

# Educational Media Foundation

5700 West Oaks Boulevard ♦ Rocklin ♦ California ♦ 95765

Exhibit 18

Horace, ND

## Channel Study

REFERENCE CH# 208A - 89.5 MHz, Pwr= 3 kW, HAAT= 49.7 M, COR= 326 M DISPLAY DATES  
46 49 18.0 N. Average Protected F(50-50)= 17.2 km DATA 07-13-23  
96 50 30.0 W. Omni-directional SEARCH 07-13-23

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*
208C3 Horace	KFAA!	LIC	CN ND	319.4 139.3	7.86 BLED20170502AAU	46 52 30.90 96 54 32.30	7.300 28		---Reference--- Educational Media Foundati		
208A Horace	KFAA!	CP	CN ND	0.0 0.0	0.00 0000206287	46 49 18.00 96 50 30.00	3.000 46		---Reference--- Educational Media Foundati		
206C1 Hawley	KNNZ	LIC	DVN MN	115.6 296.0	46.23 BLED20130521AFM	46 38 27.90 96 17 48.20	100.000 81	4.8 444	44.4 Pioneer Public Broadcastin	24.6	0.1
209A Fergus Falls	KCMF	LIC	CN MN	134.0 314.5	80.05 BLED20030610ACR	46 19 11.90 96 05 33.20	2.700 66	25.5 439	17.3 Minnesota Public Radio	37.6	37.7
210C1 White Earth	KKWE	LIC	DCN MN	84.6 265.6	101.08 BLED20110805ABJ	46 53 57.90 95 31 15.10	60.000 97	5.5 563	48.9 White Earth Land Recovery	78.6	50.4
207C1 Sebek	KOPJ	LIC	CN MN	99.4 281.0	170.23 BLED20051005AAI	46 33 07.90 94 39 04.00	100.000 143	89.1 560	59.4 We Have This Hope Christia	64.3	85.9
207C2 Grand Forks	KUND-FM	LIC	CN ND	350.4 170.1	154.87 BLED20060830AAO	48 11 39.70 97 11 29.70	50.000 89	67.6 336	42.8 Prairie Public Broadcastin	69.8	86.3

Terrain database is USGS 03 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= - Zone 2, Co to 3rd  
adjacent.

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)

« = Station meets FCC minimum distance spacing for its class.

Reference station has protected zone issue: Canada

Note: In order to more accurately analyze the facility contemplated herein, the USGS 03 second terrain database has been used for all calculations, instead of the standard 30 second database.

Exhibit 18-A

FMCommander Single Allocation Study - 07-13-2023 - USGS 03 SEC  
KFAA.P's Overlaps (In= 24.6 km, Out= 0.13 km)

