

Technical Report W300BB Minor Modification

This technical report is submitted for a minor modification to W300BB, FCC file no. BLFT-20141028ABI. A move to channel 297 with corresponding changes in antenna and ERP are requested. The translator will remain as a fill-in to rebroadcast WBL(AM) 1390 kHz at Bellefontaine, OH, FCC facility I.D. 69627.

W300BB Modification:

An overlap study (exhibit E-1) shows the W300BB modification to channel 297 will not cause any interference overlap to current facilities. The W300BB modified 60 dBu contour overlaps the current licensed 60 dBu contour, and is contained within the primary WBL(AM) 2.0 mV/m daytime contour (exhibit E-2).

The translator will remain at its current site, tower ASR 1015284, at coordinates:

40 22 05N 83 44 02W NAD 27.

A Nicom BKG77 single bay directional antenna, rotated at a 70 degree azimuth (exhibit E-3) will be mounted at a COR AGL of 51 meters, 485 meters AMSL and operate at 0.250 kW ERP.

RF Exposure Calculation:

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

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

Using a worst case vertical (F) factor of 1.0, the RF is calculated to be 6.96 $\mu\text{W/cm}^2$ to the ground, which is well below 5% of the 200 $\mu\text{W/cm}^2$ maximum permissible for general public exposure allowing exclusion from consideration.

Conclusion:

It is concluded that the W300BB modification complies with all Commission rules and policies.

A handwritten signature in black ink, appearing to read 'Christopher Anderson', is written over a horizontal line.

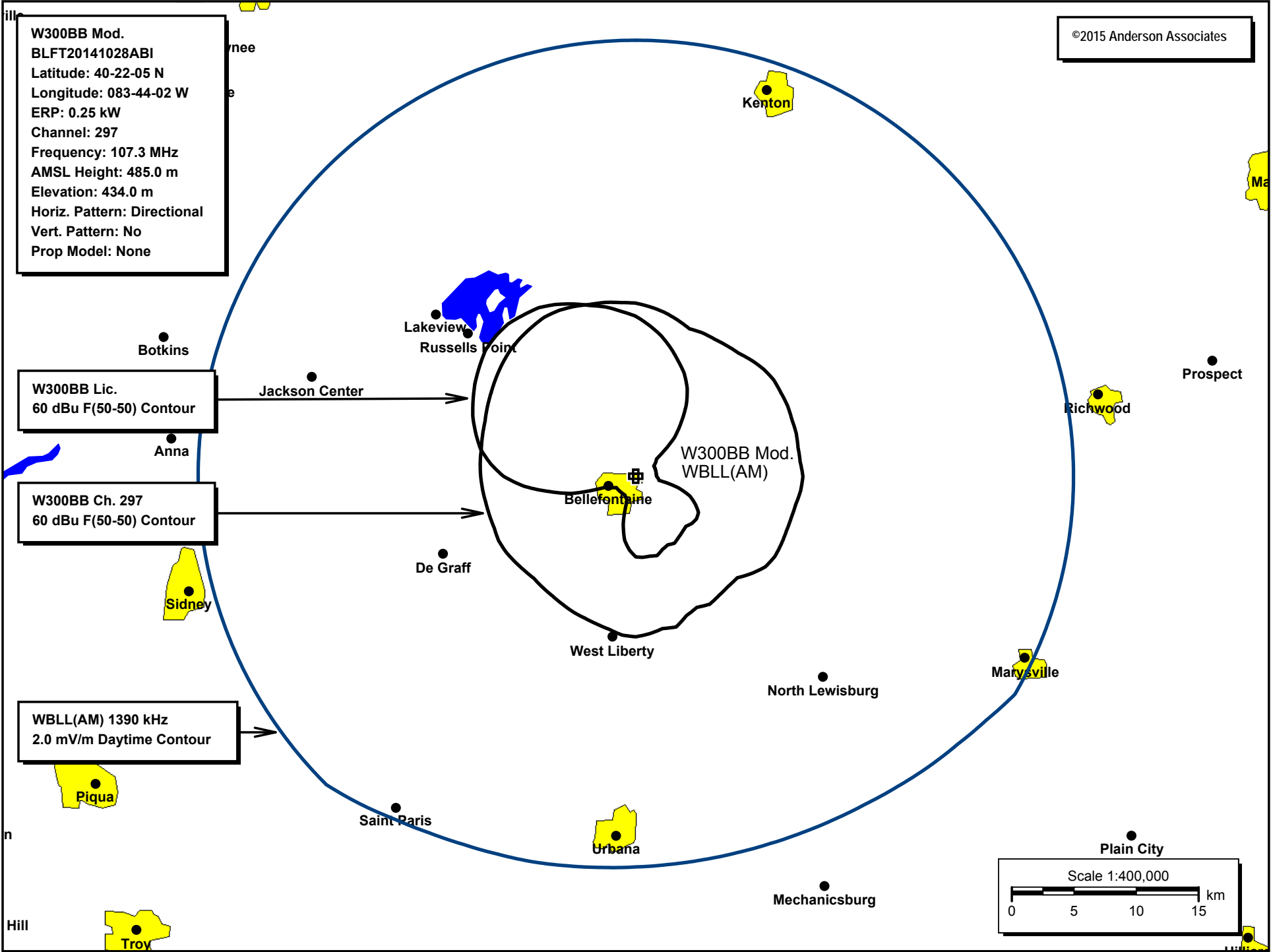
Christopher Anderson January 14, 2015
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E-1 W300BB to Ch. 297 Minor Mod. Overlap Study

