

Technical Report **W XAM(AM) New Translator**

This technical report is submitted for the long form application for a new fill-in translator at channel 229, FCC file no. BNPFT-20170802ABR, to serve as a fill-in facility to rebroadcast WXAM(AM) 1430 kHz at Buffalo, KY, FCC facility I.D. 40213.

New 229D Translator Analysis:

An overlap study in exhibit E-1 shows the new 229D translator does not produce any interference overlaps. The 60 dBu F(50-50) contour is contained within the WXAM(AM) 2.0 mV/m daytime contour (exhibit E-2).

Antenna System:

The new 229D translator is to be located on the existing 43 meter tower at coordinates:

37 31 41N 85 42 47W NAD 27

A TOWAIR determination (exhibit E-3) shows the tower does not require registration. A Nicom BKG77-1 nondirectional antenna will be mounted at a COR AGL of 42 meters, 286 meters AMSL and operate at 0.250 kW ERP.

RF Exposure Calculation:

The RF contribution was calculated using FMModel (exhibit E-4). The RF is calculated to be $6.28 \mu\text{W}/\text{cm}^2$ at 10.8 meters from the base of the tower, which is 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 229D translator facility for
WXAM(AM) complies with all Commission rules and policies.



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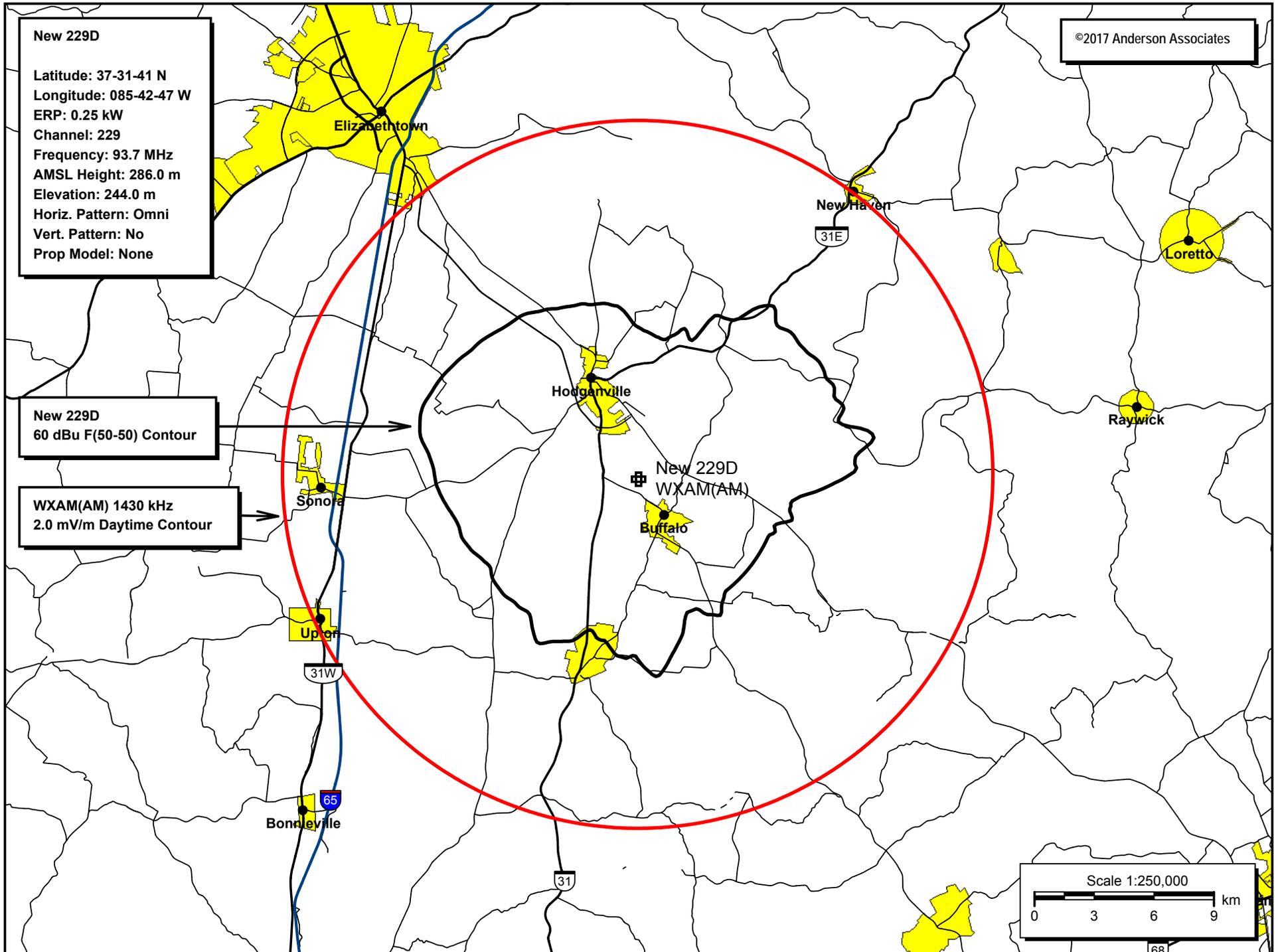
E-1 WXAM(AM) New 229D Overlap Study

