SECOND-ADJACENT-CHANNEL WAIVER REQUEST PURSUANT TO § 73.807(e)(1)
WWMM-LP, COLLINSVILLE, CT
HUCKLEBERRY HILL MUSIC SOCIETY
FCC FORM 318
AUGUST 2023

This Second-Adjacent Channel Waiver Request is made in support of a minor change application for LPFM station WWMM-LP, channel 298, 107.5 MHz, licensed to Collinsville, Connecticut, Facility ID 194718.

Section 73.870(a) of the FCC's Rules defines a minor change as a move of 11.2 kilometers or less. The instant application proposes a move of 8.97 kilometers to a new tower location using the applicant's presently authorized frequency of 107.5 MHz.

Proposed Location: 41-46-14.3 N, 73-00-16.5 W (NAD 27)

41-46-14.7 N, 73-00-14.9 W (NAD 83)

Site Elevation: 298.0 meters (978 feet).

Height of Radiation Center Above Ground: 9 meters (29.5 feet).

Height Above Average Terrain (FCC30): 96 meters (314.9 feet).

Height Above Average Terrain (Globe): 84 meters (275.5 feet).

Maximum Effective Radiated Power (FCC30): 9 watts.

Maximum Effective Radiated Power (Globe): 12 watts.

Applicant respectfully requests that Globe terrain be used in processing this application.

An interference study was conducted on Channel 298 (107.5 MHz) with these new proposed LPFM facilities using the channel separation requirements set forth in 47 CFR § 73.807.

CHANNEL SPACING TABLE

CALLS	CHAN	LOCATION	ACTUAL DIST (km)	AZIMUTH	FCC §73.807 (km)	MARGIN (km)	NOTES
WWMM-LP	298L1	Collinsville, CT	8.97	59.8°	*N/A	*N/A	(1)
WEBE	300B	Westport, CT	56.64	195.5°	66.5	- 9.86	(2)
W297BT	297D	New Britain, CT	27.23	90.8°	20.5	6.73	(3)
WFCS	299D	New Britain, CT	21.81	299.4°	12.5	9.31	
WRWD	297A	Highland, NY	83.47	264.9°	55.5	27.97	
WACC-LP	299L1	Enfield, CT	41.49	56.9°	13.5	27.99	
WBLS	298B	New York, NY	140.19	216.2°	111.5	28.69	
WGNA	299B	Albany, NY	126.43	320.0°	96.5	29.93	
W297AN	297D	Danbury, CT	57.43	220.0°	20.5	36.93	(4)
WWRX	299A	Bradford, RI	95.98	110.7°	55.5	40.48	
WKVB	297B1	Westboro, MA	120.16	239.0°	73.5	46.67	

Note (1): This record pertains to the existing licensed facility of WWMM-LP.

Note (2): The proposed WWMM-LP transmitter site is situated outside the 54-dBu protected contour of WEBE. As can be seen in the contour map submitted herewith as Appendix "A", there is no overlap between the 94-dBu interfering contour of WWMM-LP and the 54-dBu protected contour of WEBE.

Note (3): Under current rules, this translator may be considered as having a Service Contour of 7.3 km to 13.3 km with respect to protection by LPFM stations. Furthermore, note that the presently-existing spacing between W297BT and the currently-licensed facility of WWMM-LP is 20.06 km. The present application proposes to increase the distance between WWMM-LP and W297BT to 27.23 km.

