

Technical Report W238BB Minor Modification

This technical report is submitted for a minor modification to W238BB at Corry, PA, FCC file no. BLFT-20070809ABU. A move to the third adjacent channel 241 with corresponding changes in tower site, antenna and ERP are requested. The facility will serve as a fill-in to rebroadcast the primary signal of WRRN(FM) 222B at Warren, PA, FCC facility I.D. 34927.

The following exhibits are provided for the FCC form 349 application:

- E-1 W238BB Mod. to Ch. 241 Overlap Study
- E-1A Interference Plot to WJYE 241B
- E-1B FMOver Analysis to WJYE 241B
- E-2 W238BB Contour Plots
- E-3 Enhanced 60 dBu Contour Overlap to W238BB Lic. Plot
- E-4 Directional Antenna Pattern
- E-5 Reference DA Pattern and Tabulation
- E-6 Tower ASR 1231575

W238BB Modification:

Exhibits E-1, E-1A and E-1B show the W238BB modification to channel 241 will not produce any interference overlap to current facilities. Since the facility is within 320 km of the Canadian border, the 34 dBu F(50-10) contour (exhibit E-2) shows the contour is clear. The facility overlaps the current W238BB licensed facility, and is contained within the primary WRRN(FM) 222B 54 dBu contour (exhibits E-2 and E-3).

Antenna System:

The W238BB modification will be located at an existing tower, ASR 1231575, at coordinates:

Anderson Associates

Broadcast Consultants
1519 Euclid Avenue
Bowling Green, KY 42103

41 55 43N 79 26 55W NAD 27.

A Nicom BKG77/2 two bay directional antenna rotated at a 210 degree azimuth (exhibit E-4) will be mounted at a COR AGL of 10 meters (565 meters AMSL, 75 meters HAAT calculated using the 30 second FCC terrain with 12 radials) and operate at an ERP of 0.230 kW.

RF Exposure Calculation:

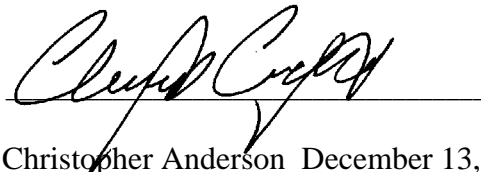
The RF contribution was calculated using the formula from the OET Bulletin 65:

$$S \text{ (RF in microwatts/cm}^2\text{)} = \frac{33.4 \times F^2 \times (H \text{ ERP} + V \text{ ERP in watts})}{R^2 \text{ (distance to radiation center in meters}^2\text{)}}$$

Using a worst-case vertical (F) factor of 0.801 provided by the antenna manufacturer (exhibit E-5), the resulting RF value is 154.0 $\mu\text{W/cm}^2$ to the ground, which is below the 200 $\mu\text{W/cm}^2$ maximum permissible for general public exposure. The tower is located at an isolated area with perimeter fencing.

Conclusion:

It is concluded that the modification of W238BB complies with all Commission rules and policies.



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E-1 W238BB Overlap Study

REFERENCE		CH# 241D - 96.1 MHz, Pwr= 0.23 kW DA, HAAT= 75.0 M, COR= 565 M										DISPLAY DATES	
41 55 43.0 N.		Average Protected F(50-50)= 11.0 km										DATA 12-15-11	
79 26 55.0 W.		Standard Directional										SEARCH 12-15-11	
CH	CALL	TYPE	ANT	AZI.	DIST	LAT.	Pwr(kW)	INT(km)	PRO(km)	*IN*	*OUT*		
CITY		STATE		<--	FILE #	LNG.	HAAT(M)	COR(M)	LICENSEE	(Overlap	in km)		
241B	WJYE	LIC	CN	23.7	116.4	42 53 10.0	47.000	138.8	66.7	-32.5*	1.5		
Buffalo			NY	204.1	BLH19950814KB	78 52 25.0	154	338	Townsquare Media	Of Buffal			
295B1	WKZA«	LIC	CX	77.2	15.2	41 57 31.0	5.100	39.1	41.7	11.5R	3.7M		
Lakewood			NY	257.4	BLH20031117AAM	79 16 11.0	225	698	Cross Country Communicatio				
238D	W238BB	LIC	C	264.9	16.4	41 54 55.0	0.027	0.4	4.0	3.8	11.2		
Corry			PA	84.7	BLFT20070809ABU	79 38 45.0	20	505	Family Life Ministries, In				
242A	WKQW-FM	LIC	CN	196.9	61.9	41 23 45.0	6.000	47.5	29.2	4.5	14.5		
Oil City			PA	16.8	BLH19920921KD	79 39 53.0	100	522	Clarion County Broadcastin				
239B	WPIG	LIC	CN	81.5	83.9	42 02 08.0	43.000	6.4	67.5	68.7	14.8		
Olean			NY	262.2	BLH4110	78 26 47.0	226	769	Backyard Broadcasting Olea				
240A	AL8989	VAC		300.6	51.9	42 09 54.0	6.000	23.5	15.8	16.5	19.5		
Erie			PA	120.3	RM10750	79 59 24.0	100	351	Dana J. Puopolo				
241A	AU9366989	VAC		267.5	112.0	41 52 38.0	6.000	82.9	25.2	16.8	42.1		
Ashtabula			OH	86.6	RM11071	80 47 49.0	100	307	Dana J. Puopolo				
241B	WKST-FM	LIC	CN	194.3	175.5	40 23 49.0	44.000	138.0	66.7	25.3	53.1		
Pittsburgh			PA	14.0	BLH19920206KC	79 57 43.0	159	464	Capstar Tx Llc				
238D	W238BD	APP	DV	208.9	38.2	41 37 38.0	0.250	0.8	6.3	26.5	30.8		
Titusville			PA	28.7	BPFT20111122EHC	79 40 15.0		395	Family Life Ministries, In				
243A	WBKX	LIC	ZCX	6.0	49.0	42 22 02.0	1.400	1.7	17.7	36.6	28.3		
Fredonia			NY	186.0	BLH20050420AAA	79 23 12.0	209	550	Chadwick Bay Broadcasting				
238D	W238BD	LIC	C	205.6	40.4	41 36 03.0	0.010	0.2	5.4	28.9	32.8		
Titusville			PA	25.4	BLFT20060605AAS	79 39 29.0	88	542	Family Life Ministries, In				
241D	W207AF	APP	C	241.3	68.9	41 37 46.0	0.038	20.8	6.1	37.4	29.7		
Meadville			PA	60.8	BMJPFT20030314CAE	80 10 29.0	83	469	Public Broadcasting Of Nor				
240L1	WXNM-LP	LIC		289.0	52.4	42 04 50.0	0.032	6.0	4.2	34.1	30.0		
Erie			PA	108.6	BLL20061218ADF	80 02 52.0	52	319	Erie Christian Broadcastin				
240A	WZDB	LIC	ZCX	147.4	116.2	41 02 44.1	1.500	47.6	31.5	54.4	64.8		
Sykesville			PA	327.9	BLH20090420ABT	78 42 11.8	196	710	First Media Radio, Llc				
243D	631299	APP	C	245.1	68.6	41 40 01.0	0.025	0.4	6.7	57.1	60.6		
Meadville			PA	64.6	BNPFT20030317AMX	80 11 46.0	106	488	Clear Channel Broadcasting				
240A	WAKZ	LIC	CX	229.9	121.9	41 13 05.0	6.000	48.7	31.9	62.0	73.5		
Sharpsville			PA	49.2	BLH20030723AIK	80 33 43.0	100	420	Citicasters Licenses, Inc.				
244A	WVTT	LIC	NCX	80.6	86.3	42 03 04.0	0.460	1.5	15.7	76.0	66.4		
Portville			NY	261.2	BLH20090715AAK	78 25 11.0	155	704	Colonial Radio Group, Inc.				
240C1		APP		307.9	187.6	42 56 59.0	100.000	104.8	72.1	71.2	99.9		
London			ON	126.7		81 15 53.0	299	556					
244A	WLLF	LIC	CN	225.4	97.3	41 18 43.0	1.400	2.0	23.2	84.2	72.7		
Mercer			PA	44.9	BLH19871130KD	80 16 39.0	148	523	Cumulus Licensing Llc				
244D	W244CH	LIC	C	151.2	99.2	41 08 41.0	0.180	0.9	9.0	84.1	88.3		
Rockton			PA	331.6	BLFT20081223ABX	78 52 41.0	88	581	Priority Communications, I				
238B	WFGI-FM	LIC	CN	167.1	177.3	40 22 18.0	57.000	9.6	85.9	153.7	89.7		
Johnstown			PA	347.4	BLH19880927KA	78 58 57.0	323	849	Forever Broadcasting, Llc				

