

APPENDIX TO ENGINEERING REPORT COVERING
REQUEST FOR CONSTRUCTION PERMIT
TECHNICAL NARRATIVE IN SUPPORT OF CITY OF LICENSE CHANGE
ON BEHALF OF MARSHFIELD BROADCASTING CO., INC.
FOR WMEX 1510 KILOHERTZ
QUINCY, MASSACHUSETTS

JUNE 2018

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STATEMENT

This technical narrative and accompanying engineering exhibits have been prepared on behalf of Marshfield Broadcasting Co., Inc., hereinafter referred to as “Marshfield”, licensee of station WMEX Boston, Massachusetts, in support of an application for construction permit. The minor modification application includes a request to change city of license from Boston, Massachusetts to Quincy, Massachusetts. This proposal is classified an intra-urban move as defined in *Rural Radio*¹, since Quincy² and Boston³ are located in the Boston Urbanized Area.

¹ See *Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures*, Second Report and Order, First Order on Reconsideration, and Second Further Notice of Proposed Rulemaking, 26 FCC Rcd 2556 (2011) (“*Rural Radio*”) and Second Order on Reconsideration, adopted October 11, 2012 (“*Second Order on Recon*”).

² Population 93,688, source 2016 US Census estimate

³ Population 685,064, source 2017 US Census estimate

Due to the short distance between the licensed and proposed transmitter sites, it can be safely concluded the facilities specified in the instant modification are mutually exclusive with the WLLH licensed facilities⁴. Therefore, this application qualifies for a city of license change and the modification is appropriately requested as a minor modification application. See 47 C.F.R. Section 73.3571(j).

⁴ The distance between transmitter sites is 18.0 kilometers.

TABLE OF EXHIBITS ACCOMPANYING THIS NARRATIVE

FIGURE 1A	WMEX 2 mV/m Service Comparison Map
FIGURE 2A	Map of Protected AM Service to Existing Community of License
FIGURE 3A	Map of Protected FM Service to Existing Community of License
FIGURE 4A	Map of City Grade Service to Proposed Community of License
TABLE 1A	Table of AM Stations Providing Service to Existing Community of License
TABLE 2A	Table of FM Stations Providing Service to Existing Community of License

AREA AND POPULATION DATA

The 2 mV/m contour population associated with this proposal provides service to 2,380,613 persons within a land area of 1664.3 square kilometers, while the licensed 2 mV/m contour provides service to 3,452,539 persons within a land area of 3901.3 square kilometers. Figure 1A provides a mapping of the 2 mV/m contours.

The proposed population gain is 49,475 persons and the proposed land area gain is 86.0 square kilometers. The proposed population loss is 1,121,542 persons and the proposed land area loss is 2313.4 square kilometers. Overall, there is a net population loss of 1,072,067 persons and net area loss of 2274.4 square kilometers within the proposed 2 mV/m contour. All population counts and area computations are within the Boston Urbanized Area.

EXISTING SERVICE

There are 47 stations, 20 AM and 27 FM, excluding WMEX, that provide service to Boston⁵. It is obvious by looking at Figures 2A and 3A that the 2 mV/m contour loss area will continue to be well served by numerous other aural services. The proposal to relocate to Quincy will provide Quincy with its second local service and not result in the creation of any “white” or “grey” service area. (The service count is based on stations which provide service to at least 80 percent of the area of Quincy. As per FCC rules,

⁵ See Figures 2A and 3A, Tables 1A and 2A.

service for AM facilities is the daytime 2 mv/m contour, and for FM facilities, the 60 dbu contour except for Class B and B1 facilities, which are respectively the 54 and 57 dbu contours.)

COMPLIANCE WITH FCC RULES

Operation from the proposed transmitter site must provide the requisite daytime city grade 5 mV/m service to 100% of Quincy as per Section 73.24(i) of the rules. Figure 4A is a map of the city grade service area. The proposed operation would provide 5 mV/m service to 100% of Quincy.

METHODOLOGY

The AM predicted coverage contours were calculated in accordance with the provisions of 47 C.F.R. Section 73.182. The FM predicted coverage contours were calculated in accordance with the provisions of 47 C.F.R. Section 73.313.

