

## **TECHNICAL NARRATIVE**

This Technical Statement and attached exhibits were prepared on behalf of IHM Licenses, LLC, (“IHM”), licensee of station KVDU, Channel 281C, Facility ID No. 34528, Houma, Louisiana with construction permit LMS File Number 0000187347 to operate on Channel 281C, licensed to Gonzales, Louisiana.

This KVDU proposed construction permit modification is being filed as part of a two station group of contingent minor mod applications that also includes commonly-owned WFFX, Channel 279C1, Hattiesburg, MS. The KVDU and WFFX applications are being filed as contingently related applications pursuant to Section 73.3517(e) of the Commission’s rules. As KVDU and WFFX are commonly-owned, there is no coordinated facility modification agreement. Please see the WFFX minor modification application for the specifics of that proposed modification.

IHM seeks to modify KVDU construction permit 0000187347 to operate on Channel 281C3 from a different transmit location, licensed to Gonzales, Louisiana. The proposed KVDU application site is an existing tower registered with Antenna Structure Registration (“ASR”) number 1015906. The coordinates are 30° 23’ 44.7” North Latitude 91° 06’ 15.6” West Longitude (NAD 83). The proposed KVDU facility would operate with 18 kW at 100 meters height above ground level and 101.8 meters HAAT. The KVDU application site channel study shows one short-spacing, to second adjacent full power FM station WNNX, Channel 283A, Jackson, Louisiana. IHM requests Section 73.215 contour protection with respect to WNNX.

The KVDU FCC F(50,50) 70 dBu contour does not reach 80 percent of Gonzales. Therefore, a Section 73.315 Supplemental Showing is included that demonstrates that KVDU reaches 100 percent of Gonzales with a Point-to-Point Version 2 70 dBu mean contour.

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

KVDU CH281C3 Application Site Channel Study

REFERENCE 30 23 44.7 N. CLASS = C3 Int = B1 DISPLAY DATES DATA 03-27-23  
 91 06 15.6 W. Current Spacings to 3rd Adj. SEARCH 03-27-23  
 ----- Channel 281 - 104.1 MHz -----

Call	Channel	Location	Azi	Dist	FCC	Margin
Lat.	Lng.	Ant	Power	HAAT		
KVDU	LIC 281C	Houma	LA 143.2	61.2	236.5	-175.3
29 57 13.7	90 43 25.3	CN	100.000 kW	593 M		
	Ihm Licenses, LLC		BLH19880224KB			
KVDU	CP 281C	Gonzales	LA 143.3	61.2	236.5	-175.3
29 57 11.0	90 43 26.0	CN	100.000 kW	593 M		
	Ihm Licenses, LLC		0000187347			
K279AL	LIC 279D	Baton Rouge	LA 34.4	4.3	40.5	-36.2
30 25 39.7	91 04 44.4	VN	0.019 kW	84 M		
	CSN International		BMLFT20160509AAQ			
WNXX	LIC 283A	Jackson	LA 357.0	38.9	41.5	-2.7
30 44 44.7	91 07 32.4	CN	3.000 kW	144 M		
	Guaranty Broadcasting Comp		BLH20070702AAN			
<b>Note: Adopt Section 73.215 contour protection with respect to WNXX</b>						
W279DB	LIC 279D	Hammond	LA 77.5	58.9	40.5	18.4
30 30 32.0	90 30 19.0	CN	0.250 kW 0 M			
	North Shore Broadcasting,		BLFT20190130ABA			
KQFA-LP	LIC 282L1	Lafayette	LA 258.3	90.1	66.5	23.6
30 13 43.7	92 01 16.4	HN	0.050 kW	50 M		
	Lafayette Jesucristo Es Mi		0000111356			
KEZP	ALO 282C3	Bunkie	LA 306.5	123.1	98.5	24.6
31 02 56.7	92 08 34.5		0.000 kW	100 M		
	Smg-Alexandria, LLC					
KLWB-FM	LIC-N 279C2	Carencro	LA 266.1	82.7	55.5	27.2
30 20 32.7	91 57 46.4	NCN	10.000 kW	283 M		
	Delta Media Corporation		BLH20131101AFX			
WMJU	LIC 282C3	Bude	MS 17.5	135.4	98.5	36.9
31 33 33.6	90 40 26.4	CN	25.000 kW	100 M		
	North Shore Broadcasting C		BLH19990916AAL			
K284CU	LIC 284D	Houma	LA 153.8	82.3	40.5	41.8
29 43 48.8	90 43 37.3	CN	0.250 kW 0 M			
	Jle, Incorporated		BLFT20180607AAB			
K279CU	LIC 279D	Thibodaux	LA 153.8	82.3	40.5	41.8
29 43 48.8	90 43 37.3	CN	0.250 kW 0 M			
	Gap Broadcasting, LLC		BLFT20170313ABM			
KJLO-FM	LIC 281C0	Monroe	LA 339.9	267.9	225.5	42.4
32 39 36.5	92 05 15.5	CN	100.000 kW	310 M		
	Holladay Broadcasting Of L		BLH19880812KE			
KEZP	LIC 282C3	Bunkie	LA 303.0	142.6	98.5	44.1
31 05 14.7	92 21 34.5	CN	19.200 kW	114 M		
	Smg-Alexandria, LLC		BLH20060119ADJ			

