WUML, Lowell, MA
U-Mass, Boston/Maynard School Committee

FMCommander Allocation Study
04-09-2006

AP219 CH 219 A
0.5 kW 100 M COR DA
Prot. = 60 dBu
Intef. = 54 dBu

WUML CH 218 A BLED19940406KC
1.4 kW, 114 M COR DA
Prot. = 60 dBu
Intef. = 54 dBu

Scale = 1:750,000



04-09-2006

30 Arc-Sec. Terrain Data

FMOver Analysis

AP219

Channel = 219A

Max ERP = 0.5 kW

RCAMSL = 100 M

N. Lat = 42 25 17

W. Lng = 71 27 10

Protected

60 dBu

WUML BLED19940406KC

Channel = 218A

Max ERP = 1.4 kW

RCAMSL = 114 M

N. Lat = 42 39 07

W. Lng = 71 19 15

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
323.0	000.0374	0002.7	004.4	211.3	001.0243	0056.9	025.9	50.13
324.0	000.0378	0004.6	004.4	211.2	001.0226	0056.9	025.8	50.17
325.0	000.0381	0007.7	004.4	211.2	001.0208	0056.9	025.7	50.21
326.0	000.0385	0010.1	004.4	211.1	001.0189	0056.9	025.7	50.26
327.0	000.0389	0011.7	004.4	211.1	001.0168	0056.9	025.6	50.30
328.0	000.0393	0012.9	004.4	211.0	001.0145	0056.9	025.5	50.34
329.0	000.0397	0014.1	004.4	211.0	001.0122	0056.9	025.5	50.38
330.0	000.0400	0015.5	004.4	210.9	001.0097	0056.9	025.4	50.42
331.0	000.0417	0017.1	004.5	210.9	001.0095	0056.9	025.3	50.48
332.0	000.0433	0018.3	004.5	210.9	001.0095	0056.9	025.2	50.55
333.0	000.0450	0019.1	004.6	210.9	001.0094	0056.9	025.1	50.61
334.0	000.0468	0019.8	004.6	210.9	001.0092	0056.9	025.0	50.68
335.0	000.0485	0021.3	004.7	210.9	001.0086	0056.9	024.9	50.74
336.0	000.0503	0023.6	004.7	210.9	001.0079	0056.9	024.8	50.80
337.0	000.0521	0025.9	004.8	210.8	001.0068	0056.9	024.7	50.87
338.0	000.0540	0027.8	004.8	210.8	001.0054	0056.9	024.6	50.93
339.0	000.0559	0028.9	004.8	210.8	001.0039	0056.9	024.5	50.99
340.0	000.0578	0029.3	004.9	210.7	001.0021	0056.9	024.5	51.05
341.0	000.0604	0029.1	004.9	210.7	001.0010	0056.9	024.4	51.12
342.0	000.0631	0028.5	005.0	210.7	000.9996	0056.9	024.3	51.19
343.0	000.0658	0027.8	005.1	210.6	000.9981	0056.9	024.1	51.26
344.0	000.0686	0027.2	005.1	210.6	000.9963	0056.9	024.0	51.32
345.0	000.0714	0027.2	005.2	210.5	000.9942	0056.9	023.9	51.39
346.0	000.0743	0027.5	005.2	210.5	000.9917	0057.7	023.8	51.57
347.0	000.0773	0027.4	005.3	210.4	000.9890	0057.7	023.7	51.63
348.0	000.0803	0027.0	005.3	210.3	000.9859	0057.7	023.6	51.69
349.0	000.0834	0026.6	005.4	210.2	000.9825	0057.7	023.5	51.75
350.0	000.0865	0026.1	005.4	210.1	000.9788	0057.7	023.4	51.81
351.0	000.0904	0025.8	005.5	210.0	000.9754	0057.7	023.3	51.88
352.0	000.0943	0025.9	005.6	209.9	000.9717	0057.7	023.2	51.94
353.0	000.0983	0027.0	005.6	209.8	000.9676	0057.7	023.1	52.00
354.0	000.1023	0027.5	005.7	209.7	000.9632	0057.7	023.0	52.06
355.0	000.1065	0027.3	005.7	209.6	000.9584	0057.7	022.9	52.12
356.0	000.1107	0026.9	005.8	209.5	000.9532	0058.1	022.8	52.23
357.0	000.1151	0026.9	005.8	209.3	000.9478	0058.1	022.7	52.29
358.0	000.1195	0027.0	005.9	209.2	000.9419	0058.1	022.6	52.34
359.0	000.1240	0027.8	005.9	209.0	000.9357	0058.1	022.5	52.38

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
000.0	000.1285	0028.5	006.0	208.9	000.9292	0058.1	022.4	52.43
001.0	000.1326	0029.1	006.0	208.7	000.9223	0058.1	022.3	52.47
002.0	000.1368	0029.0	006.1	208.5	000.9151	0058.1	022.2	52.51
003.0	000.1410	0028.8	006.1	208.3	000.9076	0057.8	022.1	52.50
004.0	000.1453	0029.9	006.2	208.1	000.8998	0057.8	022.0	52.53
005.0	000.1496	0031.3	006.4	208.0	000.8963	0057.8	021.9	52.66
006.0	000.1540	0032.3	006.5	207.9	000.8909	0057.8	021.7	52.77
007.0	000.1585	0032.7	006.6	207.7	000.8833	0057.8	021.6	52.83
008.0	000.1630	0033.2	006.7	207.5	000.8757	0056.8	021.4	52.75
009.0	000.1676	0033.9	006.8	207.3	000.8680	0056.8	021.3	52.82
010.0	000.1723	0034.7	006.9	207.1	000.8602	0056.8	021.1	52.90
011.0	000.1768	0035.5	007.0	206.8	000.8517	0056.8	021.0	52.98
012.0	000.1813	0036.4	007.1	206.6	000.8432	0056.8	020.8	53.07
013.0	000.1859	0037.2	007.3	206.4	000.8338	0055.7	020.7	52.97
014.0	000.1906	0037.9	007.4	206.1	000.8234	0055.7	020.6	53.02
015.0	000.1953	0038.7	007.5	205.8	000.8128	0055.7	020.4	53.08
016.0	000.2001	0040.1	007.7	205.5	000.8030	0055.7	020.2	53.21
017.0	000.2049	0042.3	008.0	205.3	000.7935	0055.4	019.9	53.36
018.0	000.2098	0044.5	008.3	205.0	000.7830	0055.4	019.6	53.57
019.0	000.2148	0045.7	008.5	204.6	000.7699	0055.4	019.4	53.66
020.0	000.2198	0045.4	008.5	204.2	000.7547	0056.4	019.4	53.75
021.0	000.2242	0044.4	008.4	203.7	000.7391	0056.4	019.4	53.62
022.0	000.2288	0043.7	008.4	203.3	000.7241	0057.9	019.4	53.74
023.0	000.2333	0043.3	008.4	202.9	000.7093	0057.9	019.4	53.65
024.0	000.2379	0042.9	008.4	202.4	000.6947	0059.1	019.4	53.72
025.0	000.2426	0042.3	008.4	202.0	000.6804	0059.1	019.5	53.60
026.0	000.2472	0041.5	008.3	201.6	000.6666	0059.1	019.5	53.47
027.0	000.2520	0040.9	008.3	201.2	000.6529	0059.7	019.6	53.42
028.0	000.2568	0040.6	008.3	200.7	000.6392	0059.7	019.6	53.32
029.0	000.2616	0040.6	008.3	200.3	000.6250	0059.9	019.5	53.28
030.0	000.2665	0041.4	008.5	199.8	000.6107	0059.9	019.4	53.27
031.0	000.2727	0042.8	008.7	199.3	000.5967	0060.4	019.2	53.39
032.0	000.2790	0044.6	008.9	198.6	000.5814	0060.4	019.0	53.46
033.0	000.2854	0046.5	009.2	198.0	000.5653	0060.9	018.8	53.59
034.0	000.2918	0048.1	009.4	197.3	000.5493	0061.2	018.6	53.64
035.0	000.2984	0049.2	009.6	196.7	000.5340	0061.2	018.5	53.62
036.0	000.3050	0049.8	009.7	196.0	000.5196	0061.3	018.5	53.56
037.0	000.3117	0050.0	009.8	195.5	000.5063	0061.7	018.5	53.50
038.0	000.3184	0050.0	009.9	194.9	000.4938	0061.7	018.5	53.38
039.0	000.3252	0049.8	009.9	194.4	000.4818	0062.6	018.5	53.36
040.0	000.3321	0049.7	009.9	193.8	000.4699	0062.6	018.5	53.22
041.0	000.3387	0049.7	010.0	193.3	000.4582	0063.9	018.6	53.23
042.0	000.3453	0049.5	010.0	192.8	000.4469	0063.9	018.6	53.08
043.0	000.3520	0049.4	010.0	192.3	000.4358	0065.0	018.7	53.05
044.0	000.3587	0049.5	010.1	191.7	000.4243	0065.0	018.7	52.90
045.0	000.3655	0050.0	010.2	191.1	000.4113	0065.8	018.7	52.86
046.0	000.3724	0051.0	010.4	190.4	000.3968	0066.9	018.7	52.84
047.0	000.3793	0052.3	010.5	189.6	000.3828	0066.9	018.7	52.72
048.0	000.3863	0053.6	010.7	188.8	000.3702	0067.7	018.7	52.71
049.0	000.3934	0054.8	010.9	188.1	000.3584	0068.1	018.7	52.61
050.0	000.4005	0055.8	011.0	187.3	000.3474	0067.9	018.7	52.43