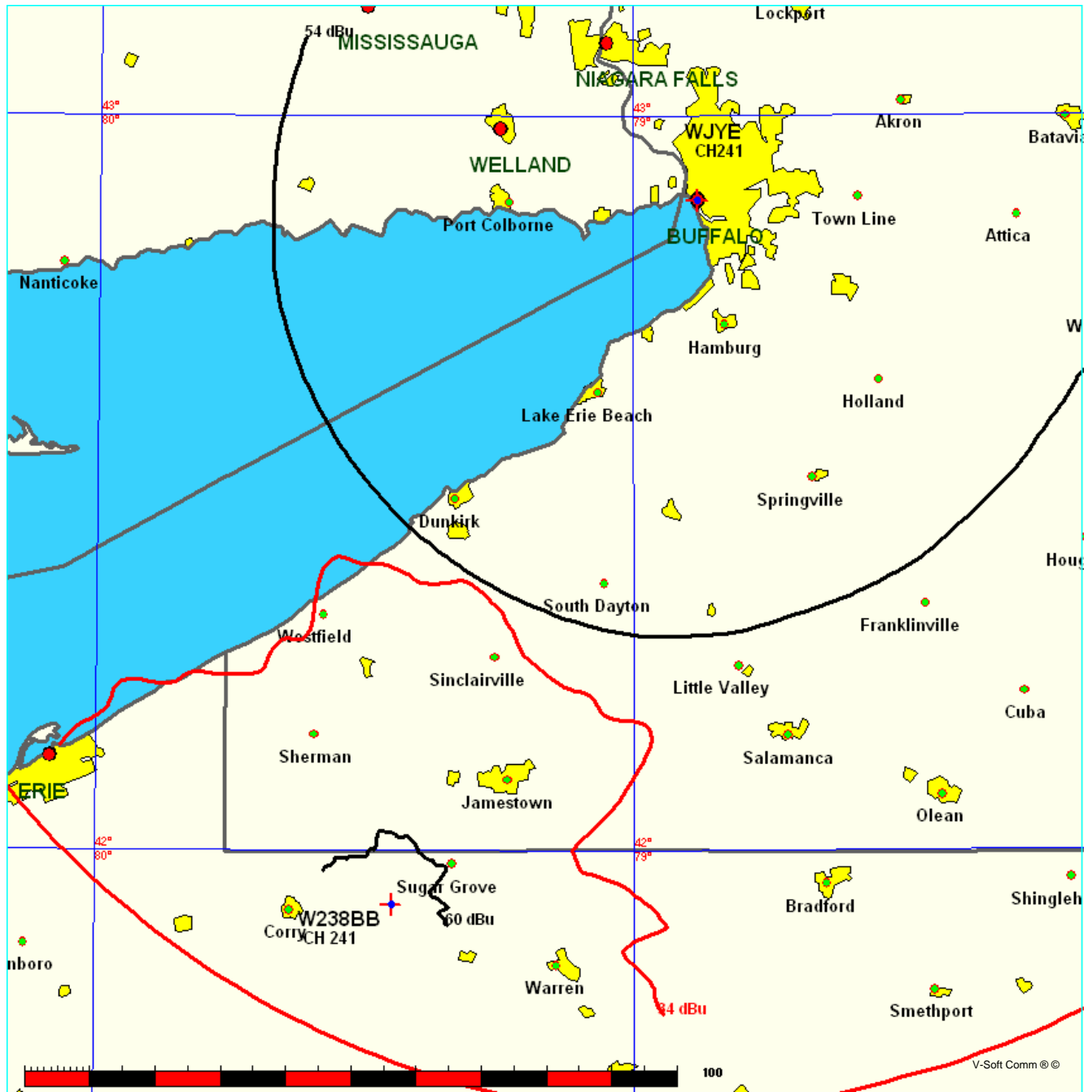
Terrain database is FCC NGDC 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference Zone= East Zone, Co to 3rd adjacent.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization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

E-1A W238BB Mod. to Ch. 241 Interference Plot to WJYE 241B

FMCommander Single Allocation Study - 12-15-2011 - FCC NGDC 30 Sec
W238BB's Overlaps (In= -32.51 km, Out= 1.52 km)

