Educational Media Foundation
5700 West Oaks Boulevard
Rocklin, CA 95765

Exhibit 13
Vassalboro, ME

Channel Study

REFERENCE — CH# 231D - 94.1 MHz, Pwr= 0.03 kW, HAAT= 222.0 M, COR= 304 M — DISPLAY DATES
41 47 47.6 N. — Average Protected F(50-50)= 11.4 km — DATA 01-07-16
72 47 49.6 W. — Omni-directional — SEARCH 01-08-16

CH	CALL	TYPE	ANT	AZI.	DIST	LAT.	Pwr(kW)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG.	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
229B	WZMX	LIC	CX	188.7	26.33	41 33 44.0	17.000	5.5	63.6	10.7	-38.1*<
Hartford		CT		8.7	BMLH20080306AAR	72 50 42.0	259	359	Cbs Radio Stations Inc.		
231B	WHJY	LIC	C	87.8	118.70	41 49 40.0	50.000	133.2	60.2	-27.3*<	1.0
Providence		RI		268.8	BLH20000915ALB	71 22 09.0	139	170	Capstar Tx, Llc		
234B	WMAS-FM	LIC	CX	23.8	37.99	42 06 33.0	50.000	4.1	50.9	22.0	-13.7*<
Enfield		CT		203.9	BLH20111107ARY	72 36 40.0	55	117	Radio License Holding Cbc,		
232A	WYBC-FM	LIC	DE	196.5	51.75	41 20 59.0	3.000	38.6	25.4	2.3	10.8
New Haven		CT		16.4	BLH20010918AAT	72 58 23.0	144	215	Yale Broadcasting Company,		
233D	WERB	LIC	HX	169.5	19.75	41 37 18.0	0.024	1.6	3.9	6.4	15.5
Berlin		CT		349.5	BMLED20150605AAN	72 45 13.0	-21	49	Berlin Board Of Education		
232L1	NEW	CP		42.2	32.97	42 00 57.0	0.067			9.0	6.5
Enfield		CT		222.4	BNPL20131114BHP	72 31 45.2	25	108	Town Of Enfield Ct		
230A	WRSI	LIC	CN	11.5	83.59	42 32 01.0	2.500	50.8	33.9	22.2	34.7
Turners Falls		MA		191.7	BLH19951018KB	72 35 34.0	109	284	Saga Communications Of Ne		
231D	W231AK	LIC	C	315.9	64.95	42 12 53.0	0.250	23.8	7.1	32.1	27.6
Great Barrington		MA		135.6	BLFT20130322AFJ	73 20 43.0	-72	279	Northeast Airchecks, Llc		
231D	W231BP	LIC	DC	247.8	121.05	41 22 42.0	0.250	65.6	21.5	46.1	68.3
Chester		NY		66.9	BLFT20150811AAG	74 08 16.0		466	Digital Radio Broadcasting		
232A	WKXP	LIC	CX	276.7	99.86	41 53 44.0	2.250	42.2	27.9	47.9	58.3
Kingston		NY		95.9	BLH20040120ADV	73 59 32.0	166	260	Townsquare Media Poughkeep		
232D	W232BW	LIC	DC	25.9	70.16	42 21 49.0	0.200	4.4	2.6	53.8	49.9
Amherst		MA		206.2	BLFT20110422AAO	72 25 24.0	230	404	Saga Communications Of Ne		
233D	W233AJ	LIC	CN	148.3	63.52	41 18 35.0	0.038	0.4	4.4	50.7	58.8
Old Saybrook		CT		328.6	BLFT19981203TF	72 23 51.0	40	68	Town Of Monroe, Connecticu		
231D	W233BX	APP	DV	178.7	104.59	40 51 18.0	0.100	36.3	10.9	57.5	57.7
Mastic		NY		358.8	BMPFT20151112XSX	72 46 11.0		204	Juan Alberto Ayala		
231D	W231CM	CP	DC	160.8	105.43	40 53 58.0	0.250	15.8	4.9	77.6	59.9
Southampton		NY		341.1	BNPFT20130829ABB	72 23 06.0	96	100	Amfm Radio Licenses, L.l.c		
233D	W233AG	LIC	CN	130.8	75.26	41 21 11.0	0.055	0.5	4.8	62.1	70.1
New London		CT		311.2	BLFT19980519TE	72 06 53.0	31	61	Town Of Monroe, Connecticu		
230B	WNYC-FM	LIC	CX	220.8	153.22	40 44 54.0	5.200	76.6	64.4	65.1	64.4
New York		NY		40.1	BLH20110815ADD	73 59 10.0	415	429	New York Public Radio		