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
051.0	000.4055	0056.6	011.1	186.7	000.3376	0067.9	018.7	52.26
052.0	000.4106	0057.1	011.2	186.1	000.3286	0067.5	018.8	52.03
053.0	000.4157	0057.4	011.3	185.5	000.3207	0067.5	018.9	51.84
054.0	000.4208	0057.6	011.3	185.0	000.3136	0066.9	019.0	51.58
055.0	000.4260	0057.7	011.4	184.5	000.3067	0066.9	019.1	51.38
056.0	000.4311	0057.9	011.4	184.1	000.2999	0066.4	019.3	51.12
057.0	000.4364	0058.0	011.5	183.6	000.2936	0066.4	019.4	50.91
058.0	000.4416	0057.9	011.5	183.2	000.2879	0066.3	019.6	50.70
059.0	000.4469	0057.7	011.5	182.8	000.2831	0066.3	019.7	50.49
060.0	000.4522	0057.3	011.5	182.5	000.2790	0066.3	019.9	50.29
061.0	000.4569	0056.9	011.5	182.2	000.2751	0066.5	020.1	50.10
062.0	000.4616	0056.7	011.5	181.9	000.2710	0066.5	020.2	49.90
063.0	000.4663	0056.5	011.5	181.7	000.2672	0066.5	020.4	49.70
064.0	000.4710	0056.2	011.5	181.4	000.2637	0066.7	020.6	49.53
065.0	000.4758	0055.9	011.5	181.1	000.2606	0066.7	020.8	49.33
066.0	000.4806	0055.6	011.5	180.9	000.2575	0066.7	020.9	49.13
067.0	000.4854	0055.3	011.5	180.7	000.2545	0066.7	021.1	48.93
068.0	000.4902	0055.0	011.5	180.5	000.2519	0066.6	021.3	48.72
069.0	000.4951	0054.6	011.5	180.3	000.2497	0066.6	021.5	48.54
070.0	000.5000	0054.1	011.5	180.2	000.2481	0066.6	021.7	48.35
071.0	000.4999	0053.4	011.4	180.2	000.2484	0066.6	021.9	48.19
072.0	000.4998	0052.1	011.2	180.4	000.2506	0066.6	022.1	48.05
073.0	000.4997	0050.3	011.0	180.7	000.2548	0066.7	022.4	47.94
074.0	000.4996	0048.0	010.8	181.2	000.2614	0066.7	022.6	47.85
075.0	000.4995	0045.5	010.5	181.8	000.2689	0066.5	022.9	47.74
076.0	000.4994	0043.6	010.3	182.2	000.2745	0066.5	023.1	47.65
077.0	000.4993	0042.3	010.1	182.5	000.2781	0066.5	023.4	47.54
078.0	000.4992	0041.6	010.0	182.6	000.2797	0066.3	023.6	47.40
079.0	000.4991	0041.1	009.9	182.6	000.2802	0066.3	023.7	47.28
080.0	000.4990	0040.8	009.9	182.6	000.2802	0066.3	023.9	47.15
081.0	000.4991	0040.1	009.8	182.7	000.2816	0066.3	024.1	47.03
082.0	000.4992	0039.5	009.7	182.8	000.2832	0066.3	024.3	46.92
083.0	000.4993	0039.0	009.7	182.9	000.2842	0066.3	024.5	46.81

04-09-2006 30 Arc-Sec. Sec. Terrain Data

WUML BLED19940406KC
 Channel = 218A
 Max ERP = 1.4 kW
 RCAMSL = 114 M
 N. Lat = 42 39 07
 W. Lng = 71 19 15
 Protected
 60 dBu

AP219
 Channel = 219A
 Max ERP = 0.5 kW
 RCAMSL = 100 M
 N. Lat = 42 25 17
 W. Lng = 71 27 10
 Interfering
 54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
143.0	000.0522	0074.9	007.5	037.9	000.3179	0050.0	024.9	44.57
144.0	000.0537	0074.6	007.5	037.9	000.3178	0050.0	024.8	44.67
145.0	000.0552	0074.5	007.6	037.9	000.3180	0050.0	024.6	44.77
146.0	000.0567	0074.8	007.7	038.0	000.3185	0050.0	024.5	44.89
147.0	000.0582	0075.5	007.8	038.1	000.3192	0050.0	024.3	45.01
148.0	000.0598	0076.2	007.9	038.2	000.3199	0050.0	024.2	45.13
149.0	000.0613	0076.6	007.9	038.3	000.3202	0050.0	024.0	45.25
150.0	000.0629	0076.6	008.0	038.3	000.3202	0050.0	023.9	45.36
151.0	000.0661	0075.9	008.1	038.3	000.3204	0050.0	023.7	45.48
152.0	000.0694	0074.5	008.1	038.2	000.3199	0050.0	023.6	45.57
153.0	000.0727	0072.8	008.1	038.1	000.3190	0050.0	023.4	45.66
154.0	000.0761	0071.6	008.1	038.0	000.3184	0050.0	023.3	45.76
155.0	000.0796	0071.1	008.2	038.0	000.3185	0050.0	023.1	45.88
156.0	000.0832	0071.1	008.3	038.1	000.3188	0050.0	023.0	46.01
157.0	000.0869	0071.1	008.4	038.1	000.3192	0050.0	022.8	46.15
158.0	000.0906	0071.3	008.5	038.2	000.3196	0050.0	022.6	46.30
159.0	000.0944	0071.6	008.6	038.2	000.3200	0050.0	022.4	46.45
160.0	000.0983	0072.0	008.7	038.3	000.3204	0050.0	022.2	46.60
161.0	000.1034	0072.4	008.9	038.4	000.3212	0050.0	022.0	46.77
162.0	000.1087	0072.6	009.0	038.5	000.3216	0050.0	021.8	46.94
163.0	000.1140	0072.8	009.1	038.5	000.3219	0049.8	021.6	47.07
164.0	000.1195	0072.5	009.2	038.5	000.3216	0050.0	021.4	47.24
165.0	000.1252	0071.8	009.3	038.4	000.3209	0050.0	021.3	47.37
166.0	000.1309	0071.2	009.4	038.3	000.3202	0050.0	021.1	47.49
167.0	000.1368	0071.4	009.5	038.2	000.3200	0050.0	020.9	47.65
168.0	000.1428	0071.8	009.6	038.2	000.3199	0050.0	020.7	47.82
169.0	000.1490	0071.7	009.7	038.1	000.3193	0050.0	020.5	47.97
170.0	000.1552	0070.8	009.7	037.9	000.3178	0050.0	020.3	48.08
171.0	000.1634	0070.0	009.8	037.7	000.3166	0050.0	020.2	48.21
172.0	000.1717	0069.5	009.9	037.6	000.3155	0050.0	020.0	48.34
173.0	000.1802	0069.2	010.0	037.4	000.3145	0050.0	019.8	48.50
174.0	000.1890	0069.1	010.1	037.3	000.3135	0050.0	019.6	48.65
175.0	000.1979	0069.1	010.2	037.1	000.3125	0050.0	019.4	48.80
176.0	000.2071	0069.0	010.3	036.9	000.3113	0050.0	019.2	48.95

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
177.0	000.2164	0067.9	010.4	036.6	000.3090	0050.0	019.0	49.04
178.0	000.2260	0066.7	010.4	036.2	000.3066	0049.8	018.9	49.09
179.0	000.2358	0066.5	010.5	036.0	000.3048	0049.8	018.7	49.21
180.0	000.2458	0066.6	010.6	035.7	000.3032	0049.8	018.5	49.36
181.0	000.2586	0066.7	010.8	035.5	000.3017	0049.8	018.3	49.53
182.0	000.2718	0066.5	010.9	035.2	000.2998	0049.2	018.1	49.56
183.0	000.2853	0066.3	011.0	034.9	000.2977	0049.2	017.9	49.70
184.0	000.2991	0066.4	011.1	034.6	000.2957	0049.2	017.7	49.85
185.0	000.3132	0066.9	011.3	034.3	000.2938	0048.1	017.4	49.81
186.0	000.3277	0067.5	011.4	034.0	000.2918	0048.1	017.2	49.98
187.0	000.3425	0067.9	011.6	033.6	000.2895	0048.1	017.0	50.14
188.0	000.3576	0068.1	011.7	033.2	000.2867	0046.5	016.8	49.96
189.0	000.3730	0067.7	011.8	032.7	000.2835	0046.5	016.6	50.06
190.0	000.3888	0066.9	011.9	032.1	000.2797	0044.6	016.5	49.71
191.0	000.4091	0065.8	011.9	031.5	000.2760	0044.6	016.3	49.77
192.0	000.4300	0065.0	012.0	030.9	000.2722	0042.8	016.2	49.44
193.0	000.4514	0063.9	012.0	030.3	000.2681	0041.4	016.1	49.15
194.0	000.4732	0062.6	012.1	029.6	000.2644	0041.4	016.0	49.17
195.0	000.4956	0061.7	012.1	028.9	000.2611	0040.6	015.9	49.03
196.0	000.5186	0061.3	012.2	028.2	000.2579	0040.6	015.7	49.08
197.0	000.5420	0061.2	012.3	027.6	000.2546	0040.6	015.6	49.17
198.0	000.5659	0060.9	012.4	026.8	000.2512	0040.9	015.4	49.31
199.0	000.5904	0060.4	012.5	026.1	000.2476	0041.5	015.3	49.48
200.0	000.6154	0059.9	012.6	025.3	000.2439	0042.3	015.2	49.68
201.0	000.6476	0059.7	012.7	024.5	000.2402	0042.3	015.1	49.74
202.0	000.6805	0059.1	012.8	023.7	000.2364	0042.9	015.0	49.76
203.0	000.7143	0057.9	012.9	022.8	000.2325	0043.3	014.9	49.80
204.0	000.7489	0056.4	012.8	022.0	000.2286	0043.7	015.0	49.80
205.0	000.7844	0055.4	012.9	021.1	000.2247	0044.4	014.9	49.90
206.0	000.8206	0055.7	013.0	020.2	000.2206	0045.4	014.8	50.17
207.0	000.8577	0056.8	013.3	019.2	000.2157	0045.7	014.6	50.41
208.0	000.8956	0057.8	013.6	018.1	000.2104	0044.5	014.4	50.32
209.0	000.9343	0058.1	013.7	017.1	000.2052	0042.3	014.2	49.88
210.0	000.9738	0057.7	013.8	016.0	000.2002	0040.1	014.2	49.34
211.0	001.0129	0056.9	013.9	015.0	000.1955	0038.7	014.2	48.90
212.0	001.0529	0056.2	013.9	014.1	000.1909	0037.9	014.2	48.58
213.0	001.0935	0055.4	013.9	013.1	000.1864	0037.2	014.3	48.27
214.0	001.1350	0054.5	014.0	012.2	000.1822	0036.4	014.4	47.89
215.0	001.1772	0053.6	014.0	011.3	000.1780	0035.5	014.5	47.47
216.0	001.2203	0052.9	014.0	010.4	000.1739	0034.7	014.5	47.09
217.0	001.2640	0052.4	014.0	009.4	000.1695	0033.9	014.6	46.72
218.0	001.3086	0051.7	014.1	008.5	000.1654	0033.9	014.7	46.50
219.0	001.3539	0050.9	014.1	007.7	000.1616	0033.2	014.8	46.10
220.0	001.4000	0049.9	014.0	007.0	000.1583	0032.7	015.0	45.71
221.0	001.4000	0048.7	013.9	006.6	000.1565	0032.7	015.2	45.45
222.0	001.4000	0047.3	013.7	006.3	000.1552	0032.3	015.5	45.04
223.0	001.4000	0045.8	013.4	006.1	000.1542	0032.3	015.9	44.74
224.0	001.4000	0044.6	013.3	005.8	000.1531	0032.3	016.2	44.46
225.0	001.4000	0043.7	013.1	005.5	000.1517	0031.3	016.4	43.95
226.0	001.4000	0042.9	013.0	005.1	000.1502	0031.3	016.7	43.70
227.0	001.4000	0042.3	012.9	004.8	000.1486	0031.3	016.9	43.47

