

**Modify K287CB FM Translator Station  
CH 287D (105.3 MHz) - 0.020 kW Glenwood, IA**

**Proposed CH281D (104.1 MHz) - 0.235 kW Omaha, NE**

**September 22, 2022**

**TECHNICAL NARRATIVE**

This Technical Narrative and attached exhibits were prepared on behalf of Hickory Radio, LLC, (“Hickory”), licensee of FM translator station K287CB, Channel 287D, Facility ID No. 138708, Glenwood, Iowa. Hickory herein proposes to modify K287CB by relocating to a new tower site. The modified K287CB will be used as a fill-in translator for KIBM, 1490 kHz, Facility ID No. 74104, licensed to Omaha, NE. Walnut Radio, LLC (“Walnut”) is the licensee of KIBM. The principal owners of Walnut are also the principal owners of Hickory, so written consent to retransmit KIBM is not required. An exhibit demonstrating FCC Section 74.1201(g) “Fill-In Translator” is included with this application.

The application site is an existing self-supporting tower, 131.0 meters in overall height. The tower is registered with Antenna Structure Registration (“ASR”) number 1223431. The application site coordinates are 41° 13' 29.6" N. Latitude and 95° 57' 11.6" W. Longitude. The proposed K287CB facility would operate on Channel 281D with 235 watts ERP non-directional with circular polarization at 120 meters above ground and 157.5 meters HAAT.

Hickory is seeking Channel 281D (104.1 MHz) which is a non-adjacent channel. In FCC 1940 MB Docket No. 18-119 released May 9, 2019, the Commissions adopted changes to Section 74.1233(a)(1) which allows an FM translator to change to any available same-band FM channel as a minor change, upon a showing of actual or predicted interference to or from any other

broadcast station. An exhibit demonstrating that K287CB qualifies to relocate to a non-adjacent channel is included with this application.

A channel study using Section 73.207 separation distances for Class A FM stations is included as an exhibit. This channel study is provided as a courtesy to FCC staff to help identify potential contour overlap issues. Exhibits demonstrating Section 74.1204 contour protection are included for second adjacent full power FM stations KSRZ, Channel 283C0, Omaha, NE and KXKT, Channel 279C0, Glenwood, IA, and co-channel full power FM stations KIBZ, Channel 281C2, Crete, NE, WNAX-FM, Channel 281C1, Yankton, SD and KOEZ, Channel 281C1, Ames, IA.

Hickory respectfully requests a waiver of Section 74.1235 to use the 3.0 kW Class A spacing rules. An exhibit is provided that shows that the proposed transmit site is fully spaced to IF spaced FM station KFFF, Channel 227C3 using the 3 kW spacing rules. The exhibit also demonstrates that a modification to the top of the tower at the proposed application site would result in an FCC F(50,50) 60 dBu contour distance less than that of a full Class 3.0 kW Class FM station (24 km.)

An exhibit demonstrating compliance with Section 74.1233(a) "Common Overlap" is included.

A study has been undertaken to show the proposed K287CB facility is in compliance with the Commission's radio frequency emission limits and are attached as exhibits.

## **Non-Adjacent Channel Change Request**

Hickory Radio, LLC, (“Hickory”) is seeking a non-adjacent Channel 281D (104.1 MHz). In FCC 1940 MB Docket No. 18-119 released May 9, 2019, the Commissions adopted changes to Section 74.1233(a)(1) which allows an FM translator to change to any available same-band FM channel as a minor change, upon a showing of actual or predicted interference to or from any other broadcast station. The standard established in this policy is FM translator FCC F(50,50) 60 dBu contour overlaps the 45 dBu contour of an co-channel or first adjacent channel FM station or another co-channel or first adjacent channel FM station’s FCC F(50,50) 60 dBu contour overlaps with the FM translator’s 45 dBu contour.

The map included with this exhibit demonstrates that the 45 dBu contour of first adjacent full power FM station KFMT-FM, Channel 288A, Fremont, NE does overlap the FCC F(50,50) 60 dbu contour of the K287CB licensed facility.

Therefore, it is believed that the proposed K287CD non-adjacent channel change meets the requirements established in FCC 1940 MB Docket No. 18-119.

**K287CB**

Glenwood, IA  
BLFT20180405AAD  
Latitude: 41-15-26 N  
Longitude: 095-57-52.10 W  
ERP: 0.02 kW  
HAAT: 159.78  
Channel: 287  
Frequency: 105.3 MHz  
AMSL Height: 492.0 m  
Elevation: 360.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