REFERENCE CH# 229D - 93.7 MHz, Pwr= 0.25 kW, HAAT= 50.0 M, COR= 286 M DISPLAY DATES
 37 31 41.0 N. Average Protected F(50-50)= 9.27 km DATA 11-06-17
 85 42 47.0 W. Omni-directional SEARCH 11-06-17

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
229D Buffalo	1759469	APP_C_ KY		0.0 0.0	0.00 BNPFT20170802ABR	37 31 41.0 85 42 47.0	0.250 286	25.5 286	7.6 Elizabethtown Cbc, Inc.	-33.1*	-33.1*
232C2 Hardinsburg	WULF	LIC_NCN KY		308.2 127.9	61.97 BLH19950630KE	37 52 18.0 86 16 04.0	40.000 160	5.5 366	49.2 Skytower Communications -	45.6	11.6
228A Col umbia	WAIN-FM	LIC_CX KY		140.5 320.7	60.55 BLH20060321AAF	37 06 26.0 85 16 42.0	4.600 61	34.6 310	22.9 Tri-county Radio Broadcast	18.0	26.1
228A Brandenburg	WMMG-FM	LIC_CN KY		322.6 142.3	64.01 BMLH19900515KH	37 59 05.0 86 09 24.0	3.400 88	30.8 278	20.9 Meade County Communication	23.1	28.0
228A Brandenburg	WMMG-FM	CP_CN KY		321.0 140.7	65.62 BPH20150210ABI	37 59 09.0 86 11 04.0	3.400 85	29.7 276	20.2 Meade County Communication	25.9	30.9
230A Sellersburg	WLCL	LIC_CX IN		357.2 177.2	81.03 BLH20071218ABI	38 15 21.7 85 45 29.1	2.650 152	44.9 299	29.8 Ub Louisville, Lic	27.2	39.5
230A Sellersburg	AL9876	RSV-A IN		357.7 177.7	85.30 RM10378	38 17 41.0 85 45 07.0	6.000 100	48.6 256	31.6 27.9		41.6
230C2 Burns ide	WSEK-FM	LIC_CN KY		110.2 290.9	118.32 BLH19900625KC	37 09 15.0 84 27 35.0	50.000 150	77.7 463	52.3 Capstar Tx, Lic	30.5	55.4
229C3 Baxter	WBXE	LIC_NCN TN		169.7 349.9	151.80 BLH19951011KG	36 11 03.0 85 24 40.0	6.100 201	108.4 565	43.6 Stonecom Cookeville, Lic	33.5	76.3
231A Glasgow	WLYE-FM	LIC_NCN KY		193.2 13.1	62.11 BLH19970219KC	36 59 02.0 85 52 20.0	4.500 91	2.5 323	26.6 Forever Communications, In	50.3	34.4
227C3 Bowl ing Green	WDNS	LIC_CN KY		216.5 36.2	80.61 BLH19970729KB	36 56 39.0 86 15 11.0	12.000 144	3.7 319	37.4 Daily News Broadcasting Co	67.3	42.1
229A French Lick	AL6644	RSV-A IN		326.7 146.1	142.38 RM11412	38 35 41.0 86 36 48.0	6.000 100	83.8 291	26.0 48.5		82.2