Call	Channel	Location		Azi	Dist	FCC	Page #
Lat.	Lng.	Ant	Power		HAAT	Margin	
WJSH	ALO 284A	Folsom		LA 66.7	88.5	41.5	47.0
30 42 28.7	90 15 18.3		0.000 kW		100 M		
North Shore Broadcasting C							
KLCJ	LIC-N 281A	Oak Grove		LA 257.6	195.6	141.5	54.1
30 00 11.8	93 05 05.6	NCN	6.000 kW		94 M		
Delta Media Corporation BLH20170622AAH							
KNEK-FM	LIC 284C3	Washington		LA 272.0	97.1	42.5	54.6
30 25 17.7	92 06 50.4	CN	25.000 kW		100 M		
Radio License Holding Cbc, BLH19960223KB							

**KVDU Channel 281C3 Gonzales, Louisiana  
FCC Section 73.315 Supplemental Showing  
City Grade Coverage of Gonzales**

This Supplemental Showing is based upon the standards established in the FCC DA-10-1760 Skytower Communications decision. A supplemental showing using the Point-to-Point Version 2 mean occurrence 70 dBu contour is used to show city coverage of Gonzales, LA. The contour was created using V-Soft Probe Version 4.120a Professional. The specific PTP v2 software settings are listed on the coverage map in the upper left hand corner of the map.

A table is included showing the distances to the FCC 70 dBu contour and PVP v2 mean occurrence 70 dBu contour for sixteen radials between 131 and 146 degrees azimuth that cross over Gonzales. The radials are clearly shown on a separate map included with this exhibit. The supplemental showing clearly establishes that the PTP v2 70 dBu median occurrence contours along the radials that cross the corporate boundaries of Gonzales are more than 10% greater than the FCC F(50,50) 70 dBu contours.

The attached map shows the FCC F(50,50) 60 dBu and 70 dBu contours as well as the PTP v2 70 dBu median occurrence contour. 100 percent of Gonzales is contained in the FCC F(50,50) 60 dBu contour. The PTP v2 70 dBu median occurrence contour reaches 100 percent of the area and population of Gonzales. The PTP v2 70 dBu signal shading shows that 100 percent of the area of Gonzales receives a 70 dBu or greater signal strength. 94.2 percent of the population of Gonzales receives a PTP v2 signal strength of 74 dBu or greater.

Note the Gonzales, LA community boundary shown is from the 2020 Tiger Census data and the population data is also from the 2020 Census.

Therefore, it is believed that the proposed KVDU Channel 281C3 CP modification is in compliance with the Section 73.315 community coverage rules.