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= 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.
< = Contour Overlap
Reference station has protected zone issue: AM tower

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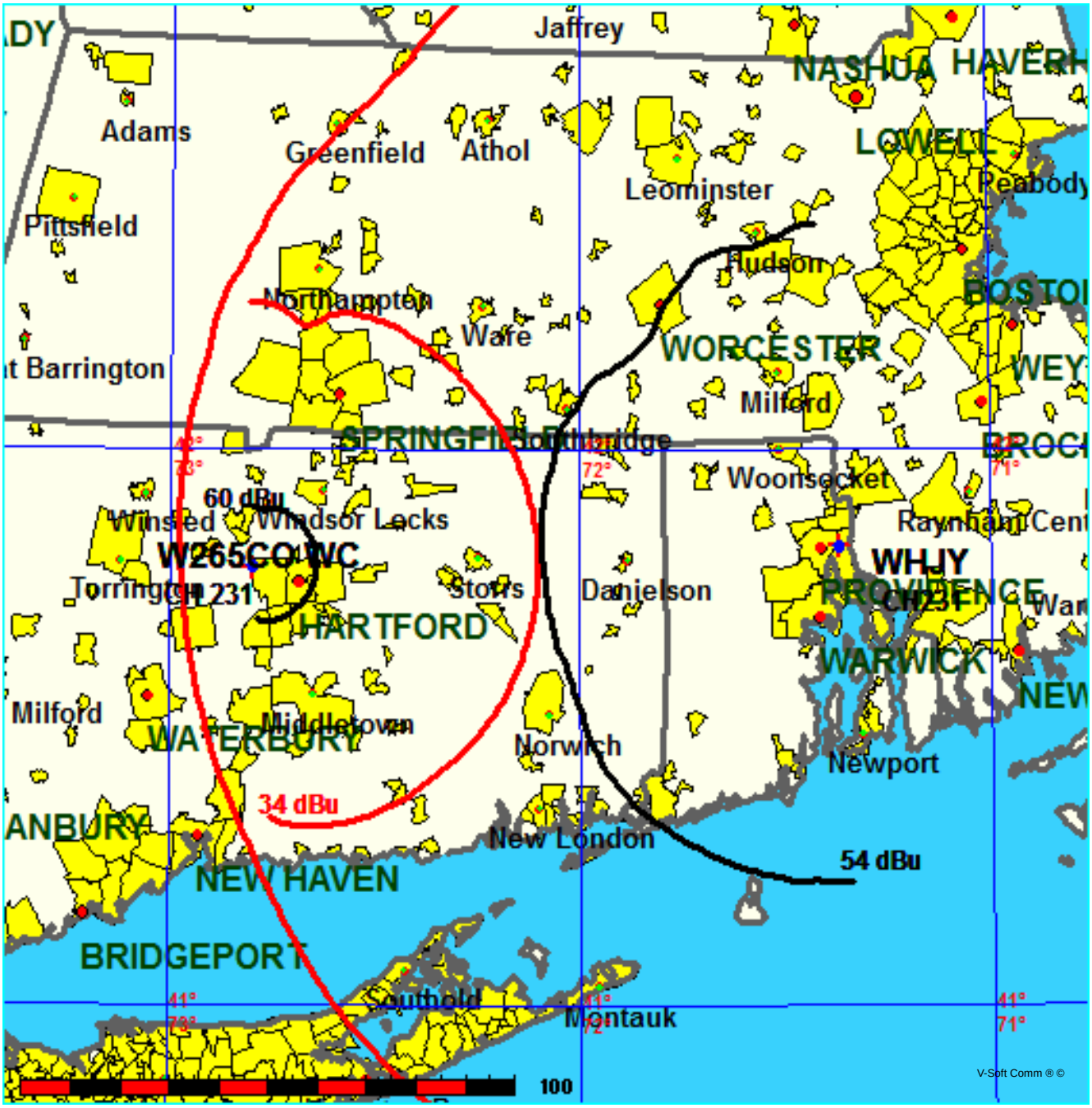
FMCommander Single Allocation Study - 01-20-2016 - FCC NGDC 30 Sec
W265CO WC's Overlaps (In= -27.34 km, Out= 0.96 km)

