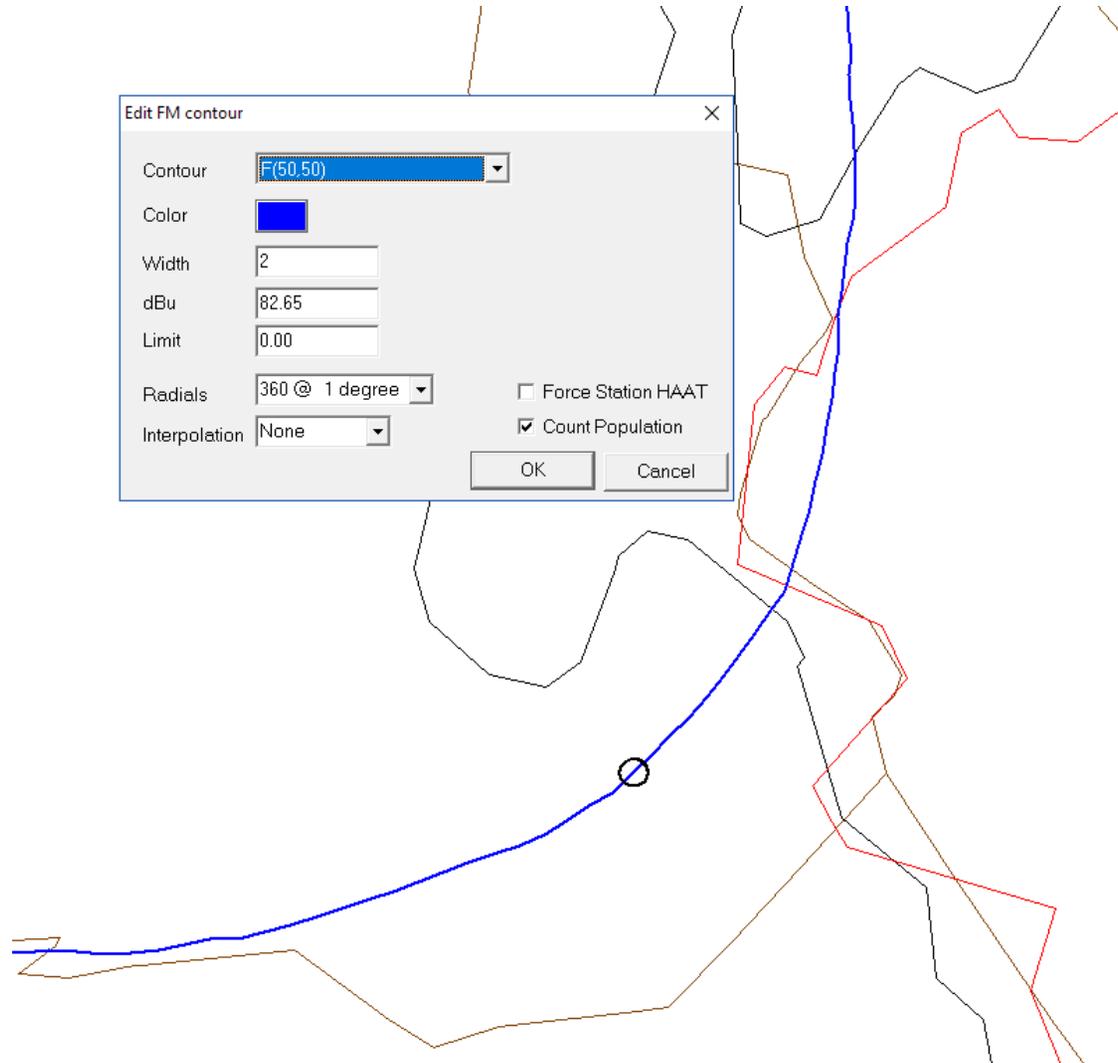


# WMPG Protection Exhibit

WMPG is on a third adjacent channel to the proposed translator, and, according to §74.1204(d), “The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to ... lack of population ... .”

The proposed facility is inside the protected contour of WMPG, which is on a third adjacent channel. The signal strength of WMPG at the proposed translator site is approximately 82.65 dBu.