The population within the service contours was calculated using a computer program that utilizes the 2010 U.S. Census database of "population centroids." The program adds the populations of those U.S. Census designated areas whose centroid lies within each service area. Land areas were calculated using a root mean square algorithm.

CONCLUSION

Granting the request to reassign WMEX to the community of Quincy would provide an overall preferential arrangement of allotments that would serve the public interest. Quincy will receive its second local service⁶ and the city of Boston will continue to have 19 local services⁷ in addition to copious service from the 47 stations that provide protected service to Boston⁸. All of the loss areas would continue to be well served by five or more aural reception services⁹. Therefore, Marshfield requests a construction permit for WMEX to specify Quincy, Massachusetts as the community of license, in lieu of Boston, Massachusetts and to authorize the other technical changes requested in this application.

⁶ Station WJDA(AM) is licensed to Quincy.

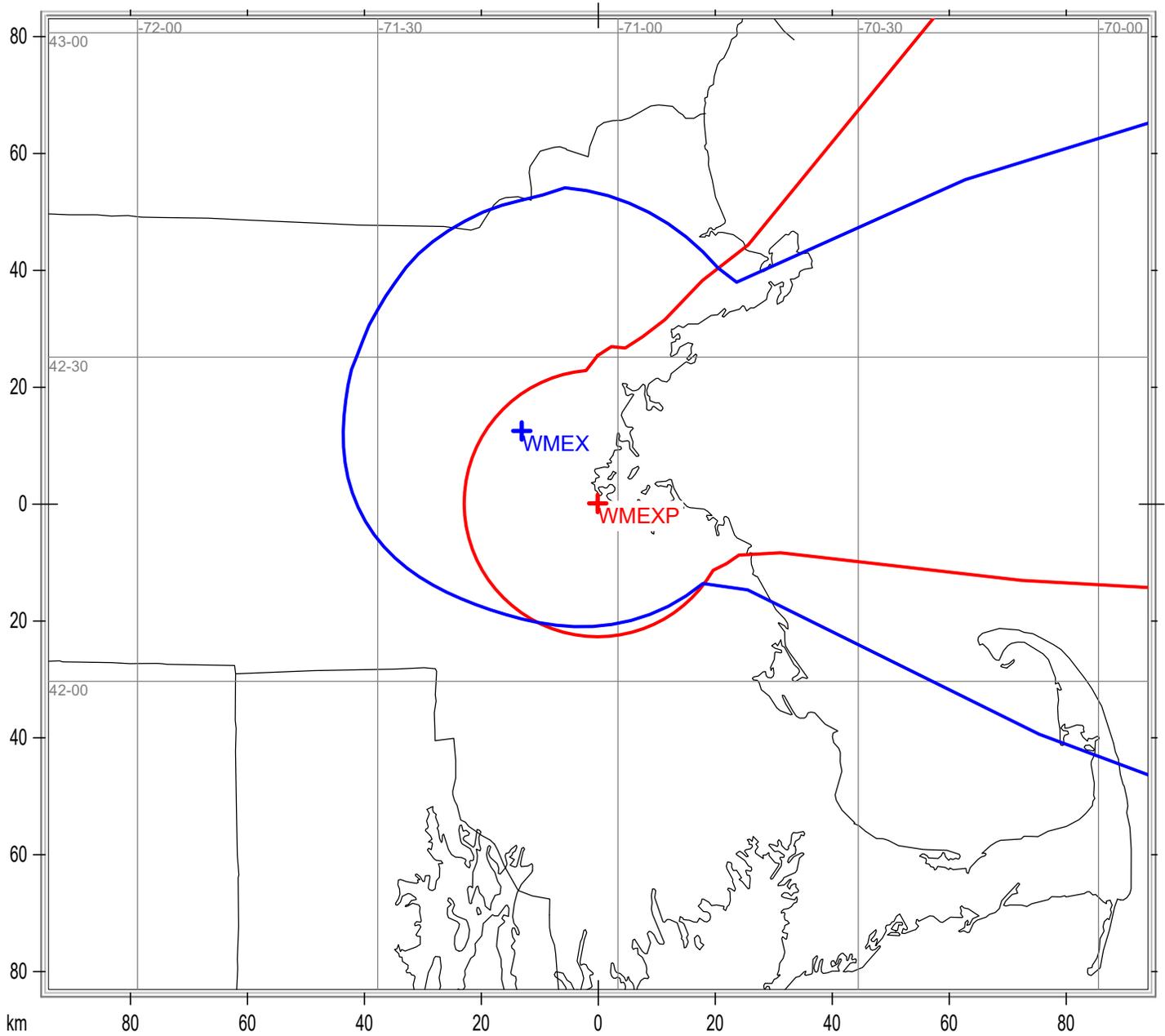
⁷ See Tables 1A and 2A.