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
228.0	001.4000	0042.1	012.9	004.3	000.1464	0029.9	017.0	42.93
229.0	001.4000	0042.6	013.0	003.6	000.1434	0029.9	017.1	42.75
230.0	001.4000	0043.8	013.1	002.6	000.1393	0028.8	017.2	42.59
231.0	001.4000	0045.7	013.4	001.4	000.1342	0029.1	017.2	42.44
232.0	001.4000	0048.3	013.8	359.9	000.1280	0028.5	017.1	42.29
233.0	001.4000	0051.4	014.3	358.2	000.1202	0027.0	017.0	42.08
234.0	001.4000	0054.7	014.7	356.4	000.1124	0026.9	017.0	41.83
235.0	001.4000	0057.9	015.2	354.7	000.1053	0027.3	017.0	41.54
236.0	001.4000	0060.5	015.5	353.3	000.0995	0027.0	017.1	41.24
237.0	001.4000	0062.2	015.7	352.3	000.0953	0025.9	017.2	40.92
238.0	001.4000	0063.1	015.8	351.6	000.0926	0025.9	017.4	40.62
239.0	001.4000	0063.2	015.8	351.2	000.0910	0025.8	017.7	40.34
240.0	001.4000	0063.1	015.8	350.9	000.0900	0025.8	017.9	40.07
241.0	001.4000	0062.7	015.8	350.7	000.0893	0025.8	018.2	39.82
242.0	001.4000	0062.0	015.7	350.7	000.0892	0025.8	018.5	39.57
243.0	001.4000	0060.8	015.5	350.9	000.0899	0025.8	018.8	39.36
244.0	001.4000	0059.4	015.3	351.2	000.0910	0025.8	019.1	39.15
245.0	001.4000	0058.2	015.2	351.3	000.0917	0025.8	019.4	38.95
246.0	001.4000	0058.1	015.2	351.2	000.0911	0025.8	019.7	38.71
247.0	001.4000	0058.6	015.2	350.8	000.0897	0025.8	019.9	38.45
248.0	001.4000	0058.9	015.3	350.5	000.0886	0025.8	020.2	38.20
249.0	001.4000	0059.0	015.3	350.4	000.0879	0026.1	020.4	37.96
250.0	001.4000	0058.8	015.3	350.3	000.0876	0026.1	020.7	37.74
251.0	001.4000	0058.7	015.3	350.2	000.0872	0026.1	021.0	37.51
252.0	001.4000	0058.4	015.2	350.2	000.0873	0026.1	021.2	37.31
253.0	001.4000	0057.6	015.1	350.4	000.0879	0026.1	021.5	37.13
254.0	001.4000	0056.7	015.0	350.6	000.0888	0025.8	021.8	36.96
255.0	001.4000	0056.5	015.0	350.6	000.0888	0025.8	022.0	36.76
256.0	001.4000	0056.4	015.0	350.6	000.0887	0025.8	022.3	36.56
257.0	001.4000	0055.9	014.9	350.7	000.0891	0025.8	022.6	36.39
258.0	001.4000	0055.3	014.8	350.8	000.0897	0025.8	022.8	36.22
259.0	001.4000	0054.2	014.7	351.2	000.0912	0025.8	023.1	36.10
260.0	001.4000	0053.3	014.5	351.5	000.0923	0025.8	023.3	35.96
261.0	001.4000	0052.9	014.5	351.6	000.0928	0025.9	023.6	35.81
262.0	001.4000	0053.0	014.5	351.6	000.0926	0025.9	023.9	35.62
263.0	001.4000	0053.7	014.6	351.4	000.0917	0025.8	024.1	35.40

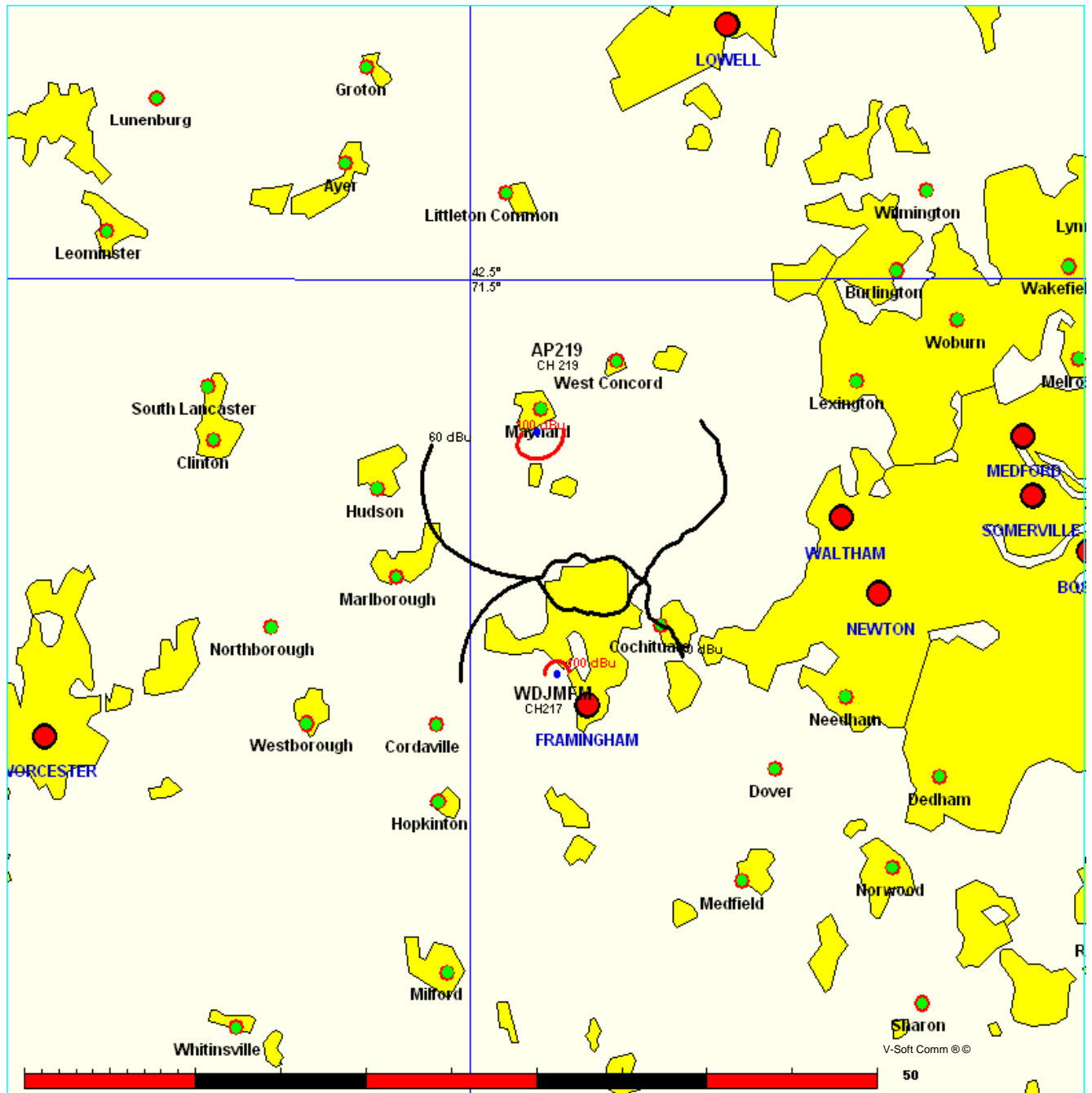
Relationship with WDJM, Framingham, MA
U-Mass, Boston/Maynard School Committee