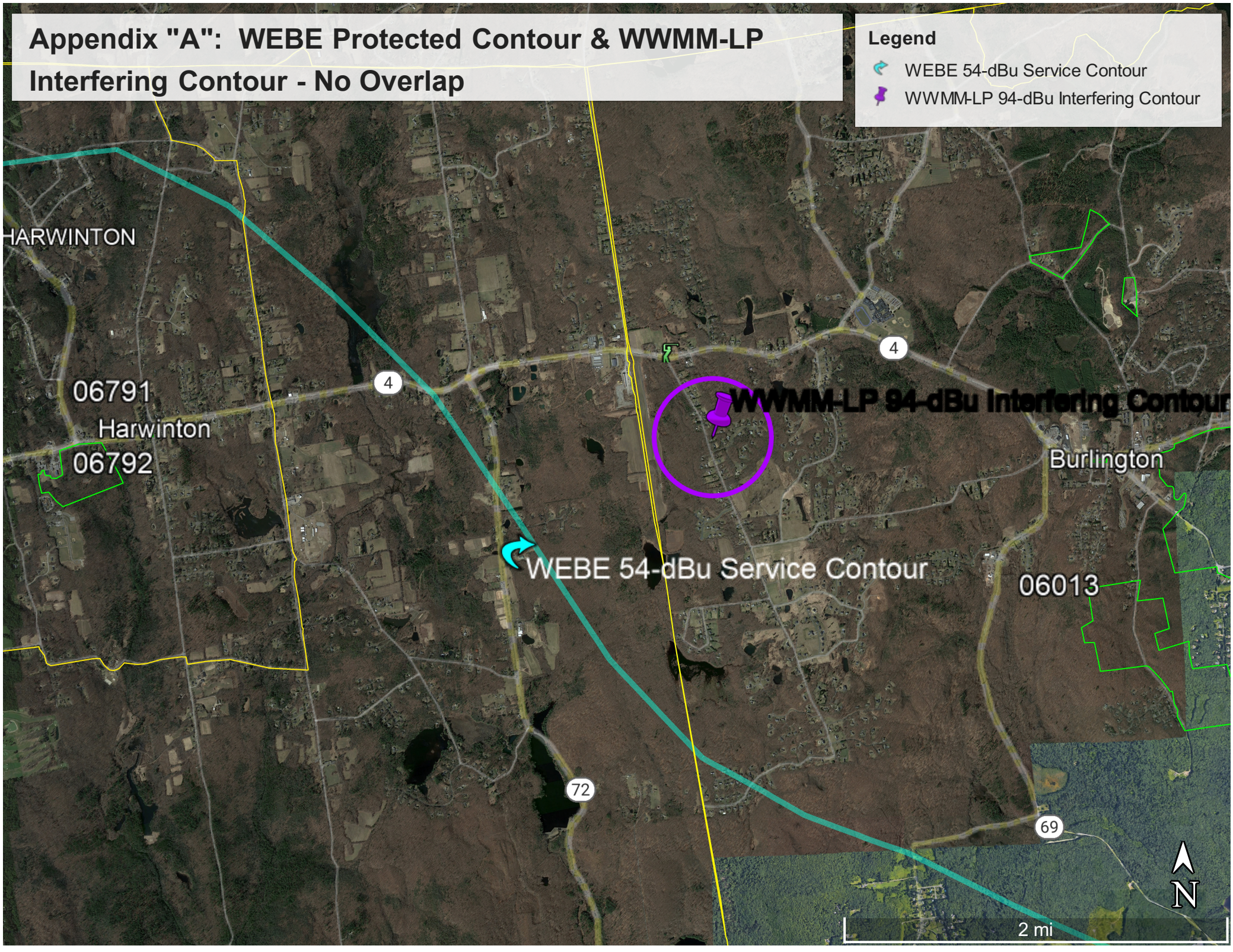
Note (4): Under current rules, this translator may be considered as having a Service Contour of 7.3 km to 13.3 km with respect to protection by LPFM stations. .

Additional Note: There are no AM broadcast stations or airports within a radius of 4.0 kilometers of the proposed WWMM-LP transmitter site.

Discussion:

With reference to the Channel Spacing Table (see above), all co-channel, first-adjacent-channel and second-adjacent-channel records meet the spacing requirements of §73.807, with the exception of the second-adjacent licensed facility of WEBE. The actual spacing between the proposed WWMM-LP transmitter site and WEBE is 56.64 kilometers, whereas a spacing of 66.5 kilometers is required. Accordingly, a second-adjacent-channel waiver under § 73.807(e)(1) is requested herein for the proposed WWMM-LP facility with respect to WEBE.

It may be noted that the proposed WWMM-LP transmitter site is situated outside the 54-dBu protected contour of WEBE. As can be seen in the contour map submitted herewith as Appendix "A", there is no overlap between the 94-dBu interfering contour of WWMM-LP and the 54-dBu protected contour of WEBE. Accordingly, this study shows that operation of this LPFM station at the proposed new location will not cause any interference to any existing or proposed FM stations on any of the pertinent co-channel or adjacent-channel frequencies to Channel 298. The present application is in compliance with §73.807(e)(1) - Waiver of Second-Adjacent Channel Separations.


Appendix "A": WEBE Protected Contour & WWMM-LP Interfering Contour - No Overlap
Legend
WEBE 54-dBu Service Contour
WWMM-LP 94-dBu Interfering Contour
HARWINTON
06791
Harwinton
06792
4
4
WWMM-LP 94-dBu Interfering Contour
Burlington
WEBE 54-dBu Service Contour
06013
72
69
N
2 mi

APPENDIX "B" – HAAT CALCULATION

Antenna Height Above Average Terrain Calculations -- Results

Input Data

Latitude **41° 46' 14.67"** North
Longitude **73° 0' 14.91"** West (NAD 83)

