

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
FM STATION WMAS-FM
ENFIELD, CONNECTICUT
CH 234B 50 KW 55 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an application for a construction permit for FM station WMAS-FM at Springfield, Massachusetts. Station WMAS-FM is currently licensed (BLH-19801010AD, Facility ID 36543) to operate on channel 234B (94.7 MHz) with an effective radiated power (ERP) of 50 kilowatts (kW) and an antenna height above average terrain (HAAT) of 59 meters.

The purpose of this instant application is to specify a change in the city of license of WMAS-FM as permitted by the rules adopted by the FCC allowing community of license changes by application.¹ In addition, as detailed below, based on the registered tower data (ASR 1045611) this instant application proposes a slight coordinate correction for the existing tower site as well as a slight reduction in HAAT of 4 meters. Specifically it is proposed to operate on channel 234B at Enfield, Connecticut from the existing site and with the existing technical facilities, namely, a nondirectional ERP of 50 kW and an HAAT of 55 meters. This instant application is being filed under the contingent application rule [Section 73.3517(e)], as grant of this application is contingent on the grant of an application for construction permit for WPKX on channel 250A (97.9 MHz) at Enfield, Connecticut to change its city of license to Windsor Locks, Connecticut which is being filed concurrently with this application. The instant application is considered a "minor" change in facilities in accordance with Section 73.3573(a)(1)(i) and 73.3573(g).

¹ Report and Order in the Matter of Revision of Procedures Governing Amendments to the FM Table of Allotments and Changes of Community of License in the Radio Broadcast Services, MB Docket No. 05-210, RM-10960, FCC 06-163, released November 29, 2006 ("Report and Order").

Response to Paragraph 5 - Antenna Structure Registration
Number

The existing WMAS-FM antenna is located on ASR 1045611. Therefore, it is necessary to conform the current transmitting site coordinates and height data to the information contained in ASR 1045611. The current site coordinates for the WMAS-FM transmitting site are Latitude 42-06-32, Longitude 72-36-44 (NAD 27), and the new site coordinates are Latitude 42-06-33, Longitude 72-36-40 (NAD 27). In addition, based on the ASR 1045611 height data for the WMAS-FM tower, the antenna radiation center height above mean sea level (RCAMSL) will change from 121 meters to 117 meters which results in a 4 meter reduction in HAAT, from 59 meter to 55 meters.

Response to Paragraph 13 - Allotment

Figure 1 is a separation study from the proposed allotment reference site which is also the current WMAS-FM site location (with site coordinate correction). As shown, the proposed allotment reference site complies with the minimum distance separation requirements of Section 73.207 for Class B operation on channel 234 towards all existing, authorized and proposed stations with the following exceptions: the licensed operation of WJMN on channel 233B at Boston, Massachusetts; the licensed operation of WFME on channel 234B at Newark, New Jersey; the licensed operation of WBAR-FM on channel 234A at Lake Luzerne, New York; and the licensed operation of WPVQ on channel 237A at Greenfield, Massachusetts. Figure 2 is a separation study for the currently licensed coordinates for WMAS-FM which also indicates short-spacings with WJMN, WFME, WBAR-FM and WPVQ. Each short-spacing is addressed below.

The WMAS-FM short-spacing with WJMN is a grandfathered short-spacing under Section 73.213(a). The proposal complies with FCC precedents in reallocment proposals involving such short-spacings. See Report and Order in MM Docket No. 02-49, Worcester and Westborough, Massachusetts, RM 10220, DA 03-3554. It is noted that based on the coordinate correction for the existing WMAS-FM tower site the separation with WJMN will slightly decrease from 116.73 km to 116.64 km (0.09 km decrease). Furthermore, as both the present and

proposed separations round to 117 km there will be no change in the separation to WJMN based on FCC rounding procedures.

The WMAS-FM short-spacing with WFME is a grandfathered short-spacing under Section 73.213(a). The proposal complies with FCC precedents in reallocation proposals involving such short-spacings. See Report and Order in MM Docket No. 02-49, Worcester and Westborough, Massachusetts, RM 10220, DA 03-3554. It is noted that based on the coordinate correction for the existing WMAS-FM tower site the separation with WFME will slightly increase from 200.90 km to 200.99 km (0.09 km increase). Furthermore, as both the present and proposed separations round to 201 km there will be no change in the separation to WFME based on FCC rounding procedures.

