

# Non-Interference Compliance Study

## Alpha Media Licensee, LLC

### K226BZ (Facility ID: 143076)

This exhibit demonstrates compliance with all contour overlap and interference protection requirements and demonstrates full compliance with 47 C.F.R. §74.1204.

Applicant certifies that should any actual interference occur it will promptly cease operation in accordance with 47 C.F.R. §74.1203.

Below is a listing of area stations whose contours are less than 25 km clear of the proposed translator.

Callsign	State	City	Channel	ERP (kW)	Class	Status	Distance (km)	Clr (km)
<b>WOSM</b>	<b>MS</b>	<b>Ocean Springs</b>	<b>276</b>	<b>50</b>	<b>C2</b>	<b>LIC</b>	<b>28.2</b>	<b>-25.3</b>
WQRZ-LP	MS	Bay Saint Louis	278	0.1	L1	LIC	39.9	7.6

The only station that is of concern is WOSM. WOSM is a second adjacent Class C2 that requires that a minimum of 40 dB separation exist between its service contour and K226BZ's interference contour. The following pages demonstrate that this proposal is in compliance with these requirements.

## Compliance with 47 C.F.R. §74.1204(d)

All Authorized second adjacent stations with which the proposed translator's contour overlaps their service contour are listed below. The table lists the minimum signal level of the primary station's service contour that reaches the proposed tower site for K226BZ.

Facility ID	Call Sign	Contour at Tower F(50,50)
10477	WOSM	72.7 dBu

Minimum protected contour signal level at K226BZ 's proposed tower site: **72.7 dBu**

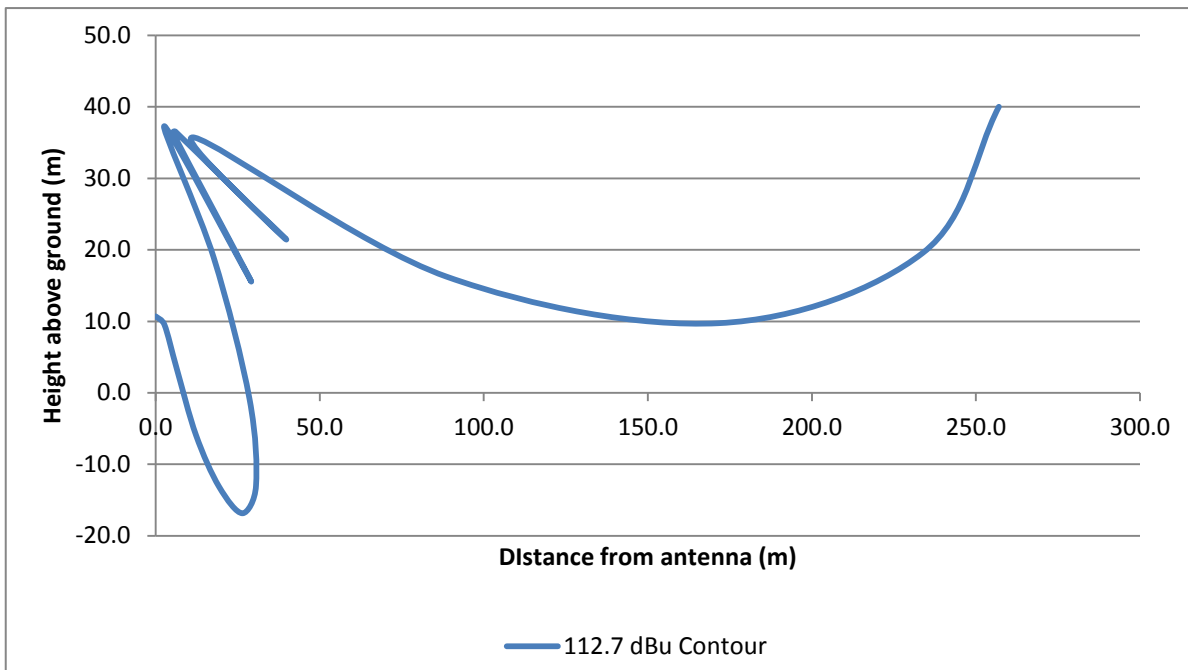
This study will use the minimum contour of 72.7 dBu to represent a worst-case potential interference level. At 40 dB above 72.7 dBu, the translator interference contour is 112.7 dBu. Calculation of distance at this power and signal level requires the use of the free-space calculation due to the distance being less than 1.5 km.

