

Technical Report W294CK.CP Minor Modification

This technical report is submitted for a minor modification to W294CK.CP at Mansfield, OH, FCC file no. BNPFT-20171201AIS. Changes in antenna and COR are submitted. The translator will continue to serve as a fill-in facility to rebroadcast WRGM(AM) 1440 kHz at Ontario, OH, FCC facility I.D. no. 25476.

W294CK.CP Modification Analysis:

An overlap study in exhibit E-1 shows the W294CK.CP modification is within the co-located WVNO-FM 291B third-adjacent protected contour. As a result, the +40 F(50-10) dBu contour is zero. The 294B1 allocation at Dublin, OH does not require protection from translators. The modified 60 dBu contour overlaps the current 60 dBu contour and is contained within a 25 mile/40 km radius of the primary WRGM(AM) daytime site (exhibit E-2).

Antenna System:

W294CK.CP is located on the existing tower, ASR no. 1013230, at coordinates:

40 45 50N 82 37 04W NAD 27.

A Bext TFC2K single bay, nondirectional antenna will be mounted at a COR AGL of 111 meters, 532 meters AMSL and operate at 0.250 kW ERP.

RF Exposure Calculation:

The RF contribution was calculated using FM Model (exhibit E-3). The worst-case RF is calculated to be $0.846 \mu\text{W}/\text{cm}^2$ at a distance of 30 meters from the base of the tower, which is below 5% of the $200 \mu\text{W}/\text{cm}^2$ maximum permissible for uncontrolled exposure, allowing exclusion from consideration.

Conclusion:

It is concluded that the W294CK.CP modification complies with all Commission rules and policies.



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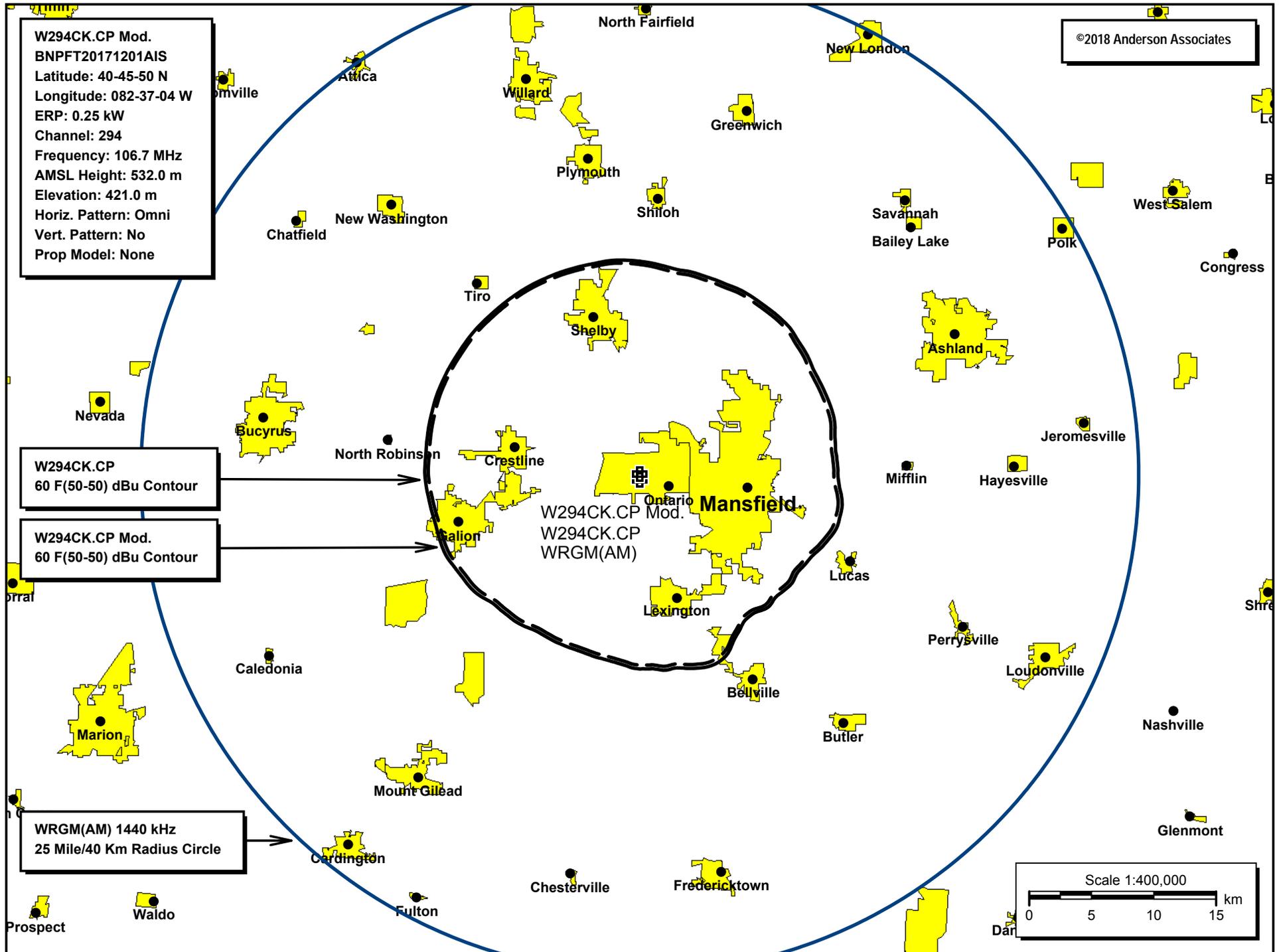
E-1 W294CK.CP Mod. Overlap Study

