

TECHNICAL STATEMENT
NEW FM, DIX, NEBRASKA, CH. 282C2
MICHAEL RADIO COMPANY, LLC
SEPTEMBER 2021

This Technical Statement is made in support of an application filed by Michael Radio Company, LLC (“MRC”) for a NEW FM(FM) at Albin, Wyoming, Channel 282C3. This new long form FCC application is being filed since MRC was the provisional winner in FM Broadcast auction 109 for a new FM at Dix, Nebraska, MM-FM1267-A, CH 282C2. It proposes operation at Dix, Nebraska on channel 282C2, with an Effective Radiated Power of 26 Kilowatts with an antenna height of 1424 meters Above Mean Sea Level, 40 meters above ground, and minus 5.5 meters Height Above Average Terrain with its Center of Radiation. It will operate from an existing non FCC registered tower, 45.7 meters in overall height. A 307(b) study is attached to this application requesting a change in allotments from Albin, WY to Dix, NE. Dix is a larger community, will its first local service, and the allotment will be improved to a class C2 from a C3 allotment.

Figure 1 shows a channel spacing study conducted from the proposed transmitter site of N. 41°-15’-08.3”, W 103°-39’-51.4” for channel 282C2.

Figure 2 shows is a channel spacing study from the proposed allotment point for channel 282C2 at Dix, Nebraska. It is well within the 32.6 kilometers required for a class C2 allotment from the proposed city of license.

Processing under 73.215 is being towards KKFN(FM) Longmont, Colorado on channel 282C1, facility ID 71767. Figure 3 is a detailed channel interference study conducted against KKFN(FM) documenting that that will be no prohibitive overlap

between the two stations. KKFN(FM) is operating under the provisions of 73.215, hence it was studied utilizing its facilities as licensed.

Figure 4 is the predicted 70 dB μ city grade service contour for the proposed operation of the NEW FM. It shows the contour will completely encompass the entire community of Dix without terrain obstruction.

It was determined that the proposed operation of NEW FM at Dix, Nebraska on channel 282C2 from its proposed transmitter will meet all of the requirements for a commercial FM broadcast station under the current technical rules of the commission.

FIGURE 1 - DETAILED CHANNEL SPACING STUDY FROM SITE
NEW FM DIX, NE, CH. 282C2

REFERENCE		CLASS = C2	DISPLAY DATES
41 15 08.30 N.			DATA 09-06-21
103 39 51.40 W.	Current Spacings to 3rd Adj.		SEARCH 09-06-21
----- Channel 282 - 104.3 MHz -----			

Call	Channel	Location		Azi	Dist	FCC	Margin
DKKAW *	VAC 282C3	Albin	WY	301.4	35.51	176.5	-141.0
KKFN **	LIC-N 282C1	Longmont	CO	216.8	214.66	223.5	-8.8
KNNG	LIC 284C1	Sterling	CO	144.3	91.45	78.5	13.0
KIMX	LIC-N 283C2	Centennial	WY	272.0	149.28	129.5	19.8
KRRR	LIC-N 285C2	Cheyenne	WY	261.7	87.26	57.5	29.8
KANT	LIC 281C2	Guernsey	WY	317.4	166.55	129.5	37.1
KAZY	LIC 229C3	Cheyenne	WY	261.7	87.26	16.5	70.8
KAKR	LIC 279A	Akron	CO	165.3	126.65	54.5	72.2
KRKA	LIC-N 280C1	Severance	CO	243.8	156.87	78.5	78.4
KNAB-FM	LIC 281C1	Burlington	CO	150.9	247.99	157.5	90.5