W265CO WC CH 231 D
Lat= 41 47 47.6, Lng= 72 47 49.6
0.03 kW 222 m HAAT, 304 m COR
Prot.= 60 dBu, Intef.= 34 dBu

WHJY CH 231 B BLH20000915ALB
Lat= 41 49 40.0, Lng= 71 22 09.0
50.0 kW 139 m HAAT, 170 m COR
Prot.= 54 dBu, Intef.= 40 dBu



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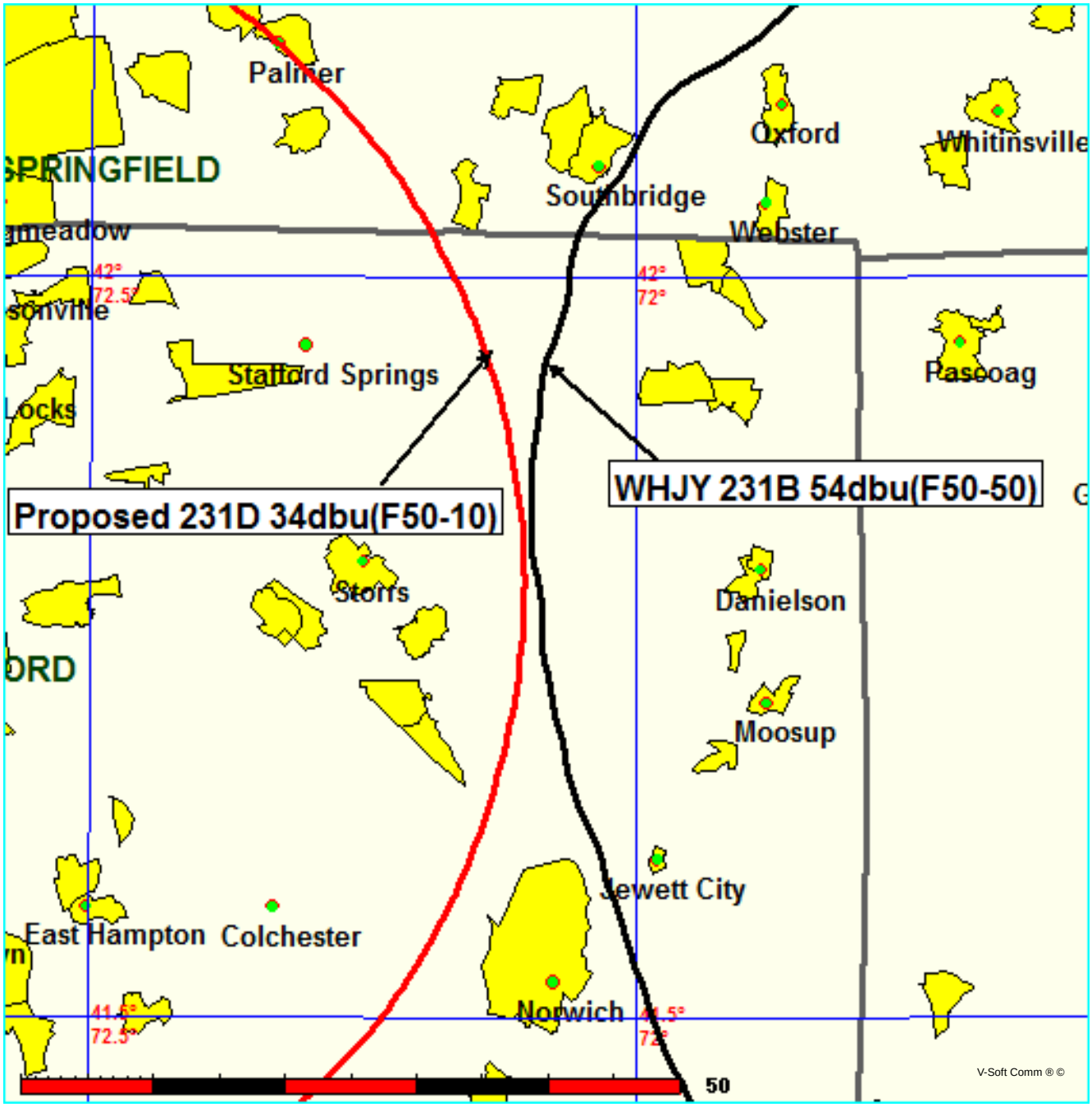