FMCommander Allocation Study
04-09-2006

AP219 CH 219 A
0.5 kW 100 M COR DA
Prot. = 60 dBu
Intef. = 100 dBu

WDJMFM CH 217 A BLED19840709DD
0.1 kW, 99 M COR
Prot. = 60 dBu
Intef. = 100 dBu

Scale = 1:575,000



04-09-2006

30 Arc-Sec. Terrain Data

FMOver Analysis

AP219

Channel = 219A

Max ERP = 0.5 kW

RCAMSL = 100 M

N. Lat = 42 25 17

W. Lng = 71 27 10

Protected

60 dBu

WDJMFMBLED19840709DD

Channel = 217A

Max ERP = 0.1 kW

RCAMSL = 99 M

N. Lat = 42 17 44

W. Lng = 71 26 18

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
115.0	000.5000	0051.9	011.2	044.0	000.1000	0052.6	012.9	50.58
116.0	000.5000	0051.2	011.1	044.0	000.1000	0052.6	012.7	50.88
117.0	000.5000	0050.7	011.1	044.0	000.1000	0052.6	012.5	51.18
118.0	000.5000	0050.3	011.0	044.1	000.1000	0052.6	012.3	51.48
119.0	000.5000	0049.9	011.0	044.1	000.1000	0052.6	012.1	51.78
120.0	000.5000	0049.4	010.9	044.1	000.1000	0052.6	011.9	52.09
121.0	000.5000	0048.5	010.8	043.9	000.1000	0052.6	011.7	52.41
122.0	000.5000	0047.3	010.7	043.4	000.1000	0052.2	011.5	52.69
123.0	000.5000	0046.1	010.5	042.8	000.1000	0052.2	011.2	53.03
124.0	000.5000	0045.2	010.4	042.4	000.1000	0051.5	011.0	53.22
125.0	000.5000	0044.9	010.4	042.4	000.1000	0051.5	010.9	53.52
126.0	000.5000	0045.1	010.4	042.6	000.1000	0052.2	010.7	53.96
127.0	000.5000	0045.3	010.5	042.8	000.1000	0052.2	010.5	54.26
128.0	000.5000	0045.0	010.4	042.8	000.1000	0052.2	010.3	54.57
129.0	000.5000	0044.3	010.3	042.3	000.1000	0051.5	010.1	54.76
130.0	000.5000	0043.2	010.2	041.6	000.1000	0051.5	009.9	55.08
131.0	000.5000	0042.6	010.1	041.2	000.1000	0050.6	009.8	55.24
132.0	000.5000	0042.3	010.1	041.0	000.1000	0050.6	009.6	55.55
133.0	000.5000	0042.2	010.1	040.9	000.1000	0050.6	009.4	55.87
134.0	000.5000	0042.1	010.1	040.7	000.1000	0050.6	009.2	56.18
135.0	000.5000	0042.1	010.1	040.7	000.1000	0050.6	009.1	56.50
136.0	000.5000	0042.4	010.1	040.8	000.1000	0050.6	008.9	56.83
137.0	000.5000	0042.7	010.1	041.0	000.1000	0050.6	008.7	57.16
138.0	000.5000	0043.0	010.2	041.1	000.1000	0050.6	008.5	57.49
139.0	000.5000	0043.2	010.2	041.1	000.1000	0050.6	008.3	57.83
140.0	000.5000	0043.6	010.2	041.2	000.1000	0050.6	008.2	58.17
141.0	000.5000	0044.3	010.3	041.7	000.1000	0051.5	008.0	58.69
142.0	000.5000	0045.4	010.5	042.4	000.1000	0051.5	007.8	59.09
143.0	000.5000	0046.5	010.6	043.1	000.1000	0052.2	007.6	59.65
144.0	000.5000	0047.2	010.7	043.5	000.1000	0052.6	007.4	60.15
145.0	000.5000	0047.4	010.7	043.4	000.1000	0052.2	007.2	60.53
146.0	000.5000	0047.2	010.7	042.9	000.1000	0052.2	007.0	60.96
147.0	000.5000	0047.1	010.7	042.5	000.1000	0051.5	006.8	61.28
148.0	000.5000	0047.6	010.7	042.5	000.1000	0052.2	006.6	61.92
149.0	000.5000	0048.7	010.9	043.2	000.1000	0052.2	006.4	62.50
150.0	000.5000	0050.2	011.0	044.2	000.1000	0052.6	006.2	63.22
151.0	000.5000	0051.8	011.2	045.4	000.1000	0052.4	006.0	63.91

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
152.0	000.5000	0053.2	011.4	046.3	000.1000	0051.9	005.7	64.55
153.0	000.5000	0054.2	011.5	046.7	000.1000	0050.9	005.5	65.11
154.0	000.5000	0054.7	011.5	046.6	000.1000	0050.9	005.3	65.81
155.0	000.5000	0054.8	011.5	046.0	000.1000	0051.9	005.1	66.64
156.0	000.5000	0054.5	011.5	045.0	000.1000	0052.4	004.9	67.36
157.0	000.5000	0054.1	011.5	043.6	000.1000	0052.6	004.8	67.98
158.0	000.5000	0053.7	011.4	042.2	000.1000	0051.5	004.6	68.38
159.0	000.5000	0053.3	011.4	040.5	000.1000	0050.1	004.4	68.71
160.0	000.5000	0052.6	011.3	038.3	000.1000	0050.7	004.3	69.36
161.0	000.5000	0051.6	011.2	035.7	000.1000	0051.9	004.2	70.00
162.0	000.5000	0050.4	011.1	032.6	000.1000	0052.7	004.1	70.47
163.0	000.5000	0049.7	011.0	030.0	000.1000	0052.8	004.0	70.88
164.0	000.5000	0049.4	010.9	027.7	000.1000	0053.2	003.9	71.44
165.0	000.5000	0048.7	010.9	024.9	000.1000	0051.8	003.8	71.52
166.0	000.5000	0047.6	010.7	021.4	000.1000	0047.4	003.8	70.69
167.0	000.5000	0046.2	010.6	017.8	000.1000	0044.0	003.9	69.79
168.0	000.5000	0045.5	010.5	014.8	000.1000	0045.1	003.9	70.08
169.0	000.5000	0045.5	010.5	012.3	000.1000	0046.5	003.8	70.76
170.0	000.5000	0045.8	010.5	009.9	000.1000	0046.3	003.7	71.16
171.0	000.5000	0045.4	010.5	007.0	000.1000	0044.1	003.7	70.77
172.0	000.5000	0044.3	010.3	003.8	000.1000	0040.7	003.7	69.63
173.0	000.5000	0043.2	010.2	000.8	000.1000	0040.5	003.9	69.07
174.0	000.5000	0041.8	010.0	358.0	000.1000	0039.5	004.0	68.12
175.0	000.5000	0039.9	009.8	355.4	000.1000	0036.2	004.2	66.34
176.0	000.5000	0037.8	009.5	353.3	000.1000	0033.3	004.5	64.52
177.0	000.5000	0035.7	009.3	351.6	000.1000	0031.4	004.8	63.06
178.0	000.5000	0033.7	009.0	350.1	000.1000	0029.4	005.1	61.78
179.0	000.5000	0032.0	008.8	348.8	000.1000	0029.1	005.3	60.98
180.0	000.5000	0030.3	008.5	347.7	000.1000	0028.9	005.6	60.21
181.0	000.5000	0028.6	008.5	346.3	000.1000	0028.0	005.6	59.98
182.0	000.5000	0026.8	008.5	344.9	000.1000	0027.2	005.7	59.86
183.0	000.5000	0024.7	008.5	343.5	000.1000	0025.5	005.7	59.72
184.0	000.5000	0024.0	008.5	342.1	000.1000	0024.8	005.8	59.56
185.0	000.5000	0023.7	008.5	340.8	000.1000	0024.3	005.8	59.38
186.0	000.5000	0023.1	008.5	339.4	000.1000	0023.9	005.9	59.19
187.0	000.5000	0022.1	008.5	338.2	000.1000	0023.3	006.0	58.99
188.0	000.5000	0021.2	008.5	337.0	000.1000	0022.8	006.0	58.77
189.0	000.5000	0020.9	008.5	335.8	000.1000	0022.8	006.1	58.54
190.0	000.5000	0021.6	008.5	334.6	000.1000	0022.9	006.2	58.31
191.0	000.5000	0022.4	008.5	333.6	000.1000	0022.6	006.3	58.06
192.0	000.5000	0022.3	008.5	332.5	000.1000	0022.1	006.4	57.81
193.0	000.5000	0020.8	008.5	331.5	000.1000	0021.7	006.5	57.56
194.0	000.5000	0018.6	008.5	330.6	000.1000	0021.4	006.6	57.30
195.0	000.5000	0017.1	008.5	329.6	000.1000	0020.9	006.7	57.03
196.0	000.5000	0017.6	008.5	328.8	000.1000	0019.9	006.8	56.75
197.0	000.5000	0019.0	008.5	328.0	000.1000	0018.6	006.9	56.47
198.0	000.5000	0020.2	008.5	327.2	000.1000	0016.9	007.0	56.18
199.0	000.5000	0021.0	008.5	326.4	000.1000	0015.2	007.1	55.90
200.0	000.5000	0021.7	008.5	325.7	000.1000	0015.2	007.3	55.61
201.0	000.5000	0022.7	008.5	325.1	000.1000	0013.8	007.4	55.32
202.0	000.5000	0023.6	008.5	324.4	000.1000	0012.9	007.5	55.03

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
203.0	000.5000	0024.0	008.5	323.9	000.1000	0012.9	007.6	54.75
204.0	000.5000	0023.7	008.5	323.3	000.1000	0012.3	007.8	54.47
205.0	000.5000	0023.0	008.5	322.8	000.1000	0012.3	007.9	54.20
206.0	000.5000	0022.1	008.5	322.3	000.1000	0012.0	008.0	53.93
207.0	000.5000	0021.1	008.5	321.9	000.1000	0012.0	008.2	53.67
208.0	000.5000	0019.9	008.5	321.4	000.1000	0011.4	008.3	53.41
209.0	000.5000	0018.5	008.5	321.0	000.1000	0011.4	008.4	53.15
210.0	000.5000	0017.4	008.5	320.7	000.1000	0011.4	008.6	52.89
211.0	000.5000	0016.4	008.5	320.3	000.1000	0010.4	008.7	52.63
212.0	000.5000	0015.2	008.5	320.0	000.1000	0010.4	008.8	52.36
213.0	000.5000	0014.0	008.5	319.8	000.1000	0010.4	009.0	52.10
214.0	000.5000	0013.0	008.5	319.5	000.1000	0010.4	009.1	51.84
215.0	000.5000	0012.0	008.5	319.3	000.1000	0009.2	009.3	51.58
216.0	000.5000	0010.6	008.5	319.1	000.1000	0009.2	009.4	51.31
217.0	000.5000	0008.6	008.5	318.9	000.1000	0009.2	009.6	51.05
218.0	000.5000	0006.1	008.5	318.7	000.1000	0009.2	009.7	50.79
219.0	000.5000	0003.2	008.5	318.5	000.1000	0009.2	009.9	50.53
220.0	000.5000	0000.3	008.5	318.4	000.1000	0007.7	010.0	50.28
221.0	000.4940	-0002.5	008.5	318.5	000.1000	0007.7	010.2	50.01
222.0	000.4881	-0005.2	008.4	318.5	000.1000	0009.2	010.3	49.75
223.0	000.4822	-0007.5	008.4	318.6	000.1000	0009.2	010.5	49.50
224.0	000.4763	-0009.0	008.4	318.7	000.1000	0009.2	010.6	49.25
225.0	000.4705	-0009.0	008.4	318.8	000.1000	0009.2	010.7	49.00
226.0	000.4646	-0007.3	008.3	318.9	000.1000	0009.2	010.9	48.75
227.0	000.4589	-0004.8	008.3	319.0	000.1000	0009.2	011.0	48.51
228.0	000.4532	-0002.7	008.3	319.1	000.1000	0009.2	011.2	48.28
229.0	000.4475	-0000.8	008.3	319.2	000.1000	0009.2	011.3	48.04
230.0	000.4418	0001.9	008.2	319.4	000.1000	0009.2	011.5	47.81
231.0	000.4316	0005.4	008.2	319.7	000.1000	0010.4	011.6	47.59
232.0	000.4215	0009.1	008.1	320.0	000.1000	0010.4	011.8	47.37
233.0	000.4116	0012.2	008.1	320.2	000.1000	0010.4	011.9	47.16
234.0	000.4018	0014.4	008.0	320.5	000.1000	0011.4	012.0	46.95
235.0	000.3921	0016.1	008.0	320.8	000.1000	0011.4	012.2	46.74

