

Channel Study

REFERENCE CH# 211D - 90.1 MHz, Pwr= 0.038 kW, HAAT= 68.6 M, COR= 306 M DISPLAY DATES
 39 01 23.2 N. Average Protected F(50-50)= 6.7 km DATA 11-20-21
 82 39 40.5 W. Omni-directional SEARCH 11-30-21

CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap in km)	*OUT*
211B1 Chillicothe	WOHC	LIC	CN OH	308.5	57.82 0000111503	39 20 45.20 83 11 14.60	7.000 120	93.7 392	32.7 Educational Media Foundati	-41.9*	3.7
212D Jackson	W212BM!	LIC	CN OH	0.0 79.5	0.00 BLFT20010212ABM	39 01 23.20 82 39 40.50	0.038 74	309	---Reference--- Educational Media Foundati		
210B Huntington	WVWV	LIC	CN WV	145.6 325.9	71.02 BLED19940810KZ	38 29 41.30 82 12 02.50	8.100 355	74.9 582	50.7 West Virginia Educational	-10.8*	10.5
213A Oak Hill	768679	APP	CN OH	146.0 326.1	16.35 0000167396	38 54 03.80 82 33 20.10	1.000 60	1.7 351	20.0 New Beginnings Movement In	7.8	-4.1*
212C1 Morehead	WMKY	LIC	DCN KY	214.7 34.3	114.08 BLED20031022ALF	38 10 38.30 83 24 16.70	37.000 276	86.2 571	58.5 Morehead State University	21.5	46.1
211D Athens	W211BT	LIC	CN OH	55.4 235.7	56.62 BLFT20171201ADT	39 18 40.40 82 07 10.30	0.038	22.0 306	6.5 Board Of Education, Akron	27.8	27.4
211A Zanesville	WOUZ-FM	LIC	VN OH	34.4 214.8	106.78 BLED19931006KG	39 48 50.20 81 57 20.40	3.000 85	69.7 354	20.4 Ohio University	30.3	63.4
212B1 Parkersburg	WVPG	LIC	CN WV	76.8 257.5	94.63 BMLD20110819AAW	39 12 44.30 81 35 29.50	9.000 98	51.0 331	33.1 West Virginia Educational	36.7	51.4
213D South Portsmouth	W213BP	LIC	VN KY	221.3 41.1	44.36 BLFT20100825ABH	38 43 22.30 82 59 55.60	0.010 160	0.2 376	6.4 CSN International	37.4	36.9

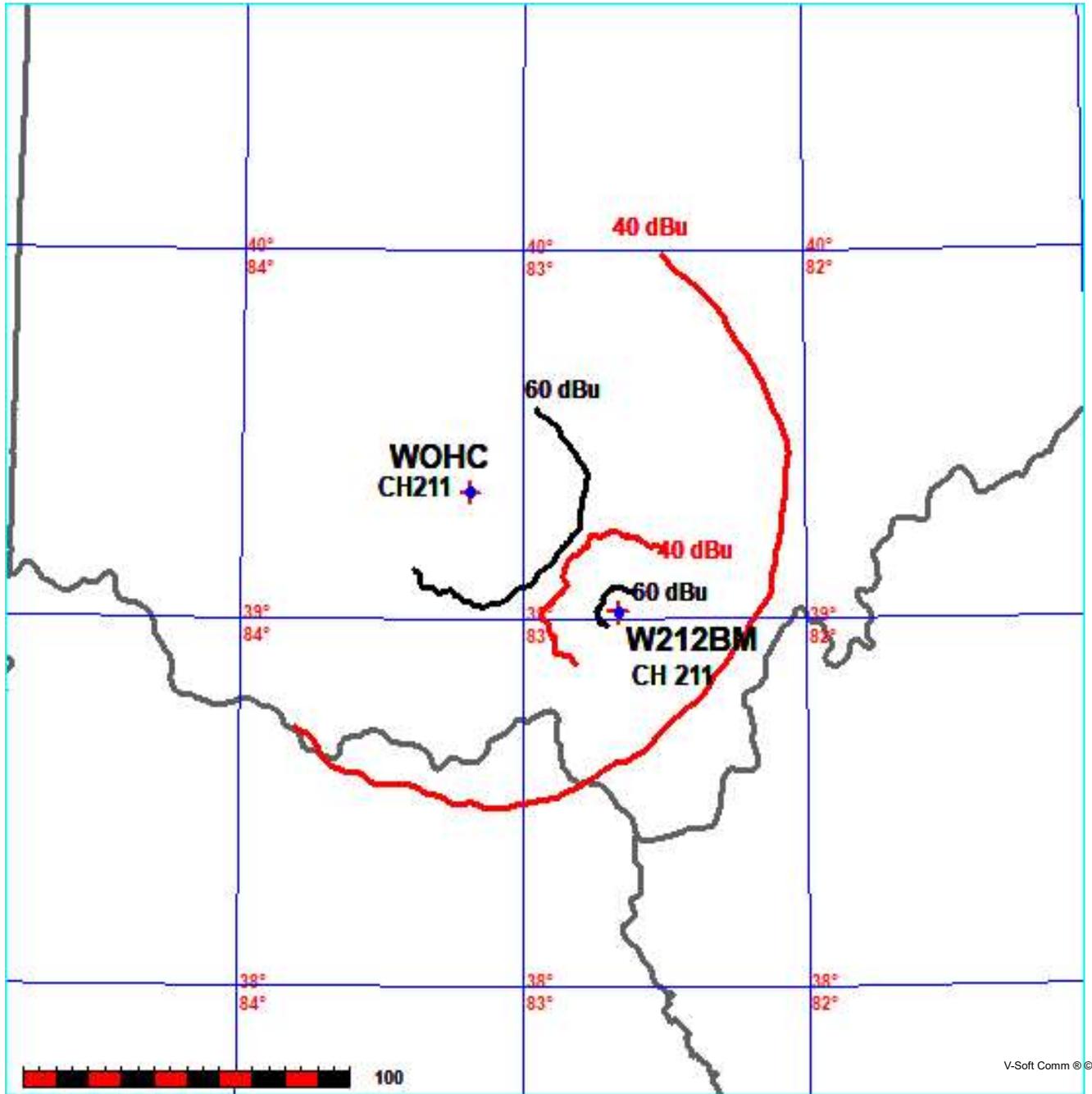
Terrain database is GLOBE 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
 In & Out distances between contours are shown at closest points. Reference Zone= East Zone, Co to 3rd adjacent.
 All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected.
 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.