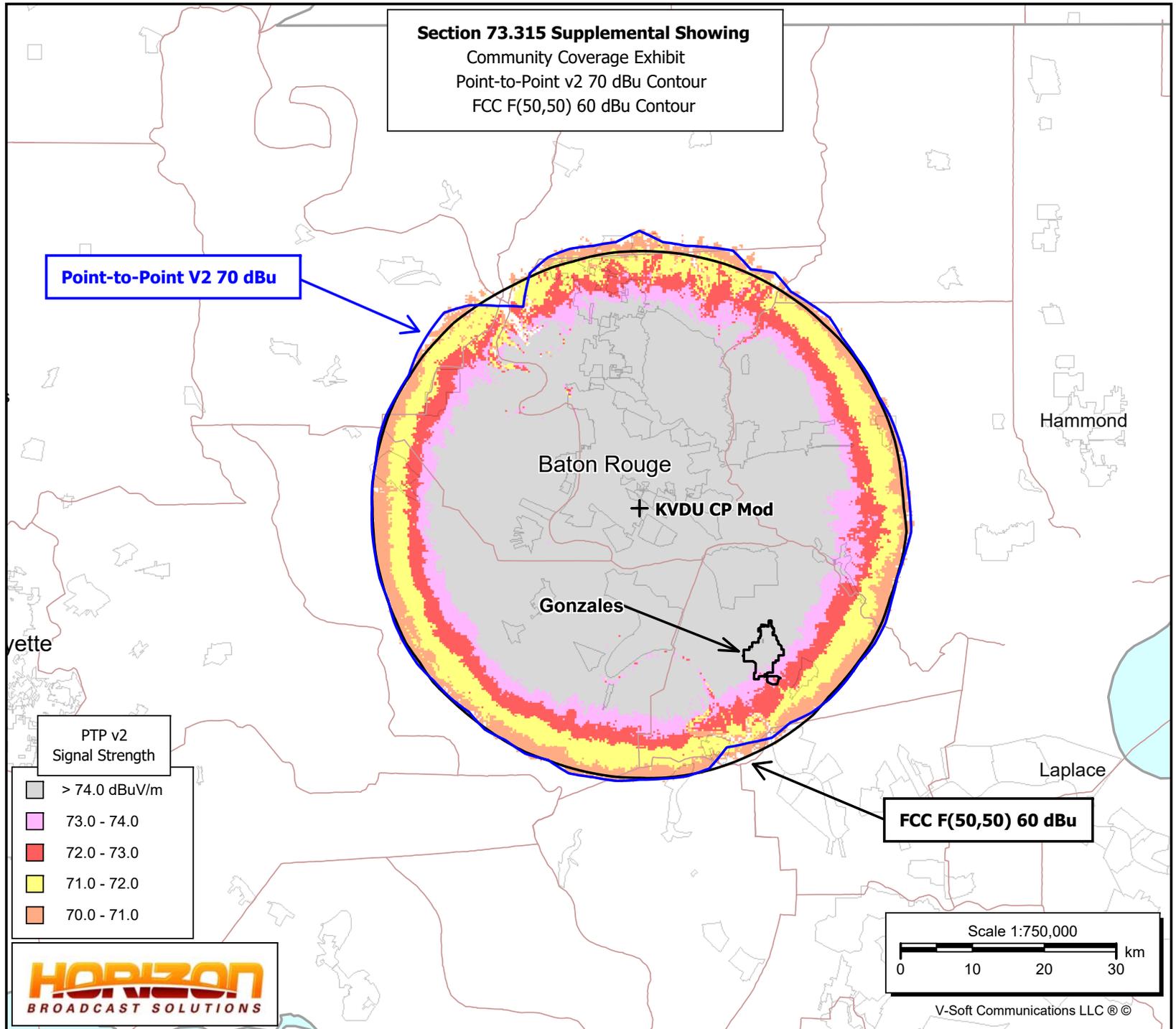
**KVDU CP Mod**

Gonzales, LA  
Latitude: 30-23-44.70 N  
Longitude: 091-06-15.60 W  
ERP: 18.00 kW  
HAAT: 101.8 m  
Channel: 281  
Frequency: 104.1 MHz  
AMSL Height: 111.3 m  
Elevation: 11.3 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: FM PTP v2

**Section 73.315 Supplemental Showing**

Community Coverage Exhibit  
Point-to-Point v2 70 dBu Contour  
FCC F(50,50) 60 dBu Contour