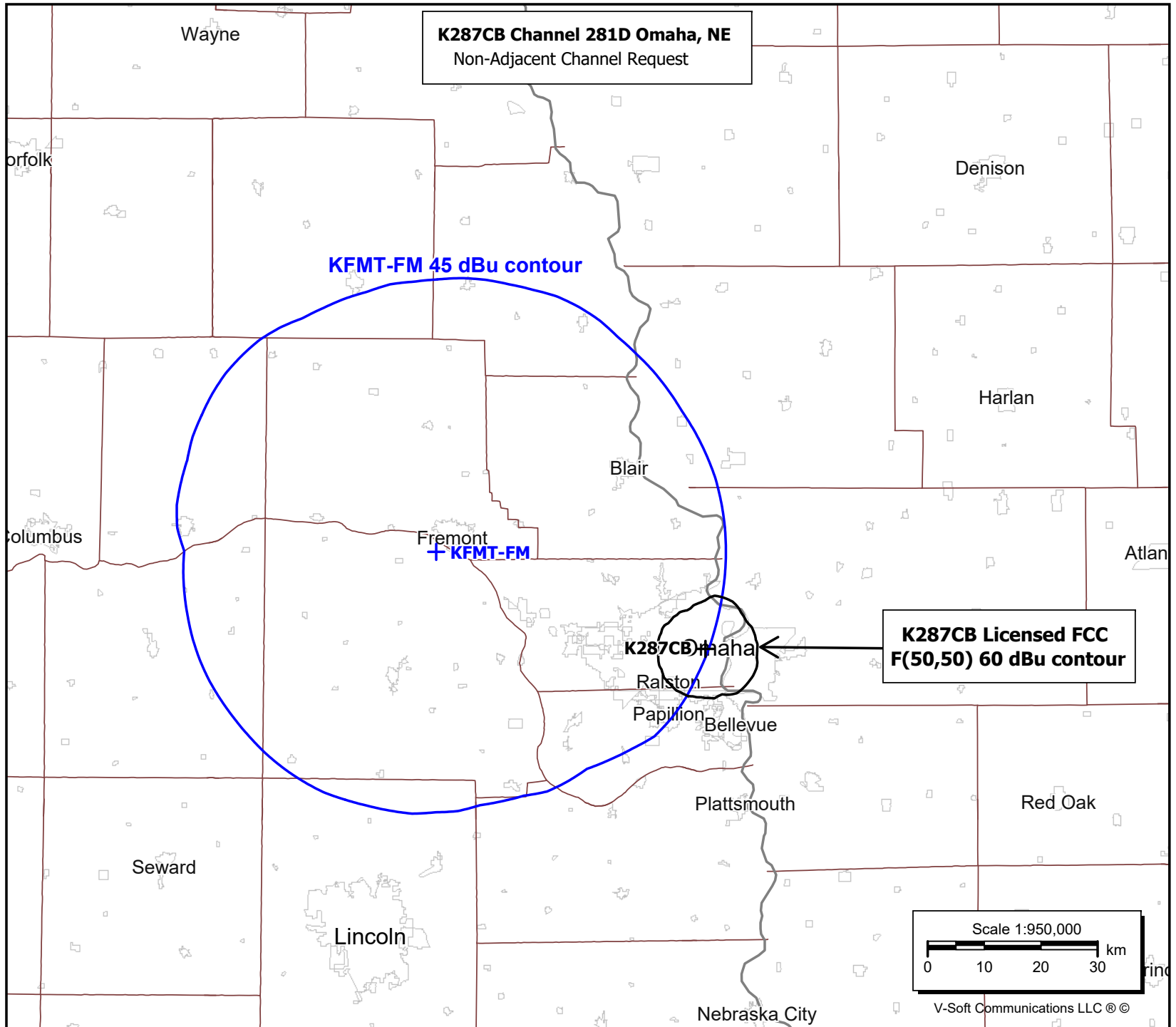
**KFMT-FM**

Fremont, NE  
BLH19800416AB  
Latitude: 41-24-40 N  
Longitude: 096-31-54.10 W  
ERP: 1.20 kW  
HAAT: 137.0  
Channel: 288  
Frequency: 105.5 MHz  
AMSL Height: 516.0 m  
Elevation: 408.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**K287CB Channel 281D Omaha, NE**  
Non-Adjacent Channel Request