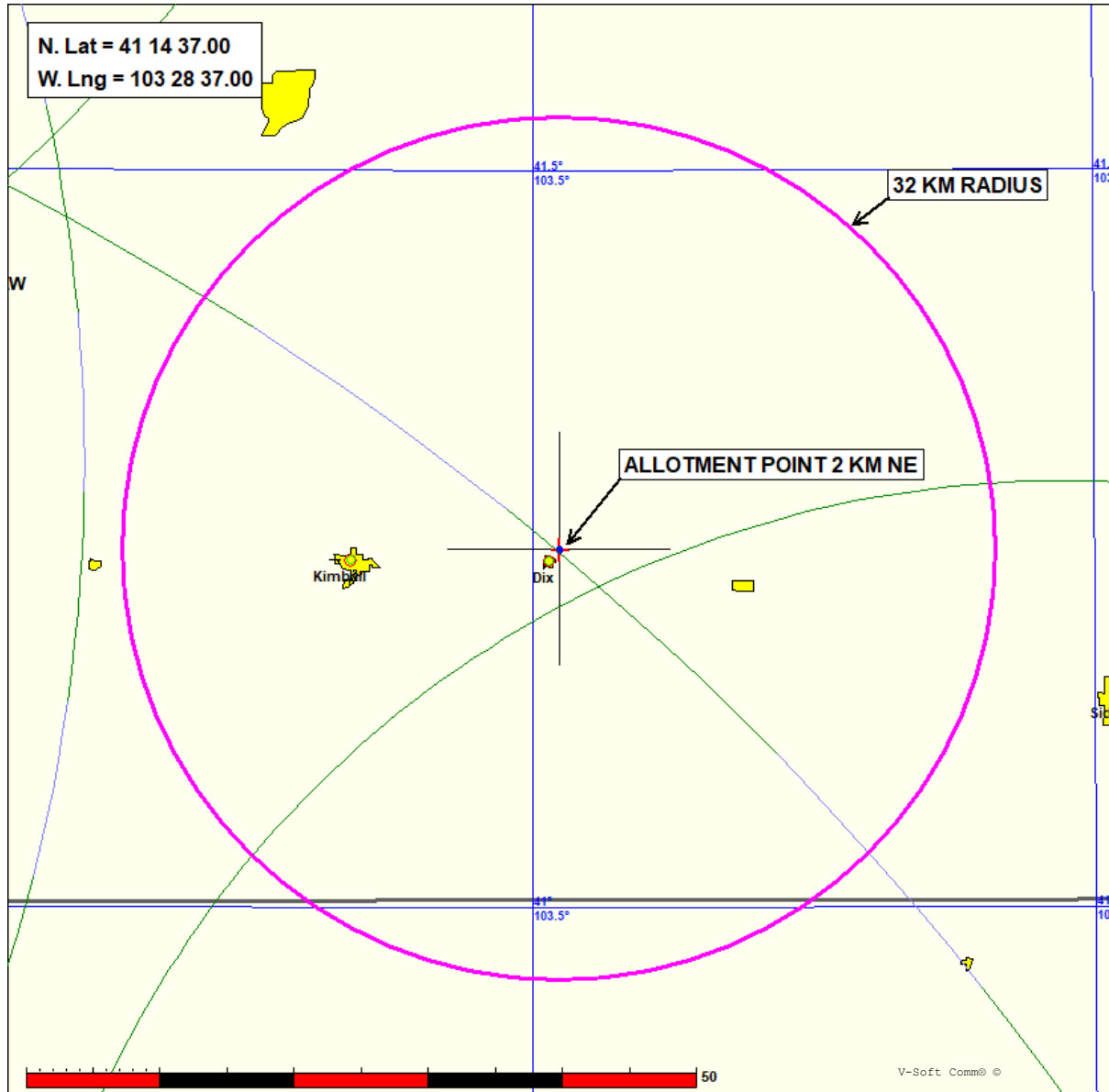
% = Station Fails minimum 73.215 spacings
All separation margins include rounding

* Deleted Station at Albin, WY. CITY OF LICENSE BEING CHANGED
FROM ALBIN, NE TO DIX, NEBRASKA. SEE THE 307B STUDY
** PROCESSING UNDER 73.215 BEING REQUESTED TOWARDS KKFN(FM).
SEE THE TECHNICAL STATEMENT FOR MORE DETAILS.

CH 282 C2 104.3 MHz

Current Spacings to 3rd Adj.

FIGURE 2 - SPACING STUDY FROM ALLOTMENT POINT
NEW FM DIX, NE, CH. 282C2



Data Date:09-06-21 Job Date:09-06-21

Call	CH#	Type	Location		Azi	D-KM	FCC	Margin
DKKAW *	282C3	VAC	Albin	WY	293.1	49.96	176.5	-126.5
KKFN	282C1	LIC-N	Longmont	CO	220.2	223.71	223.5	0.21
KNNG	284C1	LIC	Sterling	CO	152.9	82.40	78.5	3.9
KIMX	283C2	LIC-N	Centennial	WY	272.3	165.00	129.5	35.5
KRRR	285C2	LIC-N	Cheyenne	WY	263.6	102.71	57.5	45.2
KANT	281C2	LIC	Guernsey	WY	314.0	178.23	129.5	48.7
KAKR	279A	LIC	Akron	CO	172.4	122.64	54.5	68.1
KNAB-FM	281C1	LIC	Burlington	CO	154.1	239.85	157.5	82.4
KAZY	229C3	LIC	Cheyenne	WY	263.6	102.71	16.5	86.2
KRKA	280C1	LIC-N	Severance	CO	246.5	170.73	78.5	92.2

All separation margins include rounding

% =Station Fails minimum 73.215 spacings

* DELETED STATION AT ALBIN, WY

FIGURE 3 - INTERFERENCE STUDY WITH KKFN(FM)
NEW FM DIX, NE, CH. 282C2

FMCommander Single Allocation Study - 09-06-2021 - NGDC 30 SEC
New Dix's Overlaps (In= 0.0 km, Out= 0.0 km)