W238BB CH 241 D DA
Lat= 41 55 43.0, Lng= 79 26 55.0
0.23 kW 75 M HAAT, 565 M COR
Prot.= 60 dBu, Intef.= 34 dBu

WJYE CH 241 B BLH19950814KB
Lat= 42 53 10.0, Lng= 78 52 25.0
47.0 kW 154 M HAAT, 338 M COR
Prot.= 54 dBu, Intef.= 40 dBu



E-1B W238BB Mod. to Ch. 241 FMOver Analysis to WJYE 241B

Terrain Data: FCC NGDC 30 Sec

WJYE BLH19950814KB

Channel = 241B
Max ERP = 47 kW
RCAMSL = 338 M
N. Lat. 42 53 10.0
W. Lng. 78 52 25.0
Protected
54 dBu

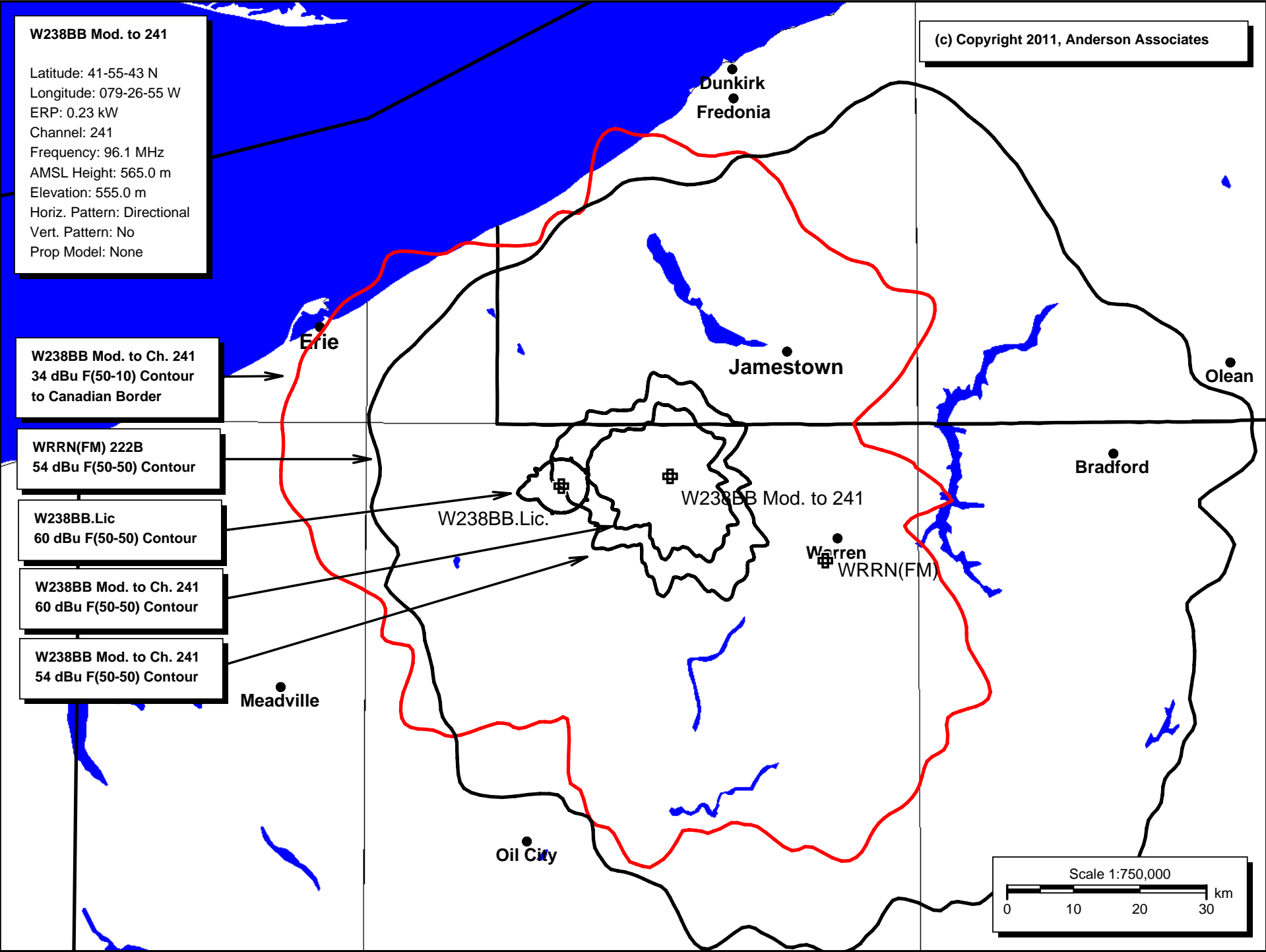
W238BB

Channel = 241D
Max ERP = 0.23 kW
RCAMSL = 565 M
N. Lat. 41 55 43.0
W. Lng. 79 26 55.0
Interfering
34 dBu

