

### Channel Study

REFERENCE		CH# 241D - 96.1 MHz, Pwr= 0.02 kW DA, HAAT= 90.8 M, COR= 192 M								DISPLAY DATES	
33 09 58.1 N.		Average Protected F(50-50)= 6.6 km								DATA 03-10-14	
87 24 28.5 W.		Standard Directional								SEARCH 03-10-14	
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*
241D Vance	W241BT	CP	C AL	118.9 299.0	16.35 BNPFT20130328AOI	33 05 42.0 87 15 16.0	0.050 129	34.6 255	10.3 Educational Media Foundati	-24.1*	-13.1
243C0 Birmingham	WMJJ	LIC	CX AL	57.7 238.0	58.04 BMLH20030207AAL	33 26 38.0 86 52 47.0	100.000 313	10.6 494	74.8 Capstar Tx Llc	45.3	-16.8*<
239C2 Midfield	WBHJ	LIC	ZCX AL	57.5 237.8	61.19 BLH20050527BFJ	33 27 37.0 86 51 07.0	12.000 306	5.4 487	53.0 Sm-wbhj, Llc	53.7	8.1
241D Gorgas	W241AI	LIC	C AL	57.5 237.8	66.16 BLFT20140124ALP	33 29 04.0 86 48 25.0	0.039 352	50.6 539	15.2 Educational Media Foundati	13.5	44.5
241C2 Eupora	WLZA	LIC	CN MS	285.9 105.0	159.13 BLH19890421KB	33 32 51.0 89 03 22.0	40.000 167	138.4 279	54.8 Metro Radio, Inc.	17.5	93.8
241A Montgomery	WQKS-FM	LIC	NCX AL	129.3 310.0	139.21 BMLH20130308AEE	32 22 03.0 86 15 42.0	0.900 250	80.6 306	28.4 Bluewater Broadcasting Com	52.4	90.2
242A Livingston	WLYB	CP	NCX AL	231.2 50.7	95.35 BNPH20110630AGF	32 37 33.8 88 12 03.3	3.400 100	38.7 151	25.4 Blackbelt Broadcasting, In	56.1	68.7
241C2 Florence	WXFL	LIC	CN AL	0.2 180.2	192.84 BLH20000406AAT	34 54 17.0 87 24 02.0	20.500 238	132.1 441	54.5 Big River Broadcasting Cor	60.0	135.1
242D Selma	W242BW	LIC	C AL	156.7 336.9	83.77 BLFT20091030AAB	32 28 20.0 87 03 16.0	0.210 85	13.7 143	9.9 Alexander Broadcasting Com	63.8	65.2

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 Terrain database is 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 protected contour.  
 < = Contour Overlap

### Exhibit 13A

Interference Study taking into  
consideration the contingent  
application of W241AI  
Gorgas, AL FID 156276