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WHJY vs. W265CO.P

EMF
01-20-2016 Terrain Data: FCC NGDC 30 Sec FMOver Analysis

WHJY BLH20000915ALB	W265CO WC
Channel = 231B	Channel = 231D
Max ERP = 50 kW	Max ERP = 0.03 kW
RCAMSL = 170 m	RCAMSL = 304 m
N. Lat. 41 49 40.0	N. Lat. 41 47 47.6
W. Lng. 71 22 09.0	W. Lng. 72 47 49.6
Protected	Interfering
54 dBu	34 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
250.0	050.0000	0118.0	060.3	105.4	000.0300	0280.5	064.5	31.41	
251.0	050.0000	0118.3	060.3	104.7	000.0300	0280.6	063.8	31.65	
252.0	050.0000	0118.1	060.3	103.9	000.0300	0280.7	063.3	31.85	
253.0	050.0000	0117.4	060.2	103.0	000.0300	0280.8	062.8	32.02	
254.0	050.0000	0116.5	060.0	102.1	000.0300	0280.9	062.4	32.17	
255.0	050.0000	0116.1	060.0	101.2	000.0300	0280.9	062.0	32.33	
256.0	050.0000	0116.1	060.0	100.3	000.0300	0280.9	061.5	32.50	
257.0	050.0000	0116.5	060.0	099.5	000.0300	0280.9	061.0	32.69	
258.0	050.0000	0116.4	060.0	098.6	000.0300	0280.9	060.6	32.84	
259.0	050.0000	0116.1	060.0	097.6	000.0300	0280.9	060.3	32.96	
260.0	050.0000	0116.0	060.0	096.7	000.0300	0280.9	060.0	33.08	
261.0	050.0000	0116.2	060.0	095.7	000.0300	0280.9	059.7	33.20	
262.0	050.0000	0116.4	060.0	094.7	000.0300	0280.8	059.4	33.31	
263.0	050.0000	0115.6	059.9	093.7	000.0300	0280.8	059.3	33.35	
264.0	050.0000	0114.8	059.8	092.7	000.0300	0280.8	059.2	33.38	
265.0	050.0000	0114.5	059.7	091.7	000.0300	0280.7	059.1	33.42	
266.0	050.0000	0114.8	059.8	090.7	000.0300	0280.7	058.9	33.48	
267.0	050.0000	0115.7	059.9	089.7	000.0300	0280.6	058.7	33.57	
268.0	050.0000	0116.6	060.1	088.7	000.0300	0280.5	058.5	33.64	
269.0	050.0000	0117.3	060.2	087.6	000.0300	0280.5	058.4	33.69	
270.0	050.0000	0117.3	060.2	086.6	000.0300	0280.2	058.4	33.67	
271.0	050.0000	0117.4	060.2	085.6	000.0300	0280.0	058.4	33.65	
272.0	050.0000	0117.5	060.2	084.5	000.0300	0279.8	058.5	33.61	
273.0	050.0000	0117.7	060.2	083.5	000.0300	0279.5	058.6	33.56	
274.0	050.0000	0118.0	060.3	082.5	000.0300	0279.1	058.8	33.49	
275.0	050.0000	0118.1	060.3	081.5	000.0300	0278.6	058.9	33.40	
276.0	050.0000	0118.3	060.3	080.5	000.0300	0278.1	059.2	33.30	
277.0	050.0000	0117.7	060.2	079.5	000.0300	0277.8	059.5	33.14	
278.0	050.0000	0117.7	060.2	078.6	000.0300	0277.5	059.9	33.02	
279.0	050.0000	0117.8	060.3	077.6	000.0300	0277.3	060.2	32.88	
280.0	050.0000	0118.2	060.3	076.6	000.0300	0277.1	060.5	32.75	
281.0	050.0000	0118.5	060.4	075.7	000.0300	0276.9	060.9	32.60	
282.0	050.0000	0118.6	060.4	074.8	000.0300	0276.7	061.3	32.44	
283.0	050.0000	0118.1	060.3	074.0	000.0300	0276.5	061.9	32.22	
284.0	050.0000	0117.2	060.2	073.2	000.0300	0276.1	062.5	31.97	
285.0	050.0000	0116.4	060.0	072.4	000.0300	0275.8	063.2	31.72	
286.0	050.0000	0115.8	059.9	071.7	000.0300	0275.4	063.8	31.47	
287.0	050.0000	0116.0	060.0	070.9	000.0300	0274.9	064.4	31.25	
288.0	050.0000	0117.2	060.2	070.0	000.0300	0274.4	064.8	31.08	
289.0	050.0000	0118.7	060.4	069.2	000.0300	0274.0	065.3	30.90	