Point-to-Point V2 70 dBu

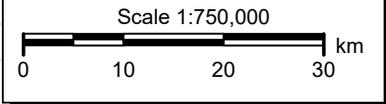


PTP v2  
Signal Strength

- > 74.0 dBuV/m
- 73.0 - 74.0
- 72.0 - 73.0
- 71.0 - 72.0
- 70.0 - 71.0

**HORIZON**  
BROADCAST SOLUTIONS

FCC F(50,50) 60 dBu



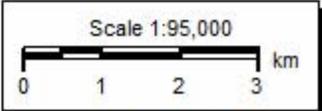
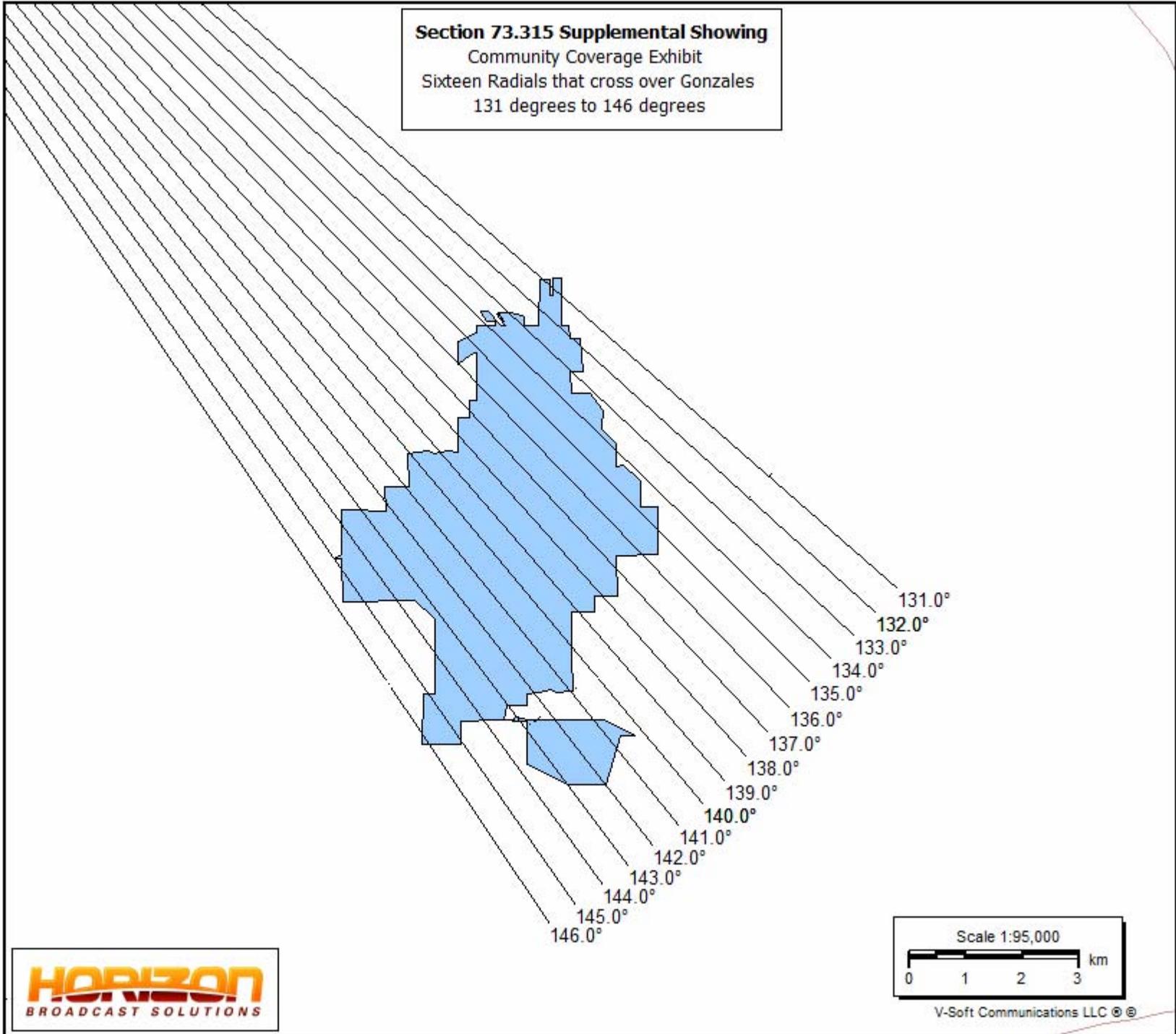
V-Soft Communications LLC ©