REFERENCE		CH# 294D - 106.7 MHz, Pwr= 0.25 kW, HAAT= 152.0 M, COR= 532 M								DISPLAY DATES	
40 45 50.0 N.		Average Protected F(50-50)= 16.02 km								DATA 05-31-18	
82 37 04.0 W.		Omni-directional								SEARCH 05-31-18	
CH	CALL	TYPE	ANT	AZI	DI ST	LAT	PWR(kW)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap	in km)
294D	W294CK	CP	_C_	0.0	0.00	40 45 50.0	0.250		---	Reference---	
Mansfield		OH		0.0	BNPFT20171201AIS	82 37 04.0		537	Gsm Media Corporation		
291B	WVNO-FM	LIC	_CN	0.0	0.00	40 45 50.0	40.000	6.2	66.9	-23.5*	-68.8*(1)
Mansfield		OH		0.0	BLH19911030KB	82 37 04.0	166	545	Johnny Appleseed Broadcast		
294B1	AL6931	RSV-A	___	199.7	71.81	40 09 20.0	25.000	113.6	43.7	-55.4*	-28.5(2)
Dublin		OH		19.6	RM10557	82 54 12.0	100	385			
294A	WZCB	LIC	_CX	202.4	89.72	40 01 01.8	3.000	79.8	26.5	-4.3	15.0
Dublin		OH		22.2	BLH20121004AAP	83 01 11.3	144	392	Citicasters Licenses, Inc.		
293B	WHLK	LIC	_CN	47.4	101.69	41 22 45.0	11.500	75.1	64.1	9.8	2.3
Cleveland		OH		228.0	BLH19911002KE	81 43 12.0	316	580	Citicasters Licenses, Inc.		
297B	WNWV	LIC	_CX	42.3	76.19	41 16 10.0	20.000	5.8	65.4	53.6	9.0
El yria		OH		222.7	BLH20041102AEC	82 00 16.0	238	493	Rubber City Radio Group, I		
295B	WRQK-FM	LIC	_CX	85.9	100.37	40 49 22.0	27.500	63.9	53.6	21.0	13.2
Canton		OH		266.6	BLH20070209ABX	81 25 40.0	103	436	Capstar Tx, LIc, As Debtor		
294B	WDTW-FM	LIC	_CN	348.6	177.92	42 19 55.0	61.000	143.3	68.1	17.1	37.3
Detroit		MI		168.3	BMLH19890804KA	83 02 42.0	155	338	Amfm Radio Licenses, L.I.c		
240A	WYNT	LIC	_CX	254.6	34.16	40 40 55.0	4.600	10.2	3.2	9.5R	24.7M
Caledonia		OH		74.4	BLH20060829BGI	83 00 27.0	114	410	Cc Licenses, LIc, As Debto		

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.
 « = Station meets FCC minimum distance spacing for its class.
 Reference station has protected zone issue: Canada- AM tower

