

Technical Report WRGM(AM) New Translator

This technical report is submitted for the long form application for a new fill-in translator at channel 294, FCC file no. BNPFT-20170801ADG, to serve as a fill-in to rebroadcast the primary WRGM(AM) 1440 kHz facility at Ontario, OH, FCC facility ID 25476.

New 294D Translator Analysis:

An overlap study in exhibit E-1 shows the new 294D translator is within the third-adjacent, co-located WVNO-FM 291B protected contour. As a result, the +40 dBu F(50-10) interfering contour is zero and does not produce any interference overlap. The 60 dBu F(50-50) contour is contained within a 25 mile/40 km radius from the WRGM(AM) daytime tower site, and the 34 dBu F(50-10) contour does not cross the Canadian border (exhibit E-2).

Antenna System:

The new 227D translator is to be located on the existing tower, ASR 1013230, at coordinates:

40 45 50N 82 37 04W NAD 27

A PSI FML single bay, nondirectional antenna will be mounted at a COR AGL of 116 meters, 537 meters AMSL and operate at 0.250 kW ERP.

RF Exposure Calculation:

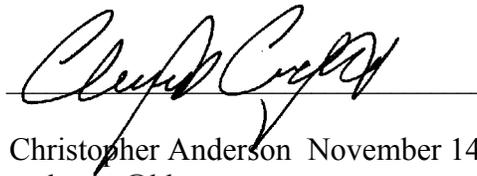
The RF contribution was calculated using the formula from the OET Bulletin 65:

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

Using a worst-case vertical (F) factor of 1.000, the RF is calculated to be $1.29 \mu\text{W}/\text{cm}^2$ to the ground, which is well below 5% of the $200 \mu\text{W}/\text{cm}^2$ maximum permissible for controlled exposure, allowing exclusion from consideration.

Conclusion:

It is concluded that the application for a new 294D translator facility for WRGM(AM) complies with all Commission rules and policies.



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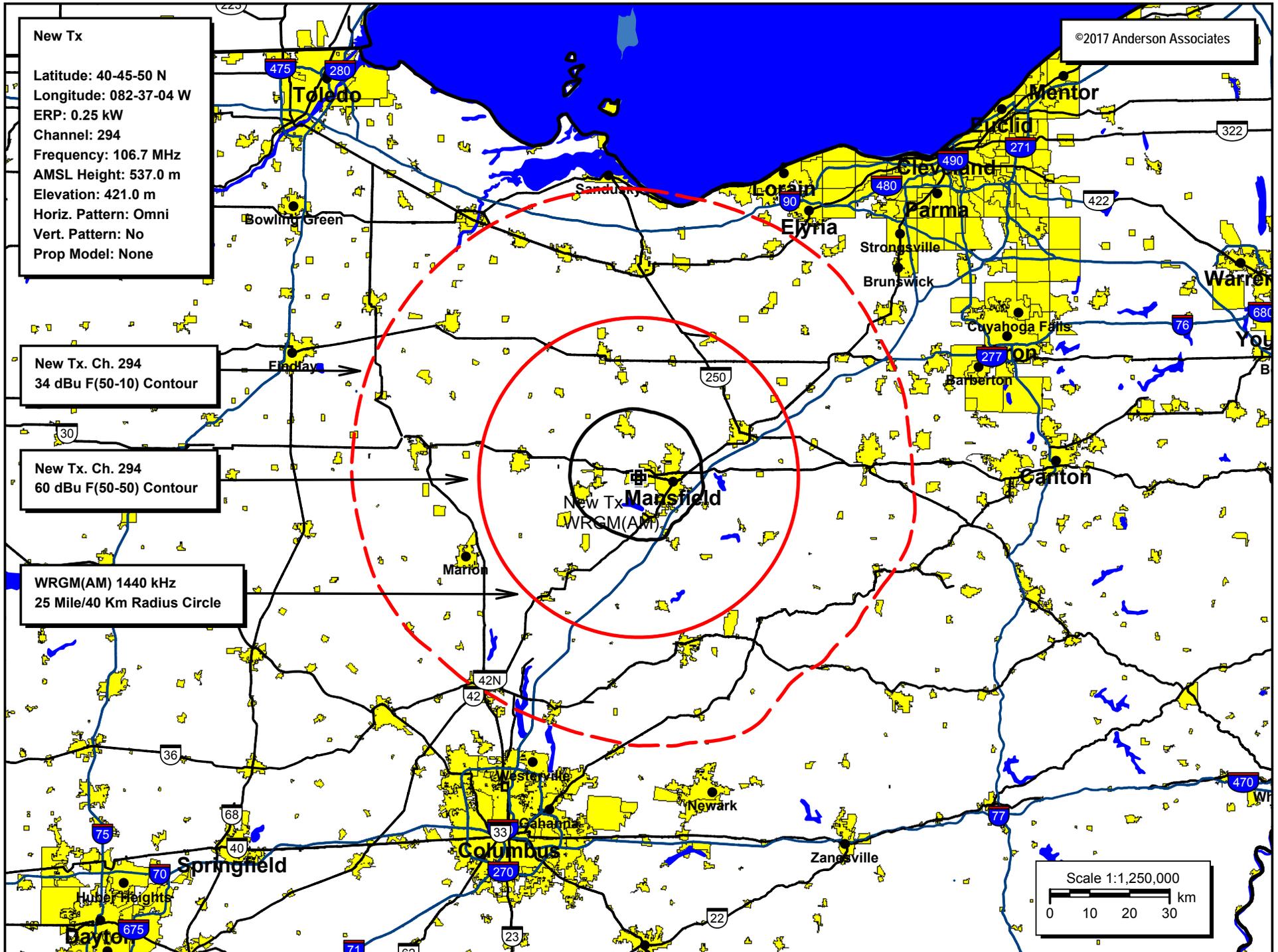
E-1 WRGM(AM) New 294D Overlap Study

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	1760812	APP _C_		0.0	0.00	40 45 50.0	0.250	55.4	17.5	-72.9*	-72.9*
Mansfield		OH		0.0	BNPFT20170801ADG	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	-23.7*	-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	-55.7*	-29.3(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	-4.6	14.3
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	9.5	1.8
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	53.3	8.9
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	20.6	12.6
Canton		OH		266.6	BLH20070209ABX	81 25 40.0	103	436	Capstar Tx, LIc		
294B	WDTW-FM	LIC _CN		348.6	177.92	42 19 55.0	61.000	143.3	68.1	16.9	36.6
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	128.8	52.5	9.5R	24.7M
Caledonia		OH		74.4	BLH20060829BGI	83 00 27.0	114	410	Cc Licenses, LIc		

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.
 Reference station has protected zone issue: Canada- AM tower

- (1) The +40 dBu F(50-10) contour to the co-located WVNO-FM 291B third adjacent contour is zero.
- (2) The 294B1 application reservation may be ignored since the application is no longer pending.

E-2 WRGM(AM) New 294D 60 dBu Contour Plot



E-3 WRGM(AM) New 294D Tower ASR

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