Station WBAR-FM utilized the contour protection provisions of Section 73.215 with respect to the short-spacing with the WMAS-FM licensed operation. Therefore, the proposal complies with FCC precedents in reallocation proposals involving such short-spacings. See Report and Order in MM Docket No. 02-49, Worcester and Westborough, Massachusetts, RM 10220, DA 03-3554. It is noted that based on the coordinate correction for the existing WMAS-FM tower site the separation with WBAR-FM will slightly increase from 162.36 km to 162.39 km (0.03 km increase). Furthermore, as both the present and proposed separations round to 162 km there will be no change in the separation to WBAR-FM based on FCC rounding procedures.

The WMAS-FM short-spacing with WPVQ is a grandfathered short-spacing under Section 73.213(c)(2). The proposal complies with Section 73.213(c)(2) as there will be no change in transmitter site or facilities. Furthermore, the proposal complies with FCC precedents in reallocation proposals involving such short-spacings. See Report and Order in MM Docket No. 02-49, Worcester and Westborough, Massachusetts, RM 10220, DA 03-3554. It is noted that based on the coordinate correction for the existing WMAS-FM tower site the separation with WPVQ will slightly decrease from 65.35 km to 65.32 km (0.03 km decrease). However, as both the present and proposed separations round to 65 km there will be no change in the separation to WPVQ based on FCC rounding procedures.

Figure 3 is a map which demonstrates that the allotment reference point (current WMAS-FM site) complies with the FCC's city coverage requirements (73.315) based on maximum Class B facilities (ERP 50 kW/HAAT 150 m). The Enfield city limits shown on Figure 3 were obtained from a map contained in the 2000 U.S. Census of Population.

Response to Paragraph 14 - Community Coverage

Figure 3 demonstrates that the proposed operation complies with the provisions of Section 73.315 as the 70 dBu covers 100% of the Enfield city limits.

Response to Paragraph 17 - Environmental Considerations

The WMAS-FM 2005 license renewal (BRH-20051201AXQ) contained a report prepared by Broadcast Signal Lab, LLP which indicated that based on radio frequency radiation measurements the licensed WMAS-FM facilities (which are shared by AM station WHLL on 1450 kHz at Springfield) were in compliance with the FCC Maximum Permissible Exposure (MPE) limits at all measured locations. The report further noted that access to areas where radio frequency energy levels may exceed the public exposure/uncontrolled limits are strictly controlled by the site owner, and appropriate RF safety signs are located wherever personnel may gain access to the transmission site. A copy of the Broadcast Signal Lab, LLP report is attached hereto as Figure 4. As there have been no known changes to the operations of WMAS-FM or WHLL(AM), it is believed that the results of the Broadcast Signal Lab, LLP report are still valid.

It is noted that all other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner as part of the tower registration process.

Response to Paragraph 18 - Community of License Change -
Section 307(b)

1. Proposal

It is proposed to specify a change in the city of license of WMAS-FM from Springfield, Massachusetts to Enfield, Connecticut as permitted by the rules adopted by the FCC allowing community of license changes by application.

2. Contingent Application

This instant application is being filed under the contingent application rule [Section 73.3517(e)], as a grant is contingent upon grant of an application for construction permit for WPKX on channel 250A to change its city of license from Enfield, Connecticut to Windsor Locks, Connecticut which is being filed concurrently with this application.

3. City Populations and Local Service

Springfield, which has a 2000 U.S. Census population of 152,082 persons, has 8 other AM and FM services.² Therefore, Springfield will not be deprived of its only local service. Enfield has a 2000 U.S. Census population of 45,212 persons. Enfield has no other local FM or AM service other than WPKX. However, the proposal will not remove the only local service at Enfield as WMAS-FM on channel 234B at Springfield, Massachusetts will be reallocated from Springfield to Enfield.

