

W233AR - Move to Channel 232

Vermont Public Radio

REFERENCE CH# 232D - 94.3 MHz, Pwr= 0.19 kw, HAAT= 31.3 M, COR= 307 M
42 49 44.0 N. Average Protected F(50-50)= 6.74 km
72 35 52.0 W. Omni-directional

DISPLAY DATES
DATA 06-29-12
SEARCH 06-29-12

CH CITY	CALL	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*OUT* (Overlap in km)
233D Brattleboro	W233AR	LIC _C_ VT	0.0 0.0	0.00 BLFT20041215ABH	42 49 44.0 72 35 52.0	0.010 31	7.0 307	5.0 Vermont Public Radio	-19.6*
231D Brattleboro	630982	APP _C_ VT	358.4 178.4	16.18 BNPFT20030317HKS	42 58 28.0 72 36 12.0	0.010 233	15.3 514	10.6 Vermont Public Radio	-19.2**
232D Amherst	W232BW	LIC DC_ MA	164.5 344.6	53.66 BLFT20110422AAO	42 21 49.0 72 25 24.0	0.200 230	41.2 404	10.9 Saga Communications Of Ne	0.2
231D Keene	637124	APP _C_ NH	66.0 246.2	23.86 BNPFT20030317BLE	42 54 57.0 72 19 48.0	0.010 188	11.8 437	7.3 Educational Media Foundati	0.5
230A Turners Falls	WRSI	LIC _CN MA	179.3 359.3	32.83 BLH19951018KB	42 32 01.0 72 35 34.0	2.500 109	2.6 284	28.2 Saga Communications Of Ne	3.2
285A Hinsdale	WYRY«	LIC DC_ NH	116.8 296.9	13.10 BLH20010402AAV	42 46 33.0 72 27 17.0	4.100 122	0.0 344	0.0 Tri-valley Broadcasting Co	9.5R 3.6M
232D Greenville, Etc.	W232AJ	LIC ?CN NH	86.6 267.1	58.48 BLFT19881108TI	42 51 28.0 71 52 53.0	0.005 416	33.2 713	9.4 Harvest Broadcasting Assn.	10.5
232A Bennington	WBTN-FM	LIC NCX VT	285.9 105.5	48.93 BMLED20110511AGV	42 56 52.9 73 10 33.9	3.000 34	53.3 474	13.2 Vermont Public Radio	13.6
234B Enfield	WMAS-FM	LIC _CX CT	180.8 0.8	80.02 BLH20111107ARY	42 06 33.0 72 36 40.0	50.000 55	4.1 117	51.6 Radio License Holding Cbc,	26.0
233B Boston	WJMN	LIC _CX MA	116.8 297.7	126.52 BLH20031201AWA	42 18 27.0 71 13 27.0	9.200 353	76.3 394	65.1 Amfm Radio Licenses, L.L.c	27.0
234D North Adams	W234AL	LIC _C_ MA	251.9 71.5	44.69 BLFT20061025ABP	42 42 10.0 73 07 04.0	0.050	0.5 224	4.7 Northeast Gospel Broadcast	39.0
233A Rutland	WDVT	LIC ZCX VT	338.1 157.8	88.64 BLH20100217AAS	43 34 04.0 73 00 32.0	6.000 98	44.5 450	29.0 6 Johnson Road Licenses, I	40.1
232D White River Junctio	W232AP	LIC _C_ VT	14.9 195.1	95.01 BLFT20091013ADL	43 39 16.4 72 17 41.6	0.008 71	19.2 347	6.0 Great Eastern Radio, LLC	41.1

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding
All separation margins (if shown) include rounding
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
Incoming contour overlap is ignored.
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.
« = Station meets FCC minimum distance spacing for its class.

** Vermont Public Radio is the applicant for this pending translator application BNPFT20030317HKS. VPR will be withdrawing BNPFT20030317HKS concurrently with filing the instant proposal.

HOW TO READ THE FM COMPUTER PRINT-OUT

Translator Reference Station

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

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

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

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

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

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

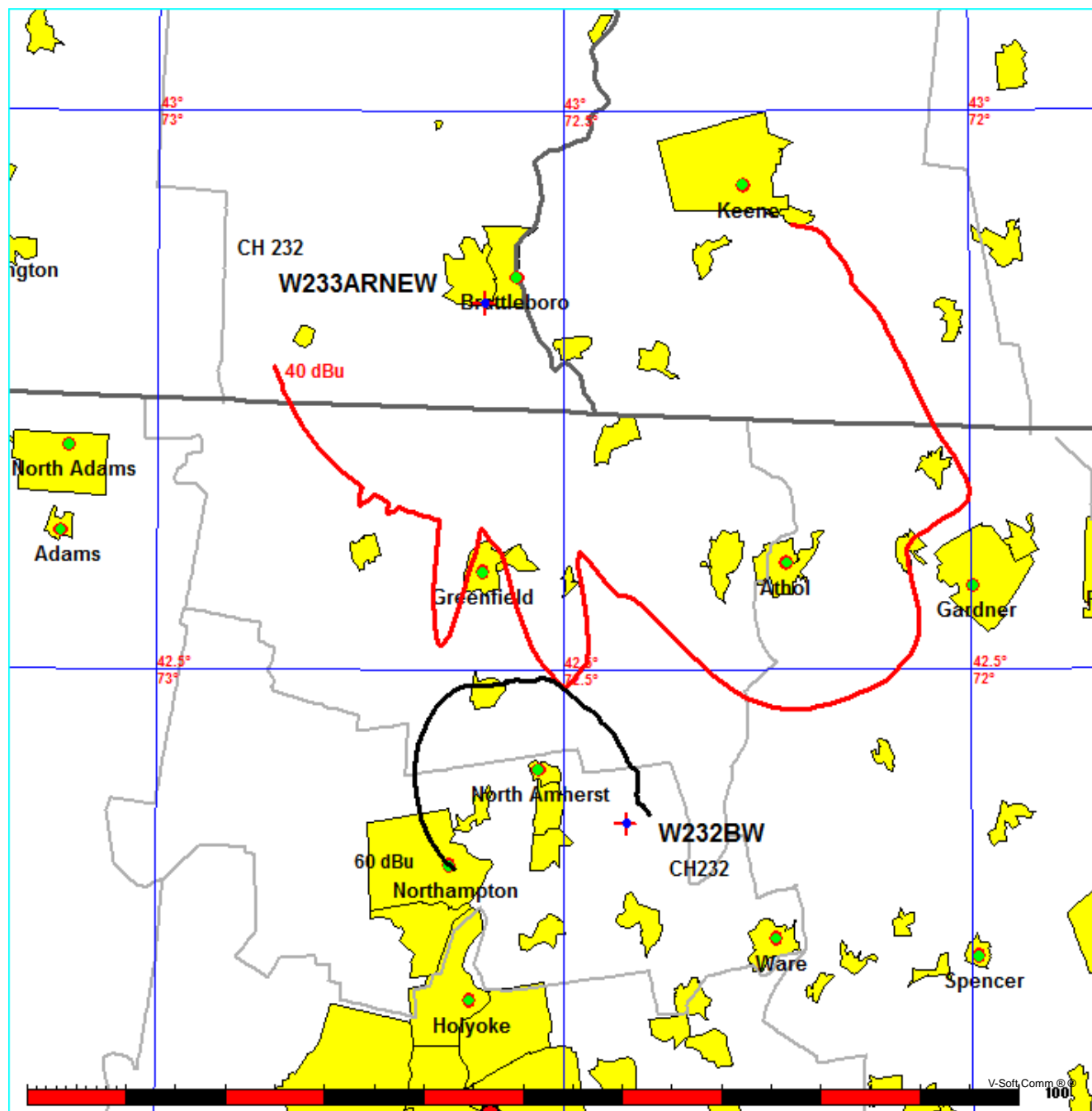
The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. "Z" indicates a 73.215 directional. An "N" indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt or an "X" if the commission is not sure, otherwise it will be an "N" or left blank.

W233ARNew vs. W232BW
Vermont Public Radio

FMCommander Single Allocation Study - 06-29-2012 - FCC NGDC 30 Sec
W233ARNEW's Overlaps (In= 3.31 km, Out= 0.22 km)

W233ARNEW CH 232 D
Lat= 42 49 44.0, Lng= 72 35 52.0
0.19 kW 31.3 M HAAT, 307 M COR
Prot.= 60 dBu, Intef.= 40 dBu

W232BW CH 232 D DA BLFT20110422AAO
Lat= 42 21 49.0, Lng= 72 25 24.0
0.2 kW 230.1 M HAAT, 404 M COR
Prot.= 60 dBu, Intef.= 40 dBu



