

**Channel Study**

REFERENCE CH# 256D - 99.1 MHz, Pwr= 0.004 kW, HAAT= -22.4 M, COR= 181 M DISPLAY DATES  
 61 36 48.0 N. Average Protected F(50-50)= 2.5 km DATA 07-13-15  
 149 24 49.6 W. Omni-directional SEARCH 07-21-15

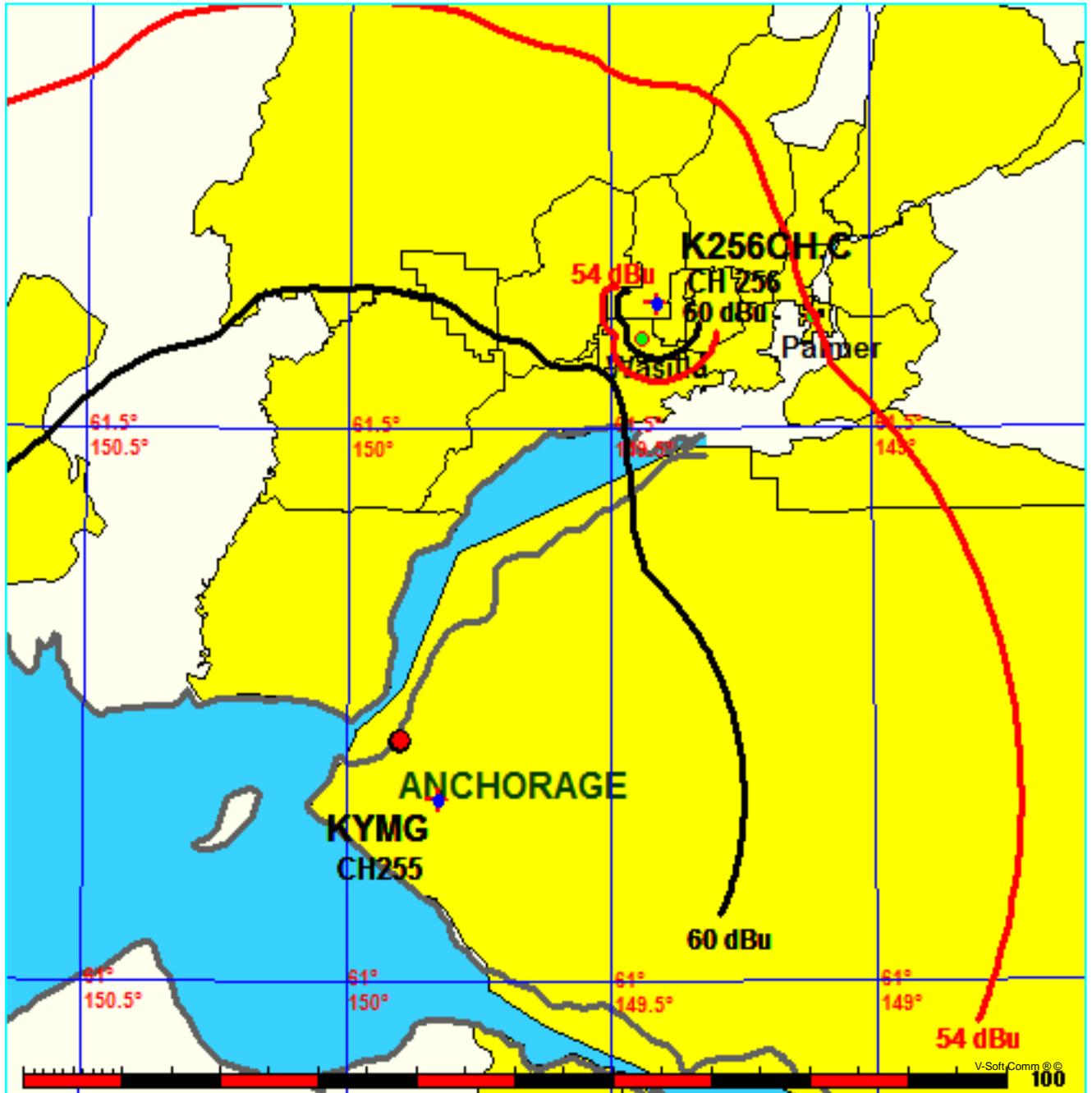
CH CITY	CALL	TYPE STATE	ANT	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
259C1 Wasilla	KMBQ-FM	LIC C AK	C	337.3	3.48	61 38 32.0	51.000	6.1	52.9	-5.1*<	-49.5*<
BLH20090910AAJ 149 26 21.0 -48 227 Omg Fcc Licenses Llc											
255C1 Anchorage	KYMG	LIC DCX AK	DCX	204.0	54.49	61 09 58.0	100.000	74.5	44.8	-25.3*<	2.3
BLH20021219ABL 149 49 34.0 -46 132 Capstar Tx Llc											
256D Wasilla	K256CH!	CP DV AK	DV	234.7	5.24	61 35 10.0	0.115	18.7	5.7	-17.2	-12.2
BNPFT20130828ADK 149 29 40.0 173 Educational Media Foundati											
253D Eagle River	K253CA	CP V AK	V	204.0	54.56	61 09 55.6	0.250	1.1	10.9	48.2	43.5
BNPFT20130924AFU 149 49 35.3 132 Capstar Tx Limited Partner											