**KFMT-FM 45 dBu contour**

**K287CB Licensed FCC  
F(50,50) 60 dBu contour**



**K287CB**

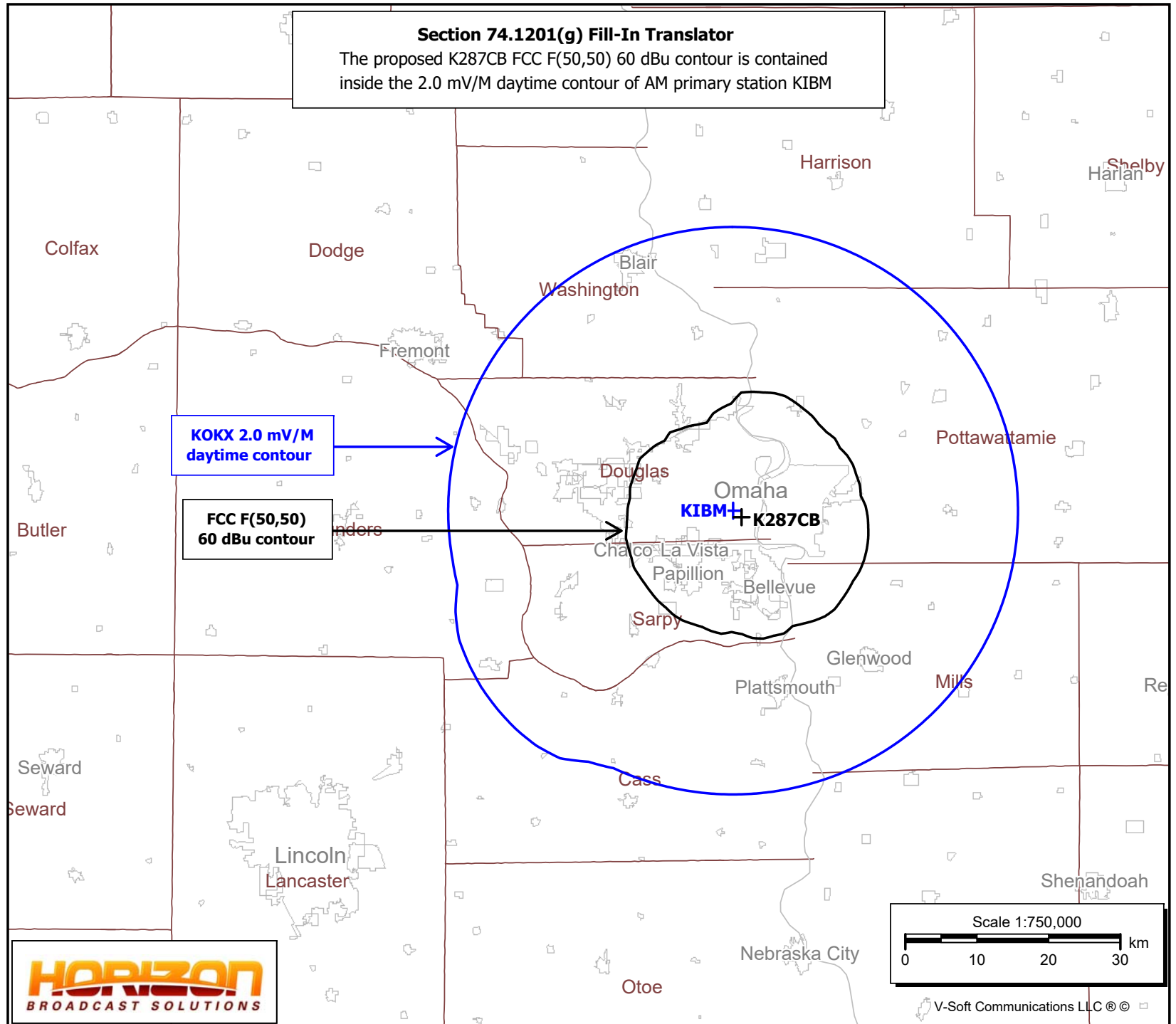
Omaha, NE  
BLFT20180405AAD  
Latitude: 41-13-29.60 N  
Longitude: 095-57-11.60 W  
ERP: 0.235 kW  
HAAT: 169.5  
Channel: 281  
Frequency: 104.1 MHz  
AMSL Height: 495.0 m  
Elevation: 375.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: FCC Model  
Loc. Variability: 50.0%  
Time Variability: 50.0%  
HAAT Mthd: FCC

**KIBM**

Type: AM  
Channel: 1490  
Latitude: 41-13-59 N  
Longitude: 095-58-02 W  
Power: 1.0 kW Day

**Section 74.1201(g) Fill-In Translator**

The proposed K287CB FCC F(50,50) 60 dBu contour is contained inside the 2.0 mV/M daytime contour of AM primary station KIBM



# W287CB CH281 Class AM FM Channel Study

REFERENCE						DISPLAY DATES		
41 13 29.6 N.	CLASS = A					DATA 09-03-22		
95 57 11.6 W.	Current Spacings to 3rd Adj.					SEARCH 09-03-22		
----- Channel 281 - 104.1 MHz -----								
Call	Channel	Location		Azi	Dist	FCC	Margin	
Lat.	Lng.	Ant	Power		HAAT			
-----								
KSRZ	LIC 283C0	Omaha		NE 324.7	10.8	85.5	-74.7	
41 18 16.0	96 01 42.1	CN	100.000 kW		332 M			
	Sm-Ksrz-Fm, LLC		BMLH20050610AIL					
<b>Note: See Section Section 74.1204 Contour Protection Exhibit: KSRZ &amp; KXKT</b>								
KXKT	LIC 279C0	Glenwood		IA 326.9	11.2	85.5	-74.4	
41 18 32.0	96 01 34.1	CN	100.000 kW		331 M			
	Ihm Licenses, LLC		BLH20060531ANQ					
<b>Note: See Section Section 74.1204 Contour Protection Exhibit: KSRZ &amp; KXKT</b>								
KIBZ	LIC 281C2	Crete		NE 221.4	104.3	165.5	-61.2	
40 31 06.0	96 46 07.1	CN	31.000 kW		187 M			
	Alpha 3e Licensee LLC Debt		BMLH20140911ACG					
<b>Note: See Section Section 74.1204 Contour Protection Exhibit: KIBZ WNAX-FM KOEZ</b>								
WNAX-FM	LIC 281C1	Yankton		SD 330.3	181.9	199.5	-17.6	
42 38 23.9	97 03 22.1	CN	100.000 kW		299 M			
	Saga Communications Of Sou		BLH19891026KA					
<b>Note: See Section Section 74.1204 Contour Protection Exhibit: KIBZ WNAX-FM KOEZ</b>								
KOEZ	LIC 281C1	Ames		IA 65.5	186.7	199.5	-12.8	
41 54 08.8	93 54 16.1	CN	100.000 kW		277 M			
	Saga Communications Of Iow		0000177355					
<b>Note: See Section Section 74.1204 Contour Protection Exhibit: KIBZ WNAX-FM KOEZ</b>								
KFFF	LIC-N 227C3	Bennington		NE 324.7	10.8	11.5	-0.7	
41 18 16.0	96 01 42.0	NCN	1.000 kW		361 M			
	Ihm Licenses, LLC		0000195350					
KFFF	ALO 227C3	Bennington		NE 351.9	13.5	11.5	2.0	
41 20 43.0	95 58 34.0		0.000 kW		100 M			
	Ihm Licenses, LLC							
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## **Section 74.1204**

### **Contour Protection to KSRZ & KXKT**

This comprehensive exhibit has been prepared to demonstrate that the proposed modification to FM translator K287CB will not cause prohibited interference to second adjacent full power FM stations KSRZ, Channel 283C0, Omaha, NE and KXKT, Channel 279C0, Glenwood, IA. This statement demonstrates that a lack of population and/or other factors allow this proposal to be compliant with Section 74.1204. The process commonly called “Living Way,” allows for the use of U/D Analysis, also known as “signal strength ratio methodology.” In this instant case the facilities to be protected are second adjacent and are to be afforded protection from signals 40 dB stronger than they present in the location of the proposed antenna location.