06-29-2012

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

W232BW BLFT20110422AAO

W233ARNEW

Channel = 232D

Max ERP = 0.2 kW

RCAMSL = 404 M

N. Lat. 42 21 49.0

W. Lng. 72 25 24.0

Protected

60 dBu

Channel = 232D

Max ERP = 0.19 kW

RCAMSL = 307 M

N. Lat. 42 49 44.0

W. Lng. 72 35 52.0

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
285.0	000.1797	0336.9	022.0	188.6	000.1900	0067.0	046.5	34.88	
286.0	000.1822	0336.6	022.1	188.6	000.1900	0066.7	046.2	34.98	
287.0	000.1846	0336.2	022.2	188.7	000.1900	0066.7	045.8	35.11	
288.0	000.1871	0335.5	022.2	188.6	000.1900	0066.8	045.4	35.26	
289.0	000.1896	0334.8	022.3	188.6	000.1900	0067.0	045.0	35.41	
290.0	000.1921	0334.2	022.3	188.6	000.1900	0067.2	044.6	35.58	
291.0	000.1929	0333.7	022.3	188.5	000.1900	0067.9	044.2	35.79	
292.0	000.1937	0333.2	022.3	188.4	000.1900	0068.6	043.8	36.00	
293.0	000.1944	0332.7	022.3	188.3	000.1900	0069.2	043.4	36.20	
294.0	000.1952	0332.3	022.3	188.1	000.1900	0069.7	043.1	36.40	
295.0	000.1960	0332.0	022.3	188.0	000.1900	0070.1	042.7	36.58	
296.0	000.1968	0331.6	022.4	187.9	000.1900	0070.4	042.3	36.75	
297.0	000.1976	0331.1	022.4	187.7	000.1900	0070.6	041.9	36.91	
298.0	000.1984	0330.4	022.4	187.5	000.1900	0070.7	041.6	37.07	
299.0	000.1992	0329.6	022.4	187.3	000.1900	0070.8	041.2	37.21	
300.0	000.2000	0328.5	022.3	187.1	000.1900	0070.7	040.9	37.34	
301.0	000.1992	0327.1	022.3	186.8	000.1900	0070.2	040.5	37.42	
302.0	000.1984	0325.4	022.2	186.5	000.1900	0069.1	040.2	37.42	
303.0	000.1976	0323.5	022.1	186.1	000.1900	0067.2	039.9	37.33	
304.0	000.1968	0321.6	022.0	185.7	000.1900	0064.3	039.6	37.11	
305.0	000.1960	0319.4	021.9	185.4	000.1900	0060.9	039.3	36.84	
306.0	000.1952	0316.8	021.8	184.9	000.1900	0057.1	039.0	36.47	
307.0	000.1944	0313.4	021.7	184.5	000.1900	0052.9	038.8	35.96	
308.0	000.1937	0309.1	021.5	184.0	000.1900	0048.4	038.6	35.32	
309.0	000.1929	0303.7	021.3	183.4	000.1900	0044.5	038.4	34.72	
310.0	000.1921	0297.0	021.1	182.8	000.1900	0042.2	038.2	34.35	
311.0	000.1896	0289.2	020.7	182.0	000.1900	0038.7	038.1	33.71	
312.0	000.1871	0280.5	020.4	181.2	000.1900	0032.8	038.1	32.53	
313.0	000.1846	0271.4	020.0	180.5	000.1900	0030.7	038.1	32.09	
314.0	000.1822	0263.4	019.6	179.7	000.1900	0032.5	038.1	32.46	
315.0	000.1797	0256.3	019.3	179.0	000.1900	0034.2	038.1	32.82	
316.0	000.1773	0250.0	019.0	178.3	000.1900	0035.8	038.1	33.15	
317.0	000.1749	0244.1	018.7	177.7	000.1900	0036.5	038.1	33.29	
318.0	000.1725	0240.5	018.5	177.1	000.1900	0036.9	038.0	33.39	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
319.0	000.1702	0239.3	018.4	176.6	000.1900	0037.7	037.9	33.58
320.0	000.1678	0238.7	018.3	176.1	000.1900	0039.1	037.8	33.90
321.0	000.1642	0237.1	018.1	175.6	000.1900	0042.3	037.7	34.54
322.0	000.1606	0234.3	017.9	175.0	000.1900	0046.5	037.8	35.30
323.0	000.1571	0230.6	017.7	174.4	000.1900	0050.9	037.8	36.02
324.0	000.1536	0226.5	017.4	173.8	000.1900	0056.3	037.9	36.81
325.0	000.1502	0222.5	017.1	173.2	000.1900	0061.7	038.0	37.46
326.0	000.1468	0220.2	016.9	172.7	000.1900	0066.3	038.0	37.98
327.0	000.1434	0220.2	016.8	172.2	000.1900	0070.1	038.0	38.42
328.0	000.1400	0222.1	016.8	171.8	000.1900	0073.2	037.9	38.81
329.0	000.1368	0224.0	016.8	171.4	000.1900	0075.9	037.8	39.14
330.0	000.1335	0223.1	016.6	170.9	000.1900	0078.1	037.8	39.36
331.0	000.1294	0218.5	016.3	170.3	000.1900	0080.2	038.0	39.50
332.0	000.1253	0210.8	015.8	169.7	000.1900	0083.5	038.4	39.70
333.0	000.1213	0202.0	015.3	169.1	000.1900	0086.9	038.7	39.88
334.0	000.1174	0193.1	014.9	168.5	000.1900	0088.8	039.1	39.91
335.0	000.1136	0184.2	014.4	168.0	000.1900	0089.5	039.5	39.82
336.0	000.1098	0174.7	014.0	167.5	000.1900	0089.5	039.9	39.64
337.0	000.1060	0165.0	013.4	167.0	000.1900	0088.5	040.4	39.35
338.0	000.1024	0155.5	012.9	166.6	000.1900	0087.3	040.9	39.03
339.0	000.0988	0147.4	012.4	166.2	000.1900	0086.3	041.3	38.76
340.0	000.0952	0142.9	012.1	165.9	000.1900	0085.9	041.6	38.60
341.0	000.0912	0141.3	011.9	165.5	000.1900	0085.4	041.8	38.49
342.0	000.0873	0140.5	011.7	165.2	000.1900	0085.0	041.9	38.39
343.0	000.0835	0137.6	011.5	165.0	000.1900	0084.4	042.2	38.24
344.0	000.0798	0132.8	011.2	164.7	000.1900	0083.8	042.5	38.06
345.0	000.0761	0126.3	010.8	164.4	000.1900	0083.2	042.9	37.85
346.0	000.0726	0119.2	010.4	164.2	000.1900	0082.6	043.3	37.63
347.0	000.0691	0112.4	010.0	164.0	000.1900	0081.8	043.7	37.39
348.0	000.0657	0109.4	009.7	163.8	000.1900	0081.0	044.0	37.22
349.0	000.0624	0107.8	009.5	163.6	000.1900	0080.1	044.2	37.05
350.0	000.0592	0105.1	009.3	163.4	000.1900	0079.2	044.4	36.86
351.0	000.0559	0100.8	009.0	163.2	000.1900	0078.1	044.8	36.64
352.0	000.0527	0097.0	008.7	163.1	000.1900	0077.1	045.1	36.42
353.0	000.0496	0093.9	008.4	163.0	000.1900	0076.1	045.4	36.20
354.0	000.0465	0090.8	008.1	162.9	000.1900	0075.2	045.7	36.00
355.0	000.0436	0087.4	007.8	162.8	000.1900	0074.3	046.0	35.80
356.0	000.0408	0084.0	007.5	162.7	000.1900	0073.5	046.3	35.61
357.0	000.0381	0080.0	007.2	162.6	000.1900	0072.9	046.7	35.43
358.0	000.0354	0075.8	006.9	162.6	000.1900	0072.4	047.0	35.27
359.0	000.0329	0071.7	006.6	162.5	000.1900	0072.1	047.3	35.13
000.0	000.0304	0070.5	006.4	162.5	000.1900	0071.4	047.5	34.99
001.0	000.0274	0070.0	006.2	162.4	000.1900	0070.8	047.7	34.86
002.0	000.0245	0069.5	006.0	162.4	000.1900	0070.3	047.9	34.74
003.0	000.0218	0068.8	005.8	162.3	000.1900	0069.9	048.2	34.63
004.0	000.0192	0068.7	005.7	162.3	000.1900	0069.6	048.4	34.53
005.0	000.0168	0069.9	005.5	162.2	000.1900	0069.0	048.5	34.43
006.0	000.0146	0073.0	005.5	162.2	000.1900	0068.3	048.6	34.32
007.0	000.0125	0077.7	005.4	162.1	000.1900	0067.4	048.7	34.21
008.0	000.0106	0084.3	005.4	162.0	000.1900	0066.3	048.7	34.08
009.0	000.0088	0092.3	005.4	161.9	000.1900	0065.1	048.8	33.96

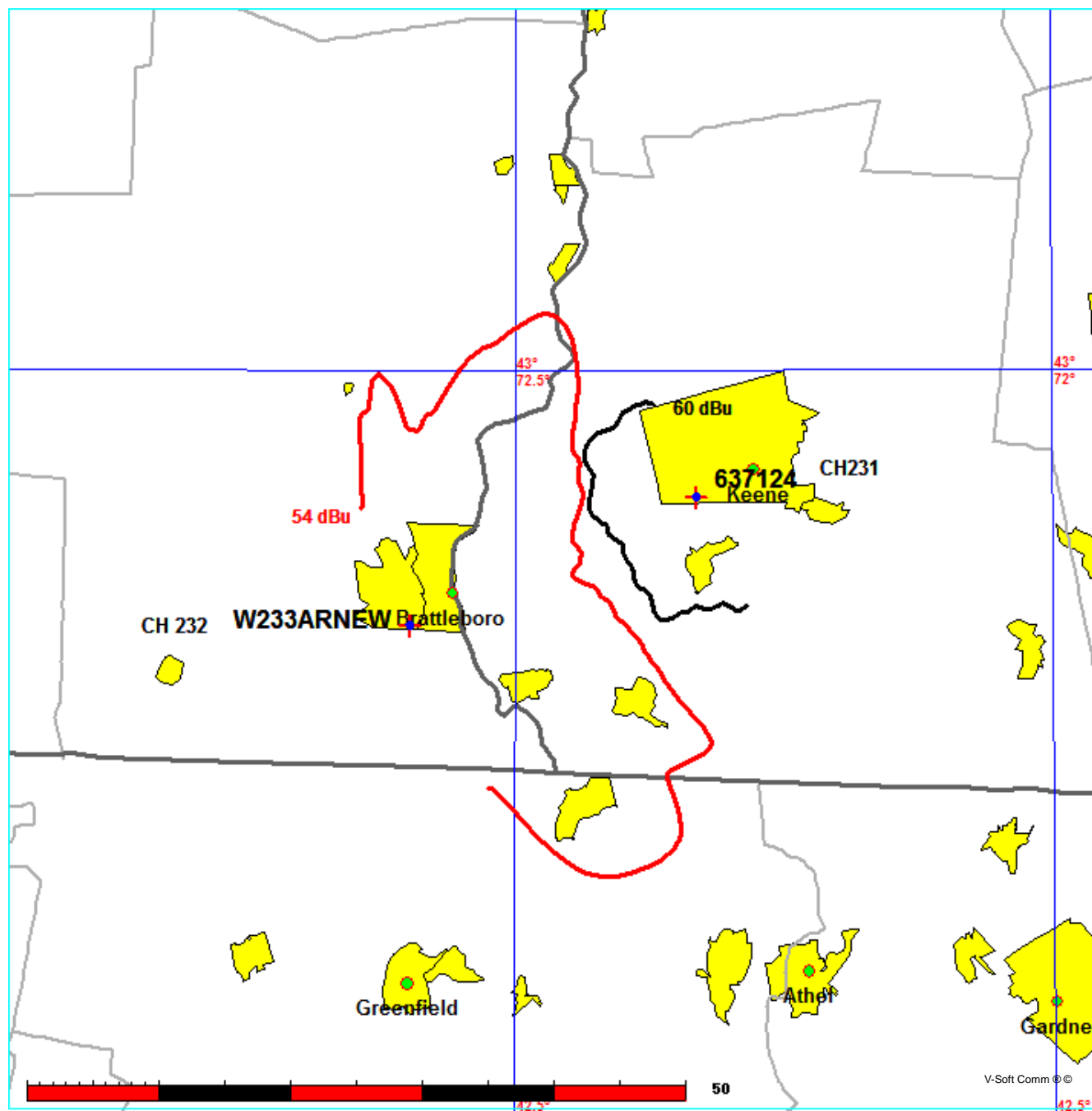
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
010.0	000.0072	0098.7	005.4	161.8	000.1900	0064.6	048.9	33.87
011.0	000.0062	0103.2	005.3	161.8	000.1900	0064.1	049.0	33.78
012.0	000.0052	0106.0	005.1	161.8	000.1900	0064.1	049.2	33.72
013.0	000.0044	0110.0	005.0	161.8	000.1900	0064.1	049.3	33.66
014.0	000.0036	0115.6	004.8	161.8	000.1900	0064.1	049.5	33.61
015.0	000.0029	0119.1	004.6	161.8	000.1900	0064.7	049.7	33.60
016.0	000.0022	0120.4	004.3	161.9	000.1900	0065.8	050.0	33.62
017.0	000.0017	0120.1	004.0	162.1	000.1900	0067.5	050.3	33.67
018.0	000.0012	0121.7	003.6	162.2	000.1900	0069.1	050.7	33.72
019.0	000.0008	0126.3	003.3	162.4	000.1900	0070.9	051.0	33.78
020.0	000.0005	0132.4	002.9	162.6	000.1900	0073.0	051.3	33.87
021.0	000.0005	0137.4	002.9	162.6	000.1900	0072.8	051.4	33.83
022.0	000.0004	0140.6	002.8	162.6	000.1900	0072.7	051.4	33.79
023.0	000.0004	0143.4	002.8	162.6	000.1900	0072.7	051.5	33.76
024.0	000.0004	0147.3	002.7	162.6	000.1900	0072.6	051.6	33.74
025.0	000.0003	0151.2	002.7	162.6	000.1900	0072.6	051.7	33.71
026.0	000.0003	0152.3	002.6	162.6	000.1900	0072.9	051.7	33.70
027.0	000.0003	0150.5	002.5	162.7	000.1900	0073.3	051.9	33.71
028.0	000.0002	0149.1	002.4	162.7	000.1900	0073.7	052.0	33.71
029.0	000.0002	0149.8	002.3	162.7	000.1900	0074.0	052.0	33.71
030.0	000.0002	0151.2	002.2	162.8	000.1900	0074.4	052.1	33.71
031.0	000.0002	0152.2	002.2	162.7	000.1900	0074.1	052.2	33.68
032.0	000.0002	0152.8	002.2	162.7	000.1900	0073.8	052.2	33.64
033.0	000.0002	0154.1	002.2	162.7	000.1900	0073.5	052.2	33.60
034.0	000.0002	0157.7	002.2	162.6	000.1900	0073.1	052.2	33.56
035.0	000.0002	0163.0	002.3	162.6	000.1900	0072.7	052.2	33.51
036.0	000.0002	0167.8	002.3	162.5	000.1900	0072.2	052.3	33.47
037.0	000.0002	0171.1	002.3	162.5	000.1900	0071.9	052.3	33.43
038.0	000.0002	0172.5	002.3	162.5	000.1900	0071.6	052.3	33.39
039.0	000.0002	0172.3	002.3	162.5	000.1900	0071.3	052.4	33.36
040.0	000.0002	0171.3	002.3	162.4	000.1900	0071.1	052.4	33.33
041.0	000.0002	0170.8	002.3	162.4	000.1900	0070.9	052.4	33.29
042.0	000.0002	0171.2	002.3	162.4	000.1900	0070.6	052.5	33.26
043.0	000.0002	0172.5	002.3	162.4	000.1900	0070.4	052.5	33.22
044.0	000.0002	0174.0	002.3	162.3	000.1900	0070.1	052.5	33.19

