

Attachment #22A
WEHM (FM)
Channel 225A – 92.9 MHz
6 kW ERP – 76 m HAAT
Southampton, New York
March 2004

§73.315 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 city 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 ΔH factor is 7.31 meters using the 3 second terrain database. This 7.31 meter ΔH , 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° and 93° 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 in 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 (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°	13.2	20.4	54.5	7.2
76°	13.2	20.1	52.3	6.9
77°	13.2	19.9	50.8	6.7
78°	13.3	20.1	51.1	6.8
79°	13.4	20.2	50.7	6.8
80°	13.5	20.3	50.4	6.8
81°	13.7	20.4	48.9	6.7
82°	13.8	20.5	48.6	6.7
83°	14.0	20.6	47.1	6.6
84°	14.0	20.7	47.9	6.7
85°	14.1	21.4	51.8	7.3
86°	14.1	22.3	58.2	8.2
87°	14.2	23.2	63.4	9.0
88°	14.2	23.7	66.9	9.5
89°	14.2	23.9	68.3	9.7
90°	14.3	24.2	69.2	9.9
91°	14.3	24.3	69.9	10.0
92°	14.3	24.3	69.9	10.0
93°	14.3	24.4	70.6	10.1

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 city of license. This map is drawn using the commercially available program "Probe 3" from V-Soft Communications.

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