KFAA.P CH 208 A

Lat= 46 49 18.00, Lng= 96 50 30.00

3.0 kW 49.7 m HAAT, 326 m COR

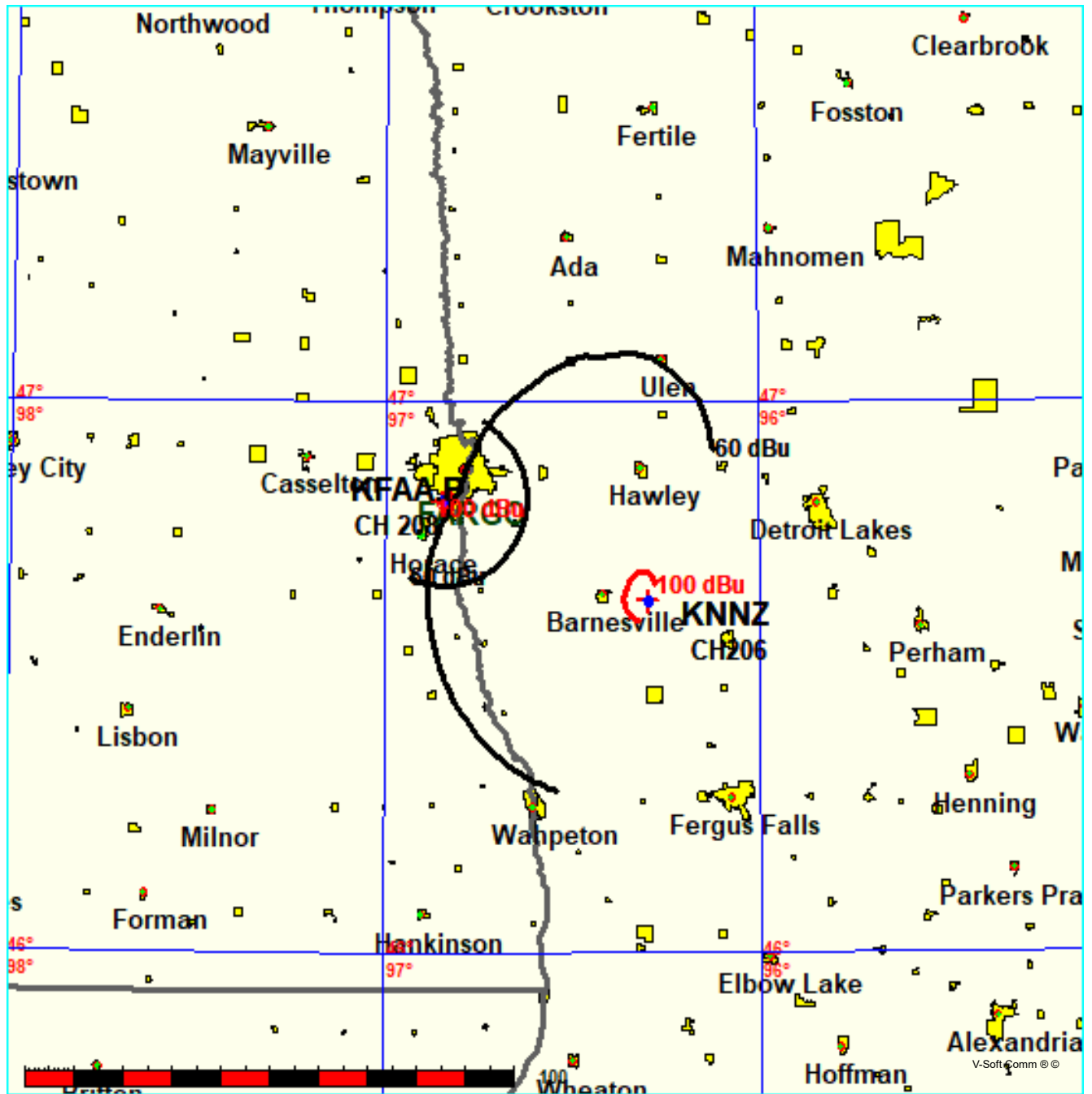
Prot.= 60 dBu, Intef.= 100 dBu

KNNZ CH 206 C1 DA BLED20130521AFM

Lat= 46 38 27.90, Lng= 96 17 48.20

100.0 kW 81.2 m HAAT, 443.7 m COR

Prot.= 60 dBu, Intef.= 100 dBu



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Exhibit 18-A

Horace, ND

## KFAA.P vs. KNNZ

07-13-2023      Terrain Data: USGS 03 SEC      FMOver Analysis

KNNZ    BLED20130521AFM

KFAA.P

Channel = 206C1  
Max ERP = 100 kW  
RCAMSL = 443.7 m  
N. Lat. 46 38 27.90  
W. Lng. 96 17 48.20  
Protected  
60 dBu

Channel = 208A  
Max ERP = 3 kW  
RCAMSL = 326 m  
N. Lat. 46 49 18.00  
W. Lng. 96 50 30.00  
Interfering  
100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
285.0	030.0304	0130.2	044.9	192.2	003.0000	0049.8	008.8	71.59	
286.0	030.0304	0129.7	044.8	191.4	003.0000	0049.7	008.0	73.04	
287.0	030.0304	0129.5	044.8	190.7	003.0000	0049.7	007.3	74.69	
288.0	030.0304	0129.4	044.8	189.8	003.0000	0049.7	006.5	76.65	
289.0	030.0304	0129.2	044.8	188.4	003.0000	0049.7	005.7	78.95	
290.0	030.0304	0129.0	044.8	186.5	003.0000	0049.7	005.0	81.52	
291.0	030.0304	0128.5	044.7	183.0	003.0000	0049.8	004.2	84.28	
292.0	030.0304	0127.6	044.6	177.3	003.0000	0049.8	003.5	87.37	
293.0	030.0304	0127.0	044.5	169.3	003.0000	0050.0	002.9	90.91	
294.0	030.0304	0126.7	044.4	157.6	003.0000	0050.2	002.3	95.16	
295.0	030.0304	0126.5	044.4	139.8	003.0000	0049.4	001.9	98.66	
296.0	030.0304	0126.3	044.4	115.6	003.0000	0048.2	001.7	99.76	
297.0	030.0304	0126.0	044.3	092.2	003.0000	0048.2	002.0	97.91	
298.0	030.0304	0125.6	044.3	075.9	003.0000	0048.7	002.4	94.01	
299.0	030.0304	0125.0	044.2	066.1	003.0000	0049.8	003.1	89.88	
300.0	030.0304	0124.3	044.1	060.1	003.0000	0050.1	003.7	86.42	
301.0	031.6069	0123.4	044.4	051.3	003.0000	0050.3	004.3	84.03	
302.0	033.2237	0122.3	044.7	045.1	003.0000	0050.2	005.0	81.57	
303.0	034.8808	0121.0	044.9	041.0	003.0000	0051.1	005.7	79.28	
304.0	036.5783	0119.2	045.1	038.5	003.0000	0051.1	006.5	76.98	
305.0	038.3161	0117.9	045.3	036.4	003.0000	0051.1	007.2	75.01	
306.0	040.0942	0116.8	045.6	034.7	003.0000	0051.5	008.0	73.38	
307.0	041.9127	0115.4	045.7	033.6	003.0000	0052.0	008.8	71.97	
308.0	043.7715	0113.7	045.9	033.1	003.0000	0052.4	009.6	70.58	
309.0	045.6706	0111.9	046.0	033.0	003.0000	0052.5	010.4	69.20	
310.0	047.6100	0110.4	046.1	032.9	003.0000	0052.7	011.2	67.87	