Educational Media Foundation

FMCommander Single Allocation Study - 12-03-2021 - GLOBE 30 Sec
W212BM's Overlaps (In= -41.92 km, Out= 3.66 km)

W212BM CH 211 D
Lat= 39 01 23.20, Lng= 82 39 40.50
0.038 kW 68.6 m HAAT, 306 m COR
Prot.= 60 dBu, Intef.= 40 dBu

WOHC CH 211 B1 0000111503
Lat= 39 20 45.20, Lng= 83 11 14.60
7.0 kW 120 m HAAT, 392 m COR
Prot.= 60 dBu, Intef.= 40 dBu



Compliance with C.F.R. 74.1204

The proposed FM Translator to operate on channel 211 is located within the protected 60dBu contour of second adjacent application 768679, channel 213A, Oak Hill, OH. According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for W212BM.P:	38 watts
The proposed COR for W212BM.P:	50 meters
768679 F(50/50) contour at proposed site:	63.3dBu
The F(50/10) contour of proposed W212BM.P:	103.3dBu

The predicted distance to the 103.3dbu interfering contour is 295.7 meters. Exhibit 1-A2 demonstrates the distances to the interfering contour by taking into account the vertical elevation pattern of the Nicom BKG77 three bay .85 wave-spaced antenna. Note the interference covers some areas around the tower but at no distance greater than 72m from the base of the tower.

As seen in Exhibit 1-A3 the red line marker demonstrates the distance of 90 meters from the base of the tower. No structures are closer to the tower than 90 meters. There are no structures within the distances where the interference lands on the ground. No population will be affected as a result of this proposed modification.

Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 1 - A2
 74.1204(d) Showing
 W212BM
 Jackson, OH

ERP (kw): 0.038
 Height of Antenna above Ground (m): 50
 Translator's IX Contour: 103.3
 Antenna Type: Nicom BKG77/3/.85

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.0380	295.7276	50.000
5	0.913	0.0317	269.9993	26.468
10	0.678	0.0175	200.5033	15.183
15	0.357	0.0048	105.5747	22.675
20	0.049	0.0001	14.4907	45.044
25	0.171	0.0011	50.5694	28.628
30	0.270	0.0028	79.8464	10.077
35	0.250	0.0024	73.9319	7.594
40	0.148	0.0008	43.7677	21.867
45	0.015	0.0000	4.4359	46.863
50	0.107	0.0004	31.6428	25.760
55	0.194	0.0014	57.3711	3.004
60	0.238	0.0022	70.3832	-10.954
65	0.244	0.0023	72.1575	-15.397
70	0.220	0.0018	65.0601	-11.136
75	0.185	0.0013	54.7096	-2.845
80	0.145	0.0008	42.8805	7.771
85	0.119	0.0005	35.1916	14.942
90	0.114	0.0005	33.7129	16.287

W212BM Jackson, OH

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Exhibit 1-A3

Legend

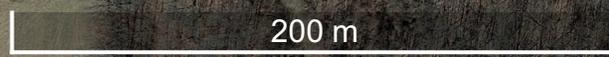
-  90m Line Distance
-  W212BM Jackson OH

W212BM Jackson OH

Mt Zion Rd

W 82°39'34.56"

N39°01'13.44"