**KVDU CP Mod**

Gonzales, LA  
Latitude: 30-23-44.70 N  
Longitude: 091-06-15.60 W  
ERP: 18.00 kW  
HAAT: 101.8 m  
Channel: 281  
Frequency: 104.1 MHz  
AMSL Height: 111.3 m  
Elevation: 11.3 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: Longley-Rice  
Climate: Cont temperate  
Conductivity: 0.0050  
Dielec Const: 15.0  
Refractivity: 311.0  
Receiver Ht AG: 9.1 m  
Receiver Gain: 0 dB  
Time Variability: 50.0%  
Sit. Variability: 50.0%  
ITM Mode: Broadcast

**Section 73.315 Supplemental Showing**

Community Coverage Exhibit  
Sixteen Radials that cross over Gonzales  
131 degrees to 146 degrees



V-Soft Communications LLC © ©

Section 73.315 Supplemental Coverage Showing  
 KVDU Channel 281C3 Gonzales, Louisiana  
 Comparison of FCC F(50,50) 70 dBu contour distance  
 vs.  
 Point-to-Point v2 70 dBu Contour  
 (16 radials which cross Gonzales are shown)

<b>Site:</b>	<b>KVDU Channel 281C3 Gonzales, LA</b>				
<b>Coordinates:</b>	<b>37-31-14 N ~ 93-06-15 W</b>				
<b>Freq: (MHz)</b>	<b>104.1</b>				
<b>ERP: (kW)</b>	<b>18.0</b>				
<b>HAAT: (m)</b>	<b>101.8</b>				
<b>Bearing (degrees)</b>	<b>ERP kW</b>	<b>HAAT (m)</b>	<b>FCC F(50,50) 70 dBu Distance (km)</b>	<b>Point-to-Point 70 dBu Contour Distance (km)</b>	<b>Percentage Increase</b>
131	18.0	103.6	21.9	37.40	70.8%
131	18.0	103.6	21.9	37.50	71.2%
133	18.0	103.6	21.9	37.50	71.2%
134	18.0	103.6	21.9	37.40	70.8%
135	18.0	103.6	21.9	37.30	70.3%
136	18.0	104.5	22.0	37.40	70.0%
137	18.0	105.7	22.1	37.40	69.2%
138	18.0	105.7	22.1	37.20	68.3%
139	18.0	105.7	22.1	37.00	67.4%
140	18.0	105.7	22.1	37.00	67.4%
141	18.0	106.5	22.2	37.10	67.1%
142	18.0	106.5	22.2	37.30	68.0%
143	18.0	106.5	22.2	36.80	65.8%
144	18.0	106.5	22.2	37.00	66.6%
145	18.0	107.5	22.3	36.30	62.8%
146	18.0	107.5	22.3	36.70	64.6%
<b>Avg.</b>	<b>18.0</b>	<b>129.7</b>	<b>22.08</b>	<b>37.14</b>	<b>68.2%</b>