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Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 54dBu contour of second adjacent channel station WZNX, channel 229B, Hartford, CT. 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 W265CO.P:	30 watts
The proposed COR for W265CO.P:	97 meters
WZMX F(50/50) contour at proposed site:	73.5dBu
The F(50/10) contour of proposed W265CO.P:	113.5dBu

The predicted distance to the 113.5dbu interfering contour is 81.2 meters. Taking into account the vertical elevation pattern of the Nicom BKG77 2 bay halfwaved spaced antenna and the height above ground of 97M, it has been determined that the interfering contour of 113.5dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 73.46M above ground at a distance of 55.7m from the antenna.

As can be seen in Exhibit 13–A2 there are no surrounding structures which are tall enough to enter the interfering contour within the 81.2m distance from the antenna.

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

EXHIBIT 13-A
74.1204(d) Showing
W265CO on Ch 231
Vassalboro, ME

ERP (kw): 0.03
Height of Antenna above Ground (m): 97
Translator's IX Contour: 113.5
Antenna Type: Nicom BKG77/2-.5

Depression Angle from Horizon	Antenna Relative Field	ERP (kw) from the Antenna RF	Dist. To IX Contour (m)	Height IX Contour Above Ground (m)
0	1	0.0300	81.2009	97.000
5	0.988	0.0293	80.2264	90.008
10	0.952	0.0272	77.3032	83.576
15	0.881	0.0233	71.5380	78.485
20	0.791	0.0188	64.2299	75.032
25	0.686	0.0141	55.7038	73.459
30	0.577	0.0100	46.8529	73.574
35	0.463	0.0064	37.5960	75.436
40	0.354	0.0038	28.7451	78.523
45	0.256	0.0020	20.7874	82.301
50	0.174	0.0009	14.1289	86.177
55	0.104	0.0003	8.4449	90.082
60	0.061	0.0001	4.9533	92.710
65	0.028	0.0000	2.2736	94.939
70	0.007	0.0000	0.5684	96.466
75	0.008	0.0000	0.6496	96.373
80	0.009	0.0000	0.7308	96.280
85	0.009	0.0000	0.7308	96.272
90	0.009	0.0000	0.7308	96.269