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= West 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), Beamtlt(Y,N,X)  
 "\*"affixed to 'IN' or 'OUT' values = site inside restricted contour.  
 < = Contour Overlap

FMCommander Single Allocation Study - 07-21-2015 - NGDC 30 SEC  
K256CH.C's Overlaps (In= -25.29 km, Out= 2.33 km)

K256CH.C CH 256 D  
Lat= 61 36 48.0, Lng= 149 24 49.6  
0.004 kW -22.4 M HAAT, 181 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

KYMG CH 255 C1 DA BLH20021219ABL  
Lat= 61 09 58.0, Lng= 149 49 34.0  
100.0 kW -46 M HAAT, 132 M COR  
Prot.= 60 dBu, Intef.= 54 dBu



**Educational Media Foundation**

5700 W Oaks Blvd  
Rocklin, CA 95765

*Exhibit 13-A  
Wasilla, AK*

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

The proposed FM Translator is located within the protected 60dBu contour of third adjacent channel station KMBQ-FM, channel 259C1, Wasilla, AK. 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 K256CH.P:	4 watts
The proposed COR for K256CH.P:	20 meters
KMBQ-FM F(50/50) contour at proposed site:	108.4dBu
The F(50/10) contour of proposed K256CH.P:	148.4dBu

The predicted distance to the 148.4dbu interfering contour is .533 meters. Taking into account the vertical elevation pattern of the Nicom BKG77 single bay antenna and the height above ground of 20M, it has been determined that the interfering contour of 148.4dbu does not reach the ground. As seen in Exhibit 13-A1, the lowest elevation for this interfering contour is 19.763M above ground at a distance of .37m 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 .533m distance from the antenna.