W233ARNew vs. 637124 Keene NH
Vermont Public Radio

FMCommander Single Allocation Study - 06-29-2012 - FCC NGDC 30 Sec
W233ARNEW's Overlaps (In= 1.4 km, Out= 0.48 km)

W233ARNEW CH 232 D
Lat= 42 49 44.0, Lng= 72 35 52.0
0.19 kW 31.3 M HAAT, 307 M COR
Prot.= 60 dBu, Intef.= 54 dBu

637124 CH 231 D BNPFT20030317BLE
Lat= 42 54 57.0, Lng= 72 19 48.0
0.01 kW 188.4 M HAAT, 437 M COR
Prot.= 60 dBu, Intef.= 54 dBu



06-29-2012

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

637124 BNPFT20030317BLE

W233ARNEW

Channel = 231D

Max ERP = 0.01 kW

RCAMSL = 437 M

N. Lat. 42 54 57.0

W. Lng. 72 19 48.0

Protected

60 dBu

Channel = 232D

Max ERP = 0.19 kW

RCAMSL = 307 M

N. Lat. 42 49 44.0

W. Lng. 72 35 52.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
186.0	000.0100	0222.7	008.7	087.2	000.1900	0081.8	020.9	49.56	
187.0	000.0100	0225.4	008.8	087.3	000.1900	0081.9	020.8	49.69	
188.0	000.0100	0227.5	008.8	087.3	000.1900	0081.9	020.6	49.82	
189.0	000.0100	0233.1	008.9	087.5	000.1900	0082.2	020.5	49.99	
190.0	000.0100	0241.6	009.1	087.9	000.1900	0082.9	020.3	50.21	
191.0	000.0100	0250.9	009.3	088.3	000.1900	0083.9	020.1	50.49	
192.0	000.0100	0257.3	009.4	088.5	000.1900	0084.5	019.9	50.70	
193.0	000.0100	0261.4	009.4	088.6	000.1900	0084.8	019.7	50.87	
194.0	000.0100	0266.3	009.5	088.7	000.1900	0085.1	019.5	51.05	
195.0	000.0100	0270.5	009.6	088.8	000.1900	0085.3	019.4	51.23	
196.0	000.0100	0272.3	009.7	088.8	000.1900	0085.2	019.2	51.35	
197.0	000.0100	0271.3	009.6	088.6	000.1900	0084.7	019.0	51.42	
198.0	000.0100	0268.1	009.6	088.2	000.1900	0083.8	018.9	51.45	
199.0	000.0100	0263.1	009.5	087.8	000.1900	0082.6	018.8	51.42	
200.0	000.0100	0256.3	009.4	087.3	000.1900	0081.9	018.7	51.43	
201.0	000.0100	0248.7	009.2	086.7	000.1900	0081.6	018.6	51.47	
202.0	000.0100	0240.1	009.1	086.0	000.1900	0081.4	018.5	51.51	
203.0	000.0100	0230.2	008.9	085.2	000.1900	0080.9	018.4	51.50	
204.0	000.0100	0219.4	008.6	084.4	000.1900	0080.1	018.4	51.44	
205.0	000.0100	0210.1	008.4	083.7	000.1900	0078.8	018.4	51.32	
206.0	000.0100	0203.5	008.3	083.0	000.1900	0077.9	018.3	51.27	
207.0	000.0100	0199.0	008.2	082.5	000.1900	0077.3	018.3	51.25	
208.0	000.0100	0195.3	008.1	082.1	000.1900	0076.5	018.2	51.21	
209.0	000.0100	0193.2	008.1	081.7	000.1900	0075.7	018.1	51.19	
210.0	000.0100	0193.9	008.1	081.4	000.1900	0075.1	018.0	51.24	
211.0	000.0100	0196.1	008.1	081.3	000.1900	0074.8	017.9	51.32	
212.0	000.0100	0197.0	008.2	081.0	000.1900	0074.4	017.7	51.37	
213.0	000.0100	0196.3	008.1	080.7	000.1900	0074.1	017.6	51.42	
214.0	000.0100	0195.2	008.1	080.3	000.1900	0074.1	017.6	51.50	
215.0	000.0100	0193.6	008.1	079.9	000.1900	0074.1	017.5	51.56	
216.0	000.0100	0190.6	008.0	079.4	000.1900	0073.7	017.4	51.55	
217.0	000.0100	0186.0	007.9	078.9	000.1900	0072.7	017.4	51.46	
218.0	000.0100	0180.9	007.8	078.3	000.1900	0071.0	017.4	51.28	
219.0	000.0100	0175.5	007.7	077.7	000.1900	0068.8	017.4	51.02	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
220.0	000.0100	0170.0	007.6	077.1	000.1900	0066.2	017.4	50.68
221.0	000.0100	0165.1	007.4	076.5	000.1900	0063.6	017.4	50.35
222.0	000.0100	0162.4	007.4	076.1	000.1900	0061.8	017.4	50.15
223.0	000.0100	0161.2	007.4	075.7	000.1900	0060.6	017.4	50.04
224.0	000.0100	0159.5	007.3	075.2	000.1900	0059.5	017.3	49.93
225.0	000.0100	0157.4	007.3	074.8	000.1900	0058.4	017.3	49.80
226.0	000.0100	0156.0	007.2	074.4	000.1900	0057.5	017.3	49.70
227.0	000.0100	0155.6	007.2	074.0	000.1900	0057.0	017.2	49.66
228.0	000.0100	0154.7	007.2	073.6	000.1900	0056.7	017.2	49.66
229.0	000.0100	0152.9	007.2	073.1	000.1900	0056.8	017.2	49.69
230.0	000.0100	0151.9	007.1	072.7	000.1900	0057.5	017.1	49.81
231.0	000.0100	0152.2	007.1	072.3	000.1900	0058.3	017.1	49.97
232.0	000.0100	0151.4	007.1	071.9	000.1900	0059.5	017.1	50.15
233.0	000.0100	0149.3	007.1	071.5	000.1900	0060.9	017.1	50.34
234.0	000.0100	0146.2	007.0	071.0	000.1900	0062.5	017.1	50.50
235.0	000.0100	0143.0	006.9	070.5	000.1900	0063.9	017.1	50.64
236.0	000.0100	0139.6	006.8	070.1	000.1900	0065.0	017.2	50.73
237.0	000.0100	0136.4	006.8	069.6	000.1900	0066.0	017.2	50.81
238.0	000.0100	0134.6	006.7	069.2	000.1900	0066.9	017.2	50.91
239.0	000.0100	0136.0	006.8	068.9	000.1900	0067.6	017.2	51.04
240.0	000.0100	0139.6	006.8	068.5	000.1900	0068.3	017.1	51.21
241.0	000.0100	0144.0	007.0	068.2	000.1900	0068.9	017.0	51.38
242.0	000.0100	0147.0	007.0	067.8	000.1900	0069.3	016.9	51.51
243.0	000.0100	0149.4	007.1	067.4	000.1900	0069.5	016.8	51.59
244.0	000.0100	0151.7	007.1	067.0	000.1900	0069.5	016.8	51.64
245.0	000.0100	0154.1	007.2	066.6	000.1900	0069.3	016.7	51.67
246.0	000.0100	0156.9	007.3	066.1	000.1900	0069.0	016.6	51.70
247.0	000.0100	0158.8	007.3	065.7	000.1900	0068.6	016.6	51.68
248.0	000.0100	0159.8	007.3	065.2	000.1900	0068.0	016.6	51.63
249.0	000.0100	0159.5	007.3	064.8	000.1900	0067.4	016.6	51.55
250.0	000.0100	0158.7	007.3	064.4	000.1900	0066.9	016.6	51.46
251.0	000.0100	0157.8	007.3	063.9	000.1900	0066.6	016.6	51.40
252.0	000.0100	0157.8	007.3	063.5	000.1900	0066.5	016.7	51.38
253.0	000.0100	0160.2	007.3	063.0	000.1900	0066.7	016.6	51.42
254.0	000.0100	0164.5	007.4	062.5	000.1900	0067.0	016.6	51.53
255.0	000.0100	0169.7	007.6	062.0	000.1900	0067.7	016.5	51.69
256.0	000.0100	0174.6	007.7	061.5	000.1900	0068.7	016.4	51.87
257.0	000.0100	0179.8	007.8	060.9	000.1900	0069.9	016.3	52.09
258.0	000.0100	0185.9	007.9	060.3	000.1900	0071.2	016.2	52.31
259.0	000.0100	0191.6	008.0	059.7	000.1900	0072.7	016.2	52.54
260.0	000.0100	0195.9	008.1	059.1	000.1900	0074.2	016.1	52.74
261.0	000.0100	0199.2	008.2	058.6	000.1900	0075.5	016.1	52.90
262.0	000.0100	0201.6	008.3	058.0	000.1900	0076.7	016.1	53.03
263.0	000.0100	0203.7	008.3	057.5	000.1900	0078.0	016.1	53.16
264.0	000.0100	0204.3	008.3	057.0	000.1900	0079.1	016.2	53.23
265.0	000.0100	0203.7	008.3	056.6	000.1900	0080.3	016.3	53.29
266.0	000.0100	0202.9	008.3	056.1	000.1900	0081.3	016.3	53.33
267.0	000.0100	0201.8	008.3	055.8	000.1900	0082.4	016.4	53.36
268.0	000.0100	0200.3	008.2	055.4	000.1900	0083.4	016.5	53.39
269.0	000.0100	0198.7	008.2	055.0	000.1900	0084.5	016.6	53.41
270.0	000.0100	0197.0	008.2	054.7	000.1900	0085.5	016.8	53.41