4. Urbanized Area Considerations

Figure 5 is a map which depicts the Enfield and Springfield city limits and the Springfield, MA-CT Urbanized Area (UA). As indicated, Springfield is located entirely within the Springfield, MA-CT UA and the majority of Enfield is located within the Springfield, MA-CT UA. Specifically, 83.6% of Enfield is located within the Springfield, MA-CT UA.

² FM stations WSCB, channel 210A, WTCC, channel 220A, WAIC, channel 220A, WHYN-FM, channel 226B and WAQY, channel 271B and AM stations WHLL, 1450 kHz, WHYN, 560 kHz and WSPR, 1270 kHz are currently assigned to Springfield.

Also shown is the proposed WMAS-FM 70 dBu contour. The WMAS-FM 70 dBu contour will encompass 82.8% of the Springfield, MA-CT UA.

4. Gain and Loss Areas and Available Aural Services

As there will be no change in transmitter site or technical facilities, no gain or loss area will be created.

5. 70 dBu and 60 dBu Coverage

The following tabulates the land area and population within the proposed 70 dBu and 60 dBu contours depicted on Figure 3.

Contour	Population (2000 Census)	Area (sq. km)
70 dBu	544,783	1,243
60 dBu	1,108,278	3,602

Contour locations calculated in accordance with the provisions of Section 73.313. Population calculated using a computer program that utilizes the 2000 U.S. Census database of "population centroids". Area calculated using a root mean square algorithm.

6. Protected FM and AM Services Available to Enfield

It has been determined that there are 17 protected FM and AM services available to Enfield as shown on Figure 6.³ Figure 7 tabulates the FM and AM stations whose contours are shown on Figure 6.

³ For FM stations, the pertinent primary service contour has been used. For AM stations, the daytime 2 mV/m contour has been used.

If there are any questions, or additional information is required, please contact the office of the undersigned.



W. Jeffrey Reynolds

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Sarasota, FL 34237-6019
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JEFF@DLR.COM

December 8, 2010

CDBS SEPARATION STUDY - WMAS-FM LICENSED SITE (WITH COORDINATE CORRECTION)/ALLOTMENT COORDINATES

Channel: 234 **Coordinates:** 042-06-33 072-36-40 (NAD 27)
Class: B **Buffer Distance:** 20 km

Date: 12/08/2010
Page: 1 of 1

Callsign	Status	Chan.	Serv.	Freq.	City		State	Latitude	Dist. (km)	Sep. (km)	Spacing (km)	
Fac. ID	ARN			Class	DA	Ant. ID	ERP (kW)	HAAT (m)	Longitude	Bear. (deg)	73.215	Comment
WJMN	LIC	233	FM	94.5	BOSTON			MA	042-18-27	116.64	169	-52.36
53972	BLH 20031201AWA			B	N		9.2	353	071-13-27	78.61	145 N	SHORT ¹
WYKV	LIC	233	FM	94.5	RAVENA			NY	042-33-23	114.89	113	1.89
73929	BMLED 20070327AEN			A	N		3	100	073-52-05	296.12	96 N	CLOSE
WMAS-FM	LIC	234	FM	94.7	SPRINGFIELD			MA	042-06-32	0.1		
36543	BLH 19801010AD			B			50	59	072-36-44	251.38		
WFME	LIC	234	FM	94.7	NEWARK			NJ	040-47-18	200.99	241	-40.01
20886	BMLED 20070507AFE			B	N		37.2	174	074-15-19	223.56	211 N	SHORT ²
WBAR-FM	LIC	234	FM	94.7	LAKE LUZERNE			NY	043-18-16.7	162.39	178	-15.61
8678	BLH 20070420ABM			A	D 77237		1.25	220	073-45-06.6	325.35	143 Y	SHORT ³
890921ND	VAC	235	FA	94.9	MONTAUK			NY	041-01-00	131.61	113	18.61
9321				A					072-00-00	157.09	96 N	CLEAR
WPVQ	LIC	237	FM	95.3	GREENFIELD			MA	042-41-50	65.32	69	-3.68
54780	BLH 20010410AAB			A	N		0.57	232	072-36-20	0.4	63 N	SHORT ⁴
WVEI-FM	LIC	288	FM	105.5	EASTHAMPTON			MA	042-14-29	15.02	15	0.02
11295	BLH 20060504AAX			A	D 70896		0.72	280	072-38-57	347.97		CLOSE

