

## **Technical Report W277CA Minor Modification**

This technical report is submitted for a minor modification to W277CA at Union City, TN, FCC file no. BLFT-20090511AWH. A reduction in ERP is requested for the translator to serve as a fill-in to rebroadcast the primary WCMT(AM) 1410 kHz facility at Martin, TN, FCC facility I.D. 67054.

### **W277CA Mod. Analysis:**

An overlap study in exhibit E-1 shows the W277CA modification will not cause any interference overlap to any existing facilities. The translator will be located on an existing tower, ASR 1023191, at coordinates:

**36 24 47N 89 08 59W NAD 27.**

A RVR ACPO-3 three bay, full wavelength-spaced, nondirectional antenna will be mounted at a COR AGL of 145 meters, 298 meters AMSL, and operate at an ERP of 0.050 kW. The modified 60 dBu contour is contained within a 25 mile/40 km radius from the primary WCMT(AM) site (exhibit E-2). The modified 60 dBu contour overlaps less than 50% of the W263BF and W259BT.CP 60 dBu contours, which also serve as fill-in facilities for WCMT(AM).

### **RF Exposure Calculation:**

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

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

## Anderson Associates

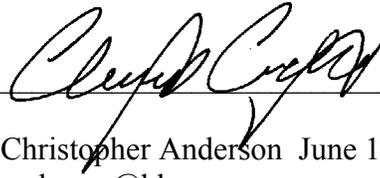
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Broadcast Consultants  
1519 Euclid Avenue  
Bowling Green, KY 42103

Using a worst-case vertical (F) factor of 1.00, the RF is calculated to be  $0.163 \mu\text{W}/\text{cm}^2$  to the ground, which is well below 5% of the  $200 \mu\text{W}/\text{cm}^2$  maximum permissible for general public exposure, allowing exclusion from consideration.

### **Conclusion:**

It is concluded that the W277CA modification complies with all Commission rules and policies.



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# E-1 W277CA Mod. Overlap Study

REFERENCE  
36 24 47.0 N.  
89 08 59.0 W.

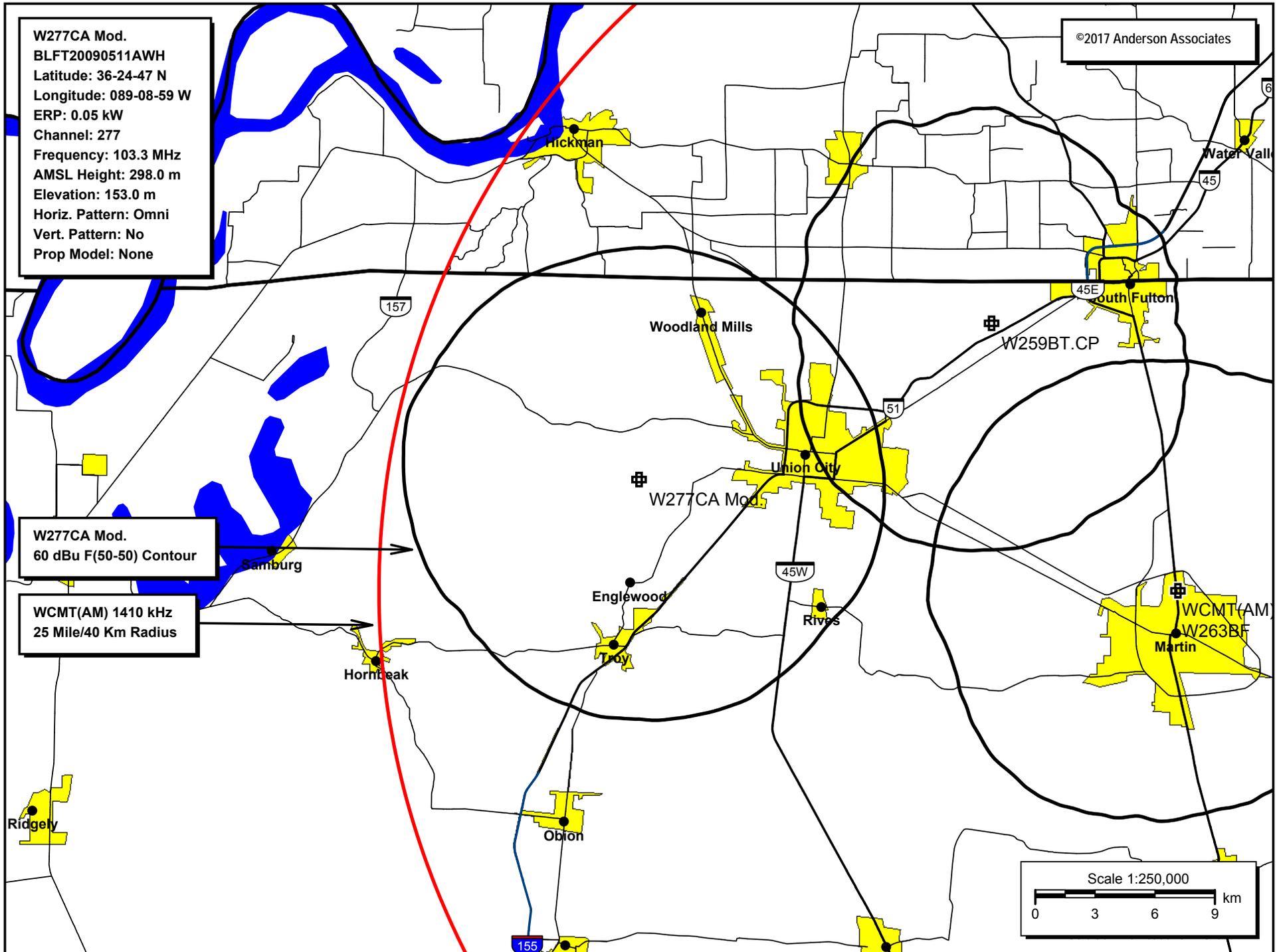
CH# 277D - 103.3 MHz, Pwr= 0.05 kW, HAAT= 184.0 M, COR= 298 M  
Average Protected F(50-50)= 11.83 km  
Omni-directional

