

**Goldman Engineering Management
Auburn, CA**

WKVB (FM)

APPLICATION FOR NEW ON-CHANNEL BOOSTER

This technical statement and attached exhibits have been prepared on behalf of Educational Media Foundation (“EMF”), assignee of station WKVB (FM), Channel 297B, Westborough, MA, Facility identifier 74467 for an on-channel FM booster. It is requested that this application be granted contingent upon approval and consummation of the assignment of WKVB from Entercom License LLC to EMF. EMF has obtained consent from Entercom to file this application in anticipation of the pending ownership transfer.

FACILITIES REQUESTED

The requested facility will operate within the 54dBu contour of WKVB. A map showing the coverage of this booster in relationship to the WKVB signal is shown in Exhibit A. The antenna being used is a Shively 6025, single level log-periodic antenna rotated 45 degrees from vertical to achieve slant H+V polarization. The Azimuth Pattern is attached as Exhibit C. NOTE- THE PROPOSED BOOSTER ANTENNA WILL BE DIPLEXED WITH THE CURRENTLY LICENSED WXLO-FM1 BOOSTER

Filed simultaneously with this application is an application for two other boosters to serve different areas within the WKVB 54dBu contour.

Requested Call Letters	WKVB-FM1
Booster Location:	Boston, MA
ASR	ASR 1005833
Geographic Coordinates (NAD83):	42°20'57" N, 71°04'29" W
Channel:	297 (107.3 MHz)
Effective Radiated Power:	1.5 W
Antenna Type, Pattern:	Shively 6025-1-Slant Log Periodic (Exhibit C)
Antenna Orientation:	105° True
Site Height AMSL	5.5m
Tower (Building) OAGL	260m
Antenna Height :	
Above ground:	254m (249m building plus 5m mast)
Above mean sea level:	259.5m

As shown in Exhibit A, other than a small portion of the booster 54dBu contour which is entirely over water, the 54dBu contour of the booster will fall inside the 54dBu contour of WKVB-FM and is thus compliant with 74.1232(f). As shown in Exhibit B, the proposed booster will provide interference protection to all first adjacent channel stations because the first adjacent interfering contours are within the WKVB-FM (primary station) interfering contours. The proposed booster is not short-spaced as a class A facility to any IF related stations.

ENVIRONMENTAL CONSIDERATIONS

The Booster will be diplexed with the antenna for WXLO-FM1 on an existing 20ft tower stub atop the John Hancock building in Boston, MA. (ASR 1005833). The roof is secure from any public entry. There are other structures on the roof that are higher than the 20ft tower for the proposed booster. Because there will be no modifications to this building or any appurtenances, it is exempt from environmental processing under CFR Section 1.1306.

The proposed WKVB-FM booster antenna was evaluated for RF energy at ground level. RF fields were calculated using the FCC "FM Model" calculator¹ using a worst-case EPA Type 1 antenna. The RF field was calculated at $6.7\mu\text{W}/\text{cm}^2$ which is 3.4% of the maximum allowable $200\mu\text{W}/\text{cm}^2$ allowable limit for public exposure. Because the calculated emission from the proposed booster antenna is expected to be less than 5% of the permitted $200\mu\text{W}/\text{cm}^2$ at 2m above ground level, the facility is categorically exempt from further environmental assessment under 47CFR 1.1306 and 1.1307.

The applicant agrees to reduce power or cease operations when it becomes necessary if workers are near the antenna in order to ensure that they will not be exposed to levels of radio frequency electromagnetic radiation that exceed FCC guidelines.