04-09-2006 30 Arc-Sec. Sec. Terrain Data

WDJMFMBLED19840709DD

Channel = 217A

Max ERP = 0.1 kW

RCAMSL = 99 M

N. Lat = 42 17 44

W. Lng = 71 26 18

Protected

60 dBu

AP219

Channel = 219A

Max ERP = 0.5 kW

RCAMSL = 100 M

N. Lat = 42 25 17

W. Lng = 71 27 10

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
295.0	000.1000	0003.0	005.6	198.6	000.5000	0021.0	012.2	53.62
296.0	000.1000	0001.9	005.6	198.6	000.5000	0021.0	012.1	53.77
297.0	000.1000	0000.6	005.6	198.5	000.5000	0021.0	012.0	53.92
298.0	000.1000	-0000.2	005.6	198.4	000.5000	0020.2	011.9	54.06
299.0	000.1000	-0000.4	005.6	198.3	000.5000	0020.2	011.9	54.21
300.0	000.1000	0000.0	005.6	198.3	000.5000	0020.2	011.8	54.36
301.0	000.1000	0000.2	005.6	198.2	000.5000	0020.2	011.7	54.51
302.0	000.1000	0000.1	005.6	198.0	000.5000	0020.2	011.6	54.66
303.0	000.1000	0000.1	005.6	197.9	000.5000	0020.2	011.5	54.81
304.0	000.1000	0000.7	005.6	197.8	000.5000	0020.2	011.4	54.97
305.0	000.1000	0001.9	005.6	197.6	000.5000	0020.2	011.3	55.12
306.0	000.1000	0003.4	005.6	197.5	000.5000	0019.0	011.2	55.27
307.0	000.1000	0004.8	005.6	197.3	000.5000	0019.0	011.1	55.42
308.0	000.1000	0005.9	005.6	197.2	000.5000	0019.0	011.0	55.57
309.0	000.1000	0007.0	005.6	197.0	000.5000	0019.0	010.9	55.72
310.0	000.1000	0008.0	005.6	196.8	000.5000	0019.0	010.8	55.87
311.0	000.1000	0008.1	005.6	196.6	000.5000	0019.0	010.7	56.02
312.0	000.1000	0007.1	005.6	196.3	000.5000	0017.6	010.6	56.17
313.0	000.1000	0005.6	005.6	196.1	000.5000	0017.6	010.5	56.32
314.0	000.1000	0004.4	005.6	195.8	000.5000	0017.6	010.5	56.47
315.0	000.1000	0004.2	005.6	195.6	000.5000	0017.6	010.4	56.62
316.0	000.1000	0004.9	005.6	195.3	000.5000	0017.1	010.3	56.76
317.0	000.1000	0006.2	005.6	195.0	000.5000	0017.1	010.2	56.91
318.0	000.1000	0007.7	005.6	194.7	000.5000	0017.1	010.1	57.05
319.0	000.1000	0009.2	005.6	194.4	000.5000	0018.6	010.0	57.19
320.0	000.1000	0010.4	005.6	194.1	000.5000	0018.6	010.0	57.33
321.0	000.1000	0011.4	005.6	193.8	000.5000	0018.6	009.9	57.47
322.0	000.1000	0012.0	005.6	193.4	000.5000	0020.8	009.8	57.61
323.0	000.1000	0012.3	005.6	193.0	000.5000	0020.8	009.7	57.75
324.0	000.1000	0012.9	005.6	192.7	000.5000	0020.8	009.7	57.88
325.0	000.1000	0013.8	005.6	192.3	000.5000	0022.3	009.6	58.01
326.0	000.1000	0015.2	005.6	191.9	000.5000	0022.3	009.5	58.14
327.0	000.1000	0016.9	005.6	191.5	000.5000	0022.4	009.4	58.26
328.0	000.1000	0018.6	005.6	191.0	000.5000	0022.4	009.4	58.39

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
329.0	000.1000	0019.9	005.6	190.6	000.5000	0022.4	009.3	58.51
330.0	000.1000	0020.9	005.6	190.1	000.5000	0021.6	009.2	58.62
331.0	000.1000	0021.4	005.6	189.7	000.5000	0021.6	009.2	58.74
332.0	000.1000	0021.7	005.6	189.2	000.5000	0020.9	009.1	58.85
333.0	000.1000	0022.1	005.6	188.7	000.5000	0020.9	009.1	58.96
334.0	000.1000	0022.6	005.6	188.2	000.5000	0021.2	009.0	59.06
335.0	000.1000	0022.9	005.6	187.6	000.5000	0021.2	008.9	59.16
336.0	000.1000	0022.8	005.6	187.1	000.5000	0022.1	008.9	59.26
337.0	000.1000	0022.8	005.6	186.6	000.5000	0022.1	008.8	59.35
338.0	000.1000	0023.3	005.6	186.0	000.5000	0023.1	008.8	59.44
339.0	000.1000	0023.9	005.6	185.4	000.5000	0023.7	008.8	59.52
340.0	000.1000	0024.2	005.6	184.8	000.5000	0023.7	008.7	59.60
341.0	000.1000	0024.3	005.6	184.3	000.5000	0024.0	008.7	59.68
342.0	000.1000	0024.8	005.6	183.7	000.5000	0024.0	008.6	59.75
343.0	000.1000	0025.5	005.6	183.0	000.5000	0024.7	008.6	59.82
344.0	000.1000	0026.4	005.6	182.4	000.5000	0026.8	008.6	59.88
345.0	000.1000	0027.2	005.6	181.8	000.5000	0026.8	008.5	59.93
346.0	000.1000	0028.0	005.6	181.2	000.5000	0028.6	008.5	59.98
347.0	000.1000	0028.5	005.6	180.5	000.5000	0028.6	008.5	60.03
348.0	000.1000	0028.9	005.6	179.9	000.5000	0030.3	008.5	60.14
349.0	000.1000	0029.1	005.6	179.2	000.5000	0032.0	008.4	60.59
350.0	000.1000	0029.4	005.6	178.6	000.5000	0032.0	008.4	60.62
351.0	000.1000	0029.7	005.6	177.9	000.5000	0033.7	008.4	61.07
352.0	000.1000	0031.4	005.8	177.3	000.5000	0035.7	008.3	61.79
353.0	000.1000	0033.3	005.9	176.7	000.5000	0035.7	008.1	62.10
354.0	000.1000	0034.9	006.0	176.0	000.5000	0037.8	008.0	62.82
355.0	000.1000	0036.2	006.1	175.3	000.5000	0039.9	007.9	63.52
356.0	000.1000	0037.6	006.3	174.5	000.5000	0041.8	007.8	64.17
357.0	000.1000	0038.8	006.4	173.6	000.5000	0041.8	007.7	64.36
358.0	000.1000	0039.5	006.4	172.8	000.5000	0043.2	007.6	64.77
359.0	000.1000	0040.0	006.4	171.9	000.5000	0044.3	007.6	65.06
000.0	000.1000	0040.2	006.5	171.0	000.5000	0045.4	007.6	65.28
001.0	000.1000	0040.5	006.5	170.2	000.5000	0045.8	007.6	65.34
002.0	000.1000	0040.7	006.5	169.3	000.5000	0045.5	007.6	65.29
003.0	000.1000	0040.8	006.5	168.5	000.5000	0045.5	007.6	65.23
004.0	000.1000	0040.7	006.5	167.7	000.5000	0045.5	007.7	65.16
005.0	000.1000	0040.9	006.5	166.8	000.5000	0046.2	007.7	65.25
006.0	000.1000	0042.1	006.6	165.8	000.5000	0047.6	007.6	65.66
007.0	000.1000	0044.1	006.8	164.5	000.5000	0048.7	007.5	66.11
008.0	000.1000	0045.4	006.9	163.4	000.5000	0049.7	007.5	66.40
009.0	000.1000	0046.2	006.9	162.3	000.5000	0050.4	007.5	66.54
010.0	000.1000	0046.3	006.9	161.5	000.5000	0051.6	007.5	66.62
011.0	000.1000	0046.4	007.0	160.6	000.5000	0051.6	007.6	66.52
012.0	000.1000	0046.5	007.0	159.9	000.5000	0052.6	007.6	66.56
013.0	000.1000	0046.4	007.0	159.1	000.5000	0053.3	007.7	66.53
014.0	000.1000	0045.9	006.9	158.5	000.5000	0053.3	007.8	66.33
015.0	000.1000	0045.1	006.9	158.1	000.5000	0053.7	007.9	66.15
016.0	000.1000	0044.2	006.8	157.7	000.5000	0053.7	008.1	65.91
017.0	000.1000	0043.7	006.7	157.3	000.5000	0054.1	008.2	65.78
018.0	000.1000	0044.0	006.8	156.5	000.5000	0054.1	008.2	65.67
019.0	000.1000	0044.9	006.8	155.6	000.5000	0054.5	008.2	65.68