⁸ See Figures 2A and 3A, Tables 1A and 2A.

⁹ Based on Figures 2A and 3A, it can be safely concluded that in excess of ten stations provide service to the loss areas.

FIGURE 1A - DAY 2 MV/M COVERAGE COMPARISON MAP

SHOWING 50 KW LICENSED AND 10 KW PROPOSED CONTOURS

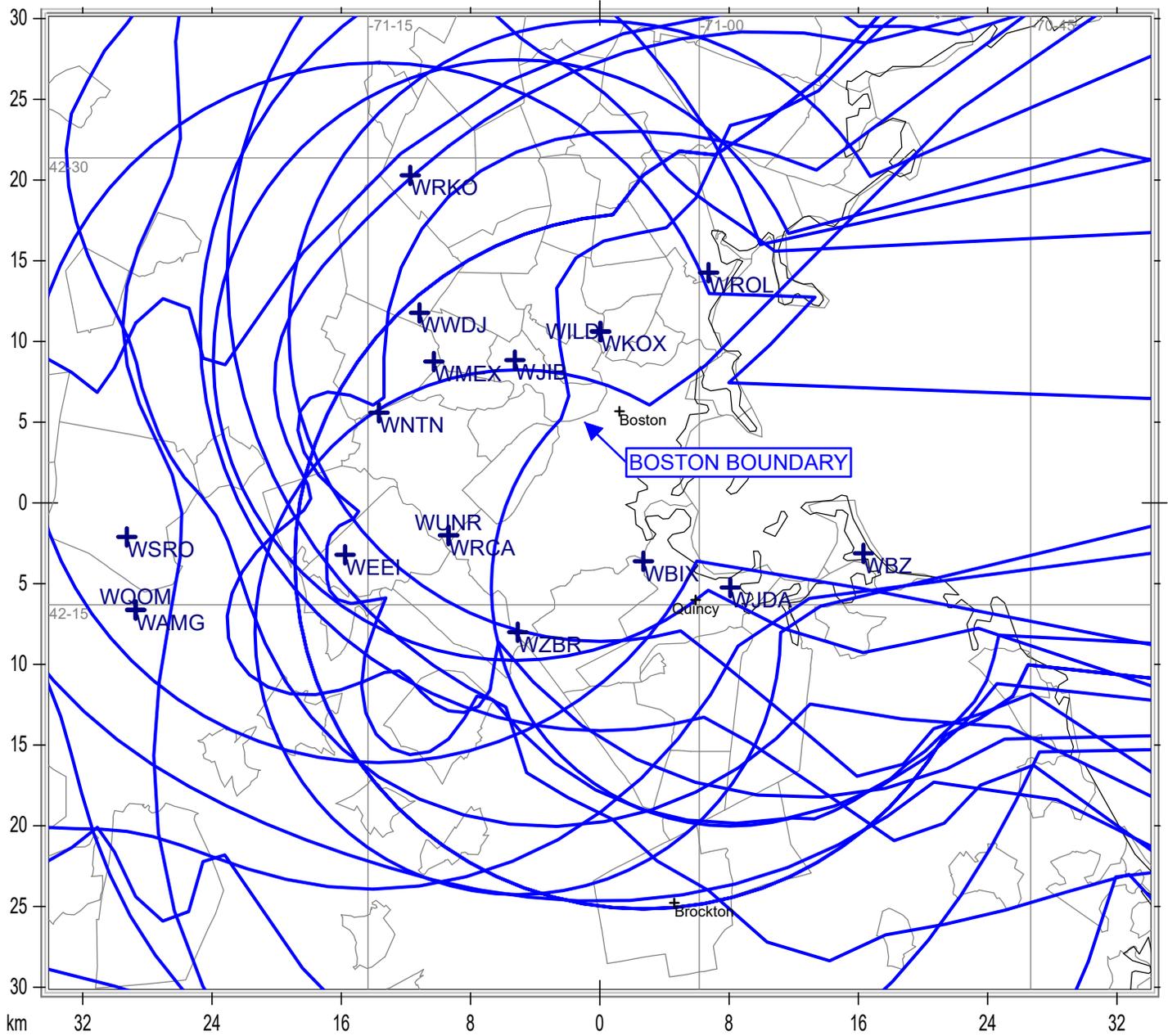


WMEX 1510 KILOHERTZ QUINCY, MASSACHUSETTS

State Borders Lat/Lon Grid

FIGURE 2A - PROTECTED AM SERVICE TO BOSTON, MA

SUBMITTED IN SUPPORT OF APPLICATION TO RELOCATE TO QUINCY, MASSACHUSETTS

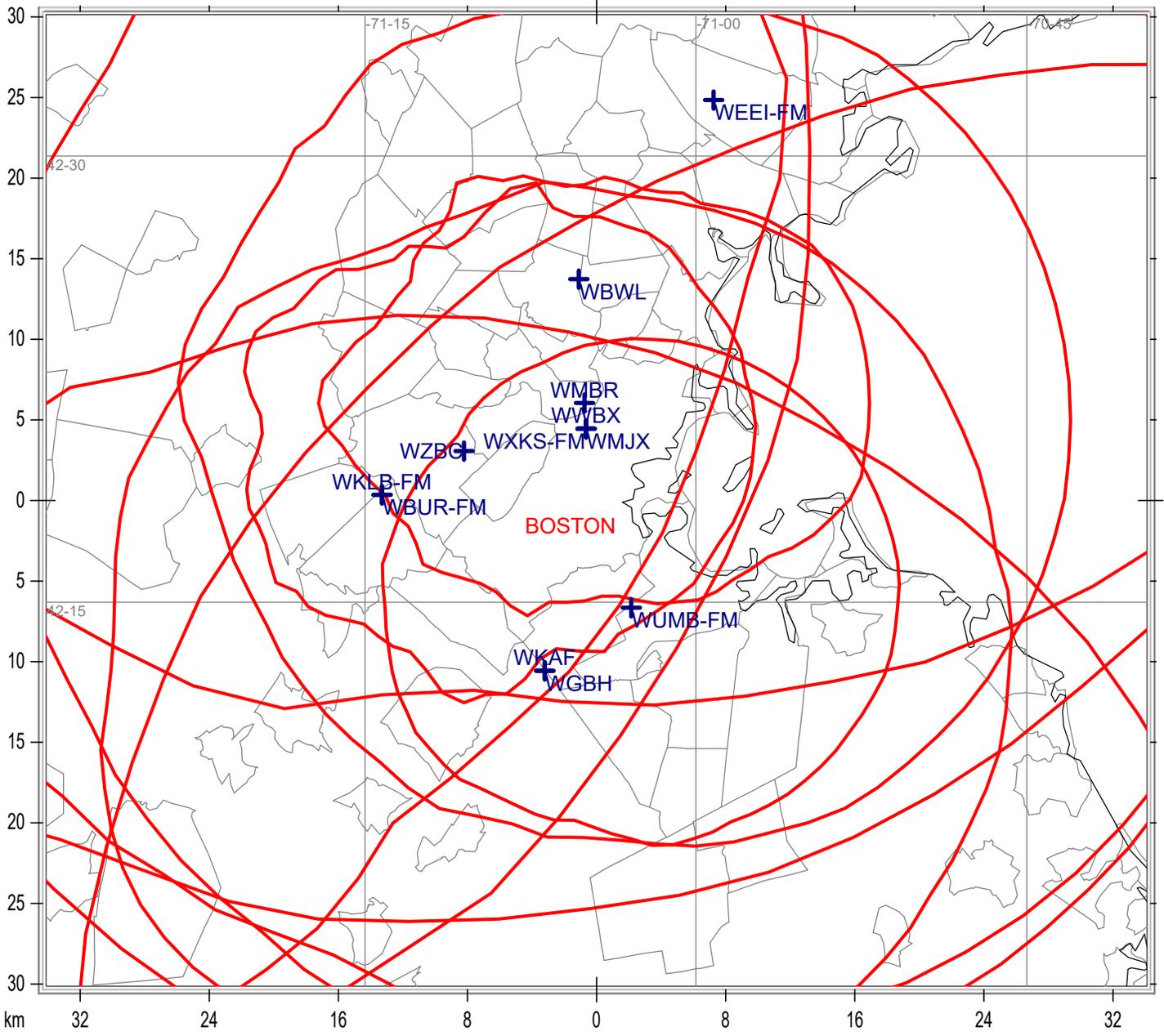


WMEX 1510 KILOHERTZ QUINCY, MASSACHUSETTS

State Borders City Borders Lat/Lon Grid