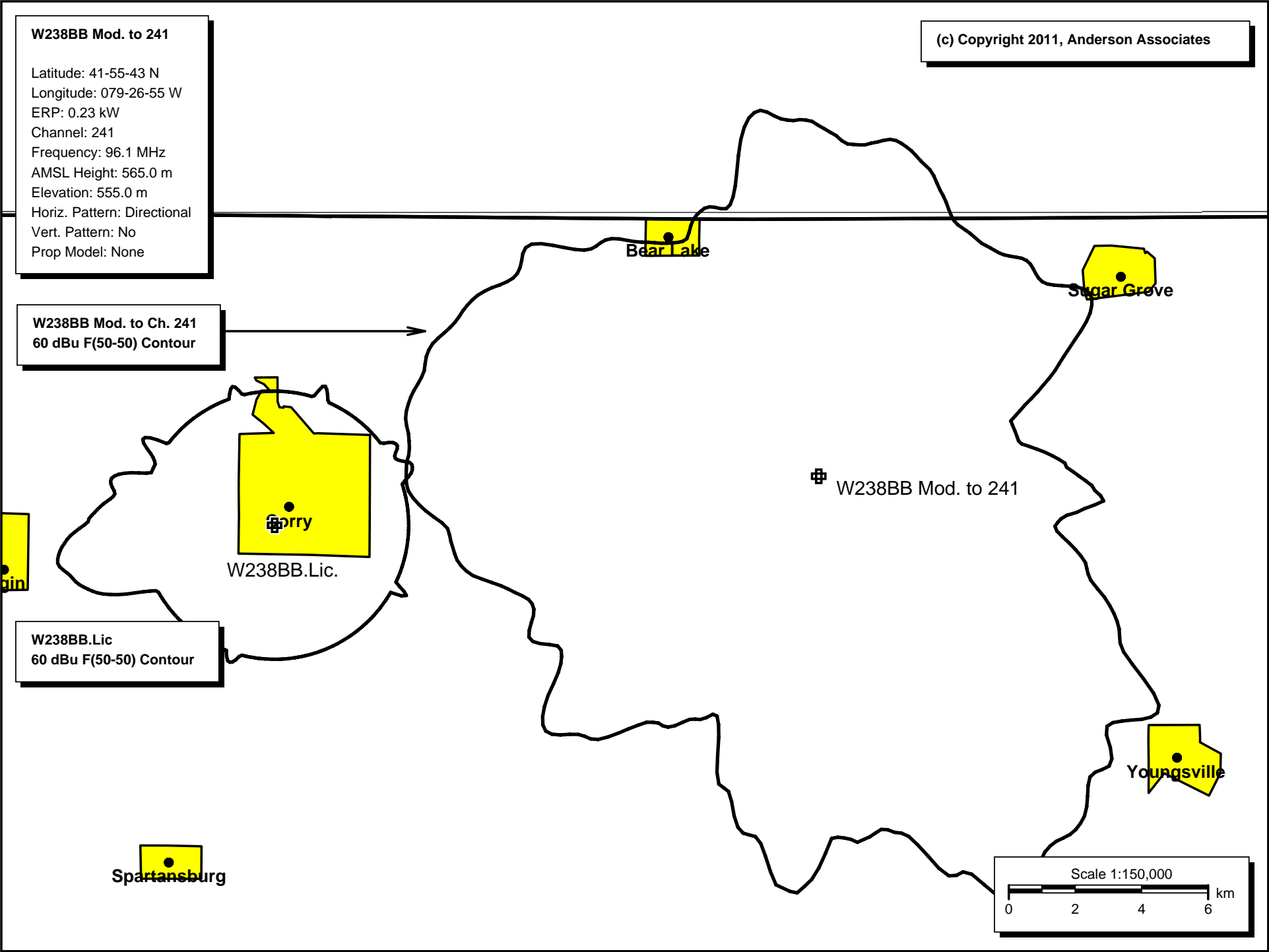
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
144.0	047.0000	0142.0	063.3	056.6	000.1155	0083.1	101.2	18.52	
145.0	047.0000	0142.9	063.5	056.6	000.1155	0083.1	100.0	18.78	
146.0	047.0000	0143.5	063.5	056.7	000.1155	0083.0	098.9	19.02	
147.0	047.0000	0144.0	063.6	056.7	000.1155	0083.0	097.8	19.27	
148.0	047.0000	0144.5	063.7	056.8	000.1155	0082.9	096.7	19.52	
149.0	047.0000	0145.1	063.8	056.8	000.1156	0082.9	095.6	19.78	
150.0	047.0000	0145.3	063.8	056.8	000.1156	0082.9	094.4	20.04	
151.0	047.0000	0145.2	063.8	056.8	000.1155	0082.9	093.3	20.32	
152.0	047.0000	0145.0	063.8	056.7	000.1155	0083.0	092.2	20.60	
153.0	047.0000	0145.0	063.8	056.7	000.1155	0083.0	091.1	20.88	
154.0	047.0000	0145.0	063.8	056.6	000.1155	0083.1	090.0	21.16	
155.0	047.0000	0145.3	063.8	056.5	000.1155	0083.2	088.9	21.45	
156.0	047.0000	0145.7	063.9	056.4	000.1154	0083.2	087.8	21.75	
157.0	047.0000	0146.1	063.9	056.4	000.1154	0083.3	086.7	22.04	
158.0	047.0000	0146.4	064.0	056.3	000.1154	0083.3	085.6	22.34	
159.0	047.0000	0146.6	064.0	056.1	000.1153	0083.3	084.5	22.63	
160.0	047.0000	0146.7	064.0	056.0	000.1153	0083.3	083.4	22.92	
161.0	047.0000	0146.8	064.0	055.8	000.1152	0083.3	082.3	23.21	
162.0	047.0000	0147.2	064.1	055.6	000.1152	0083.2	081.2	23.50	
163.0	047.0000	0147.9	064.2	055.5	000.1151	0083.1	080.1	23.79	
164.0	047.0000	0148.4	064.2	055.3	000.1151	0082.9	079.0	24.06	
165.0	047.0000	0148.5	064.2	055.0	000.1150	0082.5	078.0	24.33	
166.0	047.0000	0148.6	064.3	054.8	000.1149	0082.0	076.9	24.59	
167.0	047.0000	0149.0	064.3	054.5	000.1148	0081.5	075.9	24.84	
168.0	047.0000	0149.7	064.4	054.2	000.1147	0080.9	074.8	25.09	
169.0	047.0000	0150.7	064.5	054.0	000.1146	0080.2	073.7	25.35	
170.0	047.0000	0151.9	064.7	053.7	000.1145	0079.5	072.6	25.60	
171.0	047.0000	0153.1	064.9	053.4	000.1145	0078.7	071.5	25.84	
172.0	047.0000	0154.5	065.0	053.1	000.1144	0077.8	070.5	26.08	
173.0	047.0000	0156.0	065.2	052.8	000.1143	0076.9	069.4	26.32	
174.0	047.0000	0157.2	065.4	052.5	000.1141	0075.8	068.3	26.54	
175.0	047.0000	0158.2	065.5	052.0	000.1140	0074.6	067.3	26.74	
176.0	047.0000	0159.0	065.6	051.6	000.1139	0073.3	066.3	26.92	
177.0	047.0000	0159.7	065.7	051.1	000.1137	0071.9	065.3	27.09	
178.0	047.0000	0160.2	065.8	050.5	000.1135	0070.6	064.3	27.26	
179.0	047.0000	0160.4	065.8	049.9	000.1133	0069.4	063.4	27.43	
180.0	047.0000	0160.7	065.8	049.3	000.1133	0068.7	062.5	27.63	
181.0	047.0000	0161.4	065.9	048.6	000.1133	0068.3	061.6	27.88	
182.0	047.0000	0162.5	066.0	048.0	000.1133	0068.4	060.6	28.16	
183.0	047.0000	0163.6	066.2	047.3	000.1133	0068.6	059.7	28.46	
184.0	047.0000	0164.3	066.3	046.6	000.1133	0069.1	058.9	28.77	
185.0	047.0000	0164.9	066.3	045.8	000.1133	0069.7	058.0	29.08	
186.0	047.0000	0165.7	066.4	045.0	000.1133	0070.2	057.2	29.38	
187.0	047.0000	0166.5	066.5	044.1	000.1133	0070.2	056.4	29.65	
188.0	047.0000	0167.2	066.6	043.2	000.1133	0069.6	055.7	29.85	
189.0	047.0000	0167.5	066.6	042.2	000.1133	0068.4	055.0	29.97	
190.0	047.0000	0167.7	066.7	041.2	000.1133	0066.9	054.3	30.05	
191.0	047.0000	0167.9	066.7	040.2	000.1133	0065.5	053.7	30.13	
192.0	047.0000	0167.9	066.7	039.1	000.1133	0064.8	053.2	30.24	
193.0	047.0000	0168.0	066.7	038.0	000.1133	0064.5	052.7	30.39	
194.0	047.0000	0168.0	066.7	036.8	000.1133	0064.2	052.2	30.52	
195.0	047.0000	0168.0	066.7	035.6	000.1133	0063.9	051.7	30.63	
196.0	047.0000	0168.0	066.7	034.4	000.1133	0063.9	051.3	30.75	
197.0	047.0000	0168.0	066.7	033.2	000.1133	0064.3	051.0	30.91	
198.0	047.0000	0168.0	066.7	031.9	000.1133	0065.0	050.7	31.07	
199.0	047.0000	0168.0	066.7	030.6	000.1133	0065.4	050.4	31.20	
200.0	047.0000	0168.0	066.7	029.3	000.1133	0065.7	050.2	31.30	
201.0	047.0000	0168.0	066.7	028.0	000.1133	0066.6	050.0	31.45	
202.0	047.0000	0168.0	066.7	026.7	000.1133	0068.8	049.9	31.70	
203.0	047.0000	0168.0	066.7	025.4	000.1133	0071.9	049.8	32.02	
204.0	047.0000	0168.0	066.7	024.0	000.1133	0074.9	049.8	32.31	
205.0	047.0000	0168.0	066.7	022.7	000.1133	0077.6	049.8	32.55	
206.0	047.0000	0168.0	066.7	021.4	000.1133	0081.1	049.9	32.85	
207.0	047.0000	0168.0	066.7	020.1	000.1133	0084.3	050.0	33.09	
208.0	047.0000	0168.0	066.7	018.7	000.1133	0086.1	050.2	33.18	
209.0	047.0000	0168.0	066.7	017.4	000.1133	0088.2	050.4	33.28	
210.0	047.0000	0168.0	066.7	016.2	000.1133	0090.7	050.6	33.40	
211.0	047.0000	0168.0	066.7	014.9	000.1133	0092.6	050.9	33.44	
212.0	047.0000	0168.0	066.7	013.7	000.1133	0094.1	051.3	33.43	
213.0	047.0000	0168.0	066.7	012.4	000.1133	0094.9	051.7	33.35	
214.0	047.0000	0168.0	066.7	011.3	000.1133	0093.8	052.1	33.11	
215.0	047.0000	0168.0	066.7	010.1	000.1133	0092.2	052.6	32.80	
216.0	047.0000	0168.0	066.7	009.0	000.1136	0090.7	053.1	32.51	