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
020.0	000.1000	0046.2	006.9	154.5	000.5000	0054.8	008.3	65.69
021.0	000.1000	0047.4	007.0	153.5	000.5000	0054.2	008.3	65.56
022.0	000.1000	0048.6	007.1	152.4	000.5000	0053.2	008.3	65.34
023.0	000.1000	0049.9	007.2	151.3	000.5000	0051.8	008.3	65.03
024.0	000.1000	0051.0	007.3	150.3	000.5000	0050.2	008.4	64.65
025.0	000.1000	0051.8	007.4	149.5	000.5000	0048.7	008.5	64.24
026.0	000.1000	0052.7	007.5	148.6	000.5000	0048.7	008.5	64.10
027.0	000.1000	0053.2	007.5	147.9	000.5000	0047.6	008.6	63.72
028.0	000.1000	0053.2	007.5	147.5	000.5000	0047.6	008.7	63.51
029.0	000.1000	0052.9	007.5	147.2	000.5000	0047.1	008.9	63.19
030.0	000.1000	0052.8	007.5	146.9	000.5000	0047.1	009.0	62.97
031.0	000.1000	0052.7	007.5	146.5	000.5000	0047.1	009.1	62.75
032.0	000.1000	0052.8	007.5	146.2	000.5000	0047.2	009.2	62.55
033.0	000.1000	0052.7	007.4	145.9	000.5000	0047.2	009.3	62.33
034.0	000.1000	0052.4	007.4	145.7	000.5000	0047.2	009.5	62.10
035.0	000.1000	0052.2	007.4	145.5	000.5000	0047.2	009.6	61.87
036.0	000.1000	0051.9	007.4	145.4	000.5000	0047.4	009.7	61.68
037.0	000.1000	0051.4	007.4	145.3	000.5000	0047.4	009.9	61.45
038.0	000.1000	0050.7	007.3	145.4	000.5000	0047.4	010.0	61.21
039.0	000.1000	0050.2	007.3	145.4	000.5000	0047.4	010.1	60.97
040.0	000.1000	0050.1	007.3	145.3	000.5000	0047.4	010.3	60.76
041.0	000.1000	0050.6	007.3	144.9	000.5000	0047.4	010.4	60.57
042.0	000.1000	0051.5	007.4	144.4	000.5000	0047.2	010.5	60.35
043.0	000.1000	0052.2	007.4	143.9	000.5000	0047.2	010.6	60.15
044.0	000.1000	0052.6	007.4	143.7	000.5000	0047.2	010.7	59.94
045.0	000.1000	0052.4	007.4	143.6	000.5000	0047.2	010.8	59.73
046.0	000.1000	0051.9	007.4	143.7	000.5000	0047.2	011.0	59.51
047.0	000.1000	0050.9	007.3	144.0	000.5000	0047.2	011.1	59.28
048.0	000.1000	0049.8	007.2	144.4	000.5000	0047.2	011.3	59.06
049.0	000.1000	0048.4	007.1	144.9	000.5000	0047.4	011.4	58.87
050.0	000.1000	0046.6	007.0	145.5	000.5000	0047.2	011.5	58.62
051.0	000.1000	0044.7	006.8	146.2	000.5000	0047.2	011.7	58.41
052.0	000.1000	0042.9	006.7	146.9	000.5000	0047.1	011.8	58.19
053.0	000.1000	0041.5	006.6	147.4	000.5000	0047.1	011.9	57.99
054.0	000.1000	0040.5	006.5	147.7	000.5000	0047.6	012.0	57.90
055.0	000.1000	0040.0	006.4	147.9	000.5000	0047.6	012.1	57.73

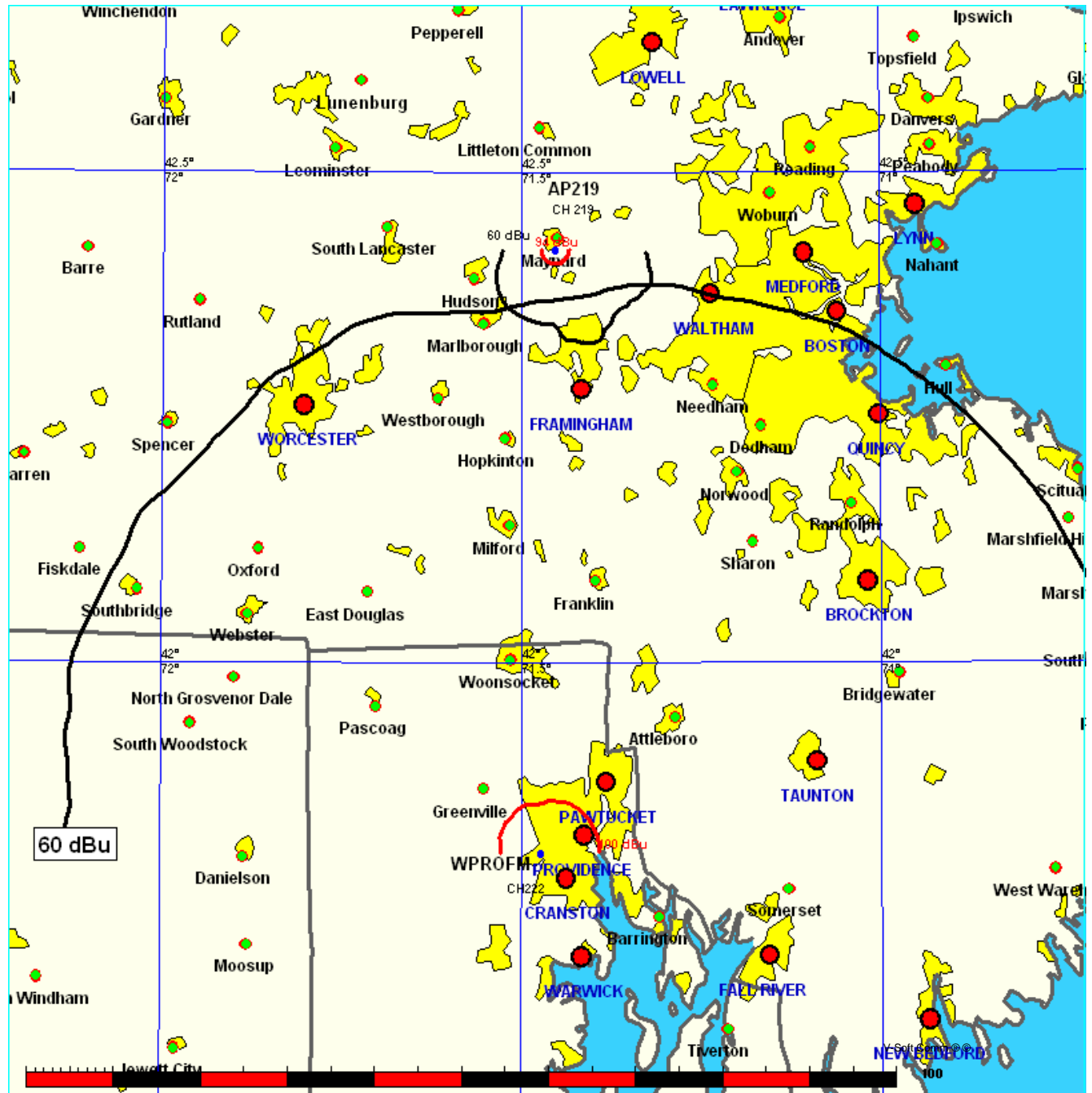
Relationship with WPRO (Maximized)
U-Mass, Boston/Maynard School Committee

FMCommander Allocation Study
04-09-2006

AP219 CH 219 A
0.5 kW 100 M COR DA
Prot. = 60 dBu
Intef. = 94 dBu

WPROFM CH 222 B BMLH19920605KA
50.0 kW, 212 M COR
Prot. = 54 dBu
Intef. = 100 dBu

Scale = 1:1,125,000



04-09-2006

30 Arc-Sec. Terrain Data

FMOver Analysis

AP219

Channel = 219A

Max ERP = 0.5 kW

RCAMSL = 100 M

N. Lat = 42 25 17

W. Lng = 71 27 10

Protected

60 dBu

WPROFM BMLH19920605KA

Channel = 222B

Max ERP = 50 kW

RCAMSL = 212 M

N. Lat = 41 48 18

W. Lng = 71 28 24

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
121.0	000.5000	0048.5	010.8	009.8	050.0000	0153.2	063.8	58.75
122.0	000.5000	0047.3	010.7	009.7	050.0000	0153.2	063.7	58.79
123.0	000.5000	0046.1	010.5	009.5	050.0000	0151.3	063.6	58.73
124.0	000.5000	0045.2	010.4	009.3	050.0000	0151.3	063.5	58.77
125.0	000.5000	0044.9	010.4	009.2	050.0000	0151.3	063.3	58.82
126.0	000.5000	0045.1	010.4	009.2	050.0000	0151.3	063.2	58.88
127.0	000.5000	0045.3	010.5	009.1	050.0000	0151.3	063.0	58.94
128.0	000.5000	0045.0	010.4	009.0	050.0000	0151.3	062.8	58.99
129.0	000.5000	0044.3	010.3	008.9	050.0000	0151.3	062.7	59.03
130.0	000.5000	0043.2	010.2	008.7	050.0000	0151.3	062.6	59.06
131.0	000.5000	0042.6	010.1	008.5	050.0000	0151.3	062.5	59.10
132.0	000.5000	0042.3	010.1	008.4	050.0000	0148.5	062.4	58.99
133.0	000.5000	0042.2	010.1	008.3	050.0000	0148.5	062.3	59.04
134.0	000.5000	0042.1	010.1	008.2	050.0000	0148.5	062.1	59.09
135.0	000.5000	0042.1	010.1	008.1	050.0000	0148.5	062.0	59.14
136.0	000.5000	0042.4	010.1	008.0	050.0000	0148.5	061.8	59.19
137.0	000.5000	0042.7	010.1	008.0	050.0000	0148.5	061.7	59.25
138.0	000.5000	0043.0	010.2	007.9	050.0000	0148.5	061.5	59.31
139.0	000.5000	0043.2	010.2	007.8	050.0000	0148.5	061.3	59.36
140.0	000.5000	0043.6	010.2	007.7	050.0000	0148.5	061.2	59.42
141.0	000.5000	0044.3	010.3	007.7	050.0000	0148.5	061.0	59.49
142.0	000.5000	0045.4	010.5	007.6	050.0000	0148.5	060.8	59.57
143.0	000.5000	0046.5	010.6	007.6	050.0000	0148.5	060.5	59.65
144.0	000.5000	0047.2	010.7	007.5	050.0000	0148.5	060.4	59.72
145.0	000.5000	0047.4	010.7	007.4	050.0000	0145.3	060.2	59.60
146.0	000.5000	0047.2	010.7	007.3	050.0000	0145.3	060.1	59.64
147.0	000.5000	0047.1	010.7	007.1	050.0000	0145.3	060.0	59.68
148.0	000.5000	0047.6	010.7	007.0	050.0000	0145.3	059.8	59.74
149.0	000.5000	0048.7	010.9	007.0	050.0000	0145.3	059.6	59.81
150.0	000.5000	0050.2	011.0	006.9	050.0000	0145.3	059.4	59.91
151.0	000.5000	0051.8	011.2	006.9	050.0000	0145.3	059.1	60.00
152.0	000.5000	0053.2	011.4	006.8	050.0000	0145.3	058.9	60.09
153.0	000.5000	0054.2	011.5	006.7	050.0000	0145.3	058.7	60.16
154.0	000.5000	0054.7	011.5	006.6	050.0000	0145.3	058.5	60.22
155.0	000.5000	0054.8	011.5	006.4	050.0000	0141.9	058.4	60.07
156.0	000.5000	0054.5	011.5	006.2	050.0000	0141.9	058.3	60.10
157.0	000.5000	0054.1	011.5	006.0	050.0000	0141.9	058.2	60.13