The KSRZ F(50,50) protected contour at the proposed K287CB application site is 99.5 dBu. Therefore, the proposed new K287CB F(50,10) interfering contour with respect to KSRZ is the 139.5 dBu contour. The KXKT F(50,50) protected contour at the proposed K287CB application site is 99.0 dBu. Therefore, the proposed new K287CB F(50,10) interfering contour with respect to KXKT is the 139.0 dBu contour. Therefore, K287CB will cause greater interference to KXKT and that contour will be used to determine Section 74.1204 compliance. Using the FCC's FM propagation curves program (see attached), the 139.0 dBu contour was calculated to extend 12 meters from the antenna.

The proposed transmit antenna would be mounted 120 meters above ground level and there are no high rise buildings in the vicinity of the tower. Therefore, a lack of population has been demonstrated within the area of predicted interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204. It is believed that the proposed K287CB modification

will not cause prohibited interference to KSRZ or KXKT as the interfering contour does not reach the ground or any high rise buildings in the area.



**K287CB**

Omaha, NE  
Latitude: 41-13-29.60 N  
Longitude: 095-57-11.60 W  
ERP: 0.235 kW  
HAAT: 157.5 m  
Channel: 281  
Frequency: 104.1 MHz  
AMSL Height: 483.0 m  
Elevation: 363.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**KSRZ**

Omaha, NE  
BMLH20050610AIL  
Latitude: 41-18-16 N  
Longitude: 096-01-42.10 W  
ERP: 100.00 kW  
HAAT: 331.7 m  
Channel: 283  
Frequency: 104.5 MHz  
AMSL Height: 672.8 m  
Elevation: 363.8 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**KXKT**

Glenwood, IA  
BLH20060531ANQ  
Latitude: 41-18-32 N  
Longitude: 096-01-34.10 W  
ERP: 100.00 kW  
HAAT: 331.0 m  
Channel: 279  
Frequency: 103.7 MHz  
AMSL Height: 674.0 m  
Elevation: 354.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**Section 74.1204 Contour Protection**

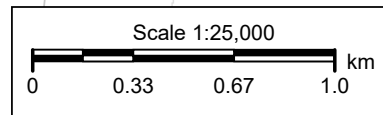
KSRZ Channel 283C0 Omaha, NE  
KXKT Channel 279C0 Glenwood, IA

KXKT F(50,50) FCC  
99 dBu contour

+ K287CB

KSRZ F(50,50) FCC  
99 dBu contour

**HORIZON**  
BROADCAST SOLUTIONS



V-Soft Communications LLC ©

# FM and TV Propagation Curves

## Databases & Searches

[AM Query](#)
[Antenna Height Above Average Terrain \(HAAT\) Calculator](#)
[Antenna Structure Registration \(ASRN\) Records Within A Radius](#)
[Broadcast Station Mailing Address Search](#)
[CDBS Database Public Files](#)
[Children's Educational Television Reporting - Form 2100, Schedule H](#)
[Children's Programming Query](#)
[COLORIT HTML Color Generator](#)
[Degrees Minutes Seconds to/from Decimal Degrees](#)
[Distance and Azimuths Between Two Sets of Coordinates](#)
[Electioneering Communications Database](#)
[EEO Filing Search](#)
[Filing Systems and Databases](#)
[Find Community Coordinates](#)
[Find Terminal Coordinates](#)
[Find Values \(Conversions\)](#)
[FM and TV Propagation Curves](#)
[FM Query](#)

This Javascript calculator uses the FM or TV propagation curves to find the distance to a service or interfering contour, or the corresponding field strength at a given contour distance. [More after the form.](#)

Select Contour Type:	F(50,50) Service Contour -- FM and NTSC (analog) TV F(50,10) Interfering Contour F(50,90) Digital TV Service Contour	
Select Channel Range: (not TV Virtual Channel)	FM Radio or TV Transmit Channels 2-6 TV Transmit Channels 7-13 TV Transmit Channels 14-69	
Find This:	Field Strength, given a Distance (in km) Distance, Given a Field Strength (in dBu) FM ERP, given Distance and Field Strength (F(50,50) Service Contour)	
235 ERP (kW)	<input type="text"/> Distance (km)	
157.5 HAAT (meters)	139 Field (dBu)	
<input type="button" value="Find Result"/>	<input type="button" value="Clear Form"/>	

Results:

**Calculated Distance = 0.012 km**

Free Space equation used to compute distance.

This function uses the FCC's CURVES program to make calculations of the F(50,50) FM and NTSC (analog) TV service curves, the F(50,10) interfering signal curves, and the F(50,90) digital TV service curves. Printable copies of these propagation curves are available at [FM and TV Propagation Curves Graphs](#).

