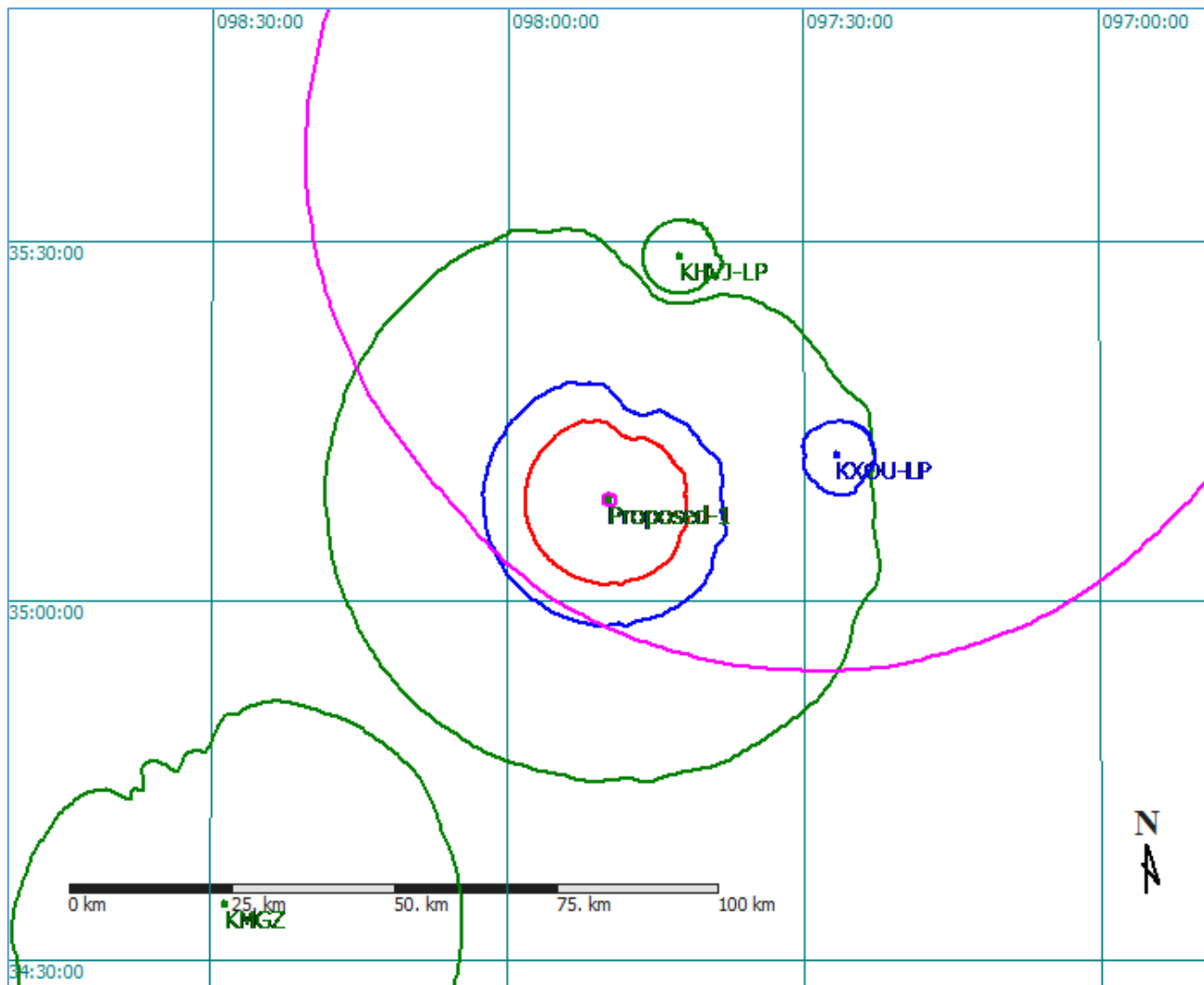


**INTERFERENCE AND OVERLAP REQUIREMENTS**  
**K236BP**  
**CHICKASHA, OK**

The study below demonstrates that the proposed facility will not create prohibited overlap to any other licensed full-power facility or pending application other to third adjacent stations KBRU (FID #11964) (the “Protected Station”). The green contours represent co-channel interfering (40 dBu) to co-channel protected (60 dBu) contours. Blue contours represent first-adjacent channel interfering (54 dBu) to first-adjacent protected (60 dBu) contours. Magenta contours represent second and third-adjacent channel interfering (100 dBu) to second and third-adjacent protected (60 dBu) contours. Red contours represent co-channel protected (60 dBu) to co-channel interfering (40 dBu) contours.