CERTIFICATION

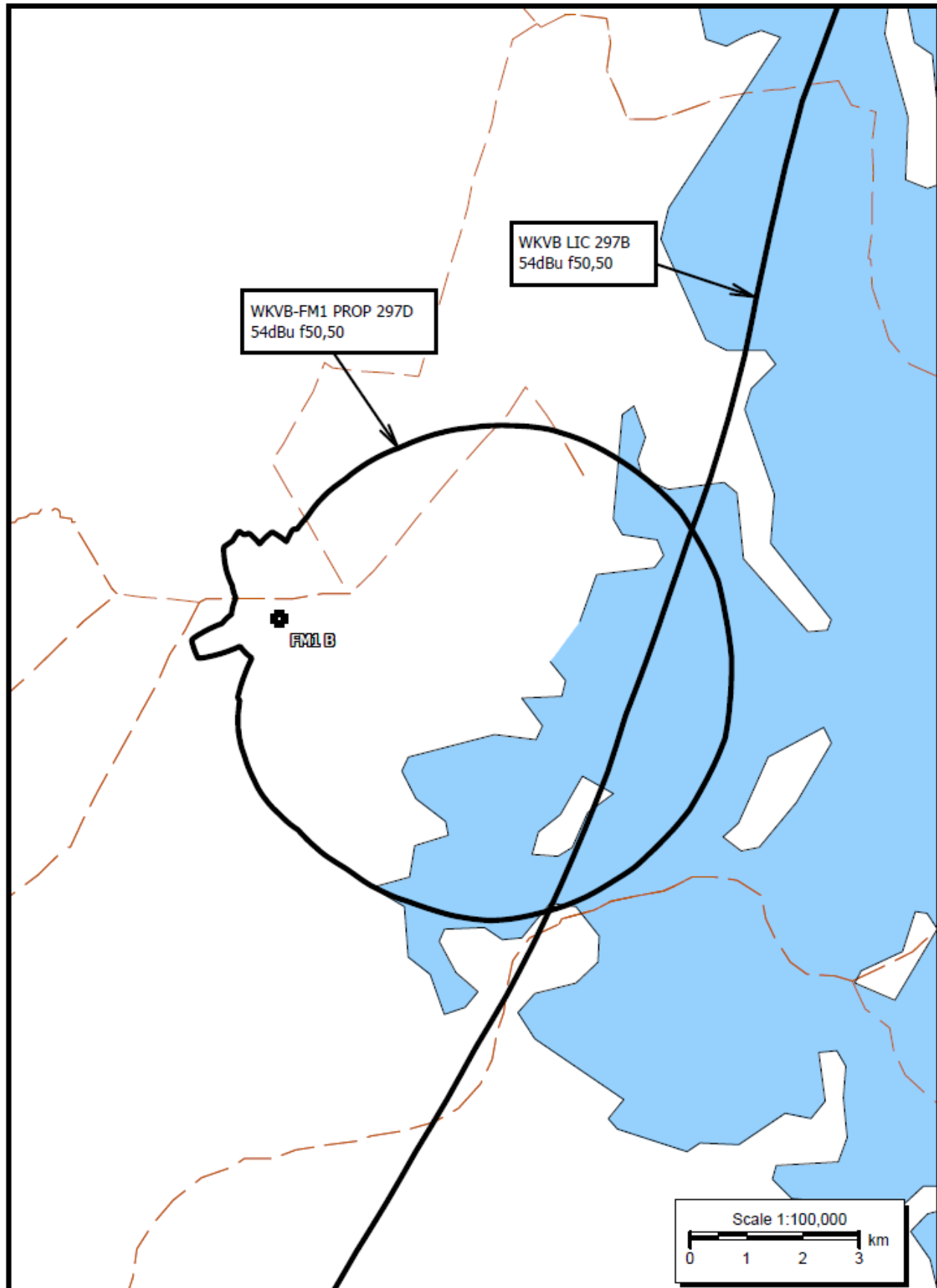
The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direct supervision, and that they are true and correct to the best of his knowledge and belief.



