



Comprehensive Engineering Statement – October 26, 2023

Nebraska Educational Telecommunications

File # BLFT20140131ABB

This proposal is for a minor-change to translator station K209FS to change channel from 209 to 201. No other changes are proposed. This application is tendered due to the grant of a new CP to 1st adjacent KHUY that will be caused prohibited interference by the existing NET translator which is classified as secondary. The contour-to-contour interference map on Page #2 shows that the K209FS facility will cause interference to KHUY over the entire city of Columbus. In such cases the Commission has allowed changes to the translator frequency that exceed the usually allowed +- 3 channels.

The applicant proposes to use channel 201, 88.1 MHz. This proposed channel is third-adjacent to local KUNE-FM on channel 204 (located at a distance of 1.86 km) and its 100 dBu contour will cross over the KUNE-FM transmission site. Page #3 is a channel study printout showing this relationship. The KUNE-FM ERP is 10 dBk, since under the FCC rules a 3rd adjacent station or translator can be up to 40 dB higher before interference occurs, and this translator is 24.089 dBk lower, KUNE-FM will be fully protected.

Geographic Coordinates: N. Lat. 41-26-21.00 W. Long. 97-23-45.20 W (NAD 83)

Channel: 201, 88.1 Mhz., Class D, ERP 0.039 kW, vertically pol.

Proposed Antenna C.O.R: 503 m AMSL, 58 m AG, HAAT: 50 m (from LMS)

Existing translator is co-located with KTTT(AM)

Page #4 is an exhibit stating the **qualifications** of the preparer.