FIGURE 3A - PROTECTED FM SERVICE TO BOSTON, MA

SUBMITTED IN SUPPORT OF APPLICATION TO RELOCATE TO QUINCY, MASSACHUSETTS

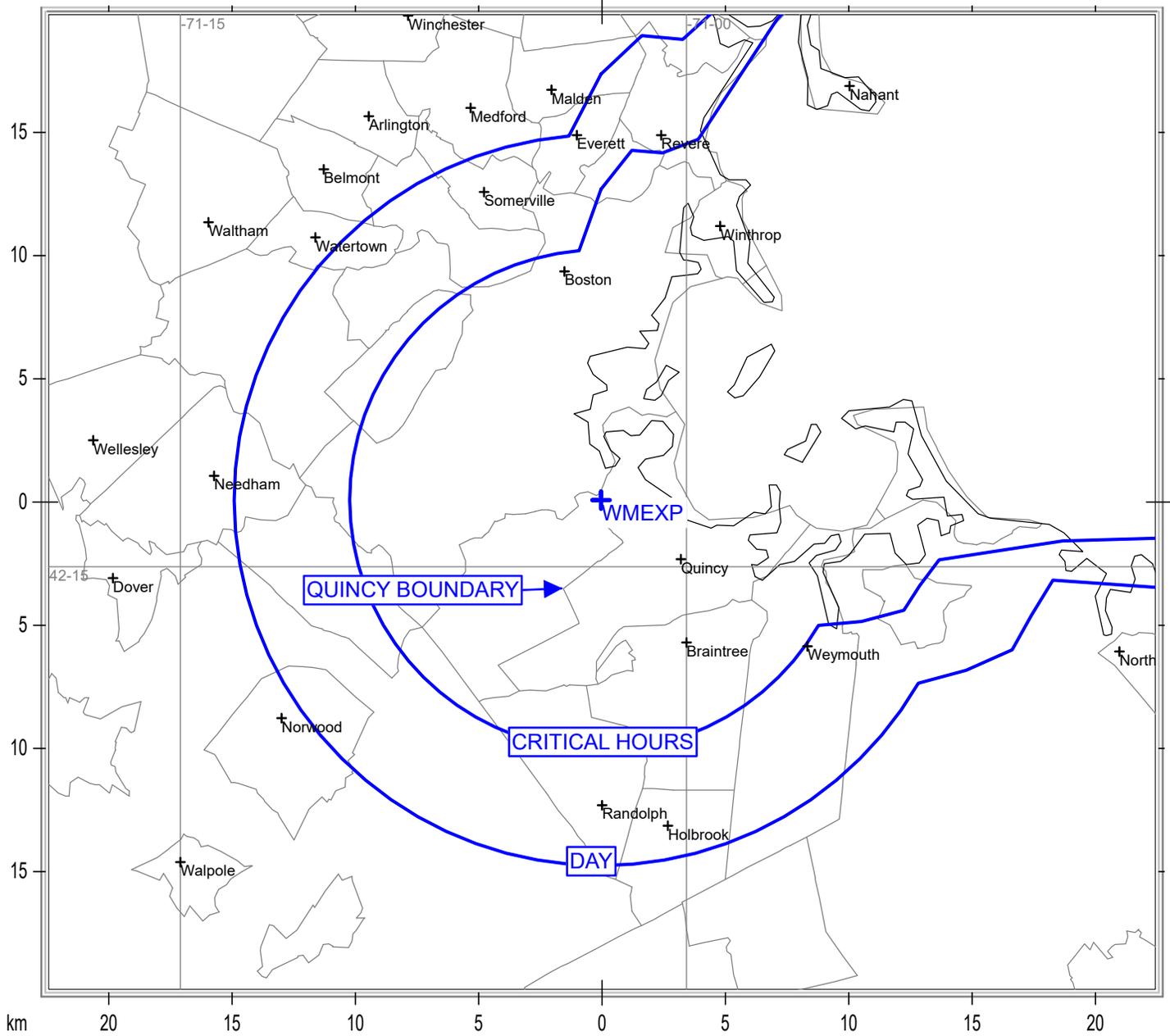


WMEX 1510 KILOHERTZ QUINCY, MASSACHUSETTS

State Borders City Borders Lat/Lon Grid

FIGURE 4A - CITY OF LICENSE SERVICE MAP

SHOWING 5 MV/M CONTOURS



WMEXP 1510 KILOHERTZ 10 KW D 2 KW CH ND QUINCY, MASSACHUSETTS

State Borders City Borders Lat/Lon Grid

TABLE 1A

AM STATIONS PROVIDING PROTECTED SERVICE TO BOSTON, MASSACHUSETTS

CALL	ST	CITY ARN	FREQ	PAT	PWR	DESC
LATITUDE		LONGITUDE	OWNER			
WBIX 42-16-28.0	MA N	BOSTON BL20000929BGG 71-02-32.0 W	1260.00000	LD	5.000	DAN SALEM COMMUNICATIONS HOLDING CORPORATION