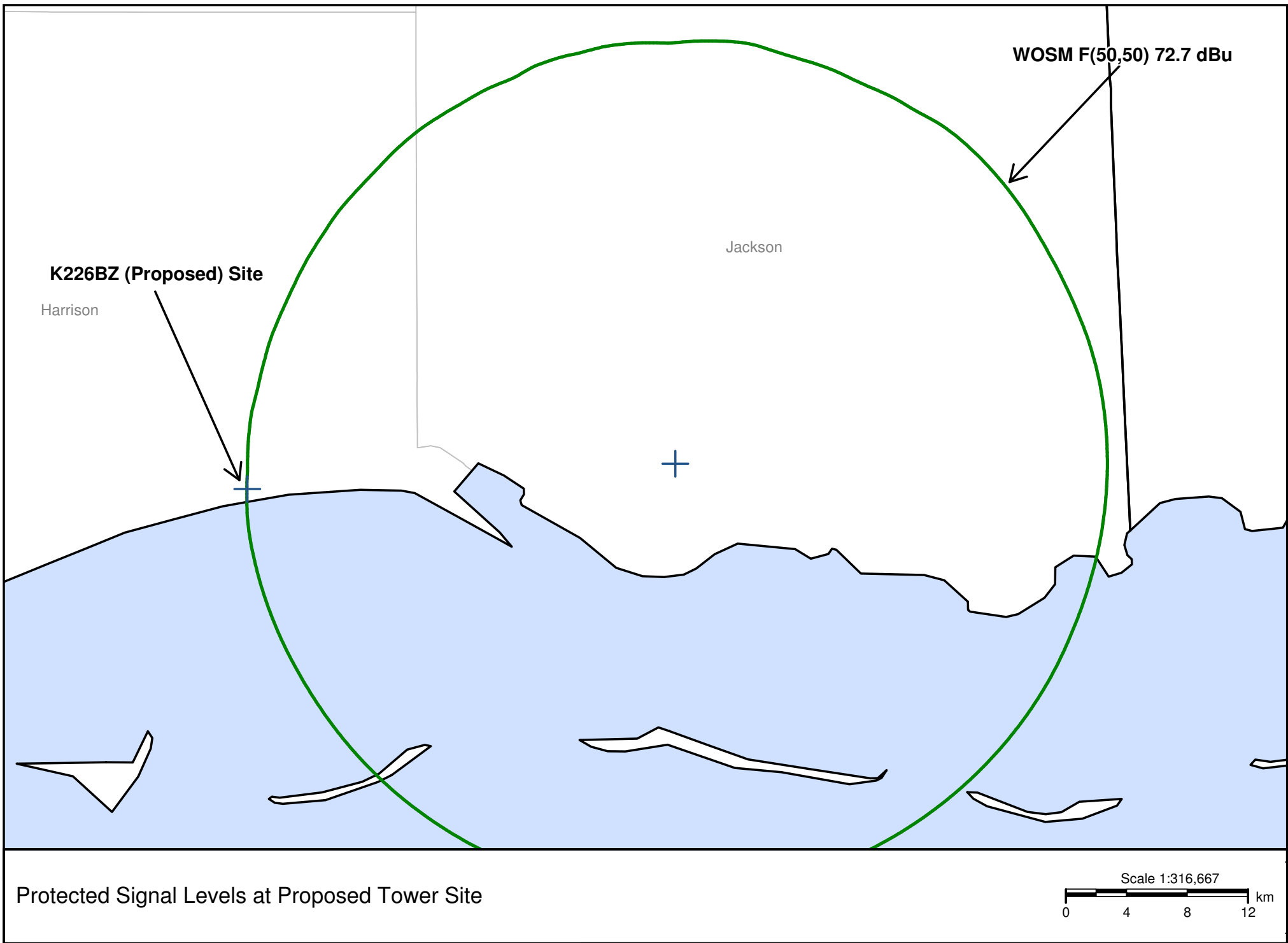
The following table uses the free space formula to calculate the worst-case height above ground level. At 112.7 dBu and 250 watts, the interference contour extends to 30.6 m. A satellite image is attached to show that no houses or businesses are within the 30.6 m interference area.

## §74.1204(d) Contour Protection Study K226BZ vs. WOSM

Antenna: Nicom BKG 77 - 3 Bay/0.85-Wave ERP (watts): 250  
 Protected Contour at tower - F(50,50): 72.7 dBu RC-AGL (m): 40  
 Interference Ratio: 40 dB Relative field at Azimuth: 1.000  
 Interference Contour - F(50,10): 112.7 dBu ERP (watts) at Azimuth: 250

DEPRESSION ANGLE	RELATIVE FIELD	ERP (WATTS)	dBk	DISTANCE (m)		
				Contour	Horizontal	AGL
0	1.000	250.0	-6.02	257.0	257.0	40.0
5	0.913	208.4	-6.81	234.7	233.8	19.5
10	0.678	114.9	-9.40	174.3	171.6	9.7
15	0.357	31.9	-14.97	91.8	88.6	16.3
20	0.049	0.6	-32.22	12.6	11.8	35.7
25	0.171	7.3	-21.36	44.0	39.8	21.4
30	0.027	0.2	-37.39	6.9	6.0	36.5
35	0.025	0.2	-38.06	6.4	5.3	36.3
40	0.148	5.5	-22.62	38.0	29.1	15.5
45	0.015	0.1	-42.50	3.9	2.7	37.3
50	0.107	2.9	-25.43	27.5	17.7	18.9
55	0.194	9.4	-20.26	49.9	28.6	-0.8
<b>60</b>	<b>0.238</b>	<b>14.2</b>	<b>-18.49</b>	<b>61.2</b>	<b>30.6</b>	<b>-13.0</b>
65	0.244	14.9	-18.27	62.7	26.5	-16.8
70	0.220	12.1	-19.17	56.5	19.3	-13.1
75	0.185	8.6	-20.68	47.5	12.3	-5.9
80	0.145	5.3	-22.79	37.3	6.5	3.3
85	0.119	3.5	-24.51	30.6	2.7	9.5
90	0.114	3.2	-24.88	29.3	0.0	10.7
<b>WORST CASE HEIGHT AGL (m)</b>						<b>-16.8</b>







# K226BZ Interference Area

30.6 meter interference circle



Google earth

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40 m