Bertram S. Goldman
Goldman Engineering Management

¹ <https://www.fcc.gov/general/fm-model>

WKVB-FM1 Contours



WKVB-FM1 First Adj Interfering Contours

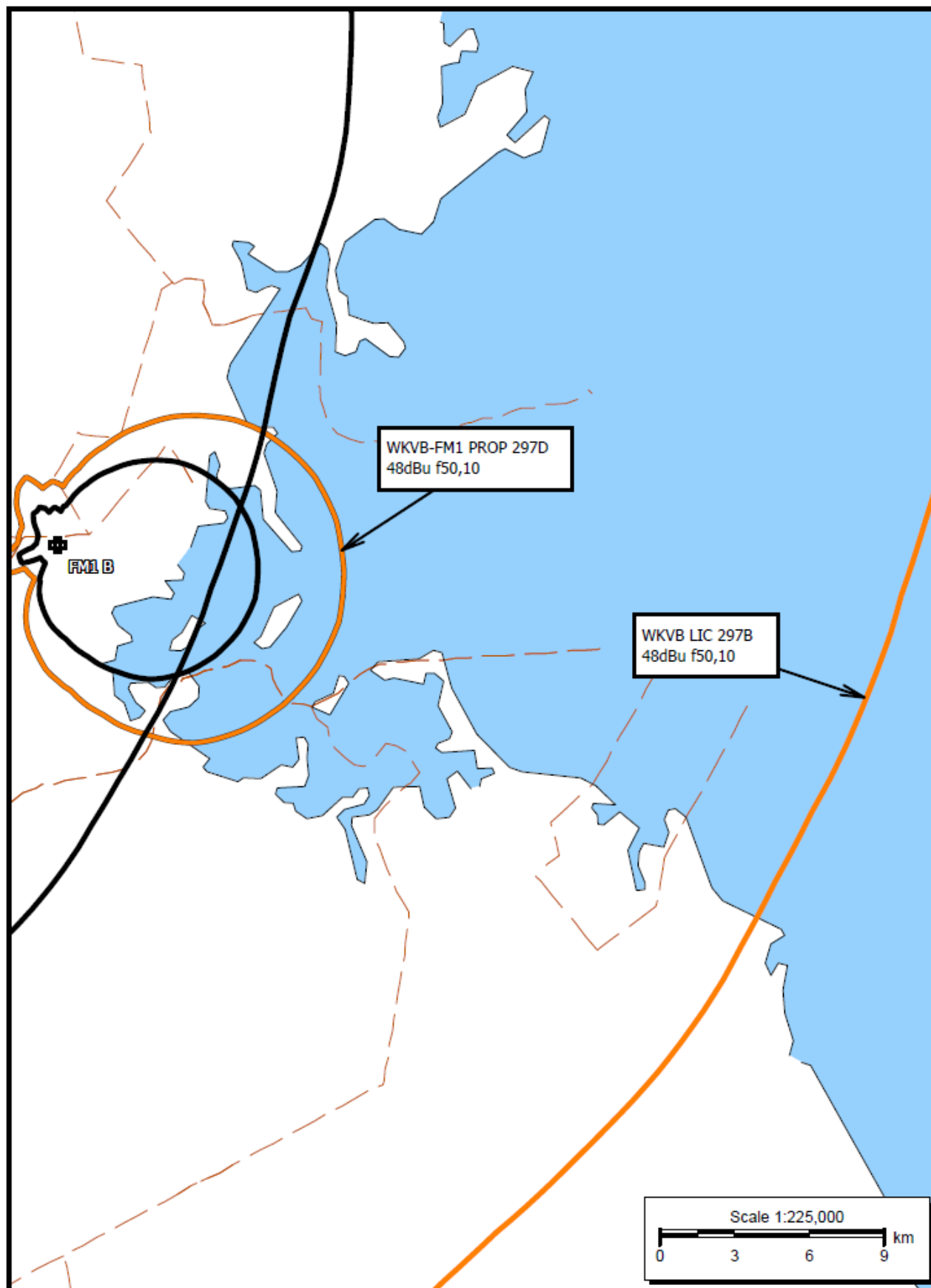
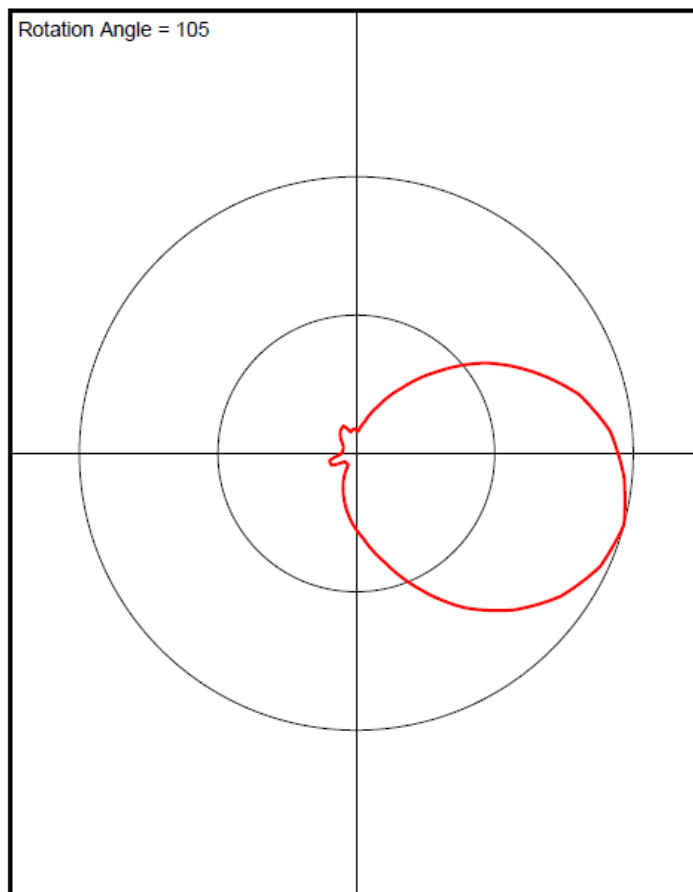


EXHIBIT C- Antenna Pattern (Post Rotation)

WKVB-FM1 Pattern

Post-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	0.085
5.0	0.08
10.0	0.1
15.0	0.12
20.0	0.155
25.0	0.19
30.0	0.24
35.0	0.29
40.0	0.355
45.0	0.42
50.0	0.495
55.0	0.57
60.0	0.635
65.0	0.7
70.0	0.765
75.0	0.83
80.0	0.875
85.0	0.92
90.0	0.945
95.0	0.97
100.0	0.985
105.0	1.0
110.0	0.985
115.0	0.97
120.0	0.935
125.0	0.9
130.0	0.85
135.0	0.8
140.0	0.74
145.0	0.68
150.0	0.61
155.0	0.54
160.0	0.475
165.0	0.41
170.0	0.36
175.0	0.31
180.0	0.275
185.0	0.24
190.0	0.205
195.0	0.17
200.0	0.14
205.0	0.11
210.0	0.08
215.0	0.05
220.0	0.05
225.0	0.05
230.0	0.05
235.0	0.05
240.0	0.075
245.0	0.1
250.0	0.1
255.0	0.1
260.0	0.08
265.0	0.06
270.0	0.055
275.0	0.05
280.0	0.05
285.0	0.05
290.0	0.05
295.0	0.05
300.0	0.055
305.0	0.06
310.0	0.07
315.0	0.08



320.0	0.09
325.0	0.1
330.0	0.105
335.0	0.11
340.0	0.095
345.0	0.08
350.0	0.085
355.0	0.09