Height of antenna radiation center above mean sea level: **307** meters AMSL

Number of Evenly Spaced Radials = **8** 0° is referenced to True North

Results

Calculated HAAT = **84 meters**

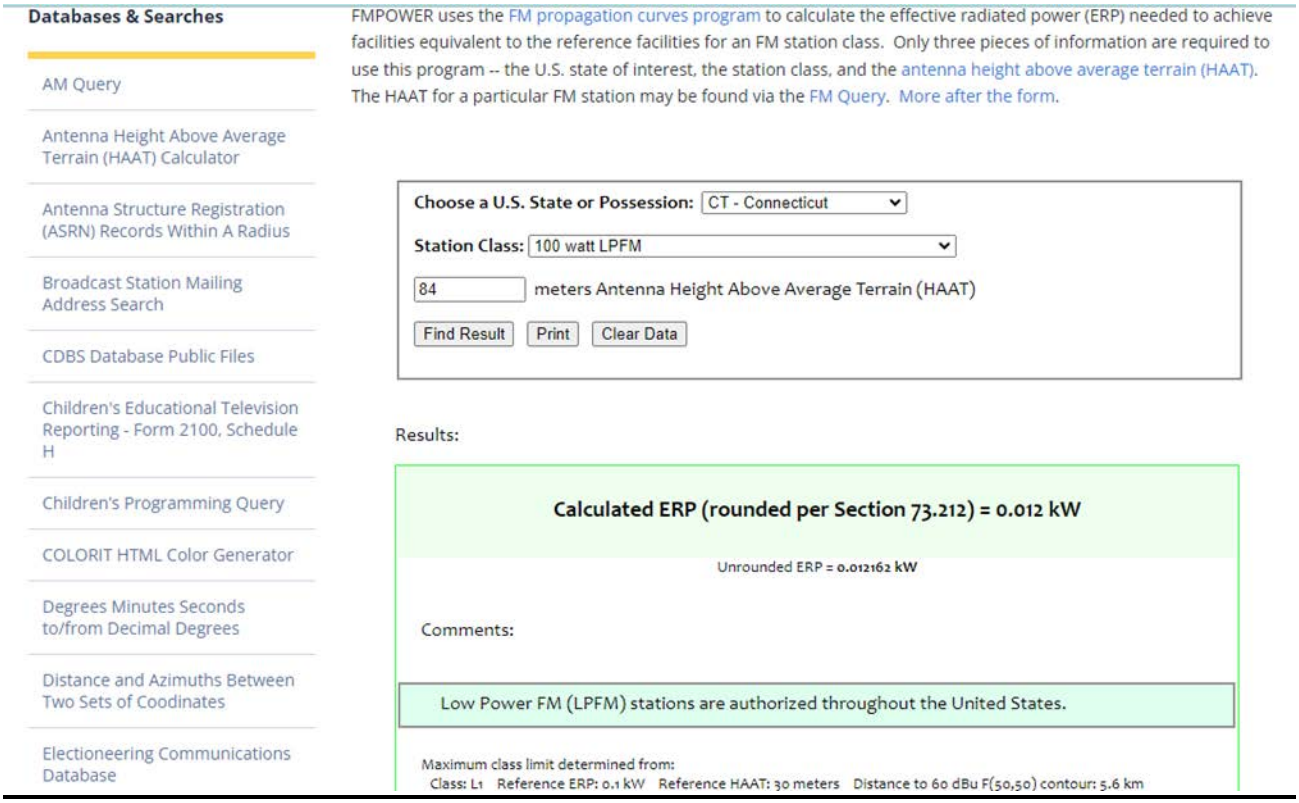
Antenna Height Above Average Terrain calculated
using 1 km GLOBE terrain data

Individual "Radial HAAT" Values, in meters

0°	59.4 m
45°	120.1 m
90°	184.5 m
135°	178.3 m
180°	68.5 m
225°	63.2 m
270°	12.1 m
315°	-18.1 m

Print Results? New Calculation?

APPENDIX "C" – ERP CALCULATION



Databases & Searches

- AM Query
- Antenna Height Above Average Terrain (HAAT) Calculator
- Antenna Structure Registration (ASRN) Records Within A Radius
- Broadcast Station Mailing Address Search
- CDBS Database Public Files
- Children's Educational Television Reporting - Form 2100, Schedule H
- Children's Programming Query
- COLORIT HTML Color Generator
- Degrees Minutes Seconds to/from Decimal Degrees
- Distance and Azimuths Between Two Sets of Coodinates
- Electioneering Communications Database

FMPOWER uses the FM propagation curves program to calculate the effective radiated power (ERP) needed to achieve facilities equivalent to the reference facilities for an FM station class. Only three pieces of information are required to use this program -- the U.S. state of interest, the station class, and the antenna height above average terrain (HAAT). The HAAT for a particular FM station may be found via the FM Query. More after the form.

Choose a U.S. State or Possession: CT - Connecticut

Station Class: 100 watt LPFM

84 meters Antenna Height Above Average Terrain (HAAT)

Find Result | Print | Clear Data

Results:

Calculated ERP (rounded per Section 73.212) = 0.012 kW

Unrounded ERP = **0.012162 kW**

Comments:

Low Power FM (LPFM) stations are authorized throughout the United States.

Maximum class limit determined from:
Class: L1 Reference ERP: 0.1 kW Reference HAAT: 30 meters Distance to 60 dBu F(50,50) contour: 5.6 km

APPENDIX “D” – INTERFERING CONTOUR CALCULATION

FM and TV Propagation Curves

FM and TV Propagation Curves Graphs

This Javascript calculator uses the FM or TV propagation curves to find the distance to a service or interfering contour, or the corresponding field strength at a given contour distance. More after the form.