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Compliance with C.F.R. 74.1204

The proposed FM Translator is located within the protected 54dBu contour of third adjacent channel station WMAS-FM, channel 234B, Enfield, CT. 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 W265CO.P:	30 watts
The proposed COR for W265CO.P:	97 meters
WMAS-FM F(50/50) contour at proposed site:	60.6dBu
The F(50/10) contour of proposed W265CO.P:	100.6dBu

The predicted distance to the 100.6dbu interfering contour is 358.56 meters. Taking into account the vertical elevation pattern of the Nicom BKG77 2 bay halfwaved spaced antenna and the height above ground of 97M, it has been determined that the interfering contour of 100.6dbu appears to reach the ground at depression angles of 20, 25, and 30 degrees. The distance from the antenna for these angles is 284m, 246m, and 207m from the antenna respectively. This information is demonstrated in Exhibit 13A.

As can be seen in Exhibit 13–A2, there is one structure within the 358.6m interfering contour located 160m from the base of the tower at 150 degrees from true north. The ground elevation at this structure is 187m which is 20m lower than the base of the tower. Taking into account the interfering contour distance above ground of 1.8m at this location plus the 20m drop in site elevation, the interfering contour of 100.6dbu will not extend to this structure. No other structures are located within the 100.6dbu interfering contour.

Highway 44 is also located within the 100.6dbu interfering contour. Taking into account the vertical elevation pattern of the Nicom BKG77 2 bay halfwaved spaced antenna and the height above ground of 97M, it has been determined that the interfering contour of 100.6dbu appears to reach the ground at depression angles of 20, 25, and 30 degrees. The distance from the antenna for these angles is 284m, 246m, and 207m from the antenna respectively. This information is demonstrated in Exhibit 13A. It has been determined that the elevation of highway 44 at these distances from the antenna is at lower elevations than the base of the tower by a minimum of 7 meters and offers ample headroom to prevent interference from reaching motor vehicles as they pass through the interfering contour.