With an antenna CORAGL of 15 meters and only 20 Watts ERP, the proposed facility has no trouble keeping its interference aloft.

*Freespace Interference Study based on Vertical Radiation Pattern  
Nicom BKG-77 1 Bay Antenna (data from Nicom)*

Depression Angle from Antenna	Antenna Er (100x Field Strength)	ERP Watts	ERP dBk	Distance to Ground from Antenna (m)	Free Space Signal (dBu)	dB Loss for Reflection	Signal Strength at Ground (dBu)	Circular Distance From Tower (m)	Distance to Contour using Free Space (m)	Height of Contour above Ground (m)
90	10.5	0.221	-36.57	15.00	106.83	0	106.83	0.00	2.43	12.57
85	10.3	0.212	-36.73	15.06	106.63	0	106.63	1.31	2.38	12.63
80	12.9	0.333	-34.78	15.23	108.49	0	108.49	2.64	2.98	12.06
75	17.6	0.620	-32.08	15.53	111.02	0	111.02	4.02	4.07	11.07
70	23.9	1.142	-29.42	15.96	113.44	0	113.44	5.46	5.53	9.81
65	31.3	1.959	-27.08	16.55	115.46	0	115.46	6.99	7.24	8.44
60	39.1	3.058	-25.15	17.32	117.00	0	117.00	8.66	9.04	7.17
55	46.5	4.325	-23.64	18.31	118.02	0	118.02	10.50	10.75	6.19
50	53.8	5.789	-22.37	19.58	118.71	0	118.71	12.59	12.44	5.47
45	61.6	7.589	-21.20	21.21	119.19	0	119.19	15.00	14.24	4.93
40	69.1	9.550	-20.20	23.34	119.36	0	119.36	17.88	15.98	4.73
35	75.8	11.491	-19.40	26.15	119.17	0	119.17	21.42	17.53	4.95
30	81.8	13.382	-18.73	30.00	118.64	0	118.64	25.98	18.91	5.54
25	87.2	15.208	-18.18	35.49	117.74	0	117.74	32.17	20.16	6.48
20	91.8	16.854	-17.73	43.86	116.35	0	116.35	41.21	21.23	7.74
15	95.4	18.202	-17.40	57.96	114.26	0	114.26	55.98	22.06	9.29
10	98.2	19.286	-17.15	86.38	111.04	0	111.04	85.07	22.71	11.06
5	99.9	19.960	-17.00	172.11	105.21	0	105.21	171.45	23.10	12.99

Distance to Ground Level assumes flat ground or a site where the site level is above average terrain in all azimuths.

Maximum ERP	20 watts	Max dBu at Ground Level	119.36	Lowest Height of Contour (m)	4.73
Radiation Center AG	15 m			Lowest Height of Contour (ft)	15.52
Radiation Center AG	49 ft.				
Maximum ERP	-16.99 dBk				
Protected dBu	82.65 dBu				
Interfering dBu	122.7 dBu				
Free Space Distance	23.12 m				

TX station:  
Frequency: 100.00 MHz

Site name:

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	100.0	373.6	60.0	39.1	57.2	120.0	31.5	37.0
1.0	100.0	373.5	61.0	37.6	52.8	121.0	32.0	38.3
2.0	100.0	373.4	62.0	36.1	48.6	122.0	32.6	39.6
3.0	99.9	373.3	63.0	34.5	44.6	123.0	33.1	41.0
4.0	99.9	373.1	64.0	32.9	40.5	124.0	33.6	42.2
5.0	99.9	372.9	65.0	31.3	36.6	125.0	34.1	43.5
6.0	99.9	372.8	66.0	29.7	33.0	126.0	34.6	44.7
7.0	99.5	369.9	67.0	28.2	29.8	127.0	35.2	46.2
8.0	99.1	367.0	68.0	26.8	26.8	128.0	35.7	47.6
9.0	98.7	364.1	69.0	25.3	23.9	129.0	36.2	49.1
10.0	98.2	360.5	70.0	23.9	21.3	130.0	36.7	50.3
11.0	97.7	356.9	71.0	22.5	18.9	131.0	37.1	51.5
12.0	97.2	353.3	72.0	21.1	16.6	132.0	37.6	52.7
13.0	96.6	348.9	73.0	19.9	14.8	133.0	38.1	54.1
14.0	96.0	344.5	74.0	18.8	13.2	134.0	38.6	55.6
15.0	95.4	340.1	75.0	17.6	11.6	135.0	39.1	57.0
16.0	94.7	335.4	76.0	16.6	10.2	136.0	39.5	58.4
17.0	94.1	330.8	77.0	15.5	9.0	137.0	40.0	59.7
18.0	93.4	326.1	78.0	14.5	7.8	138.0	40.4	61.1
19.0	92.6	320.4	79.0	13.7	7.0	139.0	40.9	62.5
20.0	91.8	314.7	80.0	12.9	6.2	140.0	41.4	63.9
21.0	91.0	309.1	81.0	12.0	5.4	141.0	41.8	65.3
22.0	90.0	302.7	82.0	11.5	5.0	142.0	42.2	66.5
23.0	89.1	296.5	83.0	11.0	4.5	143.0	42.6	67.8
24.0	88.1	290.3	84.0	10.5	4.1	144.0	43.0	69.0
25.0	87.2	283.8	85.0	10.3	4.0	145.0	43.4	70.3
26.0	86.2	277.4	86.0	10.2	3.9	146.0	43.8	71.6
27.0	85.2	271.1	87.0	10.0	3.7	147.0	44.1	72.8
28.0	84.0	263.9	88.0	10.2	3.9	148.0	44.7	74.7
29.0	82.9	256.8	89.0	10.4	4.0	149.0	45.3	76.5
30.0	81.8	249.8	90.0	10.5	4.1	150.0	45.8	78.4
31.0	80.6	242.9	91.0	11.4	4.8	151.0	46.4	80.3
32.0	79.5	236.1	92.0	12.0	5.4	152.0	46.9	82.3
33.0	78.3	229.3	93.0	12.7	6.0	153.0	47.5	84.3
34.0	77.1	222.0	94.0	13.4	6.7	154.0	48.0	86.2
35.0	75.8	214.7	95.0	14.1	7.4	155.0	48.6	88.2
36.0	74.5	207.6	96.0	14.8	8.2	156.0	49.1	90.2
37.0	73.2	200.4	97.0	15.6	9.1	157.0	49.5	91.5
38.0	71.9	193.3	98.0	16.4	10.0	158.0	49.8	92.8
39.0	70.6	186.3	99.0	17.1	11.0	159.0	50.2	94.1
40.0	69.1	178.6	100.0	17.9	11.9	160.0	50.5	95.4
41.0	67.6	170.9	101.0	18.6	12.9	161.0	50.9	96.8
42.0	66.1	163.5	102.0	19.3	13.9	162.0	51.2	98.1
43.0	64.6	156.0	103.0	20.1	15.0	163.0	51.5	99.2
44.0	63.1	148.7	104.0	20.8	16.2	164.0	51.8	100.4
45.0	61.6	141.6	105.0	21.5	17.3	165.0	52.1	101.6
46.0	60.0	134.4	106.0	22.3	18.5	166.0	52.4	102.7
47.0	58.4	127.5	107.0	23.0	19.7	167.0	52.7	103.7
48.0	56.8	120.7	108.0	23.7	21.0	168.0	53.0	104.8
49.0	55.3	114.4	109.0	24.4	22.2	169.0	53.2	105.7
50.0	53.8	108.2	110.0	25.1	23.5	170.0	53.4	106.5
51.0	52.3	102.2	111.0	25.7	24.8	171.0	53.6	107.4
52.0	50.8	96.6	112.0	26.5	26.2	172.0	53.9	108.4
53.0	49.4	91.1	113.0	27.2	27.6	173.0	54.1	109.4
54.0	47.9	85.8	114.0	27.9	29.0	174.0	54.4	110.5
55.0	46.5	80.7	115.0	28.5	30.4	175.0	54.7	111.9
56.0	45.0	75.7	116.0	29.2	31.8	176.0	55.1	113.3
57.0	43.6	71.0	117.0	29.8	33.1	177.0	55.4	114.7
58.0	42.1	66.2	118.0	30.4	34.4	178.0	55.7	115.9
59.0	40.6	61.6	119.0	30.9	35.7	179.0	56.0	117.0