¹ Grandfathered short-spacing under Section 73.213(a). The proposal complies with FCC precedents in reallocation proposals involving such short-spacings. See Report and Order in MM Docket No. 02-49, Worcester and Westborough, Massachusetts, RM 10220, DA 03-3554. It is noted that based on the registered tower data (ASR 1045611) there will be coordinate correction for the existing tower site. As a result, the separation with WJMN will slightly decrease from 116.73 km to 116.64 km (0.09 km decrease). Furthermore, as both the present and proposed separations round to 117 km there will be no change in the separation to WJMN based on FCC rounding procedures. Figure 2, attached, is a separation study based on WMAS-FM's currently licensed transmitter site coordinates.

² Grandfathered short-spacing under Section 73.213(a). The proposal complies with FCC precedents in reallocation proposals involving such short-spacings. See Report and Order in MM Docket No. 02-49, Worcester and Westborough, Massachusetts, RM 10220, DA 03-3554. It is noted that based on the registered tower data (ASR 1045611) there will be coordinate correction for the existing tower site. As a result, the separation with WFME will slightly increase from 200.90 km to 200.99 km (0.09 km increase). Furthermore, as both the present and proposed separations round to 201 km there will be no change in the separation to WFME based on FCC rounding procedures. Figure 2, attached, is a separation study based on WMAS-FM's currently licensed transmitter site coordinates.

³ WBAR-FM utilized the contour protection provisions of Section 73.215 with respect to the short-spacing with the WMAS-FM licensed operation. Therefore, the proposal complies with FCC precedents in reallocation proposals involving such short-spacings. See Report and Order in MM Docket No. 02-49, Worcester and Westborough, Massachusetts, RM 10220, DA 03-3554. It is noted that based on the registered tower data (ASR 1045611) there will be coordinate correction for the existing tower site. As a result, the separation with WBAR-FM will slightly increase from 162.36 km to 162.39 km (0.03 km increase). Furthermore, as both the present and proposed separations round to 162 km there will be no change in the separation to WBAR-FM based on FCC rounding procedures. Figure 2, attached, is a separation study based on WMAS-FM's currently licensed transmitter site coordinates.

⁴ Grandfathered short-spacing under Section 73.213(c)(2). The proposal complies with Section 73.213(c)(2) as there will be no change in transmitter site or facilities. Furthermore, the proposal complies with FCC precedents in reallocation proposals involving such short-spacings. See Report and Order in MM Docket No. 02-49, Worcester and Westborough, Massachusetts, RM 10220, DA 03-3554. It is noted that based on the registered tower data (ASR 1045611) there will be coordinate correction for the existing tower site. As a result, the separation with WPVQ will slightly decrease from 65.35 km to 65.32 km (0.03 km decrease). However, as both the present and proposed separations round to 65 km there will be no change in the separation to WPVQ based on FCC rounding procedures. Figure 2, attached, is a separation study based on WMAS-FM's currently licensed transmitter site coordinates.

CDBS SEPARATION STUDY - WMAS-FM CURRENT LICENSED SITE (WITHOUT COORDINATE CORRECTION)

Channel: 234 **Coordinates:** 042-06-32 072-36-44 (NAD 27)
Class: B **Buffer Distance:** 20 km