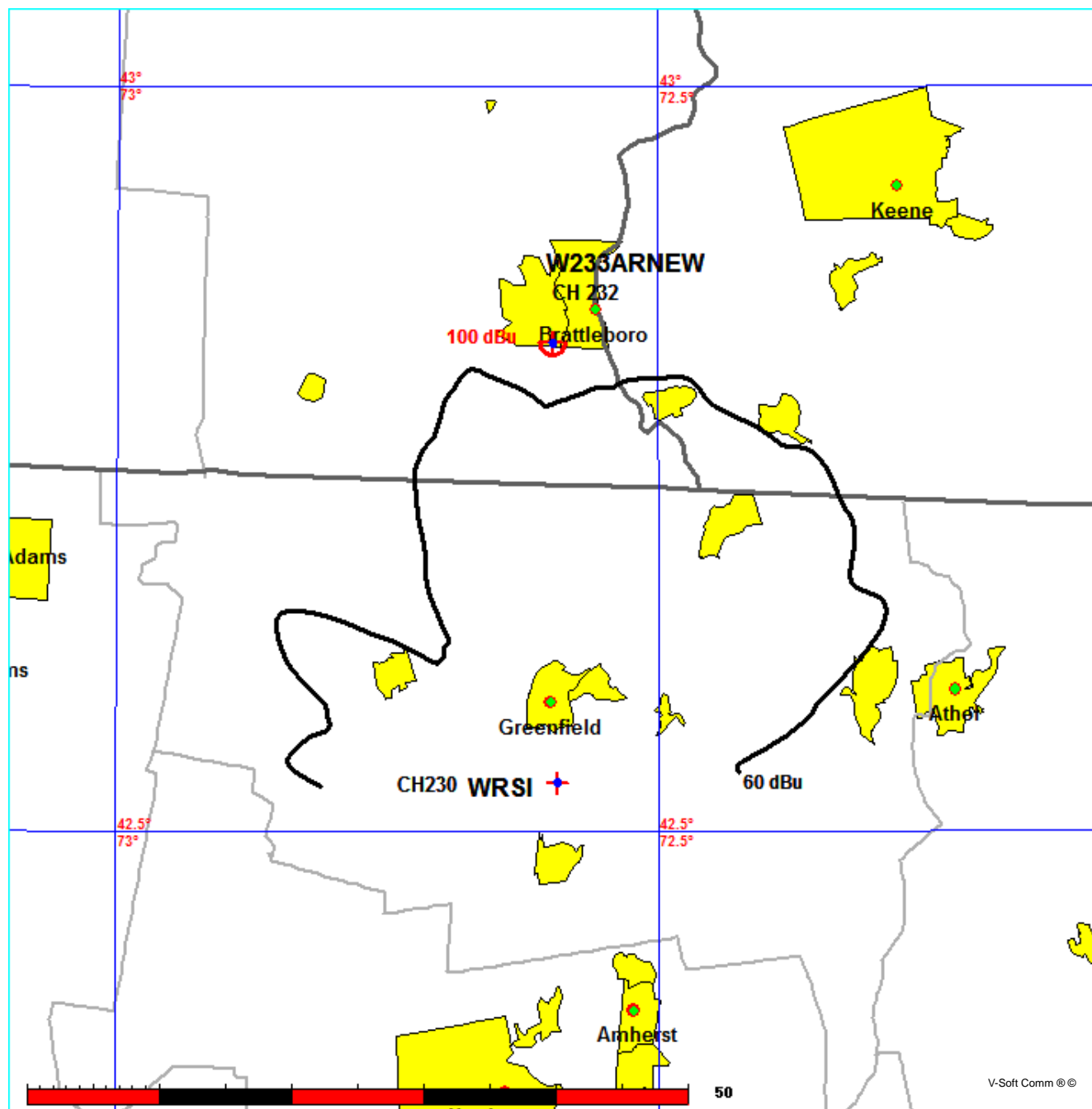
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
271.0	000.0100	0196.3	008.1	054.3	000.1900	0086.4	016.8	53.43
272.0	000.0100	0195.2	008.1	054.0	000.1900	0087.2	017.0	53.41
273.0	000.0100	0193.8	008.1	053.7	000.1900	0087.8	017.1	53.38
274.0	000.0100	0192.2	008.0	053.4	000.1900	0088.4	017.2	53.35
275.0	000.0100	0190.7	008.0	053.1	000.1900	0088.8	017.3	53.29
276.0	000.0100	0190.6	008.0	052.8	000.1900	0089.3	017.4	53.26
277.0	000.0100	0191.2	008.0	052.4	000.1900	0089.6	017.5	53.22
278.0	000.0100	0192.6	008.1	052.0	000.1900	0090.0	017.6	53.19
279.0	000.0100	0192.1	008.0	051.8	000.1900	0090.3	017.7	53.13
280.0	000.0100	0192.0	008.0	051.5	000.1900	0090.5	017.8	53.06
281.0	000.0100	0192.6	008.1	051.1	000.1900	0090.6	017.9	52.99
282.0	000.0100	0196.1	008.1	050.6	000.1900	0090.8	017.9	52.96
283.0	000.0100	0203.3	008.3	050.0	000.1900	0091.5	018.0	53.02
284.0	000.0100	0211.1	008.5	049.3	000.1900	0092.8	018.0	53.12
285.0	000.0100	0218.9	008.6	048.5	000.1900	0094.5	018.0	53.27
286.0	000.0100	0226.5	008.8	047.9	000.1900	0096.7	018.0	53.44
287.0	000.0100	0233.6	008.9	047.2	000.1900	0098.3	018.1	53.54
288.0	000.0100	0239.8	009.0	046.7	000.1900	0099.5	018.2	53.59
289.0	000.0100	0244.6	009.1	046.2	000.1900	0100.5	018.3	53.60
290.0	000.0100	0247.0	009.2	045.8	000.1900	0101.2	018.4	53.56
291.0	000.0100	0248.2	009.2	045.5	000.1900	0101.4	018.5	53.47
292.0	000.0100	0249.1	009.2	045.3	000.1900	0101.5	018.7	53.37
293.0	000.0100	0249.3	009.2	045.1	000.1900	0101.6	018.8	53.26
294.0	000.0100	0248.4	009.2	045.0	000.1900	0101.7	019.0	53.14
295.0	000.0100	0246.8	009.2	044.9	000.1900	0101.7	019.1	53.01
296.0	000.0100	0245.0	009.1	044.8	000.1900	0101.7	019.3	52.88
297.0	000.0100	0243.2	009.1	044.8	000.1900	0101.7	019.5	52.75
298.0	000.0100	0241.2	009.1	044.7	000.1900	0101.7	019.6	52.62
299.0	000.0100	0238.9	009.0	044.7	000.1900	0101.7	019.8	52.48
300.0	000.0100	0237.0	009.0	044.7	000.1900	0101.7	019.9	52.36
301.0	000.0100	0234.8	008.9	044.7	000.1900	0101.7	020.1	52.23
302.0	000.0100	0231.3	008.9	044.8	000.1900	0101.7	020.3	52.09
303.0	000.0100	0226.4	008.8	045.0	000.1900	0101.7	020.4	51.96
304.0	000.0100	0220.6	008.7	045.2	000.1900	0101.6	020.6	51.81
305.0	000.0100	0214.4	008.5	045.5	000.1900	0101.4	020.8	51.66

W233ARNew vs. WRSI
Vermont Public Radio

FMCommander Single Allocation Study - 06-29-2012 - FCC NGDC 30 Sec
W233ARNEW's Overlaps (In= 19.16 km, Out= 3.25 km)

W233ARNEW CH 232 D
Lat= 42 49 44.0, Lng= 72 35 52.0
0.19 kW 31.3 M HAAT, 307 M COR
Prot.= 60 dBu, Intef.= 100 dBu

WRSI CH 230 A BLH19951018KB
Lat= 42 32 01.0, Lng= 72 35 34.0
2.5 kW 109 M HAAT, 284 M COR
Prot.= 60 dBu, Intef.= 100 dBu



