

Attachment 23A
Modification of BPH-20040401AEV
WEHM (FM) – 6 KW – 79.4 M HAAT
Southampton, New York

73.215 Compliance Utilizing 73.313(e)

From the proposed WEHM site of north Latitude 40 52 10 and West Longitude 72 34 37 the 70 dBu contour does not cover the community of license, Southampton, New York. However, in this particular case, we find that a supplemental method of depicting city grade coverage as noted in Section 73.313(e) of the Commission's Rules would be appropriate. Using "Probe 3", a commercially available program from V-Soft Communications, we have determined that on the 84 degree city radial to a distance of 20.5 kilometers to the extreme city limit of Southampton, New York, the Delta H factor is 7.31 meters using the 3 second terrain database. This 7.31 meter Delth H, being less than the threshold of 20 meters, qualifies as terrain "departing widely" from the standard. Therefore, this application qualifies for the use of a supplemental method of contour prediction to comply with the community of license coverage requirements of 73.315.

Southampton, New York is within an arc between 75 degrees and 93 degrees from the proposed WEHM transmitter. Utilizing the Commission's 50/50 curves, these radials fall short of covering the city of license. We alternatively have determined the location of the 70 dBu contour using the Longley-Rice prediction method. This methodology, purchased from V-Soft Communications is a program called "Probe 3" was used to produce this Technical Note 101 study.

In this particular situation, coverage calculations for the 70 dBu contour have been made in a point-to-point mode (with mean occurrence drop-off). The following table is a comparison of the standard FCC method of calculating the 70 dBu and the Longley-Rice method. In all cases, the Longley-Rice method exceeds the FCC method greater than 10%.

Radial (Bearing)	Location of 70 dBu FCC Method in KM	Location of 70 dBu (Longley-Rice Method) in KM	Percent Change	Gain (KM)
75	13.68	20.3	48.3	6.62
76	13.67	20.1	47.0	6.43
77	13.71	20.0	45.8	6.29
78	13.83	20.1	45.3	6.27
79	13.93	20.2	45.0	6.27
80	14.05	20.3	44.4	6.25
81	14.21	20.4	45.5	6.19
82	14.35	20.5	42.8	6.15
83	14.48	20.6	42.2	6.12
84	14.56	20.7	42.1	6.14
85	14.61	21.3	45.7	6.69
86	14.65	22.2	51.5	7.55
87	14.67	23.1	57.4	8.43
88	14.71	23.7	61.1	8.99
89	14.74	23.9	62.1	9.16
90	14.78	24.2	63.7	9.42
91	14.82	24.3	63.9	9.48
92	14.84	24.4	64.4	9.56
93	14.86	24.4	64.1	9.54

Also in this exhibit is a graphic depiction of the WEHM normally calculated 70 dBu contour, the Technical Note 101 contour, the WEHM transmitter and Southampton, New York, the community of license.

Based on this supplemental depiction, we find that the community of Southampton, New York is 100% served by the city grade contour of WEHM in compliance with 73.315 of the Commission's Rules.