The Protected Station is authorized to broadcast with 94.9 kilowatts at 372 meters HAAT from a site that is 59.54 kilometers from the proposed translator site. The predicted strength of the Protected Station at the proposed translator site is 67.5 dBu. Consequentially, 107.5 dBu is the lowest value predicted to cause interference to the Protected Station.

The facility proposed herein will utilize a four-bay Shively 6812B antenna that employs half-wave spacing. The elevation pattern for the proposed antenna accompanies the application.

<b>Proposed Antenna:</b> Shively Labs Versa2une Four-bay <u>Half-wave-spaced</u> . <b>Proposed Power:</b> 0.25 kW <b>Antenna Height AGL:</b> 107 meters <b>Interference Contour:</b> 107.5 dBu <b>Artificial Rcv Antenna Height:</b> 12 meters <b>Distance (Free Space) Equation:</b> $= (10^{((106.92 - [\text{desired dBu}] + [\text{ERP in dBK}]) / 20)}) * 1000$ <b>Field Strength (dBu) Equation:</b> $= 106.92 - (20 * (\text{LOG10}[\text{DistMeters} / 1000])) + [\text{ERP in dBK}]$								
Depression				Distance				
Angle	Antenna			from Ant.	Distance	Field Streng	Distance	Field Strength
Below	Relative	ERP	ERP	to Interf	rom Ant. to	in dBu @	from Ant.	in dBu @
Horizon	Field	in kW	in dBK	Contour	Artificial Plane	Artificial Plane	to Ground Level	Ground Level
0°	0.998	0.249	-6.04	466.77 m	infinite		infinite	
-5°	0.963	0.232	-6.35	450.40 m	1090.00 m	99.82 dBu	1227.69 m	98.79 dBu
-10°	0.858	0.184	-7.35	401.29 m	547.08 m	104.81 dBu	616.19 m	103.77 dBu
-15°	0.703	0.124	-9.08	328.80 m	367.05 m	106.54 dBu	413.42 m	105.51 dBu
-20°	0.519	0.067	-11.72	242.74 m	277.76 m	106.33 dBu	312.85 m	105.30 dBu
-25°	0.331	0.027	-15.62	154.81 m	224.79 m	104.26 dBu	253.18 m	103.23 dBu
-30°	0.162	0.007	-21.83	75.77 m	190.00 m	99.51 dBu	214.00 m	98.48 dBu
-35°	0.026	0.000	-37.72	12.16 m	165.63 m	84.82 dBu	186.55 m	83.78 dBu
-40°	0.071	0.001	-29.00	33.21 m	147.79 m	94.53 dBu	166.46 m	93.50 dBu
-45°	0.130	0.004	-23.74	60.80 m	134.35 m	100.61 dBu	151.32 m	99.58 dBu
-50°	0.155	0.006	-22.21	72.49 m	124.01 m	102.84 dBu	139.68 m	101.80 dBu
-55°	0.155	0.006	-22.21	72.49 m	115.97 m	103.42 dBu	130.62 m	102.39 dBu
-60°	0.140	0.005	-23.10	65.48 m	109.70 m	103.02 dBu	123.55 m	101.98 dBu
-65°	0.116	0.003	-24.73	54.25 m	104.82 m	101.78 dBu	118.06 m	100.75 dBu
-70°	0.090	0.002	-26.94	42.09 m	101.10 m	99.89 dBu	113.87 m	98.86 dBu
-75°	0.065	0.001	-29.76	30.40 m	98.35 m	97.30 dBu	110.77 m	96.27 dBu
-80°	0.041	0.000	-33.76	19.18 m	96.47 m	93.47 dBu	108.65 m	92.43 dBu
-85°	0.021	0.000	-39.58	9.82 m	95.36 m	87.76 dBu	107.41 m	86.72 dBu
-90°	0.001	0.000	-66.02	0.47 m	95.00 m	61.34 dBu	107.00 m	60.31 dBu

The table on the previous page depicts the predicted signal strength from the proposed translator both at ground level, and at receiving antenna locations up to 12 meters. The 12 meter “artificial plane” is significantly higher than any structure within the potential free-space zone of interference.

As can be determined by the columns colored green, at no location from ground level to 12 meters above the ground does the predicted signal of the proposed translator exceed that of the Protected Station by 40 dBu or more.

Finally, the aerial image that follows illustrates that no nearby structure pierces the 12 meter artificial plane utilized in the table.



The Applicant respectfully submits that since a lack of population exists in the area of actual interference, the processing pursuant to 47 C.F.R § 74.1204(d) is appropriate for the instant application.