06-29-2012

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

WRSI BLH19951018KB

W233ARNEW

Channel = 230A

Max ERP = 2.5 kW

RCAMSL = 284 M

N. Lat. 42 32 01.0

W. Lng. 72 35 34.0

Protected

60 dBu

Channel = 232D

Max ERP = 0.19 kW

RCAMSL = 307 M

N. Lat. 42 49 44.0

W. Lng. 72 35 52.0

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
299.0	002.5000	0111.3	024.4	225.0	000.1900	-0030.5	029.6	35.24	
300.0	002.5000	0112.4	024.5	225.4	000.1900	-0032.7	029.2	35.43	
301.0	002.5000	0110.9	024.4	225.4	000.1900	-0032.4	028.8	35.66	
302.0	002.5000	0106.7	024.0	224.7	000.1900	-0029.0	028.3	35.94	
303.0	002.5000	0100.6	023.3	223.5	000.1900	-0023.3	027.7	36.24	
304.0	002.5000	0093.7	022.5	222.0	000.1900	-0018.9	027.2	36.55	
305.0	002.5000	0086.5	021.6	220.3	000.1900	-0017.3	026.7	36.84	
306.0	002.5000	0077.9	020.5	218.0	000.1900	-0007.2	026.3	37.11	
307.0	002.5000	0068.5	019.3	215.2	000.1900	0018.0	026.0	37.33	
308.0	002.5000	0060.2	018.1	212.6	000.1900	0034.5	025.7	38.56	
309.0	002.5000	0053.9	017.1	210.3	000.1900	0029.8	025.5	37.61	
310.0	002.5000	0048.7	016.1	208.0	000.1900	0023.4	025.4	37.67	
311.0	002.5000	0043.9	015.2	205.8	000.1900	0029.9	025.4	37.70	
312.0	002.5000	0038.5	014.2	203.4	000.1900	0029.8	025.4	37.67	
313.0	002.5000	0033.0	013.2	201.2	000.1900	0017.4	025.5	37.59	
314.0	002.5000	0029.5	012.7	199.9	000.1900	0011.1	025.5	37.59	
315.0	002.5000	0027.9	012.7	199.7	000.1900	0010.6	025.3	37.72	
316.0	002.5000	0028.1	012.7	199.5	000.1900	0010.1	025.1	37.85	
317.0	002.5000	0029.7	012.7	199.2	000.1900	0009.7	024.9	37.99	
318.0	002.5000	0031.9	013.0	199.6	000.1900	0010.4	024.6	38.22	
319.0	002.5000	0033.3	013.2	199.9	000.1900	0011.2	024.3	38.45	
320.0	002.5000	0033.5	013.3	199.7	000.1900	0010.6	024.1	38.59	
321.0	002.5000	0033.4	013.3	199.4	000.1900	0010.0	023.9	38.73	
322.0	002.5000	0035.2	013.6	199.7	000.1900	0010.6	023.5	38.99	
323.0	002.5000	0040.3	014.5	201.3	000.1900	0018.5	022.8	39.49	
324.0	002.5000	0046.6	015.7	203.6	000.1900	0030.8	022.0	40.31	
325.0	002.5000	0052.6	016.9	206.0	000.1900	0028.8	021.1	40.76	
326.0	002.5000	0057.9	017.8	207.8	000.1900	0023.2	020.4	41.30	
327.0	002.5000	0062.7	018.5	209.1	000.1900	0025.9	019.8	41.79	
328.0	002.5000	0066.7	019.0	210.1	000.1900	0029.0	019.3	42.23	
329.0	002.5000	0070.9	019.6	211.2	000.1900	0033.4	018.7	43.55	
330.0	002.5000	0077.0	020.4	212.9	000.1900	0033.7	018.0	44.17	
331.0	002.5000	0084.8	021.4	215.3	000.1900	0017.3	017.2	43.90	
332.0	002.5000	0094.2	022.6	218.3	000.1900	-0009.6	016.4	44.60	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
333.0	002.5000	0105.1	023.8	221.8	000.1900	-0018.6	015.6	45.32
334.0	002.5000	0115.8	024.9	225.0	000.1900	-0030.8	014.8	46.03
335.0	002.5000	0124.2	025.6	227.2	000.1900	-0038.8	014.1	46.80
336.0	002.5000	0130.1	026.1	228.6	000.1900	-0041.0	013.6	47.54
337.0	002.5000	0135.4	026.5	229.8	000.1900	-0044.6	013.0	48.31
338.0	002.5000	0140.4	026.9	230.9	000.1900	-0049.6	012.4	49.13
339.0	002.5000	0143.7	027.2	231.5	000.1900	-0052.3	011.9	49.93
340.0	002.5000	0147.0	027.5	232.1	000.1900	-0055.2	011.4	50.77
341.0	002.5000	0153.6	028.0	234.0	000.1900	-0068.0	010.7	51.80
342.0	002.5000	0162.4	028.7	237.2	000.1900	-0088.2	010.1	52.95
343.0	002.5000	0171.5	029.5	240.7	000.1900	-0093.5	009.4	54.14
344.0	002.5000	0177.6	030.0	243.0	000.1900	-0095.2	008.8	55.26
345.0	002.5000	0183.0	030.4	245.2	000.1900	-0098.1	008.2	56.38
346.0	002.5000	0189.0	030.9	247.9	000.1900	-0101.7	007.6	57.61
347.0	002.5000	0195.0	031.3	251.1	000.1900	-0107.5	007.0	59.02
348.0	002.5000	0196.5	031.5	251.7	000.1900	-0108.8	006.4	60.46
349.0	002.5000	0193.7	031.2	248.9	000.1900	-0103.4	005.9	61.88
350.0	002.5000	0188.5	030.8	243.6	000.1900	-0095.7	005.5	63.18
351.0	002.5000	0184.2	030.5	238.2	000.1900	-0091.5	005.1	64.43
352.0	002.5000	0180.2	030.2	232.3	000.1900	-0056.4	004.8	65.53
353.0	002.5000	0175.6	029.8	225.1	000.1900	-0031.2	004.5	66.36
354.0	002.5000	0172.5	029.6	218.2	000.1900	-0009.2	004.3	67.20
355.0	002.5000	0169.0	029.3	210.5	000.1900	0030.6	004.2	67.82
356.0	002.5000	0163.7	028.9	201.7	000.1900	0020.6	004.3	67.19
357.0	002.5000	0157.5	028.3	193.4	000.1900	0016.4	004.6	66.06
358.0	002.5000	0153.1	028.0	186.7	000.1900	0069.9	004.9	72.72
359.0	002.5000	0155.6	028.2	181.0	000.1900	0031.2	004.6	66.37
000.0	002.5000	0158.1	028.4	174.7	000.1900	0048.6	004.4	71.20
001.0	002.5000	0159.5	028.5	168.1	000.1900	0089.4	004.4	76.55
002.0	002.5000	0161.8	028.7	161.2	000.1900	0057.4	004.4	73.05
003.0	002.5000	0164.1	028.9	154.1	000.1900	0063.7	004.4	73.73
004.0	002.5000	0166.9	029.1	147.1	000.1900	0127.3	004.5	79.06
005.0	002.5000	0169.8	029.4	140.3	000.1900	0178.5	004.6	81.04
006.0	002.5000	0171.8	029.5	134.7	000.1900	0198.1	004.9	80.83
007.0	002.5000	0172.8	029.6	130.6	000.1900	0205.5	005.3	80.01
008.0	002.5000	0174.2	029.7	126.8	000.1900	0199.2	005.7	78.74
009.0	002.5000	0178.8	030.1	121.3	000.1900	0160.2	006.0	76.33
010.0	002.5000	0183.0	030.4	116.8	000.1900	0161.2	006.4	75.31
011.0	002.5000	0185.6	030.6	114.0	000.1900	0174.2	006.8	74.76
012.0	002.5000	0187.4	030.7	112.0	000.1900	0181.5	007.3	73.89
013.0	002.5000	0189.5	030.9	110.2	000.1900	0175.7	007.8	72.52
014.0	002.5000	0190.9	031.0	109.0	000.1900	0166.7	008.3	71.00
015.0	002.5000	0192.7	031.2	107.7	000.1900	0156.7	008.9	69.39
016.0	002.5000	0195.7	031.4	106.2	000.1900	0144.6	009.4	67.61
017.0	002.5000	0198.4	031.6	104.9	000.1900	0136.2	010.0	66.04
018.0	002.5000	0199.4	031.7	104.6	000.1900	0134.4	010.5	64.95
019.0	002.5000	0197.9	031.6	105.4	000.1900	0139.6	011.1	64.40
020.0	002.5000	0194.2	031.3	107.1	000.1900	0151.6	011.6	64.35
021.0	002.5000	0189.6	030.9	109.0	000.1900	0166.9	012.1	64.49
022.0	002.5000	0185.2	030.6	110.6	000.1900	0178.5	012.6	64.33
023.0	002.5000	0182.8	030.4	111.5	000.1900	0181.3	013.2	63.73

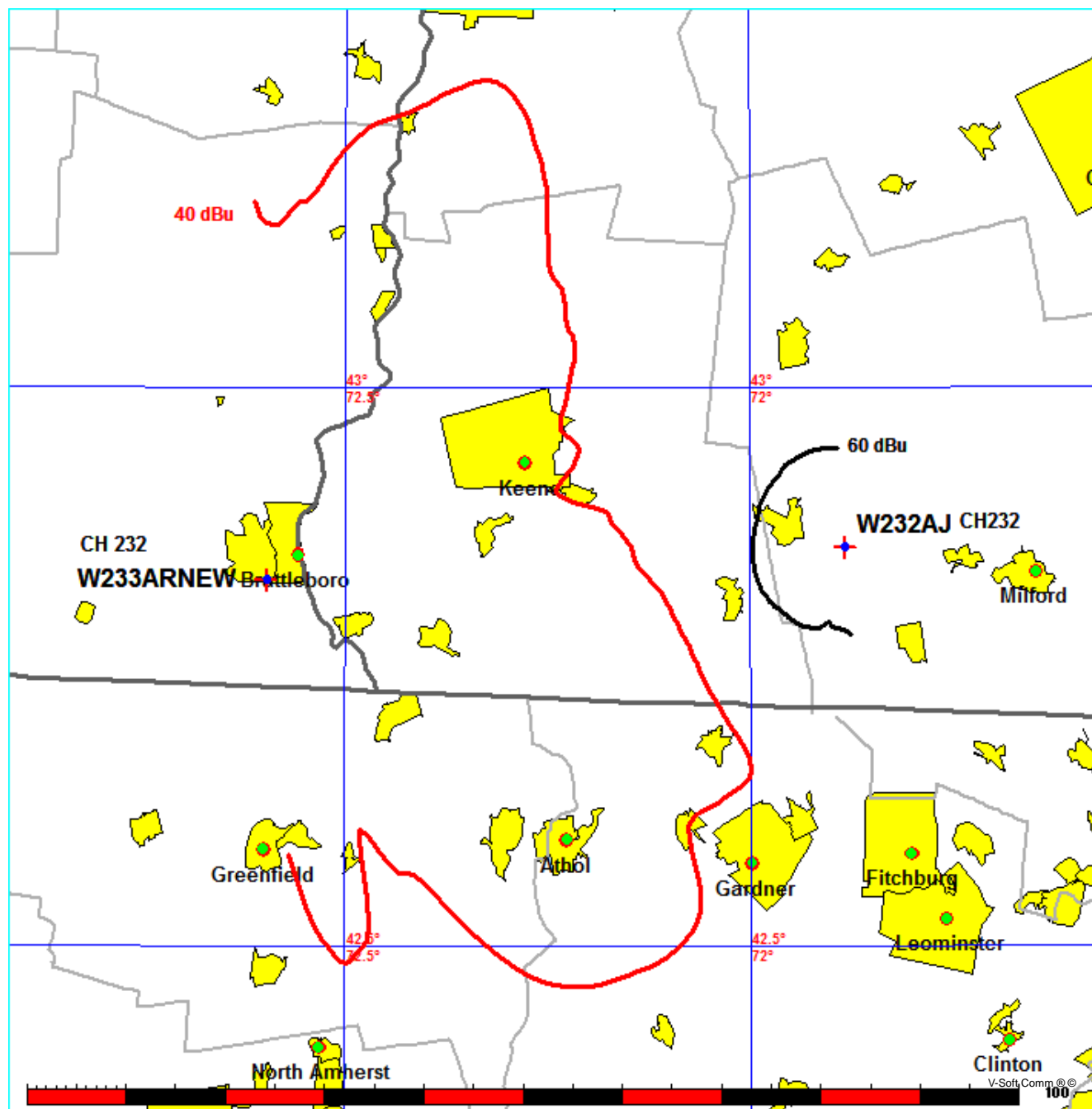
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
024.0	002.5000	0182.3	030.3	111.8	000.1900	0181.5	013.7	63.04
025.0	002.5000	0182.6	030.4	111.8	000.1900	0181.5	014.2	62.37
026.0	002.5000	0182.6	030.4	111.9	000.1900	0181.5	014.8	61.75
027.0	002.5000	0182.4	030.3	112.1	000.1900	0181.3	015.3	61.41
028.0	002.5000	0182.7	030.4	112.2	000.1900	0181.2	015.8	60.95
029.0	002.5000	0183.2	030.4	112.3	000.1900	0181.0	016.3	60.50
030.0	002.5000	0183.4	030.4	112.5	000.1900	0180.6	016.9	60.04
031.0	002.5000	0183.3	030.4	112.7	000.1900	0179.9	017.4	59.57
032.0	002.5000	0183.1	030.4	113.0	000.1900	0178.6	017.9	59.08
033.0	002.5000	0182.5	030.4	113.4	000.1900	0176.7	018.4	58.57
034.0	002.5000	0182.3	030.3	113.8	000.1900	0175.2	018.9	58.06
035.0	002.5000	0184.8	030.5	113.5	000.1900	0176.4	019.5	57.68
036.0	002.5000	0189.1	030.9	112.9	000.1900	0179.2	020.1	57.35
037.0	002.5000	0192.7	031.2	112.5	000.1900	0180.6	020.7	56.94
038.0	002.5000	0193.7	031.2	112.6	000.1900	0180.2	021.2	56.49
039.0	002.5000	0193.0	031.2	113.2	000.1900	0178.1	021.7	56.00
040.0	002.5000	0191.8	031.1	113.8	000.1900	0175.0	022.2	55.47
041.0	002.5000	0190.1	030.9	114.5	000.1900	0171.4	022.7	54.92
042.0	002.5000	0188.2	030.8	115.3	000.1900	0167.9	023.2	54.37
043.0	002.5000	0185.8	030.6	116.1	000.1900	0164.4	023.6	53.83
044.0	002.5000	0182.9	030.4	117.0	000.1900	0160.6	024.1	53.29
045.0	002.5000	0179.7	030.1	117.9	000.1900	0156.8	024.5	52.75
046.0	002.5000	0176.8	029.9	118.7	000.1900	0154.2	025.0	52.28
047.0	002.5000	0175.3	029.8	119.3	000.1900	0153.7	025.4	51.93
048.0	002.5000	0174.8	029.8	119.8	000.1900	0154.1	025.9	51.62
049.0	002.5000	0173.4	029.6	120.4	000.1900	0155.6	026.4	51.40
050.0	002.5000	0169.5	029.3	121.4	000.1900	0160.6	026.7	51.43
051.0	002.5000	0164.2	028.9	122.6	000.1900	0169.0	027.1	51.67
052.0	002.5000	0158.8	028.5	123.8	000.1900	0178.9	027.4	51.95
053.0	002.5000	0153.2	028.0	125.0	000.1900	0188.5	027.8	52.17
054.0	002.5000	0147.3	027.5	126.3	000.1900	0196.7	028.1	52.32
055.0	002.5000	0141.8	027.0	127.5	000.1900	0201.8	028.4	52.34
056.0	002.5000	0138.2	026.7	128.3	000.1900	0204.0	028.7	52.21
057.0	002.5000	0137.7	026.7	128.7	000.1900	0204.6	029.2	51.97
058.0	002.5000	0140.8	027.0	128.5	000.1900	0204.4	029.7	51.64