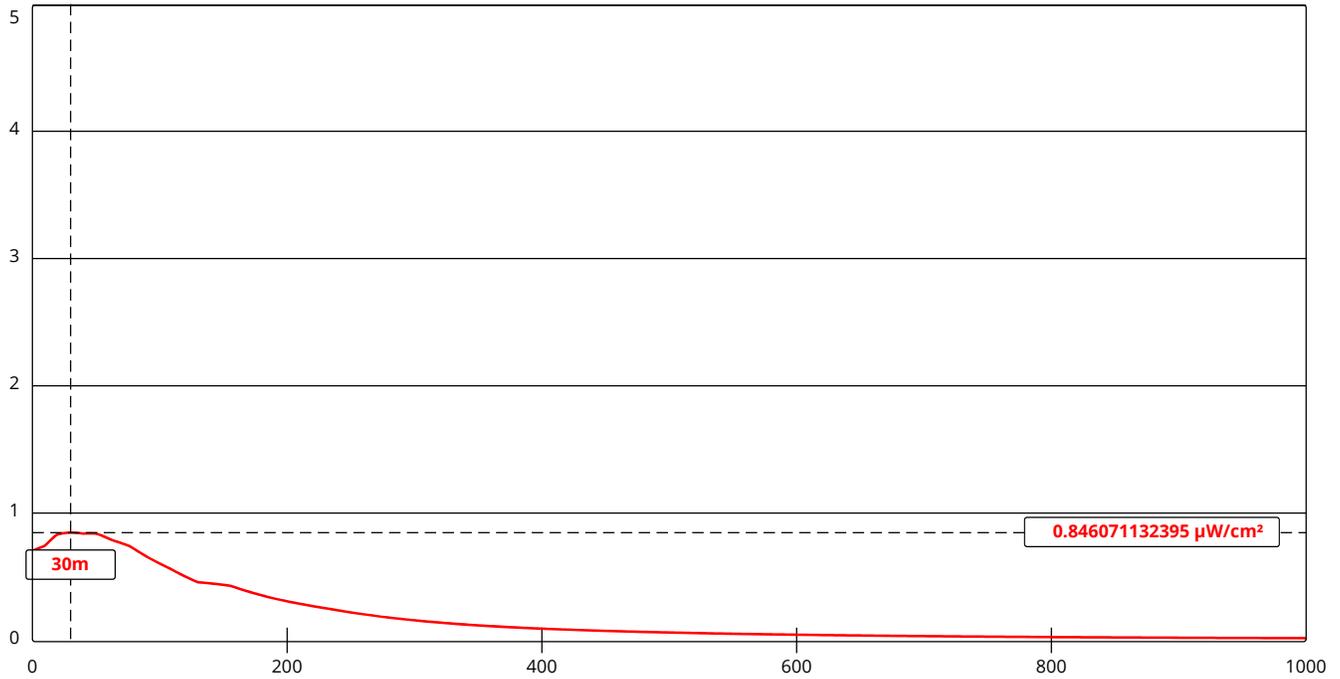
- (1) The +40 F(50-10) dBu contour within the co-located WVNO-FM 291B third-adjacent protected contour is zero.
- (2) The 294B1 allocation does not require protection.

E-2 W294CK.CP Mod. 60 dBu Contour Plot



E-3 W294CK.CP Mod. RF Calculation

FM Model



Channel Selection	Channel 294 (106.7 MHz)		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other"		
Height (m)	111	Distance (m)	1000
ERP-H (W)	250	ERP-V (W)	250
Num of Elements	1	Element Spacing (λ)	1
Num of Points	500		

ASR Registration 1013230

Registration Detail

Reg Number	1013230	Status	Constructed
File Number	A0827998	Constructed	02/15/2013
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type GTOWER - Guyed Structure Used for Communication Purposes

Location (in NAD83 Coordinates)

Lat/Long	40-45-50.0 N 082-37-04.0 W	Address	2900 PARK AVE W
City, State	ONTARIO , OH		
Zip	44906	County	RICHLAND
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	420.6	Overall Height Above Ground (AGL)	143.9
Overall Height Above Mean Sea Level	564.5	Overall Height Above Ground w/o Appurtenances	143.9

Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 9
Paint and Light in Accordance with FAA Circular Number 70/7460-1G

FAA Notification

FAA Study	2012-AGL-10203-OE	FAA Issue Date	12/10/2012
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Owner & Contact Information

FRN	0005005079	Owner Entity Type	Corporation
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Owner

MID STATE TELEVISION INC Attention To: GUNTHER MEISSE 2900 PARK AVE W MANSFIELD , OH 44906	P: (419)529-5900 F: E: gogm@wmfd.com
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Contact

FICK , WAYNE 2900 PARK AVE WEST MANSFIELD , OH 44906	P: (419)529-5900 F: E: waynef@wmfd.com
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Last Action Status

Status	Constructed	Received	02/15/2013
Purpose	Notification	Entered	02/15/2013