New Dix CH 282 C2 73.215 N
Lat= 41 15 08.30, Lng= 103 39 51.40
26.0 kW -5.5 m HAAT, 1464 m COR
Prot.= 60 dBu, Intef.= 40 dBu

KKFN CH 282 C1 73.215 N BLH19991214ABH
Lat= 39 41 44.90, Lng= 105 09 55.90
100.0 kW 206 m HAAT, 2081 m COR
Prot.= 60 dBu, Intef.= 40 dBu

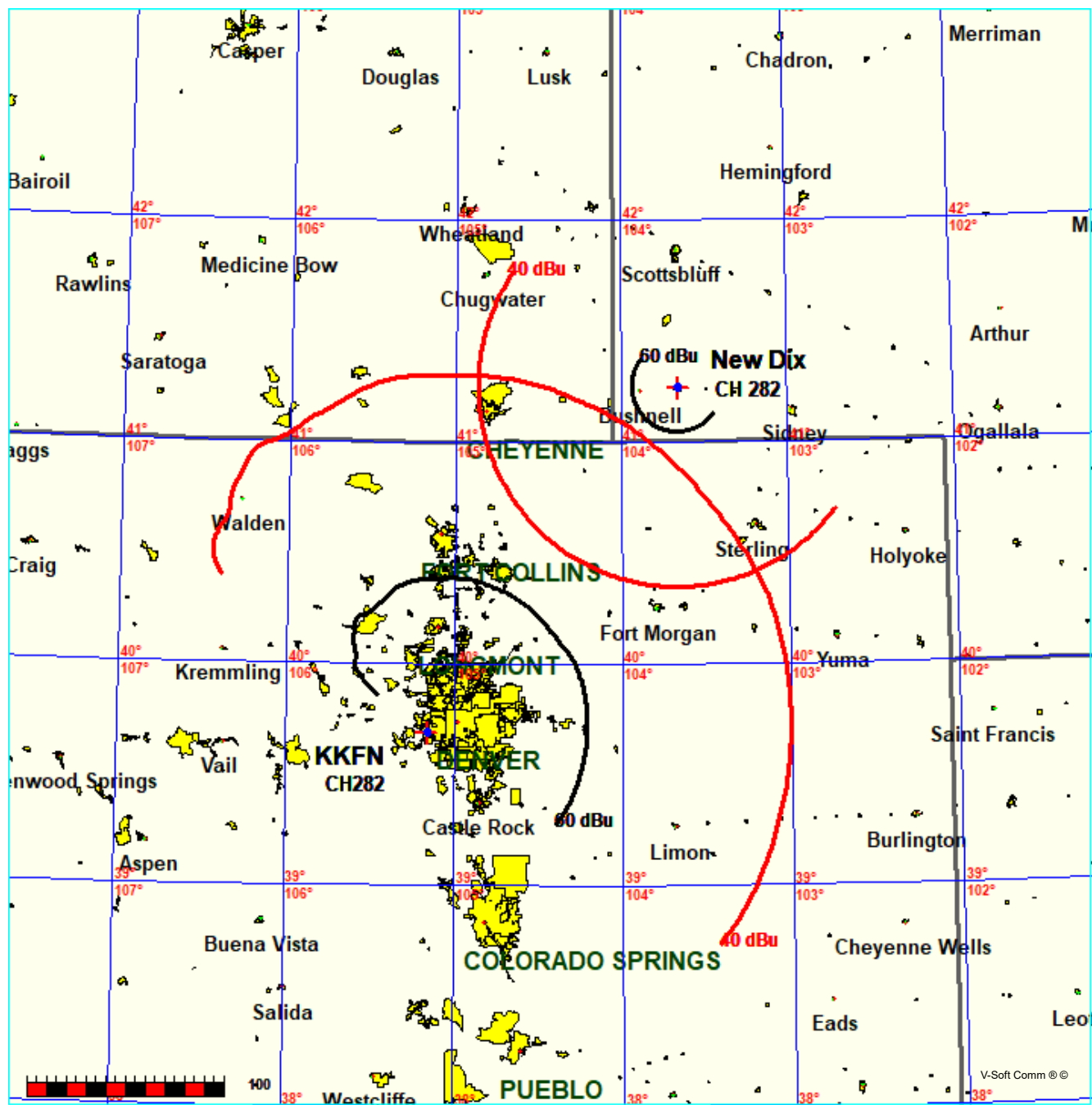


FIGURE 4 - PREDICTED 70 DBU CONTOUR
NEW FM DIX, NE, CH. 282C2

Coverage Study - NGDC 30 SEC
09-06-2021

New Dix CH282 C2, 26.0 kW, -5.5m HAAT, 1464.0m COR AMSL
Service Contour = 70 dBu.