Antenna Height Above Average Terrain (HAAT) values for a particular FM or TV station can be obtained from the [FM Query](#) or the [TV Query](#), or use the [HAAT Calculator](#). The class of an FM station may be retrieved from the [FM Query](#).

**K287CB**

Omaha, NE  
 Latitude: 41-13-29.60 N  
 Longitude: 095-57-11.60 W  
 ERP: 0.235 kW  
 HAAT: 157.5 m  
 Channel: 281  
 Frequency: 104.1 MHz  
 AMSL Height: 483.0 m  
 Elevation: 363.0 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No  
 Prop Model: None

**KIBZ**

Crete, NE  
 BMLH20140911ACG  
 Latitude: 40-31-06 N  
 Longitude: 096-46-07.10 W  
 ERP: 31.00 kW  
 HAAT: 187.0 m  
 Channel: 281  
 Frequency: 104.1 MHz  
 AMSL Height: 614.0 m  
 Elevation: 451.0 m

**WNAX-FM**

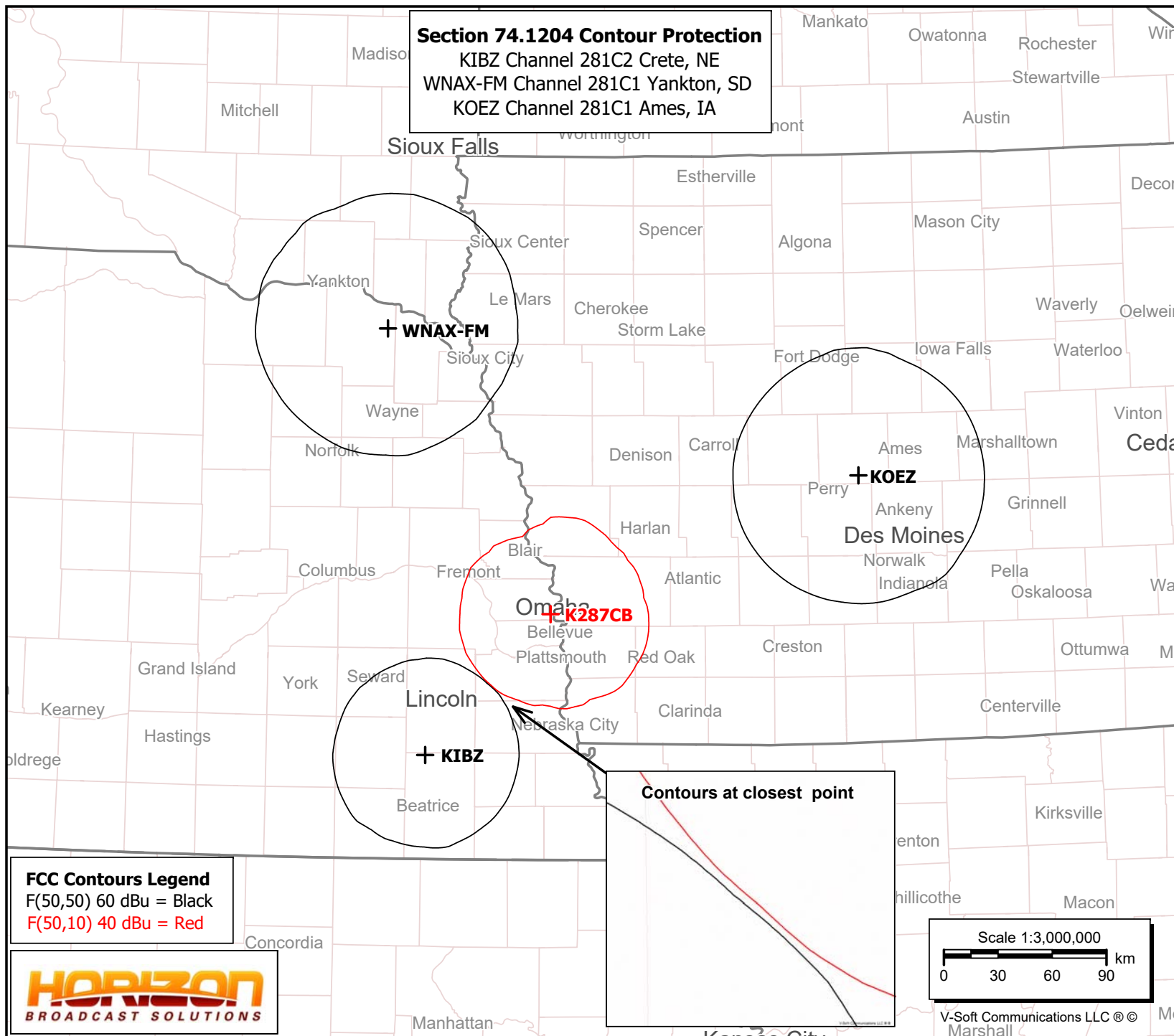
Yankton, SD  
 Latitude: 42-38-23.90 N  
 Longitude: 097-03-22.10 W  
 ERP: 100.00 kW  
 HAAT: 299.0 m  
 Channel: 281  
 Frequency: 104.1 MHz  
 AMSL Height: 726.0 m  
 Elevation: 488.0 m

**KOEZ**

Ames, IA  
 0000177355  
 Latitude: 41-54-08.80 N  
 Longitude: 093-54-16.10 W  
 ERP: 100.00 kW  
 HAAT: 277.0  
 Channel: 281  
 Frequency: 104.1 MHz  
 AMSL Height: 578.0 m  
 Elevation: 309.0 m