W233ARNew vs. W232AJ
Vermont Public Radio

FMCommander Single Allocation Study - 06-29-2012 - FCC NGDC 30 Sec
W233ARNEW's Overlaps (In= 10.96 km, Out= 10.54 km)

W233ARNEW CH 232 D
Lat= 42 49 44.0, Lng= 72 35 52.0
0.19 kW 31.3 M HAAT, 307 M COR
Prot.= 60 dBu, Intef.= 40 dBu

W232AJ CH 232 D BLFT19881108TI
Lat= 42 51 28.0, Lng= 71 52 53.0
0.005 kW 416 M HAAT, 713 M COR
Prot.= 60 dBu, Intef.= 40 dBu



06-29-2012

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

W232AJ BLFT19881108TI

W233ARNEW

Channel = 232D

Max ERP = 0.005 kW

RCAMSL = 713 M

N. Lat. 42 51 28.0

W. Lng. 71 52 53.0

Protected

60 dBu

Channel = 232D

Max ERP = 0.19 kW

RCAMSL = 307 M

N. Lat. 42 49 44.0

W. Lng. 72 35 52.0

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
207.0	000.0050	0343.9	008.9	094.8	000.1900	0099.4	054.6	34.82	
208.0	000.0050	0346.8	009.0	094.7	000.1900	0099.4	054.4	34.87	
209.0	000.0050	0349.1	009.0	094.7	000.1900	0099.3	054.3	34.92	
210.0	000.0050	0351.2	009.0	094.6	000.1900	0099.2	054.1	34.97	
211.0	000.0050	0352.7	009.0	094.6	000.1900	0099.1	054.0	35.02	
212.0	000.0050	0353.0	009.0	094.5	000.1900	0098.9	053.8	35.06	
213.0	000.0050	0352.9	009.0	094.4	000.1900	0098.7	053.7	35.10	
214.0	000.0050	0353.3	009.0	094.4	000.1900	0098.6	053.6	35.14	
215.0	000.0050	0353.8	009.0	094.3	000.1900	0098.4	053.4	35.19	
216.0	000.0050	0354.4	009.1	094.2	000.1900	0098.2	053.3	35.23	
217.0	000.0050	0355.0	009.1	094.1	000.1900	0098.0	053.1	35.26	
218.0	000.0050	0356.3	009.1	094.0	000.1900	0097.9	053.0	35.31	
219.0	000.0050	0357.5	009.1	094.0	000.1900	0097.7	052.9	35.35	
220.0	000.0050	0358.3	009.1	093.9	000.1900	0097.5	052.7	35.38	
221.0	000.0050	0358.6	009.1	093.8	000.1900	0097.3	052.6	35.42	
222.0	000.0050	0358.7	009.1	093.7	000.1900	0097.1	052.5	35.45	
223.0	000.0050	0358.7	009.1	093.6	000.1900	0096.9	052.4	35.48	
224.0	000.0050	0359.0	009.1	093.5	000.1900	0096.6	052.2	35.51	
225.0	000.0050	0359.8	009.1	093.3	000.1900	0096.4	052.1	35.54	
226.0	000.0050	0361.3	009.1	093.2	000.1900	0096.2	052.0	35.58	
227.0	000.0050	0363.3	009.2	093.1	000.1900	0096.0	051.8	35.61	
228.0	000.0050	0365.7	009.2	093.0	000.1900	0095.8	051.7	35.64	
229.0	000.0050	0369.1	009.2	092.9	000.1900	0095.6	051.6	35.68	
230.0	000.0050	0373.0	009.3	092.8	000.1900	0095.4	051.4	35.72	
231.0	000.0050	0377.0	009.3	092.7	000.1900	0095.1	051.3	35.75	
232.0	000.0050	0380.3	009.3	092.6	000.1900	0094.9	051.2	35.78	
233.0	000.0050	0383.3	009.4	092.5	000.1900	0094.6	051.0	35.81	
234.0	000.0050	0385.8	009.4	092.4	000.1900	0094.3	050.9	35.83	
235.0	000.0050	0388.2	009.4	092.3	000.1900	0094.0	050.8	35.85	
236.0	000.0050	0390.2	009.4	092.1	000.1900	0093.7	050.7	35.87	
237.0	000.0050	0391.5	009.4	092.0	000.1900	0093.4	050.6	35.89	
238.0	000.0050	0392.2	009.4	091.8	000.1900	0093.1	050.5	35.90	
239.0	000.0050	0392.6	009.4	091.7	000.1900	0092.7	050.4	35.90	
240.0	000.0050	0393.9	009.5	091.5	000.1900	0092.3	050.3	35.91	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
241.0	000.0050	0396.2	009.5	091.4	000.1900	0091.9	050.2	35.91
242.0	000.0050	0398.9	009.5	091.2	000.1900	0091.5	050.1	35.92
243.0	000.0050	0401.2	009.5	091.1	000.1900	0091.1	050.0	35.92
244.0	000.0050	0402.7	009.5	090.9	000.1900	0090.7	049.9	35.92
245.0	000.0050	0403.5	009.6	090.7	000.1900	0090.3	049.8	35.92
246.0	000.0050	0404.1	009.6	090.6	000.1900	0089.8	049.7	35.91
247.0	000.0050	0404.3	009.6	090.4	000.1900	0089.4	049.6	35.90
248.0	000.0050	0404.3	009.6	090.2	000.1900	0088.9	049.6	35.88
249.0	000.0050	0404.0	009.6	090.0	000.1900	0088.5	049.5	35.86
250.0	000.0050	0403.7	009.6	089.9	000.1900	0088.0	049.5	35.85
251.0	000.0050	0403.4	009.6	089.7	000.1900	0087.5	049.4	35.82
252.0	000.0050	0402.5	009.5	089.5	000.1900	0087.0	049.4	35.80
253.0	000.0050	0401.7	009.5	089.3	000.1900	0086.6	049.3	35.77
254.0	000.0050	0401.2	009.5	089.1	000.1900	0086.1	049.3	35.75
255.0	000.0050	0401.0	009.5	088.9	000.1900	0085.6	049.2	35.72
256.0	000.0050	0400.7	009.5	088.7	000.1900	0085.1	049.2	35.69
257.0	000.0050	0400.4	009.5	088.6	000.1900	0084.6	049.2	35.66
258.0	000.0050	0400.0	009.5	088.4	000.1900	0084.1	049.1	35.63
259.0	000.0050	0399.1	009.5	088.2	000.1900	0083.7	049.1	35.59
260.0	000.0050	0397.7	009.5	088.0	000.1900	0083.1	049.1	35.55
261.0	000.0050	0395.3	009.5	087.8	000.1900	0082.6	049.1	35.50
262.0	000.0050	0392.9	009.4	087.6	000.1900	0082.3	049.1	35.47
263.0	000.0050	0390.1	009.4	087.4	000.1900	0082.0	049.1	35.44
264.0	000.0050	0387.8	009.4	087.2	000.1900	0081.8	049.1	35.43
265.0	000.0050	0386.2	009.4	087.0	000.1900	0081.7	049.1	35.41
266.0	000.0050	0385.5	009.4	086.8	000.1900	0081.7	049.1	35.41
267.0	000.0050	0385.5	009.4	086.6	000.1900	0081.6	049.1	35.40
268.0	000.0050	0385.4	009.4	086.4	000.1900	0081.5	049.1	35.40
269.0	000.0050	0385.2	009.4	086.2	000.1900	0081.5	049.1	35.39
270.0	000.0050	0385.1	009.4	086.0	000.1900	0081.4	049.2	35.38
271.0	000.0050	0385.9	009.4	085.9	000.1900	0081.3	049.2	35.37
272.0	000.0050	0387.1	009.4	085.7	000.1900	0081.2	049.2	35.36
273.0	000.0050	0388.4	009.4	085.5	000.1900	0081.1	049.2	35.34
274.0	000.0050	0389.5	009.4	085.3	000.1900	0080.9	049.2	35.33
275.0	000.0050	0388.9	009.4	085.1	000.1900	0080.8	049.2	35.30
276.0	000.0050	0387.7	009.4	084.9	000.1900	0080.7	049.3	35.28
277.0	000.0050	0386.7	009.4	084.7	000.1900	0080.5	049.3	35.25
278.0	000.0050	0386.6	009.4	084.5	000.1900	0080.3	049.3	35.22
279.0	000.0050	0387.2	009.4	084.4	000.1900	0080.0	049.4	35.18
280.0	000.0050	0387.5	009.4	084.2	000.1900	0079.7	049.4	35.14
281.0	000.0050	0387.6	009.4	084.0	000.1900	0079.4	049.4	35.09
282.0	000.0050	0387.0	009.4	083.8	000.1900	0079.1	049.5	35.04
283.0	000.0050	0385.4	009.4	083.6	000.1900	0078.7	049.6	34.99
284.0	000.0050	0384.2	009.4	083.5	000.1900	0078.4	049.6	34.94
285.0	000.0050	0383.5	009.4	083.3	000.1900	0078.2	049.7	34.90
286.0	000.0050	0383.7	009.4	083.1	000.1900	0078.0	049.8	34.86
287.0	000.0050	0385.1	009.4	082.9	000.1900	0077.8	049.8	34.83
288.0	000.0050	0387.9	009.4	082.7	000.1900	0077.6	049.8	34.79
289.0	000.0050	0391.1	009.4	082.6	000.1900	0077.4	049.9	34.75
290.0	000.0050	0394.1	009.5	082.4	000.1900	0077.0	049.9	34.71
291.0	000.0050	0396.9	009.5	082.2	000.1900	0076.7	050.0	34.66