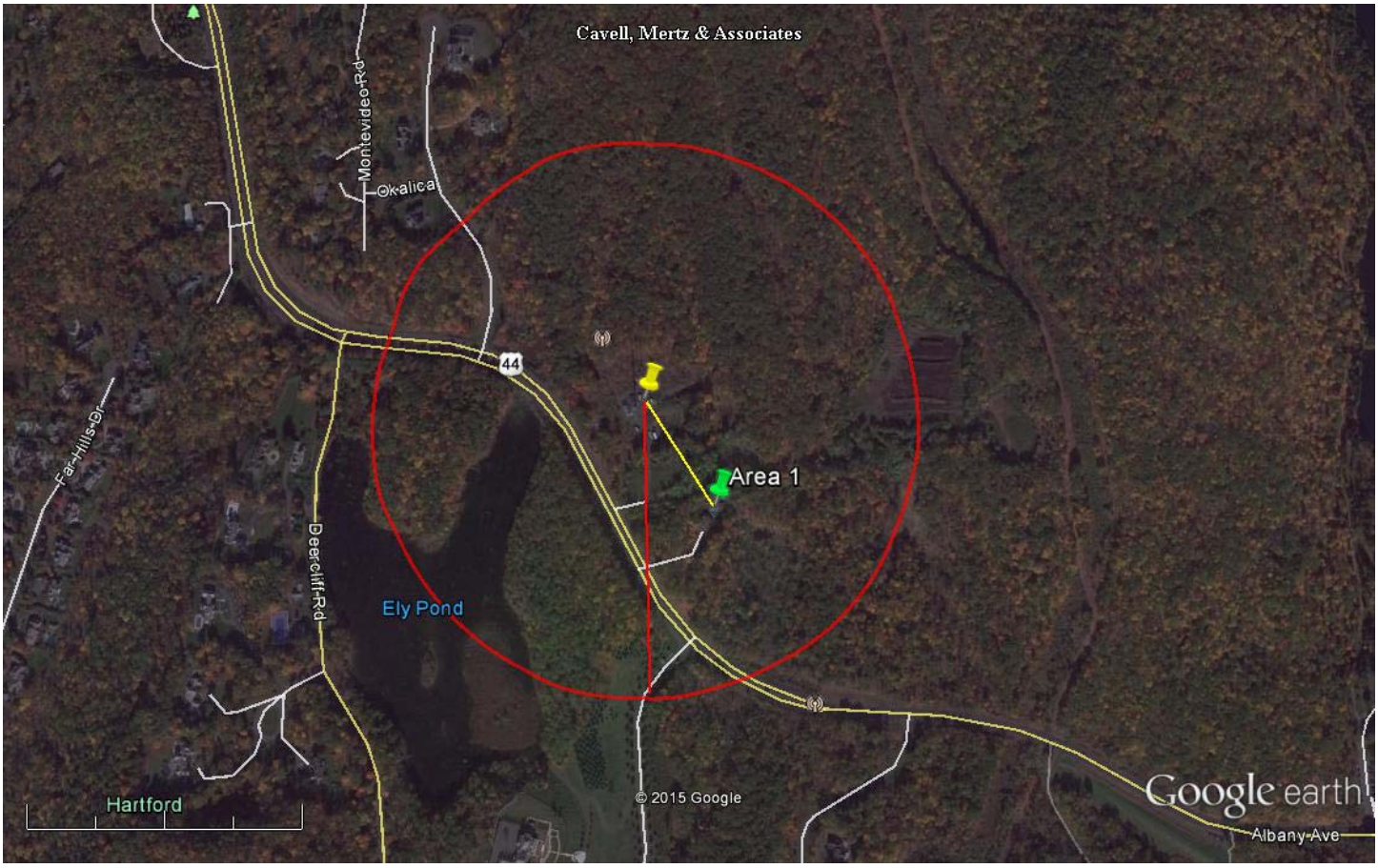
Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13-A
74.1204(d) Showing
W265CO on Ch 231
Vassalboro, ME

ERP (kw): 0.03
Height of Antenna above Ground (m): 97
Translator's IX Contour: 113.5
Antenna Type: Nicom BKG77/2-.5

Depression Angle from Horizon	Antenna Relative Field	ERP (kw) from the Antenna RF	Dist. To IX Contour (m)	Height IX Contour Above Ground (m)
0	1	0.0300	81.2009	97.000
5	0.988	0.0293	80.2264	90.008
10	0.952	0.0272	77.3032	83.576
15	0.881	0.0233	71.5380	78.485
20	0.791	0.0188	64.2299	75.032
25	0.686	0.0141	55.7038	73.459
30	0.577	0.0100	46.8529	73.574
35	0.463	0.0064	37.5960	75.436
40	0.354	0.0038	28.7451	78.523
45	0.256	0.0020	20.7874	82.301
50	0.174	0.0009	14.1289	86.177
55	0.104	0.0003	8.4449	90.082
60	0.061	0.0001	4.9533	92.710
65	0.028	0.0000	2.2736	94.939
70	0.007	0.0000	0.5684	96.466
75	0.008	0.0000	0.6496	96.373
80	0.009	0.0000	0.7308	96.280
85	0.009	0.0000	0.7308	96.272
90	0.009	0.0000	0.7308	96.269

Exhibit 13-A2



Yellow Pin Marker
NAD 27
41 47' 47.6" N 72 47' 49.6" W
Red Circle Contour: 100.6dbu(F50-10)
Red Line Marker: 358m at 180 degrees true north
Green Pin Marker: Area 1, location of structure within interfering contour
160m at 150 degrees from proposed translator location.