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
217.0	047.0000	0168.0	066.7	007.9	000.1139	0089.2	053.6	32.20	
218.0	047.0000	0168.0	066.7	006.8	000.1142	0088.9	054.2	31.97	
219.0	047.0000	0168.0	066.7	005.8	000.1144	0088.8	054.8	31.75	
220.0	047.0000	0168.0	066.7	004.8	000.1147	0088.7	055.5	31.51	
221.0	047.0000	0168.0	066.7	003.8	000.1149	0090.6	056.2	31.41	
222.0	047.0000	0168.0	066.7	002.9	000.1152	0092.8	056.9	31.32	
223.0	047.0000	0168.0	066.7	002.0	000.1154	0094.1	057.6	31.15	
224.0	047.0000	0168.0	066.7	001.1	000.1156	0095.5	058.4	30.98	
225.0	047.0000	0168.0	066.7	000.3	000.1159	0096.9	059.2	30.79	
226.0	047.0000	0168.0	066.7	359.6	000.1163	0098.2	060.0	30.60	
227.0	047.0000	0168.0	066.7	358.8	000.1168	0099.8	060.9	30.43	
228.0	047.0000	0168.0	066.7	358.1	000.1173	0100.0	061.8	30.17	
229.0	047.0000	0168.0	066.7	357.4	000.1178	0100.1	062.7	29.89	
230.0	047.0000	0168.0	066.7	356.8	000.1183	0100.0	063.6	29.60	
231.0	047.0000	0168.0	066.7	356.2	000.1187	0099.6	064.5	29.31	
232.0	047.0000	0168.0	066.7	355.6	000.1191	0099.8	065.5	29.04	
233.0	047.0000	0168.0	066.7	355.1	000.1195	0100.1	066.5	28.77	
234.0	047.0000	0168.0	066.7	354.5	000.1199	0100.3	067.5	28.50	
235.0	047.0000	0168.0	066.7	354.1	000.1203	0100.8	068.5	28.24	
236.0	047.0000	0168.0	066.7	353.6	000.1206	0101.5	069.5	27.99	
237.0	047.0000	0168.0	066.7	353.2	000.1209	0102.4	070.5	27.74	
238.0	047.0000	0168.0	066.7	352.8	000.1212	0103.2	071.6	27.48	
239.0	047.0000	0168.0	066.7	352.4	000.1215	0104.1	072.7	27.23	
240.0	047.0000	0168.0	066.7	352.0	000.1217	0105.0	073.7	26.97	
241.0	047.0000	0168.0	066.7	351.7	000.1220	0105.7	074.8	26.70	
242.0	047.0000	0168.0	066.7	351.4	000.1222	0106.2	075.9	26.42	
243.0	047.0000	0168.0	066.7	351.1	000.1224	0106.5	077.0	26.12	
244.0	047.0000	0168.0	066.7	350.9	000.1226	0106.5	078.1	25.81	
245.0	047.0000	0168.0	066.7	350.6	000.1228	0106.4	079.2	25.49	
246.0	047.0000	0168.0	066.7	350.4	000.1229	0106.1	080.4	25.17	
247.0	047.0000	0168.0	066.7	350.2	000.1231	0105.9	081.5	24.84	
248.0	047.0000	0168.0	066.7	350.1	000.1232	0105.6	082.6	24.51	
249.0	047.0000	0168.0	066.7	349.9	000.1233	0105.2	083.8	24.18	
250.0	047.0000	0168.0	066.7	349.8	000.1235	0104.9	084.9	23.84	
251.0	047.0000	0167.9	066.7	349.6	000.1236	0104.6	086.1	23.51	
252.0	047.0000	0167.7	066.7	349.5	000.1237	0104.3	087.2	23.18	
253.0	047.0000	0167.6	066.6	349.5	000.1238	0104.1	088.4	22.86	
254.0	047.0000	0167.5	066.6	349.4	000.1238	0103.8	089.6	22.53	
255.0	047.0000	0167.5	066.6	349.3	000.1239	0103.6	090.7	22.21	
256.0	047.0000	0167.7	066.6	349.3	000.1240	0103.4	091.9	21.89	
257.0	047.0000	0167.8	066.7	349.2	000.1240	0103.3	093.0	21.58	
258.0	047.0000	0167.9	066.7	349.2	000.1240	0103.2	094.2	21.28	
259.0	047.0000	0167.6	066.6	349.2	000.1240	0103.2	095.4	20.98	
260.0	047.0000	0167.0	066.6	349.3	000.1240	0103.4	096.5	20.70	
261.0	047.0000	0166.0	066.5	349.3	000.1239	0103.7	097.7	20.42	
262.0	047.0000	0164.9	066.3	349.4	000.1238	0104.0	098.8	20.15	
263.0	047.0000	0163.9	066.2	349.5	000.1237	0104.3	100.0	19.89	