**Section 74.1204 Contour Protection**

KIBZ Channel 281C2 Crete, NE  
 WNAX-FM Channel 281C1 Yankton, SD  
 KOEZ Channel 281C1 Ames, IA



**Section 74.1235 Waiver Request**  
**3.0 kW Class A IF spacing**

Hickory Radio, LLC (“Hickory”), licensee of K287CB Channel 287D and applicant for non-adjacent channel 281D, respectfully requests a waiver of Section 74.1235 to use the 3.0 kW Class A spacing rules. An exhibit is provided that shows that the proposed Channel 281D transmit site is fully spaced to IF spaced FM station KFFF, Channel 227C3, Bennington, NE using the 3 kW Class A spacing rules.

The spacing for A 6.0 kW Class A to a Class C3 “IF” spaced station is 12 km. (rounded to 11.5 km.) The distance to KFFF is 10.8 km. The attached Channel Study using 3.0 kW Class A spacing distances shows the Class C3 IF spacing is 11 km (rounded to 10.5 km.)

The distance from the K287CB application site and KFFF is 10. km. This is short spaced by 0.7 km. under the 6.0 kW Class A spacing table but clear by 0.3 km using the 3.0 kW Class A spacing table.

Hickory must also demonstrate that K287CB FCC F(50,50) 60 dBu contour if located at the top of the application site tower would not extend further than the FCC F(50,50) 60 dBu of a full 3.0 Class A facility (24.223 km.) The map included with this exhibit clearly shows that the K287CB FCC F(50,50) 60 dBu contour would not exceed 24.233 km.

Therefore, Hickory believes the proposed K287CB application for a construction permit of 235 watts ERP meets the requirements to receive a waiver of FCC Section 74.1235.

**Section 74.1235 Waiver Request  
W287CB 3.0 kW Class A FM Channel Study**

REFERENCE							DISPLAY DATES
41 13 29.6 N.	CLASS = A Int = A						DATA 09-03-22
95 57 11.6 W.	Former Spacings to 3rd Adj.						SEARCH 09-03-22
----- Channel 281 - 104.1 MHz -----							
Call	Channel	Location		Azi	Dist	FCC	Margin
Lat.	Lng.	Ant	Power		HAAT		
-----							
KSRZ	LIC	283C0 Omaha		NE 324.7	10.8	85.5	-74.7
41 18 16.0	96 01 42.1	CN	100.000 kW		332 M		
Sm-Ksrz-Fm, LLC			BMLH20050610AIL				
KXKT	LIC	279C0 Glenwood		IA 326.9	11.2	85.5	-74.4
41 18 32.0	96 01 34.1	CN	100.000 kW		331 M		
Ihm Licenses, LLC			BLH20060531ANQ				
KIBZ	LIC	281C2 Crete		NE 221.4	104.3	162.5	-58.2
40 31 06.0	96 46 07.1	CN	31.000 kW		187 M		
KOEZ	ALO	281C0 Ames		IA 65.5	186.7	214.5	-27.8
41 54 08.9	93 54 15.8		0.000 kW		450 M		
Saga Communications Of Iow							
WNAX-FM	LIC	281C1 Yankton		SD 330.3	181.9	195.5	-13.6
42 38 23.9	97 03 22.1	CN	100.000 kW		299 M		
Saga Communications Of Sou			BLH19891026KA				
KOEZ	LIC	281C1 Ames		IA 65.5	186.7	195.5	-8.8
41 54 08.8	93 54 16.1	CN	100.000 kW		277 M		
Saga Communications Of Iow			0000177355				
KFFF	LIC-N 227C3	Bennington		NE 324.7	10.8	10.5	0.35
41 18 16.0	96 01 42.0	NCN	1.000 kW		361 M		
Ihm Licenses, LLC			0000195350				

**Note: Hickory requests a waiver of FCC Section 74.1235 for K287CB**

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## Antenna Structure Registration

[FCC](#) > [WTB](#) > [ASR](#) > [Online Systems](#) > ASR Search

[FCC Site Map](#)

ASR Registration Search

### Registration 1223431

[HELP](#)