Date: 12/09/2010

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<u>Callsign</u>	<u>Status</u>	<u>Chan.</u>	<u>Serv.</u>	<u>Freq.</u>	<u>City</u>		<u>State</u>	<u>Latitude</u>	<u>Dist. (km)</u>	<u>Sep. (km)</u>	<u>Spacing (km)</u>	
<u>Fac. ID</u>	<u>ARN</u>			<u>Class</u>	<u>DA</u>	<u>Ant. ID</u>	<u>ERP (kW)</u>	<u>HAAT (m)</u>	<u>Longitude</u>	<u>Bear. (deg)</u>	<u>73.215</u>	<u>Comment</u>
WJMN	LIC	233	FM	94.5	BOSTON			MA	042-18-27	116.73	169	-52.27
53972	BLH 20031201AWA			B	N		9.2	353	071-13-27	78.6	145 N	SHORT¹
WYKV	LIC	233	FM	94.5	RAVENA			NY	042-33-23	114.82	113	1.82
73929	BMLED 20070327AEN			A	N		3	100	073-52-05	296.16	96 N	CLOSE
WMAS-FM	LIC	234	FM	94.7	SPRINGFIELD			MA	042-06-32	0		
36543	BLH 19801010AD			B			50	59	072-36-44	0		
WFME	LIC	234	FM	94.7	NEWARK			NJ	040-47-18	200.9	241	-40.1
20886	BMLED 20070507AFE			B	N		37.2	174	074-15-19	223.55	211 N	SHORT²
WBAR-FM	LIC	234	FM	94.7	LAKE LUZERNE			NY	043-18-16.7	162.36	178	-15.64
8678	BLH 20070420ABM			A	D 77237		1.25	220	073-45-06.6	325.38	143 Y	SHORT³
890921ND	VAC	235	FA	94.9	MONTAUK			NY	041-01-00	131.62	113	18.62
9321				A					072-00-00	157.04	96 N	CLEAR
WPVQ	LIC	237	FM	95.3	GREENFIELD			MA	042-41-50	65.35	69	-3.65
54780	BLH 20010410AAB			A	N		0.57	232	072-36-20	0.48	63 N	SHORT⁴
WVEI-FM	LIC	288	FM	105.5	EASTHAMPTON			MA	042-14-29	15.03	15	0.03
11295	BLH 20060504AAX			A	D 70896		0.72	280	072-38-57	348.34		CLOSE

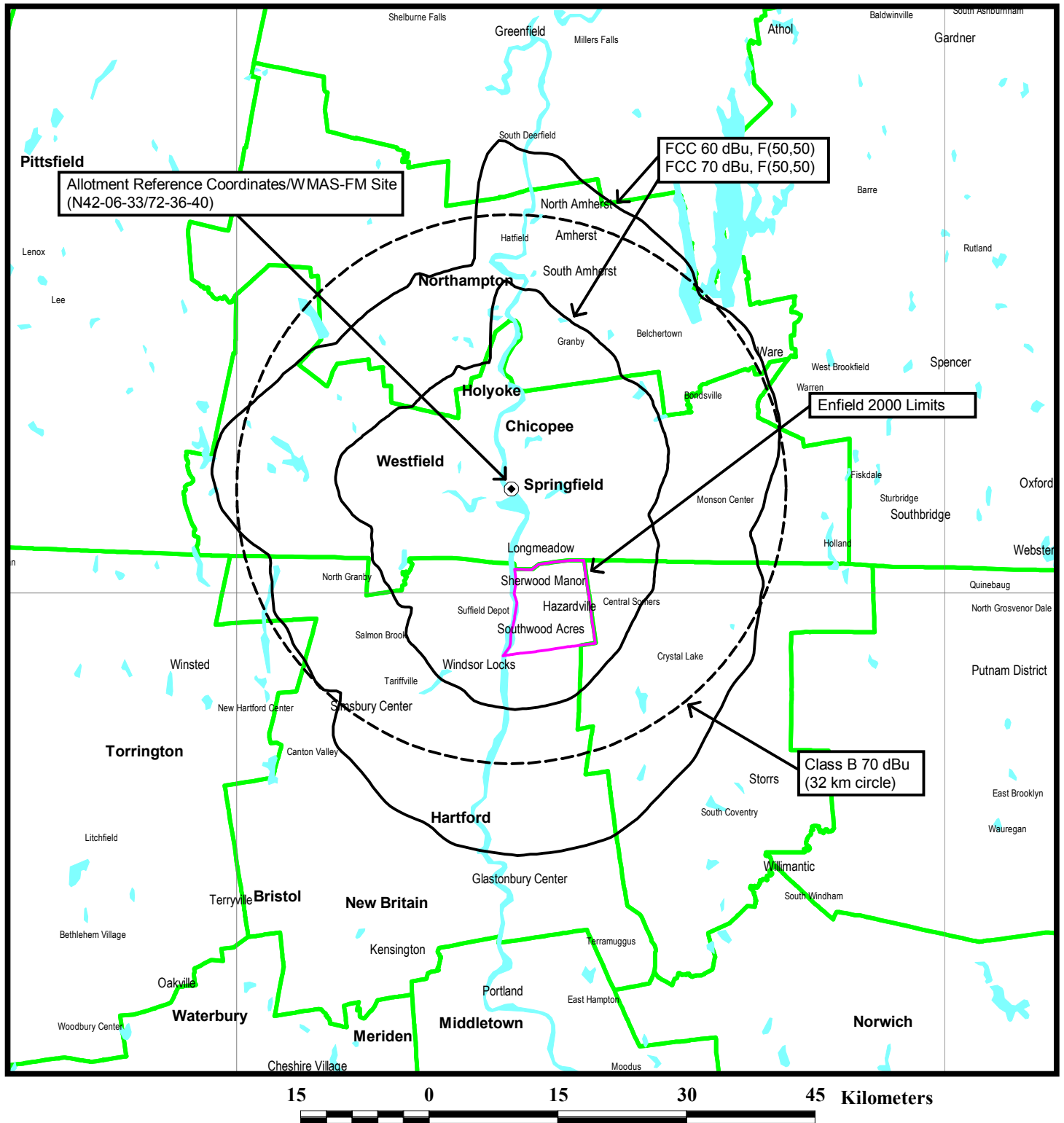
¹ Grandfathered short-spacing under Section 73.213(a).