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
158.0	000.5000	0053.7	011.4	005.9	050.0000	0141.9	058.2	60.15
159.0	000.5000	0053.3	011.4	005.7	050.0000	0141.9	058.1	60.17
160.0	000.5000	0052.6	011.3	005.5	050.0000	0139.3	058.1	60.03
161.0	000.5000	0051.6	011.2	005.2	050.0000	0139.3	058.1	60.03
162.0	000.5000	0050.4	011.1	005.0	050.0000	0139.3	058.2	60.01
163.0	000.5000	0049.7	011.0	004.8	050.0000	0139.3	058.2	60.01
164.0	000.5000	0049.4	010.9	004.6	050.0000	0139.3	058.1	60.03
165.0	000.5000	0048.7	010.9	004.4	050.0000	0137.3	058.1	59.92
166.0	000.5000	0047.6	010.7	004.2	050.0000	0137.3	058.2	59.89
167.0	000.5000	0046.2	010.6	004.0	050.0000	0137.3	058.3	59.85
168.0	000.5000	0045.5	010.5	003.8	050.0000	0137.3	058.3	59.84
169.0	000.5000	0045.5	010.5	003.6	050.0000	0137.3	058.3	59.86
170.0	000.5000	0045.8	010.5	003.4	050.0000	0135.7	058.2	59.80
171.0	000.5000	0045.4	010.5	003.3	050.0000	0135.7	058.2	59.80
172.0	000.5000	0044.3	010.3	003.1	050.0000	0135.7	058.3	59.77
173.0	000.5000	0043.2	010.2	002.9	050.0000	0135.7	058.4	59.73
174.0	000.5000	0041.8	010.0	002.7	050.0000	0135.7	058.6	59.67
175.0	000.5000	0039.9	009.8	002.5	050.0000	0134.3	058.8	59.52
176.0	000.5000	0037.8	009.5	002.3	050.0000	0134.3	059.0	59.43
177.0	000.5000	0035.7	009.3	002.1	050.0000	0134.3	059.3	59.34
178.0	000.5000	0033.7	009.0	001.9	050.0000	0134.3	059.5	59.25
179.0	000.5000	0032.0	008.8	001.8	050.0000	0134.3	059.7	59.17
180.0	000.5000	0030.3	008.5	001.6	050.0000	0134.3	059.9	59.09
181.0	000.5000	0028.6	008.5	001.5	050.0000	0133.5	060.0	59.04
182.0	000.5000	0026.8	008.5	001.3	050.0000	0133.5	060.0	59.04
183.0	000.5000	0024.7	008.5	001.2	050.0000	0133.5	060.0	59.04
184.0	000.5000	0024.0	008.5	001.1	050.0000	0133.5	060.0	59.03
185.0	000.5000	0023.7	008.5	000.9	050.0000	0133.5	060.0	59.03
186.0	000.5000	0023.1	008.5	000.8	050.0000	0133.5	060.0	59.03
187.0	000.5000	0022.1	008.5	000.6	050.0000	0133.5	060.0	59.02
188.0	000.5000	0021.2	008.5	000.5	050.0000	0132.8	060.0	58.97
189.0	000.5000	0020.9	008.5	000.4	050.0000	0132.8	060.1	58.96
190.0	000.5000	0021.6	008.5	000.2	050.0000	0132.8	060.1	58.95
191.0	000.5000	0022.4	008.5	000.1	050.0000	0132.8	060.1	58.95
192.0	000.5000	0022.3	008.5	359.9	050.0000	0132.8	060.1	58.93
193.0	000.5000	0020.8	008.5	359.8	050.0000	0132.8	060.2	58.92
194.0	000.5000	0018.6	008.5	359.7	050.0000	0132.8	060.2	58.91
195.0	000.5000	0017.1	008.5	359.5	050.0000	0132.8	060.3	58.90
196.0	000.5000	0017.6	008.5	359.4	050.0000	0131.9	060.3	58.83
197.0	000.5000	0019.0	008.5	359.3	050.0000	0131.9	060.3	58.82
198.0	000.5000	0020.2	008.5	359.1	050.0000	0131.9	060.4	58.80
199.0	000.5000	0021.0	008.5	359.0	050.0000	0131.9	060.4	58.78
200.0	000.5000	0021.7	008.5	358.9	050.0000	0131.9	060.5	58.77
201.0	000.5000	0022.7	008.5	358.7	050.0000	0131.9	060.5	58.75
202.0	000.5000	0023.6	008.5	358.6	050.0000	0131.9	060.6	58.73
203.0	000.5000	0024.0	008.5	358.5	050.0000	0130.6	060.7	58.63
204.0	000.5000	0023.7	008.5	358.4	050.0000	0130.6	060.7	58.61
205.0	000.5000	0023.0	008.5	358.2	050.0000	0130.6	060.8	58.59
206.0	000.5000	0022.1	008.5	358.1	050.0000	0130.6	060.9	58.56
207.0	000.5000	0021.1	008.5	358.0	050.0000	0130.6	060.9	58.54
208.0	000.5000	0019.9	008.5	357.9	050.0000	0130.6	061.0	58.51

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
209.0	000.5000	0018.5	008.5	357.7	050.0000	0130.6	061.1	58.49
210.0	000.5000	0017.4	008.5	357.6	050.0000	0130.6	061.2	58.46
211.0	000.5000	0016.4	008.5	357.5	050.0000	0130.6	061.2	58.43
212.0	000.5000	0015.2	008.5	357.4	050.0000	0129.2	061.3	58.32
213.0	000.5000	0014.0	008.5	357.3	050.0000	0129.2	061.4	58.29
214.0	000.5000	0013.0	008.5	357.2	050.0000	0129.2	061.5	58.26
215.0	000.5000	0012.0	008.5	357.1	050.0000	0129.2	061.6	58.23
216.0	000.5000	0010.6	008.5	357.0	050.0000	0129.2	061.7	58.20
217.0	000.5000	0008.6	008.5	356.9	050.0000	0129.2	061.8	58.16
218.0	000.5000	0006.1	008.5	356.8	050.0000	0129.2	061.9	58.13
219.0	000.5000	0003.2	008.5	356.7	050.0000	0129.2	062.0	58.09
220.0	000.5000	0000.3	008.5	356.6	050.0000	0129.2	062.1	58.06
221.0	000.4940	-0002.5	008.5	356.5	050.0000	0127.7	062.2	57.94
222.0	000.4881	-0005.2	008.4	356.4	050.0000	0127.7	062.3	57.89
223.0	000.4822	-0007.5	008.4	356.3	050.0000	0127.7	062.4	57.85
224.0	000.4763	-0009.0	008.4	356.2	050.0000	0127.7	062.6	57.81
225.0	000.4705	-0009.0	008.4	356.2	050.0000	0127.7	062.7	57.76
226.0	000.4646	-0007.3	008.3	356.1	050.0000	0127.7	062.8	57.72
227.0	000.4589	-0004.8	008.3	356.0	050.0000	0127.7	063.0	57.68
228.0	000.4532	-0002.7	008.3	356.0	050.0000	0127.7	063.1	57.63
229.0	000.4475	-0000.8	008.3	355.9	050.0000	0127.7	063.2	57.59
230.0	000.4418	0001.9	008.2	355.9	050.0000	0127.7	063.3	57.54
231.0	000.4316	0005.4	008.2	355.8	050.0000	0127.7	063.5	57.49
232.0	000.4215	0009.1	008.1	355.8	050.0000	0127.7	063.6	57.44
233.0	000.4116	0012.2	008.1	355.8	050.0000	0127.7	063.8	57.39
234.0	000.4018	0014.4	008.0	355.8	050.0000	0127.7	063.9	57.35
235.0	000.3921	0016.1	008.0	355.7	050.0000	0127.7	064.1	57.30
236.0	000.3825	0017.6	007.9	355.7	050.0000	0127.7	064.2	57.25
237.0	000.3730	0018.9	007.9	355.7	050.0000	0127.7	064.4	57.20
238.0	000.3636	0019.8	007.8	355.7	050.0000	0127.7	064.5	57.16
239.0	000.3544	0020.6	007.8	355.7	050.0000	0127.7	064.7	57.11
240.0	000.3453	0021.3	007.7	355.6	050.0000	0127.7	064.8	57.06
241.0	000.3363	0022.4	007.6	355.6	050.0000	0127.7	065.0	57.02