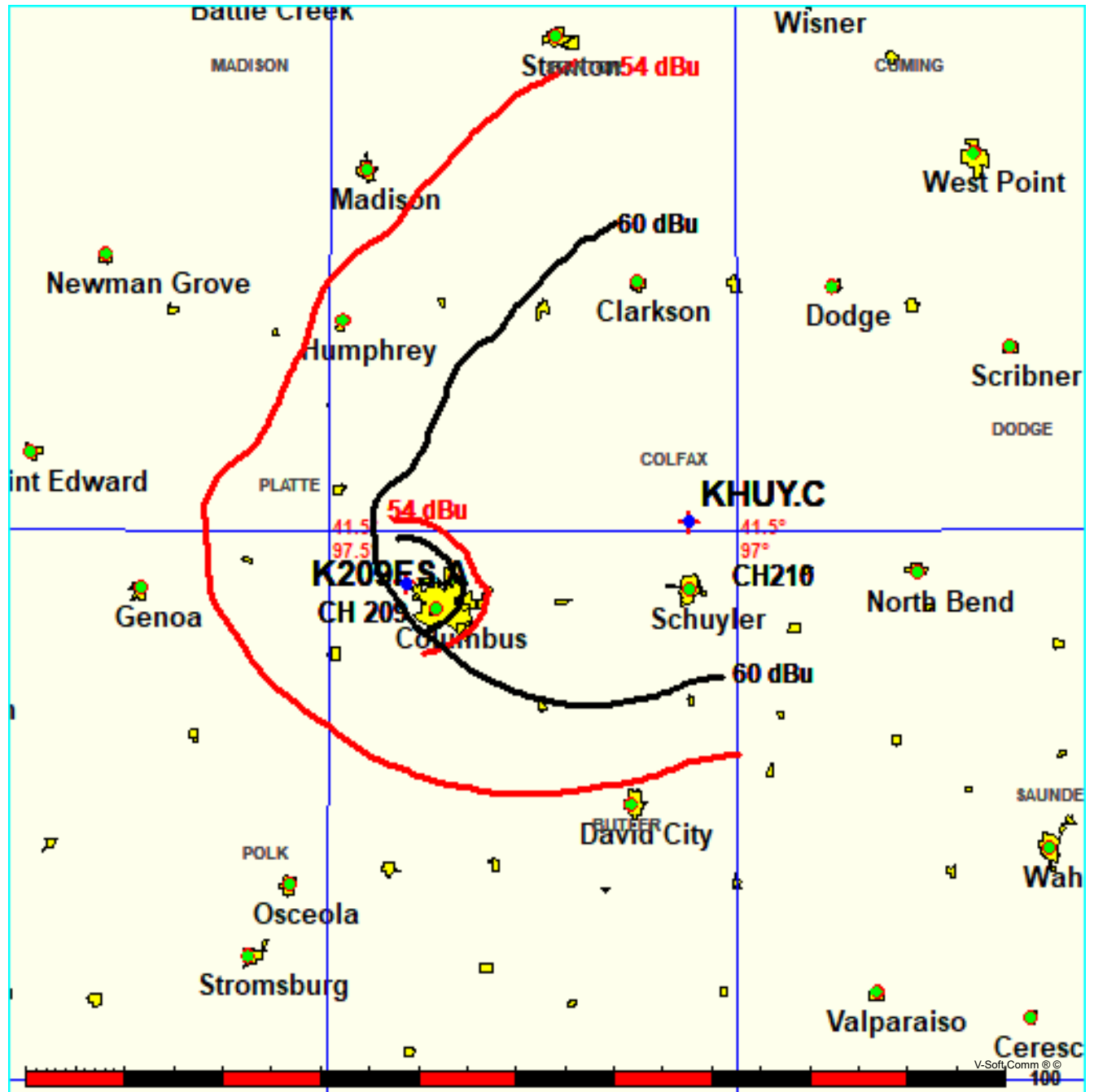
Doug Vernier

Nebraska Translator Interferes with new KHUY in city area
Nebraska Educational Telecomm

FMCommander Single Allocation Study - 10-26-2023 - GLOBE 30 Sec
K209FS.A's Overlaps (In= -24.32 km, Out= -8.88 km)

K209FS.A CH 209 D
Lat= 41 27 15.00, Lng= 97 24 21.00
0.039 kW 30.4 m HAAT, 490.1 m COR
Prot.= 60 dBu, Intef.= 54 dBu

KHUY-C CH 210 C3 DA 0000166029
Lat= 41 30 34.60, Lng= 97 03 28.60
7.0 kW 132 m HAAT, 567 m COR
Prot.= 60 dBu, Intef.= 54 dBu



Doug Vernier, Telecommunications Consultants LLC
Study Using FMCommander Software

NET protects 3rd adjacent KUNE-FM using standard D to U.
Nebraska Educational Telecommunications

REFERENCE CH# 201D - 88.1 MHz, Pwr= 0.039 kW, HAAT= 30.4 M, COR= 490.1 M DISPLAY DATES
41 27 15.00 N. DATA 10-16-23
97 24 21.00 W. Average Protected F(50-50)= 4.44 km
Omni-directional SEARCH 10-17-23

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*OUT* (Overlap in km)
204C3	KUNE-FM	CP	DCN	153.4	1.86	41 26 21.00	10.000	1.8	18.1	-16.7*
Columbus		NE		333.5	0000165893	97 23 45.00	51	503	Nebraska Educational Telec	
201C0	KMLV	LIC	DCN	97.4	116.40	41 18 40.00	59.000	154.8	65.6	28.7
Ralston		NE		278.3	BMLD20100729AEG	96 01 38.10	390	731	Educational Media Foundati	
202C1	KOLB	LIC	DCN	350.4	106.07	42 23 43.90	100.000	88.1	58.5	41.4
Hartington		NE		170.2	BLED20110718ACZ	97 37 18.10	125	652	Vss Catholic Communication	
203C1	KLCV	LIC	DCN	130.7	113.28	40 47 10.00	46.000	8.7	67.8	44.9
Lincoln		NE		311.4	BLED20090622AAF	96 23 11.00	383	731	Community Broadcasting, In	

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= West 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)
Incoming contour overlap is ignored.
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
Reference station has protected zone issue: AM tower

Declaration and Statement of Qualifications

I, Douglas L. Vernier, declare that I have received training as an engineer from the University of Michigan School of Engineering. That, I have received degrees from the University in the field of Broadcast Telecommunications. That, I have been active in broadcast consulting for over 40 years;

That, I have held a Federal Communications Commission First Class Radiotelephone License continually since 1964. In 1985, this license was reissued by the Commission as a lifetime General Radiotelephone license no. PG-16-16464;

That, I am certified as a Professional Broadcast Engineer (#50258) by the Society of Broadcast Engineers, Indianapolis, Indiana. (Life-time Certification received in 2010);

That, my qualifications are a matter of record with the Federal Communications Commission;

That, I have been retained by Nebraska Educational Telecommunications Commission to prepare the engineering showing appended hereto;

That, I have prepared this broadcast engineering showing, the technical information contained in same and the facts stated within are true of my knowledge;

That, under penalty of perjury, I declare that the foregoing is correct.

Douglas L. Vernier

A handwritten signature in blue ink, appearing to read "Doug Vernier", with a large, stylized initial "D" and a horizontal line extending to the right.

Executed on October 26, 2023