² Grandfathered short-spacing under Section 73.213(a).

³ WBAR-FM utilized the contour protection provisions of Section 73.215 with respect to the short-spacing with the WMAS-FM licensed operation.

⁴ Grandfathered short-spacing under Section 73.213(c)(2).

Figure 3



COMPLIANCE WITH SECTION 73.315

FM STATION WMAS-FM
ENFIELD, CONNECTICUT
CH 234B 50 KW 55 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Exhibit
FCC Form 303-S
Application for Renewal of Broadcast Station License
Radio Station WMAS(FM)
Springfield, Massachusetts

Prepared by
Broadcast Signal Lab, LLP
64 Richdale Avenue
Cambridge, MA 02140-2629
Phone: 617-864-4298
FAX: 617-661-1345

Radio Station WMAS(FM) operates on an assigned frequency of 94.7 MHz, Channel 234B, with transmission facilities located at 101 West St. in Springfield, MA. The station's authorized ERP is 50 kW horizontal and 50 kW vertical, radiated from an antenna with radiation center 99 meters above ground level. WMAS(FM) shares this site with broadcast station WMAS(AM).

On November 18 2005, David K. Peabody, a staff engineer of Broadcast Signal Lab, LLP, performed a survey of the aggregate ambient radio frequency energy at the composite transmitter site shared by Radio Station WMAS(FM) to determine its compliance with the radio frequency exposure requirements as specified in 47 CFR §1.1307¹.

The measurement procedures used were in accordance with the recommendations contained in Section 3 of FCC OET Bulletin 65². A Narda 8700 series Electric Field Measurement system was used to perform all of the RFE measurements in this study.

¹ *Code of Federal Regulations*, "Telecommunication," Parts 0 to 19, published annually by the Office of the Federal Register, National Archives and Records Administration, Washington, DC

² *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*, OET Bulletin 65, Edition 97-01 (August 1997), Federal Communications Commission Office of Engineering and Technology

Per the survey results, Radio Station WMAS(FM) was in compliance with the FCC's Maximum Permissible Exposure (MPE) limits at all measured locations. A detailed survey report is forthcoming and will be placed in the station's records.

Access to the WMAS(FM) areas where radio frequency energy levels may exceed the public exposure/uncontrolled limits is strictly controlled by the site owner, and appropriate RF safety signs are located wherever personnel may gain access to the transmission facilities.

Broadcast Signal Lab hereby certifies that, at the time of the survey, the specified facility complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.

This exhibit was prepared by the undersigned personally and is true and accurate to the best of his knowledge and belief.