04-09-2006 30 Arc-Sec. Sec. Terrain Data

WPROFM BMLH19920605KA

Channel = 222B

Max ERP = 50 kW

RCAMSL = 212 M

N. Lat = 41 48 18

W. Lng = 71 28 24

Protected

54 dBu

AP219

Channel = 219A

Max ERP = 0.5 kW

RCAMSL = 100 M

N. Lat = 42 25 17

W. Lng = 71 27 10

Interfering

94 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
301.0	050.0000	0108.4	046.2	222.7	000.4837	-0007.5	060.8	30.49
302.0	050.0000	0108.9	046.3	223.0	000.4820	-0007.5	060.1	30.63
303.0	050.0000	0109.2	046.3	223.2	000.4809	-0007.5	059.3	30.78
304.0	050.0000	0109.3	046.3	223.4	000.4801	-0007.5	058.5	30.93
305.0	050.0000	0109.5	046.4	223.5	000.4792	-0009.0	057.7	31.09
306.0	050.0000	0110.3	046.5	223.7	000.4778	-0009.0	056.9	31.25
307.0	050.0000	0112.0	046.8	224.1	000.4756	-0009.0	056.1	31.39
308.0	050.0000	0114.0	047.1	224.6	000.4731	-0009.0	055.4	31.53
309.0	050.0000	0115.8	047.4	224.9	000.4709	-0009.0	054.6	31.68
310.0	050.0000	0116.8	047.5	225.2	000.4695	-0009.0	053.8	31.84
311.0	050.0000	0116.9	047.5	225.2	000.4690	-0009.0	052.9	32.02
312.0	050.0000	0116.1	047.4	225.2	000.4694	-0009.0	052.1	32.20
313.0	050.0000	0115.0	047.2	225.0	000.4703	-0009.0	051.3	32.39
314.0	050.0000	0114.1	047.1	224.9	000.4711	-0009.0	050.4	32.58
315.0	050.0000	0113.6	047.0	224.8	000.4716	-0009.0	049.6	32.76
316.0	050.0000	0113.5	047.0	224.8	000.4717	-0009.0	048.8	32.94
317.0	050.0000	0113.7	047.0	224.8	000.4717	-0009.0	048.0	33.12
318.0	050.0000	0113.9	047.1	224.8	000.4718	-0009.0	047.1	33.30
319.0	050.0000	0114.3	047.1	224.8	000.4718	-0009.0	046.3	33.50
320.0	050.0000	0115.2	047.3	224.9	000.4712	-0009.0	045.5	33.70
321.0	050.0000	0116.5	047.5	225.0	000.4704	-0009.0	044.7	33.91
322.0	050.0000	0117.4	047.6	225.1	000.4701	-0009.0	043.8	34.13
323.0	050.0000	0117.9	047.7	225.0	000.4704	-0009.0	043.0	34.36
324.0	050.0000	0118.3	047.7	224.9	000.4709	-0009.0	042.1	34.61
325.0	050.0000	0119.3	047.9	224.9	000.4709	-0009.0	041.3	34.86
326.0	050.0000	0121.0	048.1	225.0	000.4702	-0009.0	040.4	35.12
327.0	050.0000	0123.5	048.5	225.3	000.4686	-0009.0	039.5	35.39
328.0	050.0000	0126.4	048.9	225.6	000.4667	-0007.3	038.6	35.67
329.0	050.0000	0129.0	049.3	225.9	000.4652	-0007.3	037.7	35.96
330.0	050.0000	0130.8	049.5	226.0	000.4649	-0007.3	036.8	36.27
331.0	050.0000	0131.2	049.6	225.7	000.4663	-0007.3	035.9	36.58
332.0	050.0000	0131.0	049.6	225.3	000.4688	-0009.0	035.1	36.90
333.0	050.0000	0130.8	049.5	224.8	000.4715	-0009.0	034.3	37.22
334.0	050.0000	0131.1	049.6	224.4	000.4739	-0009.0	033.5	37.56

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
335.0	050.0000	0131.9	049.7	224.1	000.4759	-0009.0	032.6	37.90
336.0	050.0000	0133.0	049.8	223.7	000.4778	-0009.0	031.8	38.25
337.0	050.0000	0134.2	050.0	223.4	000.4798	-0007.5	030.9	38.64
338.0	050.0000	0135.8	050.2	223.1	000.4814	-0007.5	030.0	39.08
339.0	050.0000	0137.6	050.5	222.8	000.4832	-0007.5	029.1	39.55
340.0	050.0000	0139.0	050.7	222.4	000.4859	-0005.2	028.2	40.04
341.0	050.0000	0139.5	050.8	221.6	000.4902	-0005.2	027.4	40.55
342.0	050.0000	0139.4	050.8	220.7	000.4960	-0002.5	026.6	41.06
343.0	050.0000	0139.2	050.7	219.6	000.5000	0000.3	025.9	41.55
344.0	050.0000	0138.9	050.7	218.4	000.5000	0006.1	025.2	42.01
345.0	050.0000	0138.1	050.6	217.0	000.5000	0008.6	024.6	42.45
346.0	050.0000	0136.6	050.3	215.2	000.5000	0012.0	024.0	42.82
347.0	050.0000	0134.5	050.0	213.3	000.5000	0014.0	023.6	43.14
348.0	050.0000	0132.8	049.8	211.3	000.5000	0016.4	023.1	43.46
349.0	050.0000	0131.5	049.6	209.4	000.5000	0018.5	022.7	43.78
350.0	050.0000	0130.6	049.5	207.5	000.5000	0019.9	022.2	44.11
351.0	050.0000	0130.0	049.4	205.6	000.5000	0022.1	021.8	44.44
352.0	050.0000	0129.0	049.3	203.4	000.5000	0024.0	021.5	44.71
353.0	050.0000	0128.0	049.1	201.3	000.5000	0022.7	021.2	44.94
354.0	050.0000	0127.1	049.0	199.0	000.5000	0021.0	020.9	45.15
355.0	050.0000	0126.9	049.0	196.8	000.5000	0019.0	020.6	45.40
356.0	050.0000	0127.7	049.1	194.7	000.5000	0017.1	020.2	45.71
357.0	050.0000	0129.2	049.3	192.5	000.5000	0022.3	019.7	46.07
358.0	050.0000	0130.6	049.5	190.2	000.5000	0021.6	019.3	46.40
359.0	050.0000	0131.9	049.7	187.7	000.5000	0021.2	019.0	46.67
000.0	050.0000	0132.8	049.8	185.2	000.5000	0023.7	018.7	46.86
001.0	050.0000	0133.5	049.9	182.5	000.5000	0024.7	018.6	46.99
002.0	050.0000	0134.3	050.0	179.8	000.5000	0030.3	018.5	47.16
003.0	050.0000	0135.7	050.2	177.1	000.5000	0035.7	018.3	48.62
004.0	050.0000	0137.3	050.5	174.3	000.5000	0041.8	018.2	50.11
005.0	050.0000	0139.3	050.7	171.4	000.5000	0045.4	018.1	50.98
006.0	050.0000	0141.9	051.1	168.4	000.5000	0045.5	018.0	51.08
007.0	050.0000	0145.3	051.6	165.2	000.5000	0048.7	017.9	51.87
008.0	050.0000	0148.5	052.0	162.0	000.5000	0050.4	017.9	52.21
009.0	050.0000	0151.3	052.4	158.8	000.5000	0053.3	018.0	52.63
010.0	050.0000	0153.2	052.6	156.0	000.5000	0054.5	018.2	52.60
011.0	050.0000	0154.1	052.7	153.5	000.5000	0054.2	018.7	52.17
012.0	050.0000	0156.1	053.0	150.8	000.5000	0051.8	019.1	51.43
013.0	050.0000	0158.4	053.3	148.2	000.5000	0047.6	019.5	50.28
014.0	050.0000	0159.5	053.4	146.1	000.5000	0047.2	020.1	49.72
015.0	050.0000	0159.7	053.4	144.3	000.5000	0047.2	020.8	49.16
016.0	050.0000	0159.7	053.4	142.7	000.5000	0046.5	021.5	48.43
017.0	050.0000	0159.1	053.4	141.5	000.5000	0044.3	022.3	47.37
018.0	050.0000	0159.3	053.4	140.1	000.5000	0043.6	023.1	46.63
019.0	050.0000	0161.1	053.6	138.5	000.5000	0043.2	023.8	46.04
020.0	050.0000	0163.7	053.9	136.8	000.5000	0042.7	024.4	45.44
021.0	050.0000	0165.9	054.2	135.4	000.5000	0042.1	025.2	44.80
022.0	050.0000	0167.1	054.3	134.2	000.5000	0042.1	026.0	44.24
023.0	050.0000	0168.6	054.5	133.1	000.5000	0042.2	026.8	43.73
024.0	050.0000	0170.7	054.7	132.0	000.5000	0042.3	027.7	43.24
025.0	050.0000	0173.0	054.9	131.0	000.5000	0042.6	028.5	42.80

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
026.0	050.0000	0175.2	055.1	130.1	000.5000	0043.2	029.4	42.45
027.0	050.0000	0177.4	055.4	129.3	000.5000	0044.3	030.3	42.18
028.0	050.0000	0179.7	055.6	128.5	000.5000	0044.3	031.2	41.74
029.0	050.0000	0181.9	055.8	127.8	000.5000	0045.0	032.1	41.48
030.0	050.0000	0183.8	055.9	127.3	000.5000	0045.3	033.0	41.14
031.0	050.0000	0185.3	056.1	126.9	000.5000	0045.3	034.0	40.75
032.0	050.0000	0186.2	056.1	126.6	000.5000	0045.3	035.0	40.36
033.0	050.0000	0186.6	056.2	126.4	000.5000	0045.1	035.9	39.94
034.0	050.0000	0186.5	056.2	126.4	000.5000	0045.1	036.9	39.57
035.0	050.0000	0186.6	056.2	126.3	000.5000	0045.1	037.9	39.20
036.0	050.0000	0187.1	056.2	126.2	000.5000	0045.1	038.9	38.84
037.0	050.0000	0188.0	056.3	126.1	000.5000	0045.1	039.9	38.49
038.0	050.0000	0189.0	056.4	126.0	000.5000	0045.1	040.8	38.14
039.0	050.0000	0189.9	056.5	126.0	000.5000	0045.1	041.8	37.81
040.0	050.0000	0190.7	056.5	125.9	000.5000	0045.1	042.8	37.48
041.0	050.0000	0191.2	056.6	126.0	000.5000	0045.1	043.8	37.16
042.0	050.0000	0191.7	056.6	126.1	000.5000	0045.1	044.8	36.85
043.0	050.0000	0192.3	056.7	126.1	000.5000	0045.1	045.8	36.56
044.0	050.0000	0192.9	056.7	126.2	000.5000	0045.1	046.8	36.27
045.0	050.0000	0193.5	056.8	126.3	000.5000	0045.1	047.8	35.99
046.0	050.0000	0194.0	056.8	126.4	000.5000	0045.1	048.7	35.72
047.0	050.0000	0194.5	056.9	126.6	000.5000	0045.3	049.7	35.47
048.0	050.0000	0195.0	056.9	126.8	000.5000	0045.3	050.7	35.20
049.0	050.0000	0195.4	056.9	126.9	000.5000	0045.3	051.7	34.93
050.0	050.0000	0195.8	057.0	127.1	000.5000	0045.3	052.7	34.66
051.0	050.0000	0196.1	057.0	127.3	000.5000	0045.3	053.6	34.39
052.0	050.0000	0196.4	057.0	127.6	000.5000	0045.0	054.6	34.09
053.0	050.0000	0196.7	057.1	127.8	000.5000	0045.0	055.6	33.82
054.0	050.0000	0197.1	057.1	128.0	000.5000	0045.0	056.6	33.56
055.0	050.0000	0197.4	057.1	128.3	000.5000	0045.0	057.5	33.30
056.0	050.0000	0197.7	057.1	128.5	000.5000	0044.3	058.5	32.96
057.0	050.0000	0197.7	057.2	128.8	000.5000	0044.3	059.4	32.71
058.0	050.0000	0197.6	057.1	129.2	000.5000	0044.3	060.4	32.47
059.0	050.0000	0197.3	057.1	129.5	000.5000	0044.3	061.3	32.24
060.0	050.0000	0197.2	057.1	129.8	000.5000	0043.2	062.2	31.90
061.0	050.0000	0197.3	057.1	130.1	000.5000	0043.2	063.2	31.67