W241AI.P

BMPFT20130528AID

Latitude: 33-29-04 N

Longitude: 086-48-25 W

ERP: 0.099 kW

Channel: 241

Frequency: 96.1 MHz

AMSL Height: 539.0 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: None

W241BT.P

BNPFT20130328AOI

Latitude: 33-09-58.10 N

Longitude: 087-24-28.50 W

ERP: 0.02 kW

Channel: 241

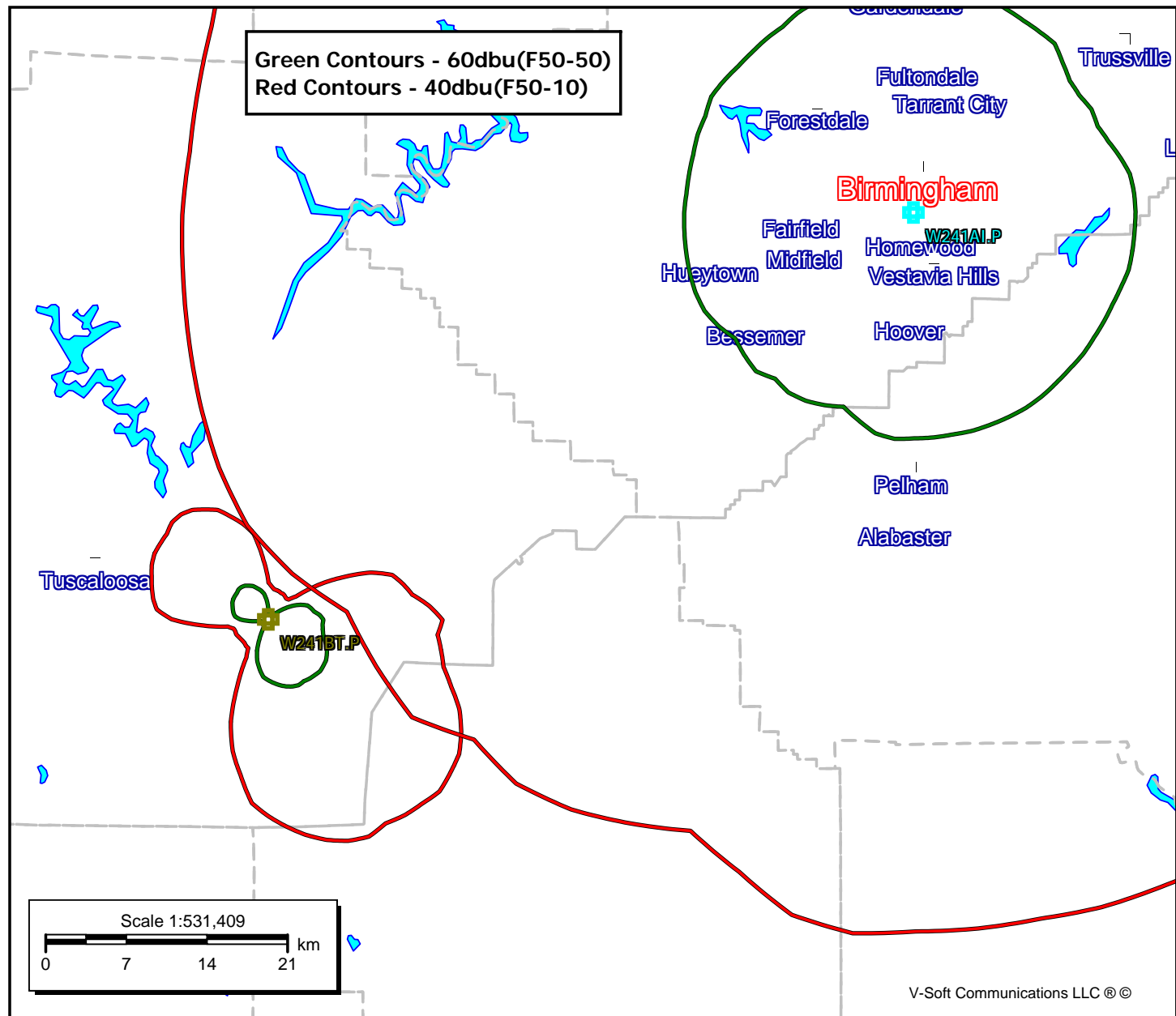
Frequency: 96.1 MHz

AMSL Height: 192.0 m

Horiz. Pattern: Directional

Vert. Pattern: No

Prop Model: None



**Educational Media Foundation**

5700 W Oaks Blvd  
Rocklin, CA 95765

*Exhibit 13-A*  
*Vance, AL*

**Compliance with C.F.R. 74.1204**

The proposed FM Translator is located within the protected 60dBu contour of second adjacent channel station WMJJ, channel 243C0, Birmingham, AL. 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 W241BT.P:	20 watts
The proposed COR for W241BT.P:	65 meters
WMJJ F(50/50) contour at proposed site:	67.3dBu
The F(50/10) contour of proposed W241BT.P:	107.3dBu

The predicted distance to the 107.3dbu interfering contour is 135.37 meters. Taking into account the vertical elevation pattern of the Scala CA-2V single bay antenna and the height above ground of 65M, it has been determined that the interfering contour of 107.3dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 6.266M above ground.

As can be seen in Exhibit 13-A2 there are no surrounding structures which are tall enough and close enough to enter the interfering contour.