WRCA 42-17-20.0	MA N	WATERTOWN BMML20090202CEX 71-11-21.0 W	1330.00000	LD	25.000	DA2 BEASLEY MEDIA GROUP LICENSES, LLC
WSRO 42-17-17.0	MA N	ASHLAND BL20130314ADK 71-25-55.0 W	650.00000	LD	1.500	DA2 LANGER BROADCASTING GROUP, LLC
WJIB 42-23-13.0	MA N	CAMBRIDGE BL 71-08-21.0 W	740.00000	LD	0.250	ND1 BOB BITTNER BROADCASTING, INC.
WKOX 42-24-11.0	MA N	EVERETT BL19841101AE 71-04-29.0 W	1430.00000	LD	5.000	DAN OCEAN STATION TRUST LLC
WNTN 42-21-27.0	MA N	NEWTON BL11959 71-14-30.0 W	1550.00000	LD	10.000	ND2 DELTA COMMUNICATIONS, LLC
WUNR 42-17-20.0	MA N	BROOKLINE BMML20090211ADN 71-11-21.0 W	1600.00000	LD	20.000	DA1 CHAMPION BROADCASTING SYSTEMS, INC.
WRKO 42-29-25.0	MA N	BOSTON BL19880712AH 71-13-05.0 W	680.00000	LD AG	50.000	DA2 CC LICENSES, LLC
WMEX 42-23-10.0	MA N	BOSTON BL20020619ACD 71-12-01.0 W	1510.00000	LD	50.000	DA3 MARSHFIELD BROADCASTING CO., INC.
WAMG 42-14-50.0	MA N	DEDHAM BL20070727AJ0 71-25-31.0 W	890.00000	LD	25.000	DA2 GOIS BROADCASTING BOSTON LLC
WEEI 42-16-41.0	MA N	BOSTON BMML20140314ADY 71-16-02.0 W	850.00000	LD	50.000	DA2 ENTERCOM LICENSE, LLC
WILD 42-24-10.0	MA N	BOSTON BL20051006AEE 71-04-28.0 W	1090.00000	LD	4.800	NDD RADIO BOSTON BROADCASTING, INC.
WQOM 42-14-50.0	MA N	NATICK BL20111212CVV 71-25-31.0 W	1060.00000	LD	50.000	DA2 HOLY FAMILY COMMUNICATIONS