E-2 W238BB Mod. to Ch. 241 Contour Plots



E-3 W238BB Mod. to Ch. 241 Enhanced 60 dBu Contour Plot

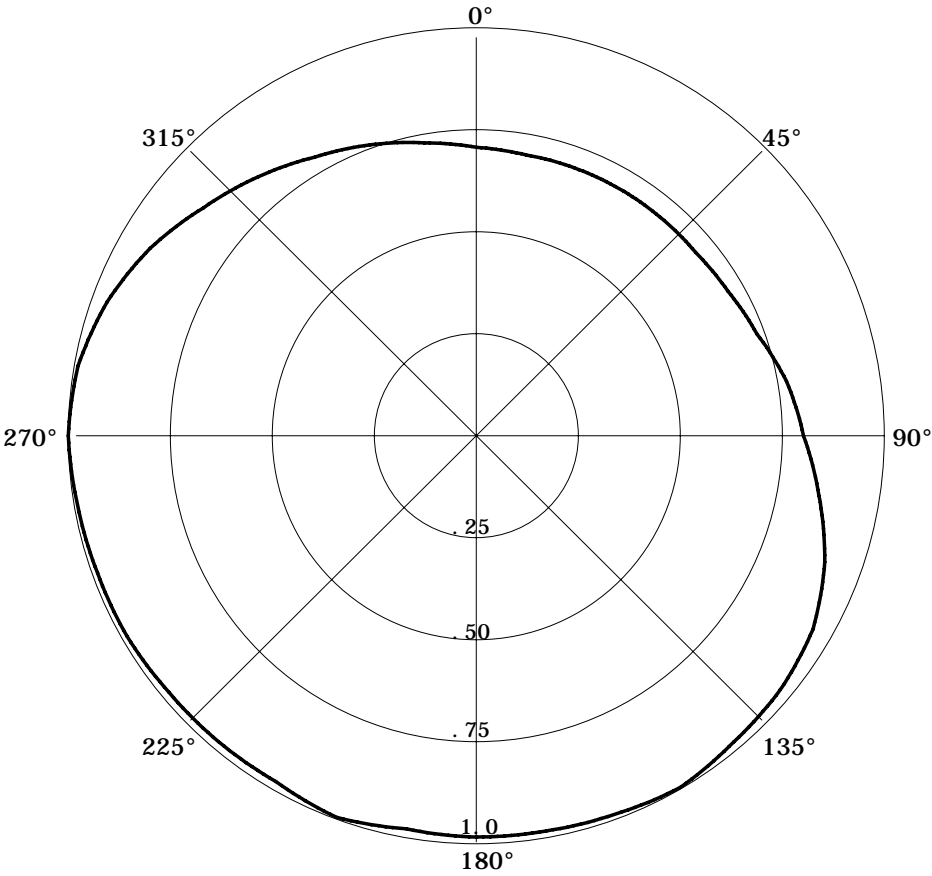


E- 4 W238BB Mod. to Ch. 241 DA Antenna Pattern

RMS(V) = .887

Graph is Relative Field

Azi	Field	dBk	kW
000	0.710	-08.995	0.126
010	0.702	-09.094	0.123
020	0.702	-09.094	0.123
030	0.702	-09.094	0.123
040	0.702	-09.094	0.123
050	0.702	-09.094	0.123
060	0.712	-08.971	0.127
070	0.732	-08.730	0.134
080	0.772	-08.268	0.149
090	0.802	-07.937	0.161
100	0.853	-07.402	0.182
110	0.909	-06.849	0.207
120	0.953	-06.439	0.227
130	0.973	-06.258	0.237
140	0.983	-06.170	0.242
150	1.000	-06.021	0.250
160	0.992	-06.090	0.246
170	0.988	-06.125	0.244
180	0.988	-06.125	0.244
190	0.983	-06.170	0.242
200	1.000	-06.021	0.250
210	0.983	-06.170	0.242
220	0.983	-06.170	0.242
230	0.983	-06.170	0.242
240	0.988	-06.125	0.244
250	0.988	-06.125	0.244
260	0.992	-06.090	0.246
270	1.000	-06.021	0.250
280	0.991	-06.099	0.246
290	0.963	-06.348	0.232
300	0.923	-06.717	0.213
310	0.873	-07.200	0.191
320	0.832	-07.618	0.173
330	0.792	-08.046	0.157
340	0.762	-08.382	0.145
350	0.732	-08.730	0.134



