

Rochester Free Radio, Inc.
Application for New LPFM Station
Facility ID 192286 -- Channel 292 -- Rochester, NY
Exhibit 11C – HAAT and ERP Calculations

47 CFR §73.813 requires that *"HAAT determinations for LPFM stations will be made in accordance with the procedure detailed in §73.313(d) of this part."*

According to the procedure clarified in 47 CFR §73.313(d)(2)(ii), *"...where the 50 uV/m (34 dBu) contour [on any of the eight radials used in the HAAT calculation] does not so encompass United States land area, and... where a part of the 3 to 16 kilometers portion of a radial extends over large bodies of water or foreign territory, only that part of the radial extending from 3 kilometers to the outermost portion of land in the United States covered by the radial used must be used in the computation of antenna height above average terrain."*

Please note that only the 0 to 7.2 kilometer portion of the 0° radial from the proposed LPFM site falls on land; the remaining extent beyond 7.2 kilometers from the site falls entirely in Lake Ontario on its way towards the Canadian border. Since "water" elevations must be omitted from the average elevation of this particular radial, only the 3 to 7.2 kilometer portion has been included in the following calculations. The other seven radials include the entire 3 to 16 kilometer portion.

This tabulation is based on 30-second NGDC/FCC terrain data and an antenna radiation center elevation of 198 meters AMSL:

Radial (degrees True)	Avg Terrain Elevation (m)	Antenna Rad. Center HAAT (m)
000 (from 3 to 7.2 km)	106.2	91.8
045	99.0	99.0
090	137.2	60.8
135	143.3	54.7
180	176.7	21.3
225	164.5	33.5
270	165.9	32.1
315	113.4	84.6
Overall Average	138.3	59.7

The overall HAAT is rounded to **60 meters**. At this height, an effective radiated power of **25 watts** would provide 60 dBu coverage equivalent to a standard LPFM facility of 100 watts at 30 meters HAAT.