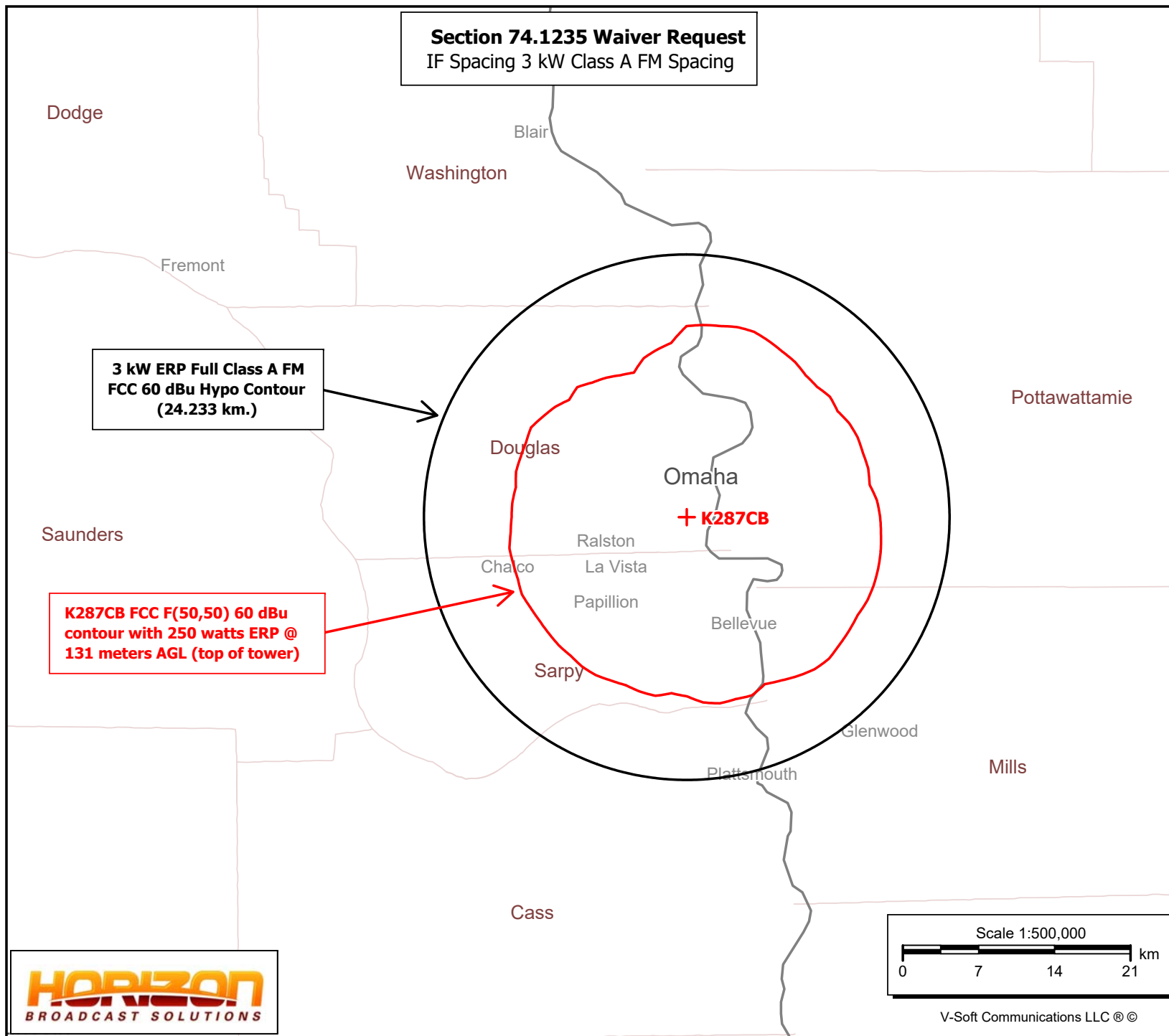
[New Search](#) [Return to Results](#) [Printable Page](#) [Reference Copy](#) [Map Registration](#)

Registration Detail			
Reg Number	1223431	Status	Constructed
File Number	A0920777	Constructed	03/14/2001
EMI	No	Dismantled	
NEPA	No		
Antenna Structure			
Structure Type	TOWER - Free standing or Guyed Structure used for Commu		
Location (in NAD83 Coordinates - <a href="#">Convert to NAD27</a> )			
Lat/Long	41-13-29.6 N 095-57-11.6 W	Address	2808 "B" Street
City, State	Omaha , NE	County	DOUGLAS
Zip	68107		
Center of AM Array		Position of Tower in Array	
Heights (meters)			
Elevation of Site Above Mean Sea Level		Overall Height Above Ground (AGL)	
363.0		131.0	
Overall Height Above Mean Sea Level		Overall Height Above Ground w/o Appurtenances	
494.0		121.9	
Painting and Lighting Specifications			
FAA Chapters 4, 8, 12			
Paint and Light in Accordance with FAA Circular Number <a href="#">70/7460-1K</a>			
FAA Notification			
FAA Study	01-ACE-2153-OE	FAA Issue Date	10/05/2001
Owner & Contact Information			
FRN	0011498342	Owner Entity Type	Limited Liability Company
Assignor FRN	0009764150	Assignor ID	L00759842
Owner			
Global Tower, LLC, through American Towers, LLC Attention To: FAA/FCC Regulatory 10 Presidential Way Woburn , MA 01801		P: (678)564-3236 F: E: faa-fcc@americantower.com	
Contact			
Attention To: FAA/FCC Regulatory 10 Presidential Way Woburn , MA 01801		P: (678)564-3236 F: E: faa-fcc@americantower.com	
Last Action Status			
Status	Constructed	Received	09/02/2014
Purpose	Change Owner	Entered	09/02/2014
Mode	Interactive		
Related Applications			
09/02/2014	<a href="#">A0920777</a> - Change Owner (OC)		
08/29/2014	<a href="#">A0918075</a> - Change Owner (OC)		
05/18/2009	<a href="#">A0637703</a> - Admin Update (AU)		
<a href="#">All related applications (8)</a>			
Comments			
Comments			
None			
History			
Date	Event		
09/03/2014	Registration Printed		
09/03/2014	Change of Ownership Letter Sent		
09/02/2014	Change of Ownership Received		
<a href="#">All History (16)</a>			
Pleadings			
Pleading Type	Filer Name	Description	Date Entered
None			
Automated Letters			
09/03/2014	<a href="#">Ownership Change</a> , Reference 822044		
03/29/2005	<a href="#">Authorization</a> , Reference 415814		
09/15/2004	<a href="#">Ownership Change</a> , Reference 358754		
<a href="#">All letters (5)</a>			