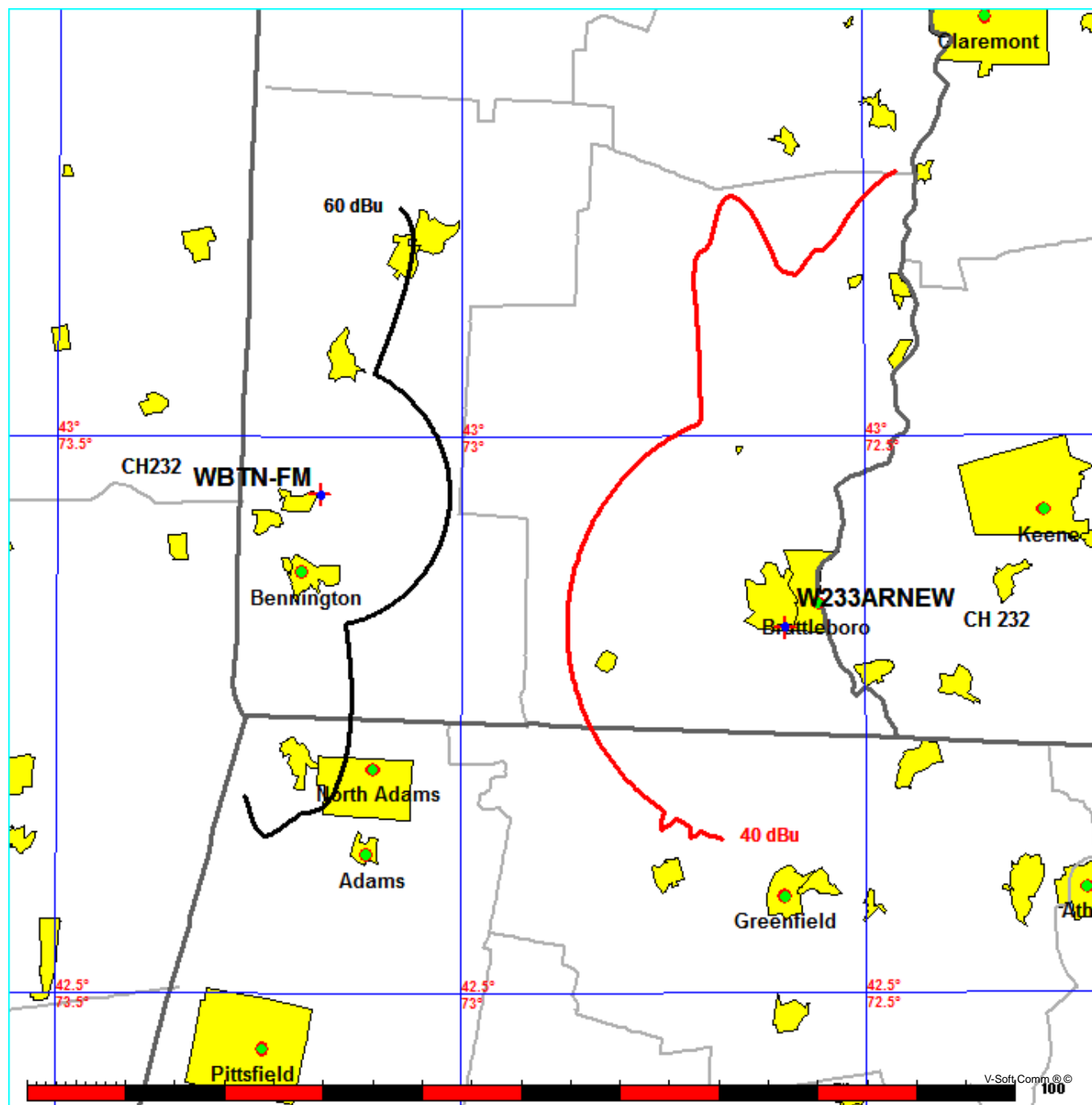
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
292.0	000.0050	0400.3	009.5	082.0	000.1900	0076.4	050.0	34.61
293.0	000.0050	0403.8	009.6	081.8	000.1900	0076.0	050.1	34.56
294.0	000.0050	0407.6	009.6	081.6	000.1900	0075.6	050.2	34.50
295.0	000.0050	0410.7	009.6	081.5	000.1900	0075.2	050.2	34.44
296.0	000.0050	0412.8	009.6	081.3	000.1900	0074.8	050.3	34.38
297.0	000.0050	0414.0	009.7	081.1	000.1900	0074.5	050.4	34.32
298.0	000.0050	0414.7	009.7	081.0	000.1900	0074.3	050.5	34.27
299.0	000.0050	0415.4	009.7	080.8	000.1900	0074.1	050.6	34.22
300.0	000.0050	0416.1	009.7	080.6	000.1900	0074.1	050.7	34.19
301.0	000.0050	0417.0	009.7	080.5	000.1900	0074.1	050.8	34.15
302.0	000.0050	0418.2	009.7	080.3	000.1900	0074.1	050.9	34.12
303.0	000.0050	0420.1	009.7	080.2	000.1900	0074.1	051.0	34.09
304.0	000.0050	0422.8	009.7	080.0	000.1900	0074.1	051.1	34.05
305.0	000.0050	0425.7	009.8	079.9	000.1900	0074.1	051.2	34.01
306.0	000.0050	0427.8	009.8	079.7	000.1900	0074.0	051.3	33.97
307.0	000.0050	0428.3	009.8	079.6	000.1900	0073.9	051.4	33.92
308.0	000.0050	0428.1	009.8	079.5	000.1900	0073.7	051.5	33.86
309.0	000.0050	0427.6	009.8	079.3	000.1900	0073.5	051.6	33.80
310.0	000.0050	0427.0	009.8	079.2	000.1900	0073.4	051.8	33.74
311.0	000.0050	0426.1	009.8	079.1	000.1900	0073.2	051.9	33.67
312.0	000.0050	0425.7	009.8	079.0	000.1900	0072.9	052.1	33.60
313.0	000.0050	0426.0	009.8	078.9	000.1900	0072.7	052.2	33.54
314.0	000.0050	0426.9	009.8	078.8	000.1900	0072.4	052.3	33.46
315.0	000.0050	0427.9	009.8	078.6	000.1900	0072.1	052.5	33.39
316.0	000.0050	0430.2	009.8	078.5	000.1900	0071.7	052.6	33.31
317.0	000.0050	0434.7	009.8	078.4	000.1900	0071.3	052.7	33.24
318.0	000.0050	0441.6	009.9	078.2	000.1900	0070.8	052.8	33.15
319.0	000.0050	0449.8	010.0	078.1	000.1900	0070.3	052.9	33.06
320.0	000.0050	0457.8	010.0	077.9	000.1900	0069.7	053.1	32.97
321.0	000.0050	0464.8	010.1	077.8	000.1900	0069.2	053.2	32.88
322.0	000.0050	0469.7	010.1	077.7	000.1900	0068.8	053.4	32.79
323.0	000.0050	0472.7	010.1	077.6	000.1900	0068.4	053.5	32.71
324.0	000.0050	0474.1	010.1	077.5	000.1900	0068.0	053.7	32.62
325.0	000.0050	0474.2	010.1	077.4	000.1900	0067.7	053.8	32.54
326.0	000.0050	0473.4	010.1	077.4	000.1900	0067.4	054.0	32.45

W233ARNew vs. WBTN-FM
Vermont Public Radio

FMCommander Single Allocation Study - 06-29-2012 - FCC NGDC 30 Sec
W233ARNEW's Overlaps (In= -10.96 km, Out= 13.64 km)

W233ARNEW CH 232 D
Lat= 42 49 44.0, Lng= 72 35 52.0
0.19 kW 31.3 M HAAT, 307 M COR
Prot.= 60 dBu, Intef.= 40 dBu

WBTN-FM CH 232 A 73.215 N BMLED20110511AGV
Lat= 42 56 52.9, Lng= 73 10 33.9
3.0 kW 34 M HAAT, 473.6 M COR
Prot.= 60 dBu, Intef.= 40 dBu