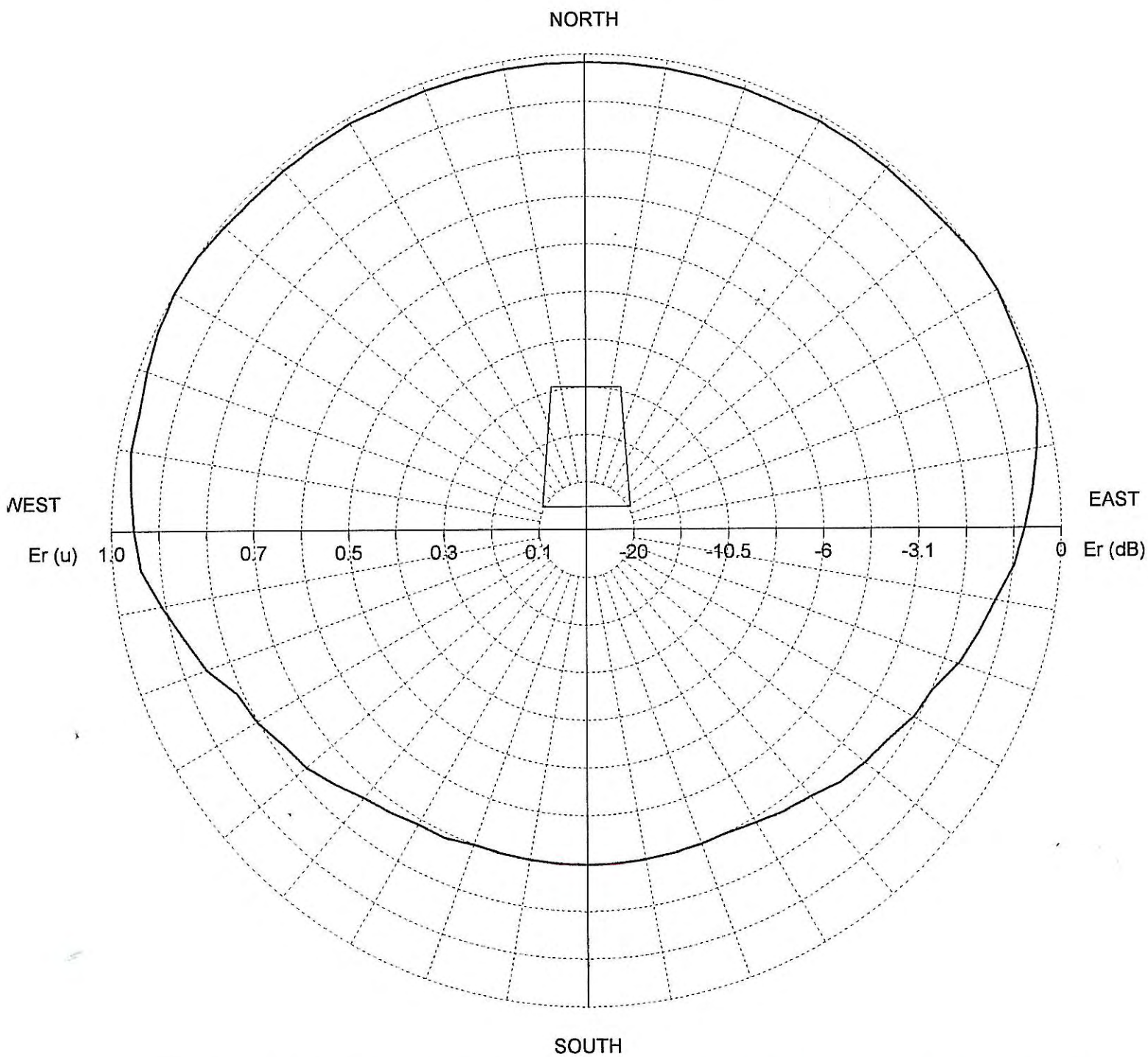
E-5 W238BB Mod. Reference Antenna Pattern and Tabulation

TX station: BGK77/2

Site name:

