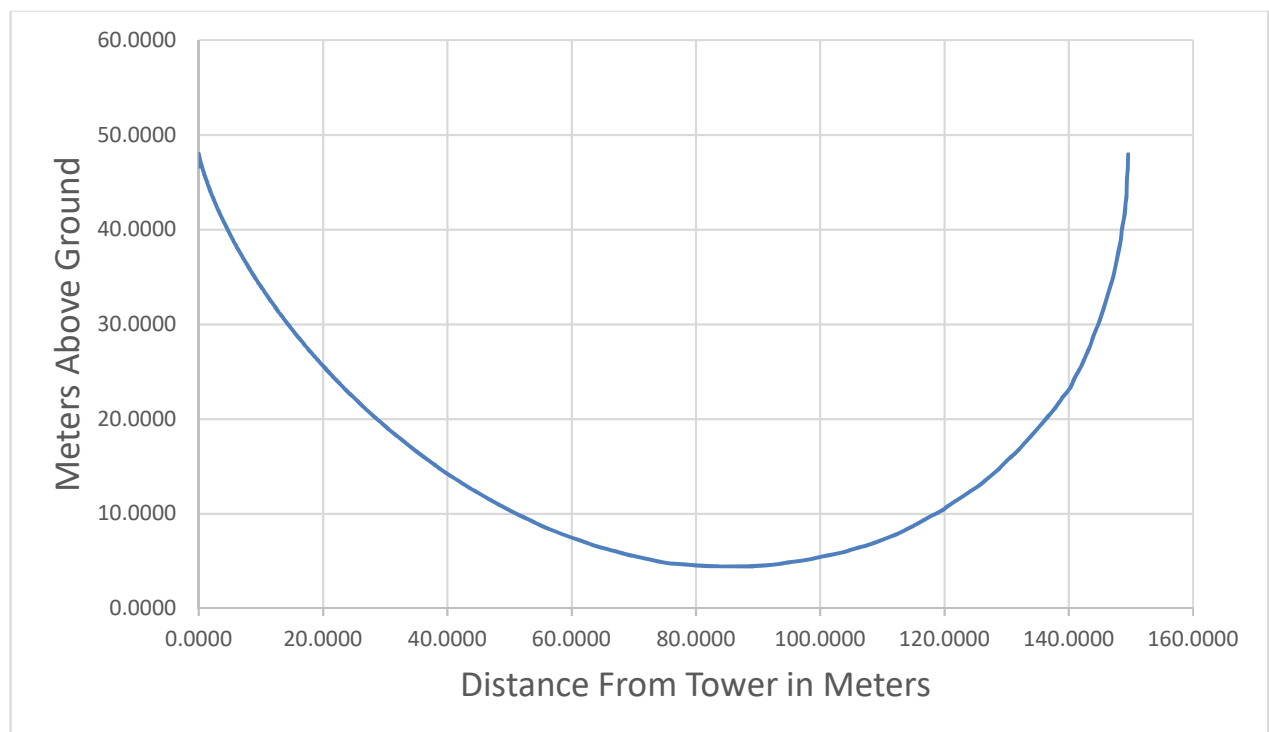


Third-Adjacent Channel Protection

The proposed facility is located within the 60 dBu contour of third-adjacent channel station KWMU (214C1, FCC ID 65585), St. Louis, MO which is protected in accordance with §74.1204(d) at a +40 dB level. KWMU's calculated field is 72.97 dBu at the proposed site based on an ERP of 100 KW and height above average terrain along a 257.5° radial from KWMU to the proposed site of 282 meters. The translator would require a field intensity of 112.97 dBu to cause interference to the KWMU signal. Using the free-space formula to calculate distance to the proposed 112.97 dBu using an ERP of 90 watts and an antenna height of 48 meters above ground and the vertical plane radiation pattern of the proposed two bay ½-wave spaced antenna we can see that this contour remains above ground at least 4.4 meters (14.4 feet). There are no buildings with living spaces within this contour so therefore there is zero population inside this predicted interference contour and the proposed operation is in compliance with §74.1204(d).