06-29-2012

Terrain Data: FCC NGDC 30 Sec

FMOver Analysis

WBTN-FM BMLED20110511AGV

W233ARNEW

Channel = 232A

Max ERP = 3 kW

RCAMSL = 473.6 M

N. Lat. 42 56 52.9

W. Lng. 73 10 33.9

Protected

60 dBu

Channel = 232D

Max ERP = 0.19 kW

RCAMSL = 307 M

N. Lat. 42 49 44.0

W. Lng. 72 35 52.0

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
046.0	003.0000	-0242.0	013.2	301.0	000.1900	-0096.5	043.8	30.20	
047.0	003.0000	-0258.6	013.2	300.9	000.1900	-0096.8	043.6	30.26	
048.0	003.0000	-0275.8	013.2	300.8	000.1900	-0097.2	043.3	30.33	
049.0	003.0000	-0294.1	013.2	300.7	000.1900	-0097.6	043.1	30.39	
050.0	003.0000	-0314.0	013.2	300.6	000.1900	-0098.1	042.9	30.45	
051.0	003.0000	-0335.9	013.2	300.5	000.1900	-0098.5	042.7	30.51	
052.0	003.0000	-0356.9	013.2	300.4	000.1900	-0099.1	042.5	30.57	
053.0	003.0000	-0375.3	013.2	300.3	000.1900	-0099.7	042.3	30.63	
054.0	003.0000	-0388.8	013.2	300.2	000.1900	-0100.4	042.0	30.69	
055.0	003.0000	-0396.2	013.2	300.0	000.1900	-0101.2	041.8	30.76	
056.0	003.0000	-0399.8	013.2	299.9	000.1900	-0102.0	041.6	30.82	
057.0	003.0000	-0400.7	013.2	299.7	000.1900	-0102.9	041.4	30.88	
058.0	003.0000	-0399.3	013.2	299.6	000.1900	-0103.9	041.2	30.94	
059.0	003.0000	-0396.6	013.2	299.4	000.1900	-0105.0	041.0	31.00	
060.0	003.0000	-0393.0	013.2	299.3	000.1900	-0106.2	040.8	31.06	
061.0	003.0000	-0389.9	013.2	299.1	000.1900	-0107.6	040.6	31.12	
062.0	003.0000	-0386.9	013.2	298.9	000.1900	-0109.1	040.4	31.18	
063.0	003.0000	-0384.0	013.2	298.7	000.1900	-0110.7	040.2	31.24	
064.0	003.0000	-0381.3	013.2	298.5	000.1900	-0112.4	040.1	31.30	
065.0	003.0000	-0378.7	013.2	298.3	000.1900	-0114.2	039.9	31.36	
066.0	003.0000	-0375.3	013.2	298.1	000.1900	-0116.1	039.7	31.42	
067.0	003.0000	-0370.4	013.2	297.9	000.1900	-0118.2	039.5	31.47	
068.0	003.0000	-0363.4	013.2	297.7	000.1900	-0120.5	039.3	31.53	
069.0	003.0000	-0355.8	013.2	297.5	000.1900	-0122.9	039.2	31.59	
070.0	003.0000	-0348.2	013.2	297.3	000.1900	-0125.4	039.0	31.64	
071.0	003.0000	-0340.7	013.2	297.0	000.1900	-0127.9	038.8	31.70	
072.0	003.0000	-0332.4	013.2	296.8	000.1900	-0130.4	038.7	31.75	
073.0	003.0000	-0323.5	013.2	296.5	000.1900	-0132.9	038.5	31.80	
074.0	003.0000	-0314.6	013.2	296.3	000.1900	-0135.3	038.3	31.86	
075.0	003.0000	-0306.7	013.2	296.0	000.1900	-0137.7	038.2	31.91	
076.0	003.0000	-0299.2	013.2	295.8	000.1900	-0139.9	038.0	31.96	
077.0	003.0000	-0292.2	013.2	295.5	000.1900	-0141.9	037.9	32.00	
078.0	003.0000	-0286.8	013.2	295.2	000.1900	-0143.7	037.8	32.05	
079.0	003.0000	-0281.8	013.2	294.9	000.1900	-0145.3	037.6	32.10	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
080.0	003.0000	-0277.6	013.2	294.6	000.1900	-0146.7	037.5	32.14
081.0	003.0000	-0274.4	013.2	294.3	000.1900	-0147.9	037.4	32.19
082.0	003.0000	-0270.4	013.2	294.0	000.1900	-0148.8	037.2	32.23
083.0	003.0000	-0266.7	013.2	293.7	000.1900	-0149.7	037.1	32.27
084.0	003.0000	-0264.5	013.2	293.4	000.1900	-0150.6	037.0	32.31
085.0	003.0000	-0264.8	013.2	293.1	000.1900	-0151.4	036.9	32.35
086.0	003.0000	-0264.2	013.2	292.8	000.1900	-0152.2	036.8	32.38
087.0	003.0000	-0262.5	013.2	292.5	000.1900	-0153.2	036.7	32.42
088.0	003.0000	-0260.8	013.2	292.1	000.1900	-0154.3	036.6	32.45
089.0	003.0000	-0258.7	013.2	291.8	000.1900	-0155.6	036.5	32.48
090.0	003.0000	-0254.5	013.2	291.5	000.1900	-0157.1	036.4	32.51
091.0	003.0000	-0250.4	013.2	291.1	000.1900	-0158.9	036.3	32.54
092.0	003.0000	-0246.4	013.2	290.8	000.1900	-0160.9	036.3	32.57
093.0	003.0000	-0242.4	013.2	290.4	000.1900	-0163.1	036.2	32.59
094.0	003.0000	-0240.5	013.2	290.1	000.1900	-0165.4	036.1	32.62
095.0	003.0000	-0237.4	013.2	289.7	000.1900	-0167.8	036.1	32.64
096.0	003.0000	-0236.7	013.2	289.4	000.1900	-0170.2	036.0	32.66
097.0	003.0000	-0236.9	013.2	289.0	000.1900	-0172.6	036.0	32.68
098.0	003.0000	-0234.6	013.2	288.7	000.1900	-0175.0	035.9	32.69
099.0	003.0000	-0232.2	013.2	288.3	000.1900	-0177.2	035.9	32.70
100.0	003.0000	-0228.9	013.2	287.9	000.1900	-0179.2	035.8	32.72
101.0	003.0000	-0225.0	013.2	287.6	000.1900	-0181.4	035.8	32.73
102.0	003.0000	-0220.1	013.2	287.2	000.1900	-0183.5	035.8	32.73
103.0	003.0000	-0215.4	013.2	286.8	000.1900	-0185.5	035.8	32.74
104.0	003.0000	-0211.3	013.2	286.5	000.1900	-0187.4	035.8	32.74
105.0	003.0000	-0209.2	013.2	286.1	000.1900	-0188.8	035.8	32.75
106.0	003.0000	-0209.6	013.2	285.7	000.1900	-0189.9	035.8	32.75
107.0	003.0000	-0211.1	013.2	285.3	000.1900	-0190.6	035.8	32.75
108.0	003.0000	-0212.3	013.2	285.0	000.1900	-0191.0	035.8	32.74
109.0	003.0000	-0212.2	013.2	284.6	000.1900	-0191.0	035.8	32.74
110.0	003.0000	-0211.8	013.2	284.2	000.1900	-0190.8	035.8	32.73
111.0	003.0000	-0212.3	013.2	283.9	000.1900	-0190.4	035.8	32.72
112.0	003.0000	-0213.8	013.2	283.5	000.1900	-0189.7	035.9	32.71
113.0	003.0000	-0216.4	013.2	283.1	000.1900	-0188.7	035.9	32.69
114.0	003.0000	-0218.9	013.2	282.8	000.1900	-0187.7	036.0	32.68
115.0	003.0000	-0219.1	013.2	282.4	000.1900	-0186.8	036.0	32.66
116.0	003.0000	-0216.4	013.2	282.1	000.1900	-0186.0	036.1	32.64
117.0	003.0000	-0212.5	013.2	281.7	000.1900	-0185.3	036.1	32.62
118.0	003.0000	-0209.4	013.2	281.4	000.1900	-0184.7	036.2	32.60
119.0	003.0000	-0208.4	013.2	281.0	000.1900	-0184.0	036.2	32.57
120.0	003.0000	-0208.8	013.2	280.7	000.1900	-0183.3	036.3	32.55
121.0	003.0000	-0210.4	013.2	280.3	000.1900	-0182.5	036.4	32.52
122.0	003.0000	-0212.4	013.2	280.0	000.1900	-0181.7	036.5	32.49
123.0	003.0000	-0214.4	013.2	279.7	000.1900	-0180.7	036.6	32.46
124.0	003.0000	-0215.4	013.2	279.3	000.1900	-0179.6	036.7	32.43
125.0	003.0000	-0215.5	013.2	279.0	000.1900	-0178.5	036.8	32.39
126.0	003.0000	-0215.4	013.2	278.7	000.1900	-0177.4	036.9	32.35
127.0	003.0000	-0215.2	013.2	278.4	000.1900	-0176.1	037.0	32.32
128.0	003.0000	-0214.5	013.2	278.1	000.1900	-0174.9	037.1	32.28
129.0	003.0000	-0213.2	013.2	277.7	000.1900	-0173.6	037.2	32.24
130.0	003.0000	-0211.5	013.2	277.4	000.1900	-0172.4	037.3	32.19

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
131.0	003.0000	-0209.3	013.2	277.2	000.1900	-0171.3	037.5	32.15
132.0	003.0000	-0206.4	013.2	276.9	000.1900	-0170.2	037.6	32.11
133.0	003.0000	-0203.0	013.2	276.6	000.1900	-0169.2	037.7	32.06
134.0	003.0000	-0198.2	013.2	276.3	000.1900	-0168.2	037.9	32.01
135.0	003.0000	-0193.0	013.2	276.0	000.1900	-0167.2	038.0	31.96
136.0	003.0000	-0187.9	013.2	275.8	000.1900	-0166.3	038.2	31.91
137.0	003.0000	-0183.4	013.2	275.5	000.1900	-0165.6	038.3	31.86
138.0	003.0000	-0179.6	013.2	275.2	000.1900	-0164.8	038.5	31.81
139.0	003.0000	-0175.8	013.2	275.0	000.1900	-0164.2	038.6	31.76
140.0	003.0000	-0171.4	013.2	274.8	000.1900	-0163.6	038.8	31.71
141.0	003.0000	-0165.9	013.2	274.5	000.1900	-0163.1	039.0	31.65
142.0	003.0000	-0160.0	013.2	274.3	000.1900	-0162.6	039.1	31.60
143.0	003.0000	-0155.1	013.2	274.1	000.1900	-0162.0	039.3	31.54
144.0	003.0000	-0152.4	013.2	273.9	000.1900	-0161.5	039.5	31.48
145.0	003.0000	-0151.1	013.2	273.6	000.1900	-0161.0	039.7	31.43
146.0	003.0000	-0150.4	013.2	273.4	000.1900	-0160.4	039.8	31.37
147.0	003.0000	-0149.0	013.2	273.2	000.1900	-0160.0	040.0	31.31
148.0	003.0000	-0146.8	013.2	273.1	000.1900	-0159.7	040.2	31.25
149.0	003.0000	-0144.5	013.2	272.9	000.1900	-0159.3	040.4	31.19
150.0	003.0000	-0144.8	013.2	272.7	000.1900	-0158.9	040.6	31.13
151.0	003.0000	-0148.1	013.2	272.5	000.1900	-0158.5	040.8	31.07
152.0	003.0000	-0151.6	013.2	272.4	000.1900	-0158.0	041.0	31.01
153.0	003.0000	-0153.0	013.2	272.2	000.1900	-0157.6	041.2	30.95
154.0	003.0000	-0154.0	013.2	272.0	000.1900	-0157.1	041.4	30.89
155.0	003.0000	-0154.1	013.2	271.9	000.1900	-0156.8	041.6	30.83
156.0	003.0000	-0151.8	013.2	271.8	000.1900	-0156.6	041.8	30.77
157.0	003.0000	-0147.0	013.2	271.6	000.1900	-0156.3	042.0	30.70
158.0	003.0000	-0138.8	013.2	271.5	000.1900	-0156.1	042.2	30.64
159.0	003.0000	-0127.7	013.2	271.4	000.1900	-0155.9	042.4	30.58
160.0	003.0000	-0117.9	013.2	271.3	000.1900	-0155.8	042.6	30.52
161.0	003.0000	-0109.3	013.2	271.2	000.1900	-0155.6	042.9	30.46
162.0	003.0000	-0100.1	013.2	271.1	000.1900	-0155.4	043.1	30.40
163.0	003.0000	-0086.9	013.2	271.0	000.1900	-0155.3	043.3	30.34
164.0	003.0000	-0069.8	013.2	270.9	000.1900	-0155.1	043.5	30.27
165.0	003.0000	-0048.6	013.2	270.8	000.1900	-0155.0	043.7	30.21