REFERENCE		CH# 297D - 107.3 MHz, Pwr= 0.25 kW DA, HAAT= 126.7 M, COR= 485 M							DISPLAY DATES		
40 22 05.0 N.		Average Protected F(50-50)= 14.45 km							DATA 01-14-15		
83 44 02.0 W.		Standard Directional							SEARCH 01-14-15		
CH CITY	CALL	TYPE ANT STATE	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT (M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*	
300D Lima	W300BB	LIC DV_OH	0.0 0.0	0.00 BLFT20141028ABI	40 22 05.0 83 44 02.0	0.250 126	0.9 485	12.9 V-teck	-14.9* Communications, Inc	-14.0*	
298A Fort Shawnee	WZRZ-FM	LIC _C_OH	318.0 137.8	44.31 BLH20040820AAZ	40 39 50.0 84 05 07.0	1.350 151	33.4 427	22.4 Citicasters	-3.5 Licenses, Inc.	0.2	
299B Dayton	WMMX	LIC _CX_OH	209.5 29.2	82.44 BMLH20120315ADI	39 43 19.0 84 12 33.0	28.000 200	6.0 467	66.1 Citicasters	64.4 Licenses, Inc.	15.0	
298L1 Marion	WZMO-LP	LIC ____OH	55.5 235.7	46.51 BLL20140724AAD	40 36 16.0 83 16 48.0	0.094 31	307	25.0 Marion Community Radio		20.4	
296A Del phos	WDOH	LIC _CN_OH	314.8 134.4	73.42 BMLH19960807KKB	40 49 55.0 84 21 11.0	3.300 91	35.6 329	23.6 Childers	23.5 Media Group Lic	28.4	
294B1 Dublin	AL6931	RSV-A ____OH	108.3 288.8	74.31 RM10557	40 09 20.0 82 54 12.0	25.000 100	4.4 386	47.3	56.9	25.4	
298A Columbus	WCKX	LIC _CN_OH	125.5 305.9	77.19 BLH19960213KKB	39 57 46.0 82 59 46.0	1.900 126	35.8 368	23.7 Blue Chip Broadcasting	28.5 Lic	34.2	
296L1 Marion	WWGH-LP	LIC ____OH	64.9 245.3	56.53 BLL20140616AEW	40 34 55.6 83 07 39.3	0.027 57	341	34.4 Marion Midget Football		30.0	
296D Springfield	W296BO	LIC _C_OH	186.4 6.3	54.25 BLFT20070601BQA	39 52 59.0 83 48 17.0	0.020 44	6.3 353	4.5 Educational Media Foundati	35.1	30.3	
296L1 Troy	WTJN-LP	LIC ____OH	227.7 47.4	54.11 BLL20140206ACU	40 02 22.7 84 12 15.5	0.100	276	34.3 Troy Community Fm		31.3	
297B El yria	WNWV	LIC _CX_OH	54.9 236.0	176.67 BLH20041102AEC	41 16 10.0 82 00 16.0	20.000 238	128.9 493	65.6 Rubber City Radio Group, I	34.2	48.8	
300A Westerville	WVMX	LIC _CX_OH	101.1 281.6	69.49 BLH20090511ASY	40 14 41.5 82 55 49.1	3.000 143	2.7 439	29.9 Franklin Communications, I	53.5	38.5	
294A Dublin	WZCB	LIC _CX_OH	122.5 303.0	72.10 BLH20121004AAP	40 01 01.8 83 01 11.3	3.000 144	2.5 392	27.6 Citicasters	56.6 Licenses, Inc.	43.4	
297D Centerville	WCWT-FM	LIC _CX_OH	203.3 23.1	89.61 BLED20091023AAV	39 37 38.0 84 08 54.0	0.023 58	15.0 334	4.5 Centerville City Board Of	63.1	43.6	

Terrain database is USGS 03 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. Call signs with strikeout need not be protected.
 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 restricted contour.
 Reference station has protected zone issue: AM tower