<b>ASR Help</b>	<a href="#">ASR License Glossary</a> - <a href="#">FAQ</a> - <a href="#">Online Help</a> - <a href="#">Documentation</a> - <a href="#">Technical Support</a>
<b>ASR Online Systems</b>	<a href="#">TOWAIR</a> - <a href="#">CORES</a> - <a href="#">ASR Online Filing</a> - <a href="#">Application Search</a> - <a href="#">Registration Search</a>
<b>About ASR</b>	<a href="#">Privacy Statement</a> - <a href="#">About ASR</a> - <a href="#">ASR Home</a>
<b>Registration Search</b>	<div>By Registration Number <input type="text"/></div> <div>SUBMIT</div>

**K287CB**

Omaha, NE  
Latitude: 41-13-29.60 N  
Longitude: 095-57-11.60 W  
ERP: 0.25 kW  
HAAT: 168.5 m  
Channel: 281  
Frequency: 104.1 MHz  
AMSL Height: 494.0 m  
Elevation: 363.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**Section 74.1235 Waiver Request**  
IF Spacing 3 kW Class A FM Spacing



## **Human Exposure to Radiofrequency Electromagnetic Field & Section 106 Compliance (Environmental)**

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. 1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. Hickory Radio, LLC, ("Hickory"), licensee of FM translator station K287CB, Channel 287D, Facility ID No. 138708, Glenwood, Iowa herein proposes to modify K287CB by relocating to a different tower site and operating on non-adjacent channel 281D (104.1 MHz). The transmitting site is an existing tower 133 meters in overall height and is not registered with an FCC Antenna Structure Registration (ASR) number. The tower is located at 33° 41' 20.4" N ~ 84° 30' 37.7" W (NAD 83). The proposed antenna is an ERI Model 100A side mounted two bay half wave circularly polarized antenna. The proposed W287CB facility would operate with 235 watts ERP non-directional at 120 meters above ground level and 157.5 meters HAAT. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of § 1.1306 of the FCC Rules. Because K287CB proposes to operate from an existing tower and antenna and no changes are being made to the tower, it is believed to be exempt from a Section 106 review by the SHPO/THPO.

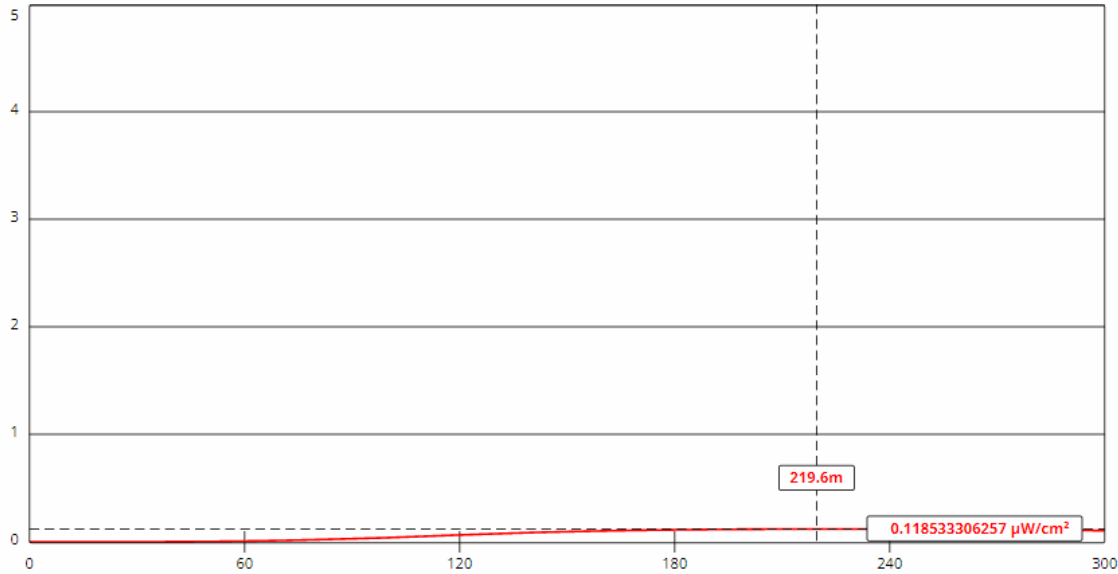
The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The revised FM Model Program does include the ERI antenna under Type Two, Opposed V - dipole. Using the Type 2 EPA element, the maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility is  $0.119 \mu\text{W}/\text{cm}^2$  at 219.6 meters, which is 0.060 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in 1.1307(b) regarding sites with multiple emitters, which excludes applicant from responsibility for taking any corrective action in areas where the proposal's contribution is less than five percent.

The applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

# FM Model

- Radio Frequency Safety
- FCC Policy on Human Exposure
- RF Safety FAQ
- Body Tissue Dielectric Parameters
- RF Safety Highlighted Releases
- FM Model

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data published in 1985 by the EPA. [Show More....](#)



View Tabular Results +

Channel Selection	Channel 281 (104.1 MHz) ▼		
Antenna Type +	EPA Type 2: Opposed V Dipole ▼		
Height (m)	<input type="text" value="120"/>	Distance (m)	<input type="text" value="300"/>
ERP-H (W)	<input type="text" value="235"/>	ERP-V (W)	<input type="text" value="235"/>
Num of Elements	<input type="text" value="2"/>	λ	<input type="text" value="0.5"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	