DISPLAY DATES  
DATA 06-12-17  
SEARCH 06-12-17

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
277D Union City	W277CA	LIC _C_ TN		0.0 0.0	0.00 BLFT20090511AWH	36 24 47.0 89 08 59.0	0.250 184	55.3 298	17.5 Thunderbolt Broadcasting C	-66.8*	-55.9*
279C1 Murray	WFGS	LIC _CN KY		78.0 258.5	74.73 BLH19870724KA	36 32 58.0 88 19 52.0	100.000 201	8.2 361	63.9 Forever Communications, In	54.3	10.3
276C2 Jackson	WMXX-FM	LIC _C_ TN		161.3 341.5	101.92 BLH20040315AAU	35 32 39.0 88 47 18.0	42.000 164	78.6 296	53.1 Gerald W. Hunt	11.2	30.9
277C0 Nashville	WKDF	LIC _CN TN		100.8 282.2	210.58 BLH19820818AB	36 02 08.0 86 50 56.0	100.000 376	184.2 611	81.0 Radio License Holding Cbc,	14.0	88.0
275D Martin	W275BF	LIC _C_ TN		101.7 281.9	27.48 BLFT20070817ACH	36 21 45.0 88 50 57.0	0.250 72	1.1 182	11.8 Thunderbolt Broadcasting C	14.0	15.2
277D Paducah	W277CH	LIC _C_ KY		28.6 208.9	92.48 BLFT20160127ADN	37 08 33.0 88 39 02.0	0.250	50.6 253	15.3 Samuel K. Stratemeyer	30.1	38.4
280A Gideon	KMIS-FM	LIC ZCX MO		271.8 91.4	48.48 BLH20080527AAA	36 25 31.0 89 41 29.0	2.500 122	1.4 205	15.4 Pollack Broadcasting Co.	35.3	31.0
278C2 Poplar Bluff	KLUE	LIC _CN MO		295.0 114.3	115.93 BLH19960417KA	36 50 50.0 90 19 52.0	50.000 99	72.7 218	47.4 Benjamin Stratemeyer	31.4	51.3
275C1 Cape Girardeau	KEZS-FM	LIC _CN MO		341.8 161.5	116.36 BLH19870501KC	37 24 23.0 89 33 44.0	100.000 289	10.2 435	73.0 Mrr License LIc	94.6	42.7

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.  
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.

# E-2 W277CA Mod. 60 dBu Contour Plot



# E-3 ASR 1023191

ASR Registration Search

## Registration 1023191

 [Map Registration](#)

### Registration Detail

Reg Number	1023191	Status	Constructed
File Number	A0204094	Constructed	12/15/1999
EMI	No	Dismantled	
NEPA	No		

### Antenna Structure

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

#### Location (in NAD83 Coordinates)

Lat/Long	36-24-47.0 N 089-08-59.0 W	Address	2567 DALLAS HILL ROAD
City, State	WEST UNION CITY , TN		
Zip	38261	County	OBION
Center of AM Array		Position of Tower in Array	

#### Heights (meters)

Elevation of Site Above Mean Sea Level	152.7	Overall Height Above Ground (AGL)	177.4
Overall Height Above Mean Sea Level	330.1	Overall Height Above Ground w/o Appurtenances	171.3

#### Painting and Lighting Specifications

FAA Chapters 4, 5, 7, 9, 13

Paint and Light in Accordance with FAA Circular Number 70/7460-1J

#### FAA Notification

FAA Study	98-ASO-3824-OE	FAA Issue Date	08/31/1998
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#### Owner & Contact Information

FRN	0004245569	Owner Entity Type	
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#### Owner

WOOD COMMUNICATIONS  
Attention To: WOOD, ROBIN  
421 REELFOOT AVENUE  
UNION CITY , TN 38621

P: (901)885-4792  
F:  
E: rwood@rnet.net

#### Contact

P:  
F:  
E:

#### Last Action Status

Status	Constructed	Received	07/20/2001
Purpose	Notification	Entered	07/20/2001