

Technical Report W243CM Minor Modification

This technical report is submitted for a minor modification to the W243CM licensed facility at Clintonville, WI, FCC file no. BLFT-20090921ADG. A change in site is proposed. The proposed 60 dBu will overlap the licensed 60 dBu and will be contained within the daytime 2 mV/m of primary station WTCH(AM) on 960 kHz at Shawano, IL, facility ID# 72154.

The following exhibits are provided to support the FCC form 349 application:

- E-1 W243CM Overlap Study
- E-2 60 dBu Plot within WTCH(AM) 2 mV/m Contour and overlap to the licensed 60 dBu contour

W243CM Modification Analysis:

Exhibit E-1 shows that the modification will not cause any interference overlap to any existing facility, and its 60 dBu contour will be completely contained within the 2 mV/m of WTCH(AM) as shown on exhibit E-2. The translator is to be located on an existing tower ASR#1054533 at coordinates:

44 46 49N 883752W NAD 27.

The facility will employ a two bay Nicom BKG-77-2 non directional antenna, and operate at 0.250 kW ERP at a COR AGL of 72 meters.

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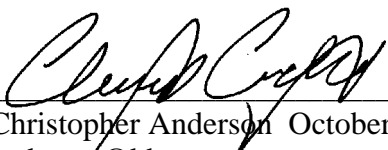
RF Exposure Calculation:

The RF contribution of the proposed translator was calculated to be $3.41 \mu\text{W}/\text{cm}^2$. This is well below the 5% threshold of the maximum permissible $200 \mu\text{W}/\text{cm}^2$ exposure for general population/uncontrolled exposure ($10 \mu\text{W}/\text{cm}^2$) for exclusion from consideration. A worst case vertical factor of 1.0 was used in the formula:

$$S \text{ (RF in microwatts/cm}^2\text{)} = \frac{33.4 (F2 - \text{Vert Factor}) \times (H \text{ ERP} + V \text{ ERP in watts})}{R^2 \text{ (distance to radiation center in meters)}}$$

Conclusion:

It is concluded that the modification of W243CM complies with all Commission rules and policies.



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E-1 W243CM Overlap Study

REFERENCE
44 46 49.0 N.
88 37 52.0 W.

CH# 243D - 96.5 MHz, Pwr= 0.25 kW, HAAT= 59.0 M, COR= 320 M
Average Protected F(50-50)= 10.1 km
Omni-directional

DISPLAY DATES
DATA 10-10-09
SEARCH 10-12-09

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
243D Clintonville	W243CM	LIC	_C_	239.7 59.6	11.6 BLFT20090921ADG	44 43 40.0 88 45 27.0	0.010	10.2 277	3.2 Results Broadcasting, Inc.	-8.1	-23.1
242C2 Peshtigo	WSFQ	LIC	_CN	57.9 238.5	72.3 BLH19960805KB	45 07 19.0 87 51 07.0	49.000 147	76.8 346	51.1 Armada Media-menominee, Inc	-15.7*<	5.2
243C3 Rhinelander	AL3858	VAC	---	334.9 154.5	108.5 RM11045	45 39 43.0 89 13 25.0	25.000 100	112.6 592	38.1	-12.4*<	42.8
246D Shawano	DW246AZ	CP	_C_	0.0 180.0	0.1 BNPFT20030827AIE	44 46 51.0 88 37 52.0	0.250	1.1 279	7.1 Starboard Media Foundation	-11.1*<	-8.1*<
244C2 Whiting	WLJY	LIC	_CX	261.5 80.7	98.0 BLH20090713ABV	44 38 39.0 89 51 12.0	26.500 207	77.8 559	52.7 Nrg License Sub, LLC	11.3	32.8
240C3 De Pere	WKSZ	LIC	NCN	132.3 312.7	69.5 BLH19960529KC	44 21 32.0 87 59 07.0	4.500 236	3.6 479	41.4 Woodward Communications Inc	55.0	26.9
244C3 Algoma	WBDK	LIC	NC_	94.4 275.2	97.3 BLH19991012AAX	44 42 26.0 87 24 26.0	8.000 164	54.3 360	36.3 Nicolee Broadcasting, Inc.	33.2	47.5
296A Oconto	WOCO-FM	LIC	_CN	76.7 257.1	54.9 BLH4131	44 53 31.0 87 57 18.0	3.000 64	0.0 259	0.0 Lamardo Inc.	9.5R	45.4M
245A Oshkosh	WWWX	LIC	_CN	174.1 354.2	76.0 BLH19911129KB	44 06 01.0 88 32 02.0	6.000 100	2.4 333	24.2 Wi Radio, LLC, As Trustee	62.8	50.7
243B Milwaukee	WKLH	LIC	_CN	162.5 343.0	195.9 BLH19820914AI	43 05 48.0 87 54 19.0	20.000 247	129.2 455	65.8 Lakefront Communications,	56.0	77.1
242D Mosinee	640802	APP	_C_	268.5 87.8	83.6 BNPFT20030317KRJ	44 45 20.6 89 41 09.8	0.055	7.0 405	4.9 Radio Assist Ministry, Inc	67.8	66.3
240D Stevens Point	640811	APP	_C_	250.8 70.1	79.2 BNPFT20030317KNU	44 32 32.1 89 34 22.6	0.080	0.6 372	5.3 Radio Assist Ministry, Inc	69.5	72.8

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference zone = 2, Co to 3rd adjacent.
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 protected contour.
Reference station has protected zone issue: AM tower

E-2 W243CM 60 dBu Contour Plot