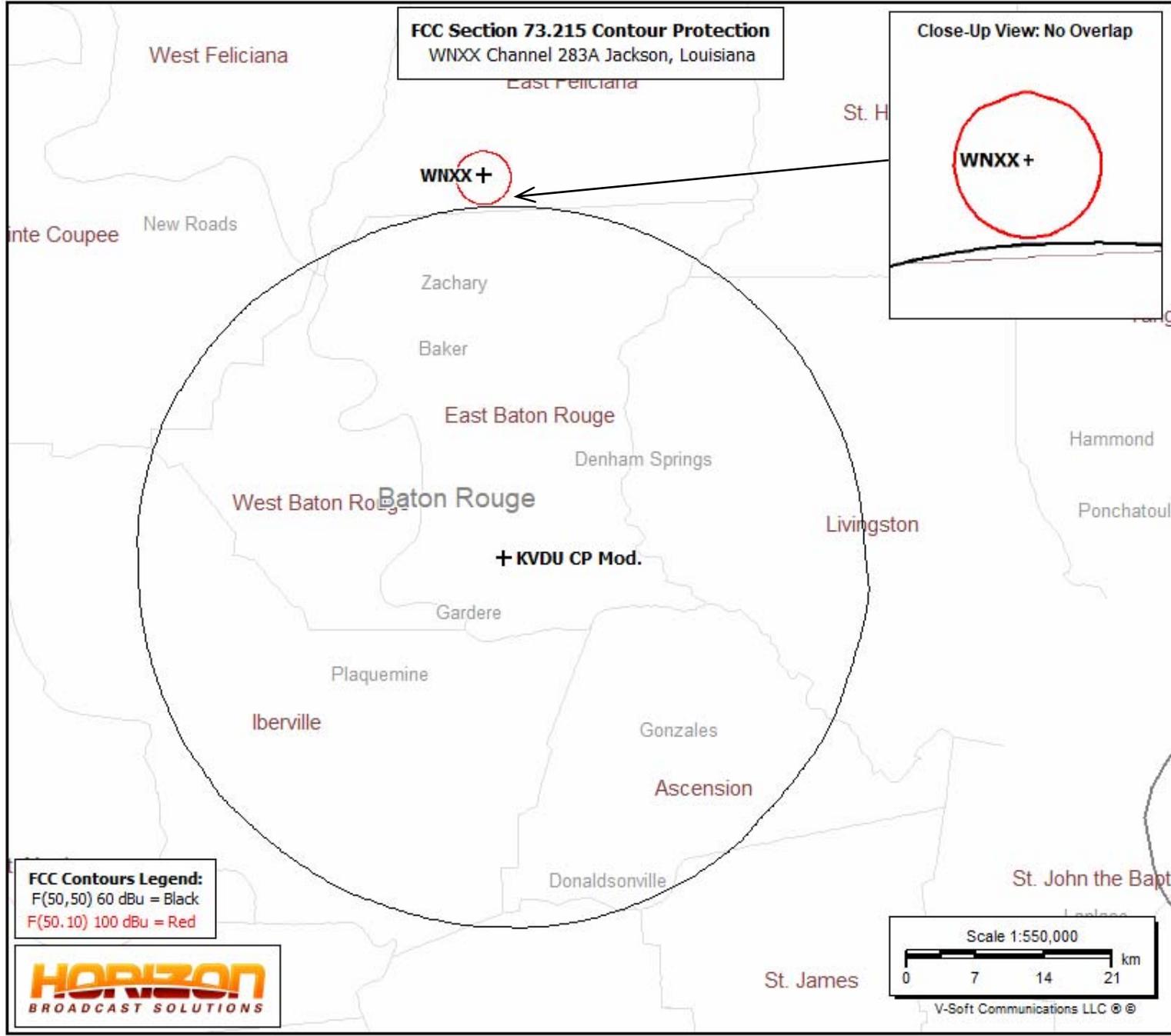
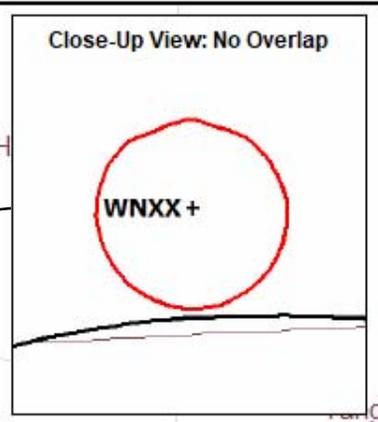
## **Broadcast Facility**

The proposed KVDU facility does not comply with the applicable engineering standards and assignments of 47 C.F. R. Section 73.207 and 47 C.F.R. Section 73.315. Please refer to the 47 C.F.R. Section 73.215 Contour Protection Exhibit for WNXX, Channel 283A, Facility ID No. 52882, Jackson, LA and the 47 C.F.R. Section 73.315 Supplemental Showing Exhibit.

**KVDU CP Mod.**  
 Gonzales, LA  
 Latitude: 30-23-44.70 N  
 Longitude: 091-06-15.60 W  
 ERP: 18.00 kW  
 HAAT: 101.8  
 Channel: 281  
 Frequency: 104.1 MHz  
 AMSL Height: 111.3 m  
 Elevation: 11.3 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No  
 Prop Model: FCC Model  
 Loc. Variability: 50.0%  
 Time Variability: 50.0%  
 HAAT Mthd: FCC