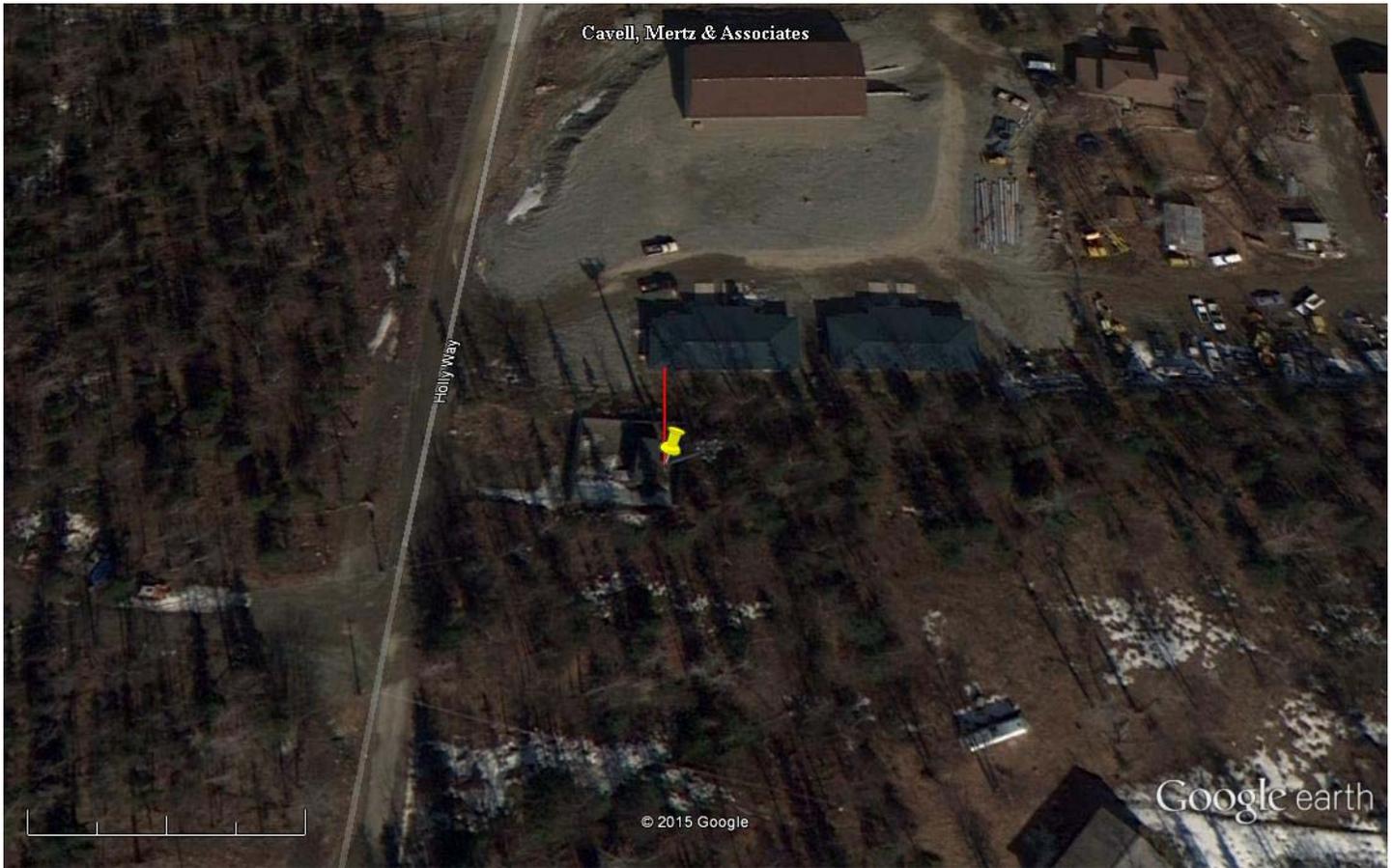
Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13 - A1  
 74.1204(d) Showing  
 K256CH  
 Wasilla, AK

ERP (kw): 0.004  
 Height of Antenna above Ground (m): 20  
 Translator's IX Contour: 148.4  
 Antenna Type: Nicom BKG77

<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	0.0040	0.5334	20.000
5	0.999	0.0040	0.5328	19.954
10	0.982	0.0039	0.5238	19.909
15	0.954	0.0036	0.5088	19.868
20	0.918	0.0034	0.4896	19.833
25	0.872	0.0030	0.4651	19.803
30	0.818	0.0027	0.4360	19.782
35	0.758	0.0023	0.4043	19.768
40	0.691	0.0019	0.3686	19.763
45	0.616	0.0015	0.3286	19.768
50	0.538	0.0012	0.2870	19.780
55	0.465	0.0009	0.2480	19.797
60	0.391	0.0006	0.2085	19.819
65	0.313	0.0004	0.1669	19.849
70	0.239	0.0002	0.1275	19.880
75	0.176	0.0001	0.0939	19.909
80	0.129	0.0001	0.0688	19.932
85	0.103	0.0000	0.0549	19.945
90	0.104	0.0000	0.0555	19.945

Exhibit 13-A2



Google earth



Yellow Pin Marker:

NAD 27

61 36' 48.0" N 149 24' 49.6" W

Red Line Marker:

20m at zero degrees true north