

Engineering Report

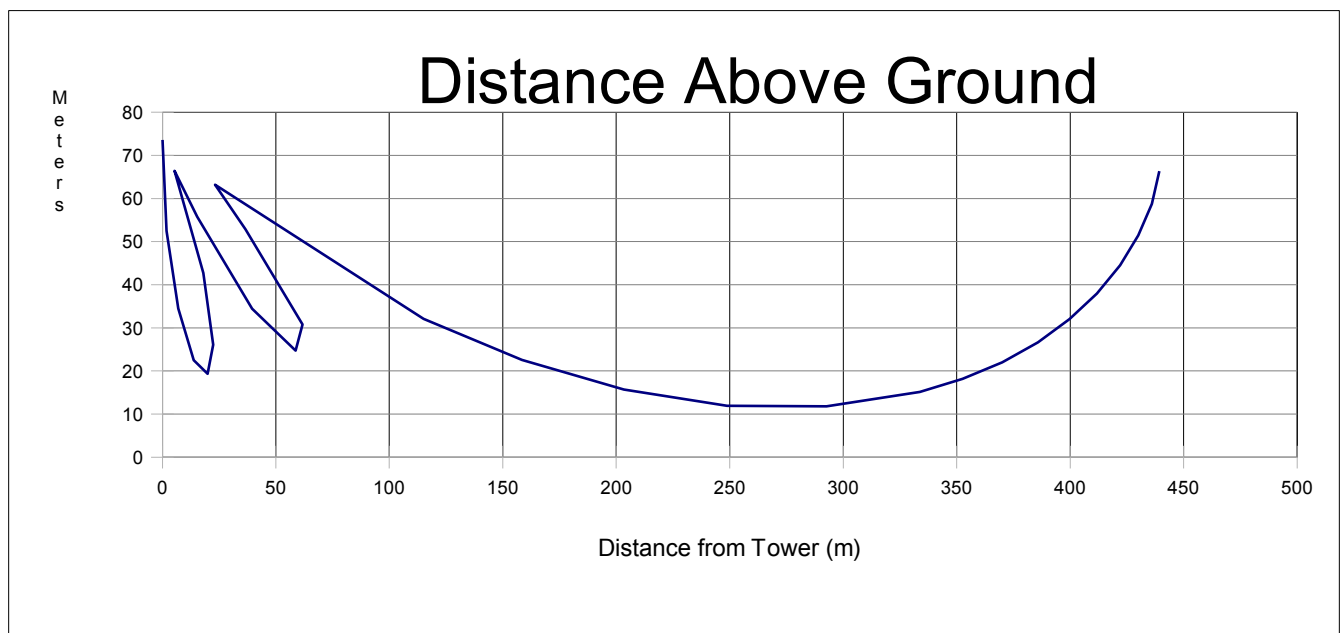
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2nd Adjacent Protection Calculations
W291BN, Hammonton, NJ
June 2014

In a letter granting Jersey Shore Broadcasting Corporation's application BPFT-950830TD (September 26, 1996 1800B3-JDB) the FCC stated that the Ratio method is suitable for translator applicants to demonstrate lack of interference for application purposes.

The 54 db μ V F(50,50) and the 68 db μ V F(50,50) contour of second adjacent Class B station WRFF, Philadelphia, NY encompasses the 94 db μ V F(50,10) proposed contour.

Since the distance to this contour is below the minimum distances for the F(50,10) and F(50,50) curves the signal level existing on the ground in the vicinity of the translator was calculated using inverse distance, with an adjustment for ground reflections, as has been accepted by the FCC in recent applications. Below is a graph and tabulation of these calculations showing the location above ground at which the proposed translator will produce an interfering contour. This table and chart shows that the potentially interfering signal is more than 11 meters from the ground at its closest approach.

Protection on bearing at maximum radiation



Graph of elevation of 108 dbuV contour above ground with distance

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The proposed 108 dbμV potentially interfering signal does not reach the ground. The tower site is adjacent to and above the Atlantic City Expressway. The expressway is depressed four meters below the tower base in the vicinity of the proposed translator, providing additional margin. The adjacent areas are a storage unit rental facility and a parking lot. There are no multi-story occupied buildings in the area.

Study for Center of Radiation 74 m AGL ERP 250 Watts
Antenna PSI FML-38-8OWS-DA-CUSTOM
Unequal Power Distribution

Distance above Ground Level of Interfering Contour

Depression Angle (Degrees)	Slant Distance To 108 dbμV (meters)	Horiz Distance To 108 dbμV (meters)	Relative Field	ERP Watts	108 dbμV Above Gnd (meters)
1	439.38	439.3	0.997	248.502	66.3
2	436.30	436.0	0.990	245.025	58.8
3	430.57	430.0	0.977	238.632	51.5
4	423.08	422.0	0.960	230.400	44.5
5	413.38	411.8	0.938	219.961	38.0
6	401.92	399.7	0.912	207.936	32.0
7	388.70	385.8	0.882	194.481	26.6
8	373.72	370.1	0.848	179.776	22.0
9	356.97	352.6	0.810	164.025	18.2
10	338.90	333.8	0.769	147.840	15.2
12	299.24	292.7	0.679	115.260	11.8
14	256.49	248.9	0.582	84.681	11.9
16	211.54	203.3	0.480	57.600	15.7
18	166.59	158.4	0.378	35.721	22.5
20	122.52	115.1	0.278	19.321	32.1
25	25.56	23.2	0.058	0.841	63.2
30	42.31	36.6	0.096	2.304	52.8
35	75.36	61.7	0.171	7.310	30.8
40	76.68	58.7	0.174	7.569	24.7
45	55.97	39.6	0.127	4.032	34.4
50	23.80	15.3	0.054	0.729	55.8
55	9.25	5.3	0.021	0.110	66.4
60	36.14	18.1	0.082	1.681	42.7
65	52.88	22.3	0.120	3.600	26.1
70	58.17	19.9	0.132	4.356	19.3
75	53.33	13.8	0.121	3.660	22.5
80	40.10	7.0	0.091	2.070	34.5
85	21.59	1.9	0.049	0.600	52.5
90	0.44	0.0	0.001	0.000	73.6

Min Height