**WNXX**  
 Jackson, LA  
 BLH20070702AAN  
 Latitude: 30-44-44.70 N  
 Longitude: 091-07-32.40 W  
 ERP: 6.00 kW  
 HAAT: 99.56  
 Channel: 283  
 Frequency: 104.5 MHz  
 AMSL Height: 142.0 m  
 Elevation: 40.4 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No  
 Prop Model: FCC Model  
 Loc. Variability: 50.0%  
 Time Variability: 50.0%  
 HAAT Mthd: FCC

**FCC Section 73.215 Contour Protection**  
 WNXX Channel 283A Jackson, Louisiana



**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. IHM Licenses, LLC, ("IHM"), is the licensee of station KVDU, Channel 281C, Facility ID No. 34528, Houma, Louisiana with construction permit 0000187347 for Channel 281C, licensed to Gonzales, Louisiana. IHM is proposing to modify the KVDU construction permit to specify operation on Channel 281C3 licensed to Gonzales, LA. The transmitting site is an existing tower 112.2 meters in overall height. The tower is registered with FCC Antenna Structure Registration (ASR) #1015906. The tower is located at 30° 23' 44.7" N ~ 91° 06' 15.6" W (NAD 83). The proposed antenna is a side mounted ERI MP-4E four bay full wavelength circularly polarized antenna. KVDU will operate with 18.0 kilowatts ERP at 100 meters above ground level and 101.8 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.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The ERI MP antenna is included in the OET's updated FM Model Program under EPA Type 3: Opposed "U" dipole. Using the EPA Type 3 selection, the maximum calculated signal density near the tower at two meters above ground level attributable to the proposed KVDU facility is 10.866  $\mu\text{W}/\text{cm}^2$  at 40.2 meters, which is 5.433 percent of the general population/uncontrolled maximum permitted exposure limit.

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

### FM Model

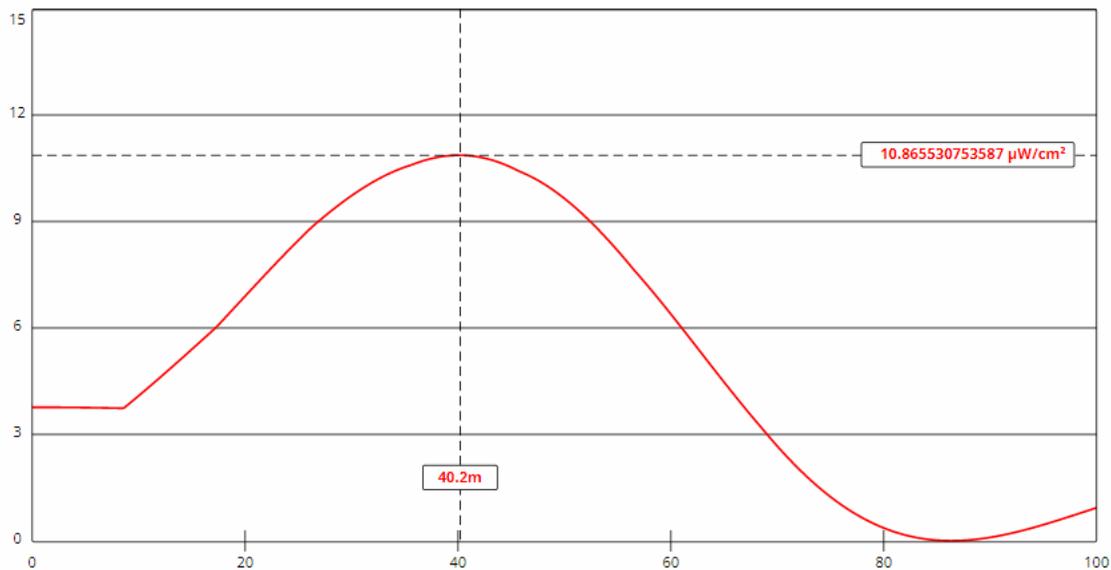
[FCC Policy on Human Exposure](#)

[RF Safety FAQ](#)

[Body Tissue Dielectric Parameters](#)

[RF Safety Highlighted Releases](#)

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 3: Opposed U Dipole ▼		
Height (m)	100	Distance (m)	100
ERP-H (W)	18000	ERP-V (W)	18000
Num of Elements	4	λ	1
Num of Points	500	<a href="#">Apply</a>	