Frequency: 98.00 MHz

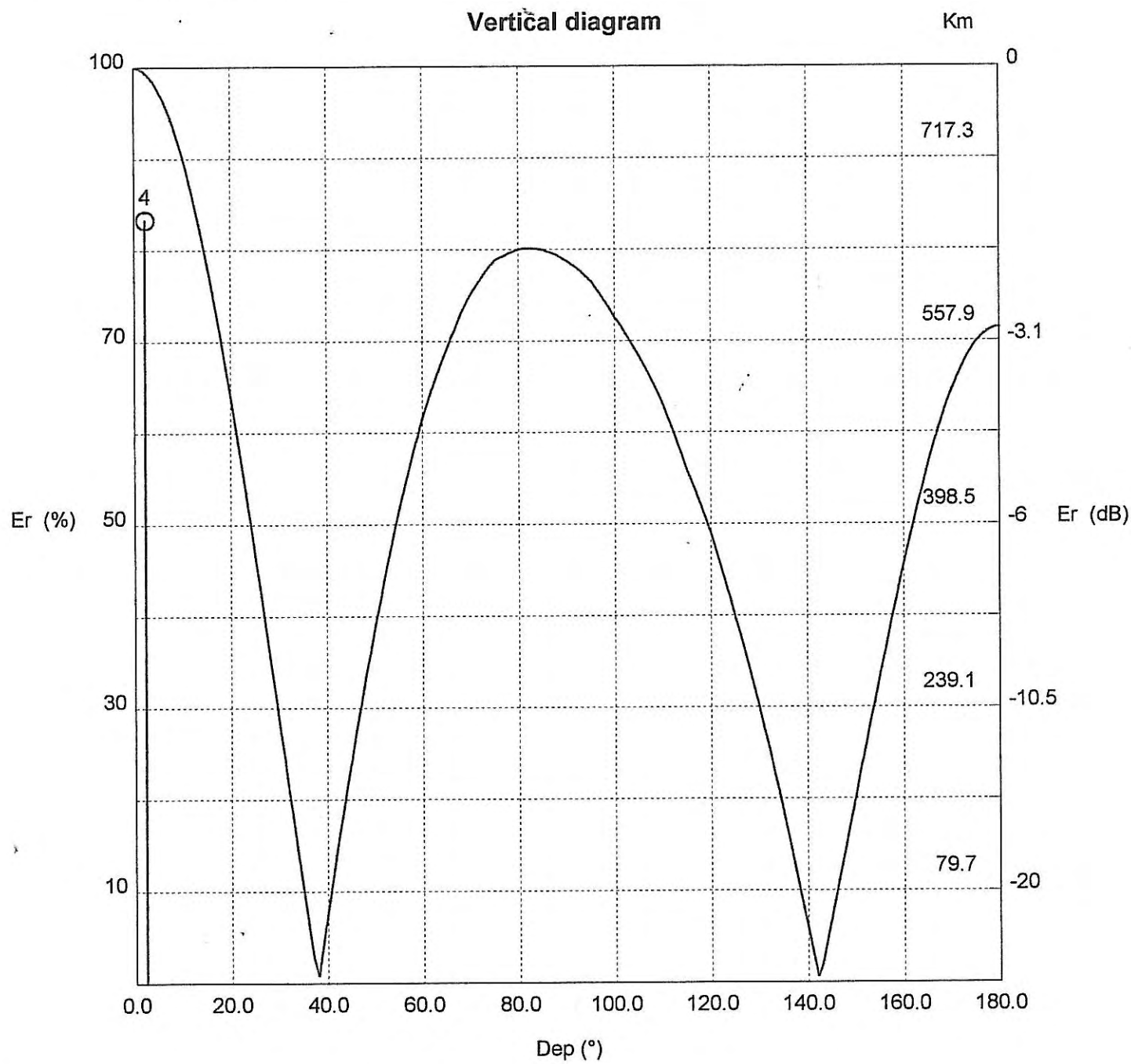
Horizontal diagram



—— 0.0° depres. (Total antenna), Gain (dBd): 0.2 ERP T.max (KW): 1.037 ERP E.max (KW): 0.805

TX station: BGK77/2
Frequency: 98.00 MHz

Site name:



— 0.0° Az. (Total antenna)

Distance scale for field level equal to 0 dB μ V/m. (Free space)

TX station: BGK77/2

Site name:

Frequency: 98.00 MHz

Horizontal diagram at 0.0° depres. (Total antenna)

Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)
0.0	98.3	778.1	120.0	79.2	505.6	240.0	80.2	518.5
10.0	98.3	778.1	130.0	76.2	468.0	250.0	85.3	585.4
20.0	98.3	778.1	140.0	73.2	431.7	260.0	90.9	666.0
30.0	98.8	786.1	150.0	71.0	406.5	270.0	95.3	731.2
40.0	98.8	786.1	160.0	70.2	397.0	280.0	97.3	762.3
50.0	99.2	792.9	170.0	70.2	397.0	290.0	98.3	778.1
60.0	100.0	805.3	180.0	70.2	397.0	300.0	100.0	805.3
70.0	99.1	791.4	190.0	70.2	397.0	310.0	99.2	792.9
80.0	96.3	746.7	200.0	70.2	397.0	320.0	98.8	786.1
90.0	92.3	685.7	210.0	71.2	408.4	330.0	98.8	786.1
100.0	87.3	613.2	220.0	73.2	431.7	340.0	98.3	778.1
110.0	83.2	558.1	230.0	77.2	480.4	350.0	98.3	778.1

TX station: BGK77/2

Site name:

Frequency: 98.00 MHz

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	100.0	778.1	60.0	61.7	295.8	120.0	48.9	185.7
2.0	99.6	771.9	62.0	64.9	328.0	122.0	45.4	160.3
4.0	98.4	753.4	64.0	67.9	358.3	124.0	41.7	135.3
6.0	96.4	723.5	66.0	70.5	387.2	126.0	37.9	111.8
8.0	93.7	683.0	68.0	73.0	415.0	128.0	34.0	89.8
10.0	90.2	633.6	70.0	75.1	438.9	130.0	29.8	69.2
12.0	86.1	576.9	72.0	76.8	458.6	132.0	25.4	50.3
14.0	81.3	514.9	74.0	78.2	475.6	134.0	20.8	33.7
16.0	76.0	449.7	76.0	79.1	486.5	136.0	16.0	19.9
18.0	70.2	383.3	78.0	79.6	492.8	138.0	11.0	9.3
20.0	63.9	317.8	80.0	80.0	498.2	140.0	5.8	2.6
22.0	57.3	255.1	82.0	80.1	499.5	142.0	0.6	0.0
24.0	50.3	197.0	84.0	80.0	498.5	144.0	4.6	1.7
26.0	43.2	145.1	86.0	79.8	495.2	146.0	9.9	7.7
28.0	35.9	100.4	88.0	79.3	489.7	148.0	15.2	18.1
30.0	28.5	63.4	90.0	78.7	482.3	150.0	20.5	32.8
32.0	21.1	34.5	92.0	78.0	473.0	152.0	25.8	51.7
34.0	13.6	14.5	94.0	77.0	461.9	154.0	30.9	74.2
36.0	6.3	3.1	96.0	75.8	447.1	156.0	35.9	100.5
38.0	0.9	0.1	98.0	74.2	428.8	158.0	40.9	130.2
40.0	7.9	4.8	100.0	72.5	409.1	160.0	45.6	162.1
42.0	14.6	16.6	102.0	71.0	391.9	162.0	50.1	195.5
44.0	21.1	34.6	104.0	69.3	373.2	164.0	54.3	229.4
46.0	27.3	58.0	106.0	67.4	353.2	166.0	58.1	262.7
48.0	33.2	85.8	108.0	65.3	332.0	168.0	61.5	294.3
50.0	38.8	117.2	110.0	63.1	309.5	170.0	64.5	323.3
52.0	44.1	151.5	112.0	60.3	283.3	172.0	66.9	348.5
54.0	49.1	187.7	114.0	57.4	256.6	174.0	68.9	369.1
56.0	53.7	224.4	116.0	54.6	232.1	176.0	70.3	384.4
58.0	57.9	260.4	118.0	51.9	209.2	178.0	71.1	393.8

E-6 W238BB Mod. Tower ASR

ASR Registration Search

Registration 1231575

 [Map Registration](#)

Registration Detail

Reg Number	1231575	Status	Constructed
File Number	A0369915	Constructed	01/24/2002
FAA Study	2004-AEA-793-OE	EMI	No
FAA Issue Date	04/05/2004	NEPA	No

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Communications Purposes

Location (in NAD83 Coordinates)

Lat/Long 41-55-43.6 N 079-26-54.0 W 24A Sherman Hill Road
City, State Bear Lake , PA
Center of
AM Array

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
554.7	93.2
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
647.9	91.4

Painting and Lighting Specifications

FAA Chapters 4, 8, 12
Paint and Light in Accordance with FAA Circular Number 70/7460-1K
.

Owner & Contact Information

FRN	0005793351	Licensee ID	L00296049
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Owner

SBA Properties, Inc.
Attention To: Edward G. Roach
5900 Broken Sound Pkwy., NW
Boca Raton , FL 33487

P: (561)995-7670
E: ERoach@SBAsite.com

Contact

P:
E:

Last Action Status

Status	Constructed	Received	04/06/2004
Purpose	Notification	Entered	04/06/2004
Mode	Interactive		

Related Applications