TABLE 1A

WXKS	MA	NEWTON	1200.00000	LD	50.000	DA2
		BMML20110217ADC	CAPSTAR TX, LLC			
42-17-20.0	N	71-11-21.0	W			
WZBR	MA	DEDHAM	1410.00000	LD	2.300	ND2
		BL20150319ABK	LANGER BROADCASTING GROUP, LLC			
42-14-05.0	N	71-08-13.0	W			
WEZE	MA	BOSTON	590.00000	LU	AG	5.000
		BL	SALEM COMMUNICATIONS HOLDING CORPORATION			
42-24-24.0	N	71-05-14.0	W			
WWDJ	MA	BOSTON	1150.00000	LD	AG	5.000
		BML20030319AFJ	SALEM COMMUNICATIONS HOLDING CORPORATION			
42-24-48.0	N	71-12-40.0	W			
WROL	MA	BOSTON	950.00000	LD	5.000	ND2
		BL20130418ACS	SALEM MEDIA OF MASSACHUSETTS, LLC			
42-26-09.0	N	70-59-35.0	W			
WJDA	MA	QUINCY	1300.00000	LD	1.000	ND1
		BL	UNIVERSAL STATIONS LLC			
42-15-35.0	N	70-58-36.0	W			
WBZ	MA	BOSTON	1030.00000	LU	AG	50.000
		BL19790525AI	CC LICENSES, LLC			
42-16-44.0	N	70-52-34.0	W			

TABLE 2A

FM STATIONS PROVIDING PROTECTED SERVICE TO BOSTON, MASSACHUSETTS

CALL	ST	CITY	FREQ	CL	ERP	STAT
LATITUDE		ARN LONGITUDE	HAAT:m AMSL:m	OWNER		
WSNE-FM	MA	TAUNTON	93.30000	B	31000.00	LIC
41-51-56.0 N		71-17-22.0 W	175.088 209.000	BLH-20081125AJP CAPSTAR TX, LLC		
WUMB-FM	MA	BOSTON	91.90000	A	160.00	LIC
42-14-49.0 N		71-02-56.0 W	175.219 210.000	bled-20130916ACM UNIVERSITY OF MASSACHUSETTS		
WODS	MA	BOSTON	103.30000	B	8700.00	LIC
42-18-27.4 N		71-13-26.7 W	344.444 391.600	BLH-20101105AAI CBS RADIO EAST, LLC		
WXLO	MA	FITCHBURG	104.50000	B	37000.00	LIC
42-30-27.0 N		71-49-37.0 W	173.435 404.000	BMLH-19910920KB RADIO LICENSE HOLDING CBC, LLC		
WMJX	MA	BOSTON	106.70000	B	21500.00	LIC
42-20-50.0 N		71-04-59.0 W	231.129 258.000	BLH-19911018KC CBS RADIO STATIONS INC.		
WWBX	MA	BOSTON	104.10000	B	21000.00	LIC
42-20-50.0 N		71-04-59.0 W	231.927 258.000	BLH-19911018KD ENTERCOM MASSACHUSETTS, LLC		
WXKS-FM	MA	MEDFORD	107.90000	B	20500.00	LIC
42-20-50.0 N		71-04-59.0 W	232.002 258.000	BLH-19911018KE AMFM RADIO LICENSES, L.L.C.		
WZLX	MA	BOSTON	100.70000	B	21500.00	LIC
42-20-50.0 N		71-04-59.0 W	231.916 258.000	BLH-19911018KF CC LICENSES, LLC		
WKLB-FM	MA	WALTHAM	102.50000	B	14000.00	LIC
42-18-37.0 N		71-14-14.0 W	269.232 320.000	BLH-20090515ABT BEASLEY MEDIA GROUP LICENSES, LLC		
WJMN	MA	BOSTON	94.50000	B	9200.00	LIC
42-18-27.0 N		71-13-27.0 W	342.331 394.000	BLH-20031201AWA AMFM RADIO LICENSES, L.L.C.		
WKAF	MA	BROCKTON	97.70000	A	2050.00	LIC
42-12-42.0 N		71-06-51.0 W	172.141 217.600	BLH-20090901AHF CC LICENSES, LLC		
WAAF	MA	WESTBOROUGH	107.30000	B	9600.00	LIC
42-20-09.0 N		71-42-57.0 W	324.243 480.000	BLH-20051019ABP ENTERCOM LICENSE, LLC		
WBUR-FM	MA	BOSTON	90.90000	B	8600.00	LIC
42-18-36.6 N		71-14-13.8 W	353.117 400.600	bled-20170802AEJ THE TRUSTEES OF BOSTON UNIVERSITY		