E-2 W300BB Minor Mod. to Ch. 297 Contour Plot

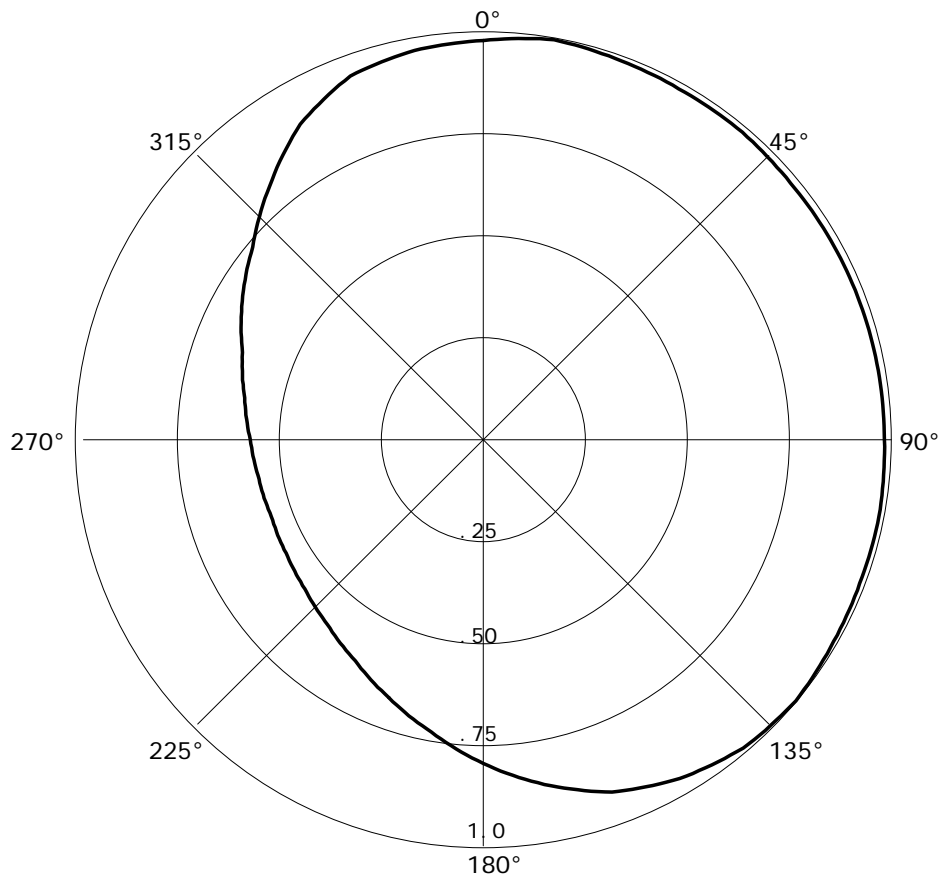


E-3 W300BB Minor Mod. Antenna Pattern

Graph is Relative Field

RMS(V)= .853

Azi	Field	dBk	kW
000	0.983	-06.170	0.242
010	1.000	-06.021	0.250
020	0.992	-06.090	0.246
030	0.988	-06.125	0.244
040	0.988	-06.125	0.244
050	0.983	-06.170	0.242
060	0.983	-06.170	0.242
070	0.983	-06.170	0.242
080	0.983	-06.170	0.242
090	0.983	-06.170	0.242
100	0.988	-06.125	0.244
110	0.988	-06.125	0.244
120	0.992	-06.090	0.246
130	1.000	-06.021	0.250
140	0.991	-06.099	0.246
150	0.963	-06.348	0.232
160	0.923	-06.717	0.213
170	0.862	-07.310	0.186
180	0.797	-07.991	0.159
190	0.731	-08.742	0.134
200	0.676	-09.422	0.114
210	0.628	-10.061	0.099
220	0.594	-10.545	0.088
230	0.571	-10.888	0.082
240	0.558	-11.088	0.078
250	0.553	-11.166	0.076
260	0.558	-11.088	0.078
270	0.571	-10.888	0.082
280	0.594	-10.545	0.088
290	0.628	-10.061	0.099
300	0.682	-09.345	0.116
310	0.738	-08.659	0.136
320	0.815	-07.797	0.166
330	0.897	-06.965	0.201
340	0.953	-06.439	0.227
350	0.973	-06.258	0.237



Registration 1015284

 [Map Registration](#)

Registration Detail

Reg Number	1015284	Status	Constructed
File Number	A0018280	Constructed	06/24/1986
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

Location (in NAD83 Coordinates)

Lat/Long	40-22-05.0 N 083-44-02.0 W	Address	1501 ROAD 235
City, State	BELLEFONTAINE , OH		
Zip	43311	County	LOGAN
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
434.3	62.2
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
496.5	61.1

Painting and Lighting Specifications

FCC Paragraphs 1, 3, 12, 21

FAA Notification

FAA Study	86-AGL-335-OE	FAA Issue Date	06/04/1986
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Owner & Contact Information

FRN	0003014115	Owner Entity Type
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Owner

V TECK COMMUNICATIONS INC	P: (937)592-1045
1501 ROAD 235	F:
BELLEFONTAINE , OH 43311	E:

Contact

P:
F:
E:

Last Action Status

Status	Constructed	Received	03/03/1997
Purpose	New	Entered	03/03/1997
Mode	Diskette,flat file,email		