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: AM tower

E-2 New 229D 60 dBu Contour Plot



TOWAIR Determination Results

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

Your Specifications

NAD83 Coordinates

Latitude	37-31-40.9 north
Longitude	085-42-46.9 west

Measurements (Meters)

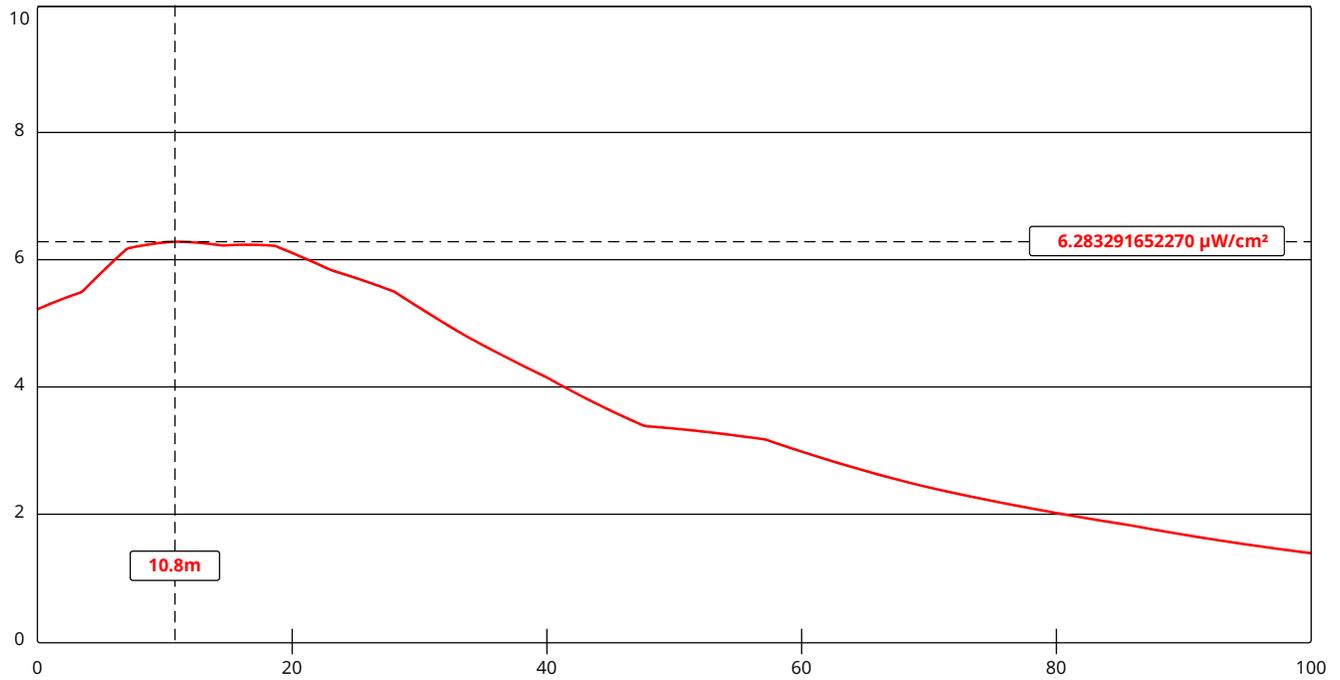
Overall Structure Height (AGL)	43
Support Structure Height (AGL)	0
Site Elevation (AMSL)	244

Structure Type

GTOWER - Guyed Structure Used for Communication Purposes

E-4 New 229D RF Calculation

FM Model



Channel Selection	Channel 229 (93.7 MHz)		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other"		
Height (m)	42	Distance (m)	100
ERP-H (W)	250	ERP-V (W)	250
Num of Elements	1	Element Spacing (λ)	1
Num of Points	500		