Dep (°)	Er (%)	DTC	Dist to Twr	Clearance	Dep (°)	Er (%)	DTC	Dist to Twr	Clearance	Dep (°)	Er (%)	DTC	Dist to Twr	Clearance
0.1	100.0	149.52	149.5206	47.7390	45	25.6	38.28	27.0662	20.9338	67.5	1.6	2.39	0.9155	45.7898
0.5	100.0	149.52	149.5152	46.6952	45.5	24.7	36.93	25.8857	21.6585	68	1.4	2.09	0.7842	46.0591
1	99.9	149.37	149.3486	45.3931	46	23.8	35.59	24.7201	22.4016	68.5	1.2	1.79	0.6576	46.3306
1.5	99.9	149.37	149.3201	44.0899	46.5	23.0	34.39	23.6724	23.0545	69	1.0	1.50	0.5358	46.6041
2	99.8	149.22	149.1309	42.7922	47	22.1	33.04	22.5360	23.8331	69.5	0.9	1.35	0.4713	46.7395
2.5	99.7	149.07	148.9304	41.4976	47.5	21.3	31.85	21.5162	24.5192	70	0.7	1.05	0.3580	47.0165
3	99.5	148.77	148.5694	40.2138	48	20.5	30.65	20.5100	25.2213	70.5	0.6	0.90	0.2995	47.1543
3.5	99.4	148.62	148.3465	38.9267	48.5	19.7	29.46	19.5179	25.9391	71	0.4	0.60	0.1947	47.4345
4	99.2	148.32	147.9634	37.6534	49	18.9	28.26	18.5399	26.6723	71.5	0.3	0.45	0.1423	47.5746
4.5	99.0	148.03	147.5693	36.3860	49.5	18.2	27.21	17.6733	27.3072	72	0.2	0.30	0.0924	47.7156
5	98.8	147.73	147.1645	35.1248	50	17.4	26.02	16.7232	28.0701	72.5	0.1	0.15	0.0450	47.8574
5.5	98.5	147.28	146.6000	33.8840	50.5	16.7	24.97	15.8829	28.7325	73	0.0	0.01	0.0044	47.9857
6	98.2	146.83	146.0251	32.6521	51	16.0	23.92	15.0554	29.4081	73.5	0.1	0.15	0.0425	47.8566
6.5	97.9	146.38	145.4400	31.4292	51.5	15.3	22.88	14.2411	30.0965	74	0.2	0.30	0.0824	47.7125
7	97.6	145.93	144.8446	30.2153	52	14.6	21.83	13.4399	30.7977	74.5	0.3	0.45	0.1199	47.5678
7.5	97.2	145.33	144.0909	29.0301	52.5	14.0	20.93	12.7432	31.3928	75	0.4	0.60	0.1548	47.4223
8	96.9	144.89	143.4757	27.8358	53	13.3	19.89	11.9679	32.1181	75.5	0.4	0.60	0.1497	47.4210
8.5	96.5	144.29	142.7028	26.6729	53.5	12.7	18.99	11.2952	32.7354	76	0.5	0.75	0.1809	47.2746
9	96.1	143.69	141.9205	25.5220	54	12.1	18.09	10.6342	33.3632	76.5	0.5	0.75	0.1745	47.2731
9.5	95.6	142.94	140.9816	24.4078	54.5	11.5	17.19	9.9851	34.0014	77	0.6	0.90	0.2018	47.1259
10	95.2	142.34	140.1813	23.2822	55	11.0	16.45	9.4338	34.5272	77.5	0.6	0.90	0.1942	47.1241
10.5	94.5	141.30	138.9312	22.2506	55.5	10.4	15.55	8.8077	35.1847	78	0.7	1.05	0.2176	46.9762
11	93.9	140.40	137.8205	21.2104	56	9.9	14.80	8.2775	35.7281	78.5	0.7	1.05	0.2087	46.9744
11.5	93.2	139.35	136.5559	20.2174	56.5	9.3	13.91	7.6749	36.4045	79	0.7	1.05	0.1997	46.9726
12	92.5	138.31	135.2845	19.2444	57	8.8	13.16	7.1663	36.9649	79.5	0.7	1.05	0.1907	46.9709
12.5	91.8	137.26	134.0065	18.2915	57.5	8.3	12.41	6.6680	37.5333	80	0.8	1.20	0.2077	46.8220
13	91.1	136.21	132.7224	17.3586	58	7.9	11.81	6.2595	37.9827	80.5	0.8	1.20	0.1974	46.8202
13.5	90.4	135.17	131.4322	16.4459	58.5	7.4	11.06	5.7812	38.5659	81	0.8	1.20	0.1871	46.8186
14	89.6	133.97	129.9912	15.5896	59	7.0	10.47	5.3906	39.0285	81.5	0.8	1.20	0.1768	46.8170
14.5	88.9	132.92	128.6901	14.7185	59.5	6.5	9.72	4.9327	39.6260	82	0.8	1.20	0.1665	46.8155
15	88.1	131.73	127.2394	13.9063	60	6.1	9.12	4.5604	40.1012	82.5	0.8	1.20	0.1561	46.8141
15.5	87.3	130.53	125.7843	13.1169	60.5	5.7	8.52	4.1968	40.5822	83	0.8	1.20	0.1458	46.8127
16	86.4	129.19	124.1816	12.3915	61	5.3	7.92	3.8419	41.0690	83.5	0.9	1.35	0.1523	46.6630
16.5	85.5	127.84	122.5758	11.6914	61.5	5.0	7.48	3.5673	41.4299	84	0.9	1.35	0.1407	46.6617
17	84.6	126.49	120.9674	11.0165	62	4.6	6.88	3.2290	41.9271	84.5	0.9	1.35	0.1290	46.6605
17.5	83.8	125.30	119.4993	10.3220	62.5	4.3	6.43	2.9688	42.2971	85	0.8	1.20	0.1043	46.8084
18	82.8	123.80	117.7439	9.7427	63	3.9	5.83	2.6474	42.8043	85.5	0.9	1.35	0.1056	46.6585
18.5	81.9	122.46	116.1294	9.1436	63.5	3.6	5.38	2.4018	43.1828	86	0.9	1.35	0.0939	46.6576
19	81.0	121.11	114.5135	8.5698	64	3.3	4.93	2.1630	43.5652	86.5	0.9	1.35	0.0822	46.6568
19.5	80.1	119.77	112.8966	8.0212	64.5	3.1	4.64	1.9955	43.8164	87	0.9	1.35	0.0704	46.6562
20	79.1	118.27	111.1384	7.5489	65	2.8	4.19	1.7693	44.2057	87.5	0.9	1.35	0.0587	46.6556
20.5	78.1	116.78	109.3806	7.1043	65.5	2.5	3.74	1.5501	44.5985	88	0.9	1.35	0.0470	46.6551
21	77.1	115.28	107.6237	6.6871	66	2.3	3.44	1.3988	44.8583	88.5	0.9	1.35	0.0352	46.6548
21.5	76.0	113.64	105.7288	6.3523	66.5	2.0	2.99	1.1924	45.2576	89	0.9	1.35	0.0235	46.6545
22	75.0	112.14	103.9750	5.9914	67	1.8	2.69	1.0516	45.5226	89.5	0.9	1.35	0.0117	46.6544