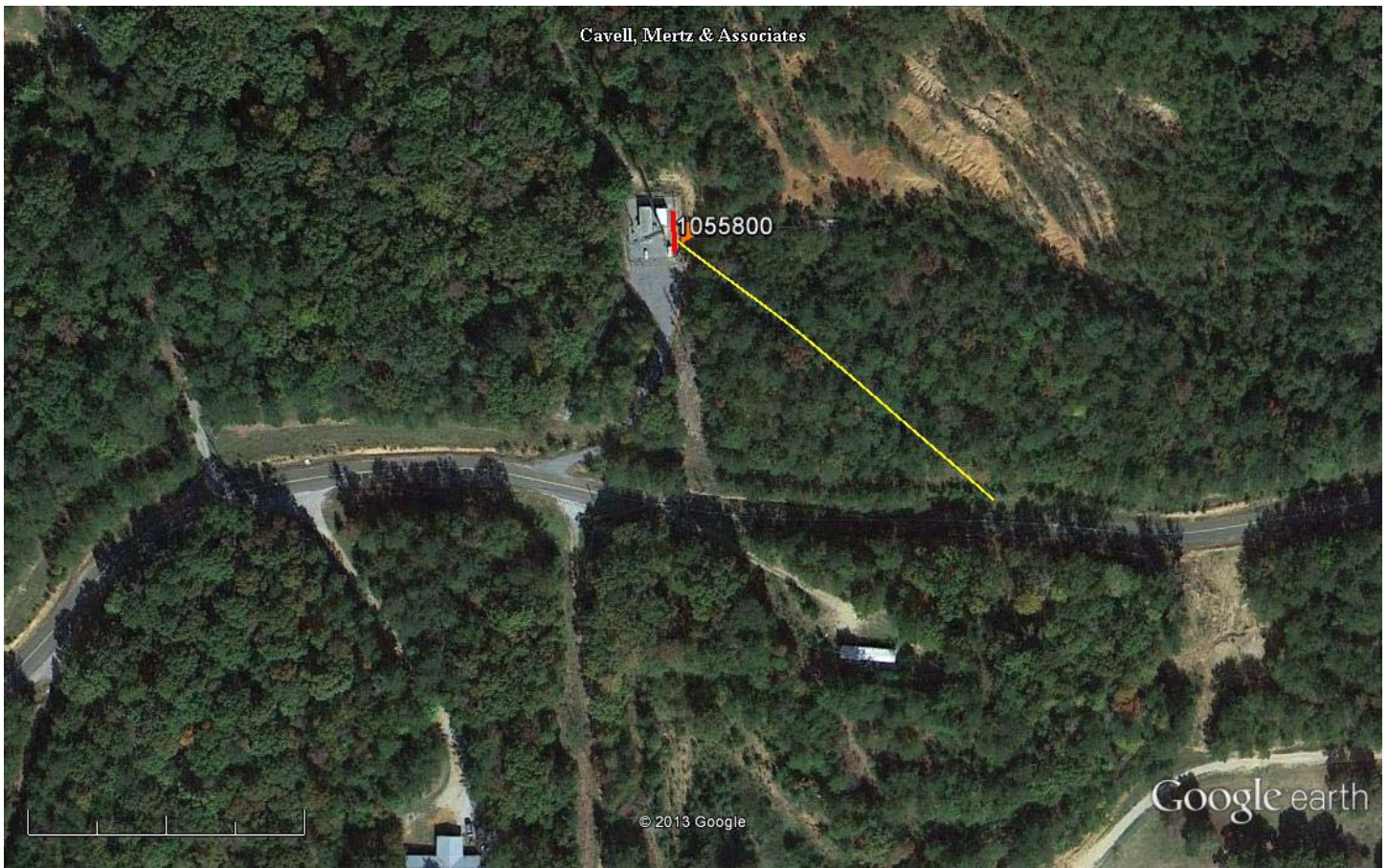
Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13 - A1  
74.1204(d) Showing  
W241BT  
Vance, AL

ERP (kw): 0.02  
Height of Antenna above Ground (m): 65  
Translator's IX Contour: 107.3  
Antenna Type: Scala CA2V-1

<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	0.0200	135.3677	65.000
5	0.990	0.0196	134.0140	53.320
10	0.978	0.0191	132.3354	42.020
15	0.958	0.0183	129.6146	31.453
20	0.915	0.0167	123.8614	22.637
25	0.865	0.0150	117.0930	15.514
30	0.808	0.0130	109.3094	10.345
35	0.745	0.0111	100.8489	7.155
40	0.675	0.0091	91.3732	6.266
45	0.595	0.0071	80.5438	8.047
50	0.510	0.0052	69.0375	12.114
55	0.430	0.0037	58.2081	17.319
60	0.345	0.0024	46.7019	24.555
65	0.265	0.0014	35.8724	32.489
70	0.190	0.0007	25.7199	40.831
75	0.125	0.0003	16.9210	48.656
80	0.075	0.0001	10.1526	55.002
85	0.055	0.0001	7.4452	57.583
90	0.050	0.0001	6.7684	58.232

Exhibit 13-A2



Google earth

feet  
meters

700  
200



ASR 1055800

NAD 27

33 09' 58.1" N

87 24' 28.5" W

Yellow Marker: 135.5m at 130 degrees true north