Educational Media Foundation
5700 West Oaks Blvd.
Rocklin, CA 95765

Exhibit 2
Jackson, OH

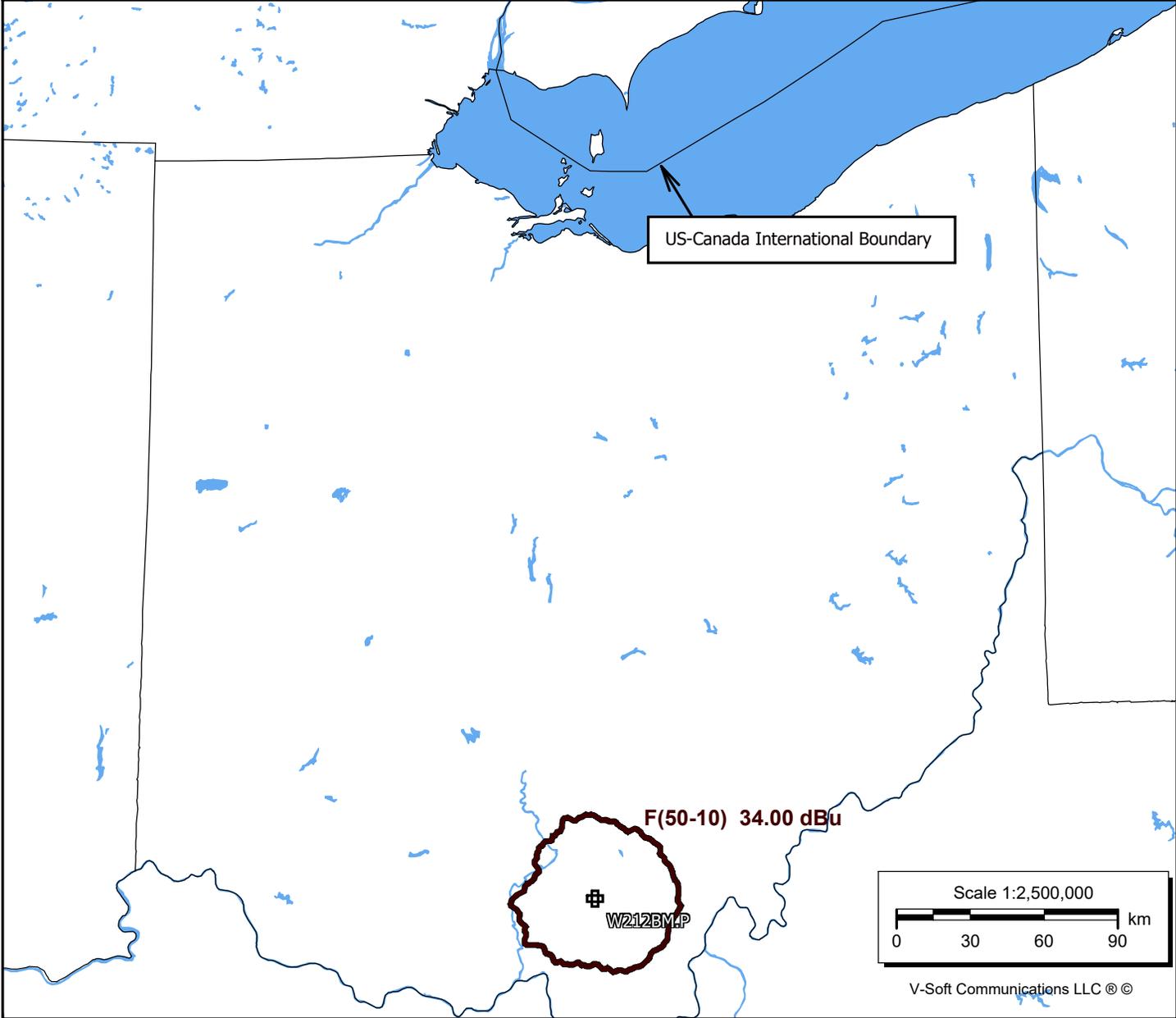
Compliance with International Requirements

The proposed FM translator is located approximately 294km from the Canadian border. Exhibit 2-A shows that the 34dBu interfering contour of the proposed translator at no point extends beyond the US-Canadian border.

Therefore, the proposed translator fully complies with the requirement of 47 C.F.R. 74.1235(d) of the Commission's rules.

Exhibit 2-A
US-Canada Compliance

W212BM.P
BLFT20010212ABM
Latitude: 39-01-23.20 N
Longitude: 082-39-40.50 W
ERP: 0.038 kW
Channel: 211
Frequency: 90.1 MHz
AMSL Height: 306.0 m
Elevation: 256.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None



Human exposure to excess levels of radiofrequency radiation.

According to 47 C.F.R. 1.1307(b)(1) Table 1, any “Part 74 – Subpart L” facility with an ERP greater than 100 watts, is subject to routine environmental evaluation.

Since the facility proposed in this application will operate with an ERP of less than 100 watts, it is “categorically excluded from making such studies or preparing an EA” [1.1307(b)(1)]

EMF will fully cooperate with other site users to temporarily reduce power or cease broadcasting, as necessary, to protect workers and others having access to the site from excessive levels of RF Radiation.