TABLE 2A

WBQT	MA	BOSTON	96.90000	B	22500.00	LIC
42-20-50.0	N	71-04-59.0	W 193.053 247.000			
						BLH-19960903KE BEASLEY MEDIA GROUP LICENSES, LLC
WCRB	MA	LOWELL	99.50000	B	27000.00	LIC
42-39-14.0	N	71-13-02.0	W 196.401 238.000			
						BLH-19990310KE WGBH EDUCATIONAL FOUNDATION
WROR-FM	MA	FRAMINGHAM	105.70000	B	23000.00	LIC
42-20-50.0	N	71-04-59.0	W 214.695 247.000			
						BLH-20000223AAP BEASLEY MEDIA GROUP LICENSES, LLC
WBZ-FM	MA	BOSTON	98.50000	B	9000.00	LIC
42-18-27.0	N	71-13-27.0	W 348.228 393.000			
						BLH-19900131KB BEASLEY MEDIA GROUP LICENSES, LLC
WERS	MA	BOSTON	88.90000	B1	4000.00	LIC
42-21-08.0	N	71-03-25.0	W 180.717 203.000			
						BLED-19900706KB EMERSON COLLEGE
WMBR	MA	CAMBRIDGE	88.10000	A	720.00	LIC
42-21-42.0	N	71-05-03.0	W 83.070 108.000			
						BLED-19950727KD TECHNOLOGY BROADCASTING CORPORATION
WXRV	MA	ANDOVER	92.50000	B	25000.00	LIC
42-46-23.0	N	71-06-01.0	W 216.776 262.000			
						BLH-20061121ACI BEANPOT LICENSE CORP.
WHRB	MA	CAMBRIDGE	95.30000	A	1450.00	LIC
42-21-08.0	N	71-03-25.0	W 181.595 201.000			
						BLH-20111115ABD HARVARD RADIO BROADCASTING CO., INC.
WGBH	MA	BOSTON	89.70000	B	98000.00	LIC
42-12-42.0	N	71-06-51.0	W 200.574 242.000			
						BLED-19800609AH WGBH EDUCATIONAL FOUNDATION
WZBC	MA	NEWTON	90.30000	A	1000.00	LIC
42-20-05.0	N	71-10-31.0	W 60.101 102.000			
						BMLD-20021216AAB TRUSTEES OF BOSTON COLLEGE
WBOS	MA	BROOKLINE	92.90000	B	13000.00	LIC
42-18-12.0	N	71-13-08.0	W 283.320 334.000			
						BLH-19940401KZ BEASLEY MEDIA GROUP LICENSES, LLC
WBWL	MA	LYNN	101.70000	B1	13500.00	LIC
42-25-51.7	N	71-05-18.8	W 132.671 164.000			
						BLH-20150803ABJ AMFM RADIO LICENSES, LLC
WPLM-FM	MA	PLYMOUTH	99.10000	B	50000.00	LIC
41-58-02.0	N	70-42-04.0	W 116.063 159.000			
						BLH-7410 PLYMOUTH ROCK BROADCASTING CO., INC.
WEEI-FM	MA	LAWRENCE	93.70000	B	34000.00	LIC
42-31-53.0	N	70-59-12.0	W 175.853 202.000			
						BLH-20090904ACK ENTERCOM LICENSE, LLC