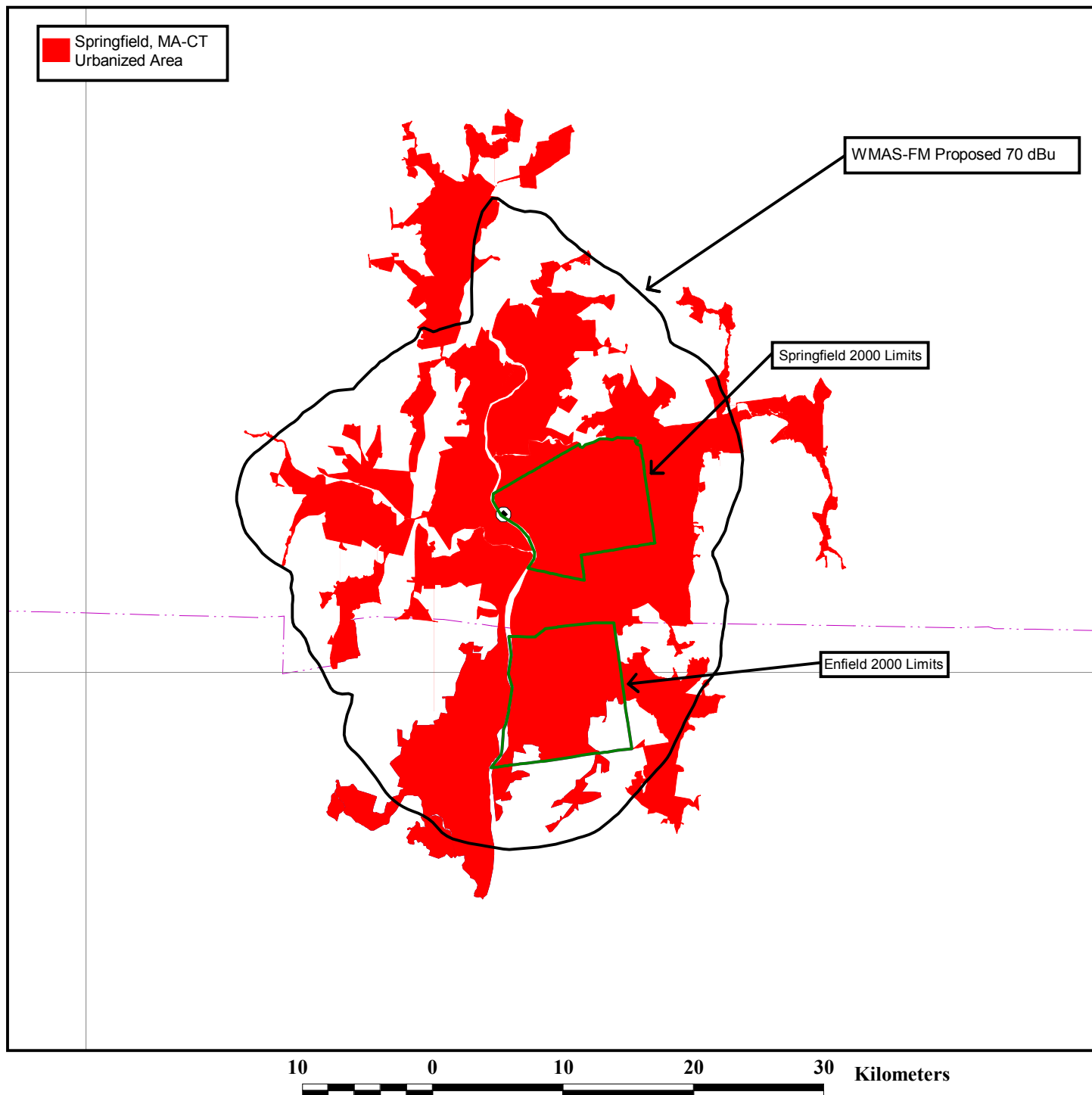
A handwritten signature in black ink, appearing to read "David Peabody", written over a horizontal line.

David Peabody, Broadcast Engineer

Broadcast Signal Lab, LLP

November 22, 2005

Figure 5

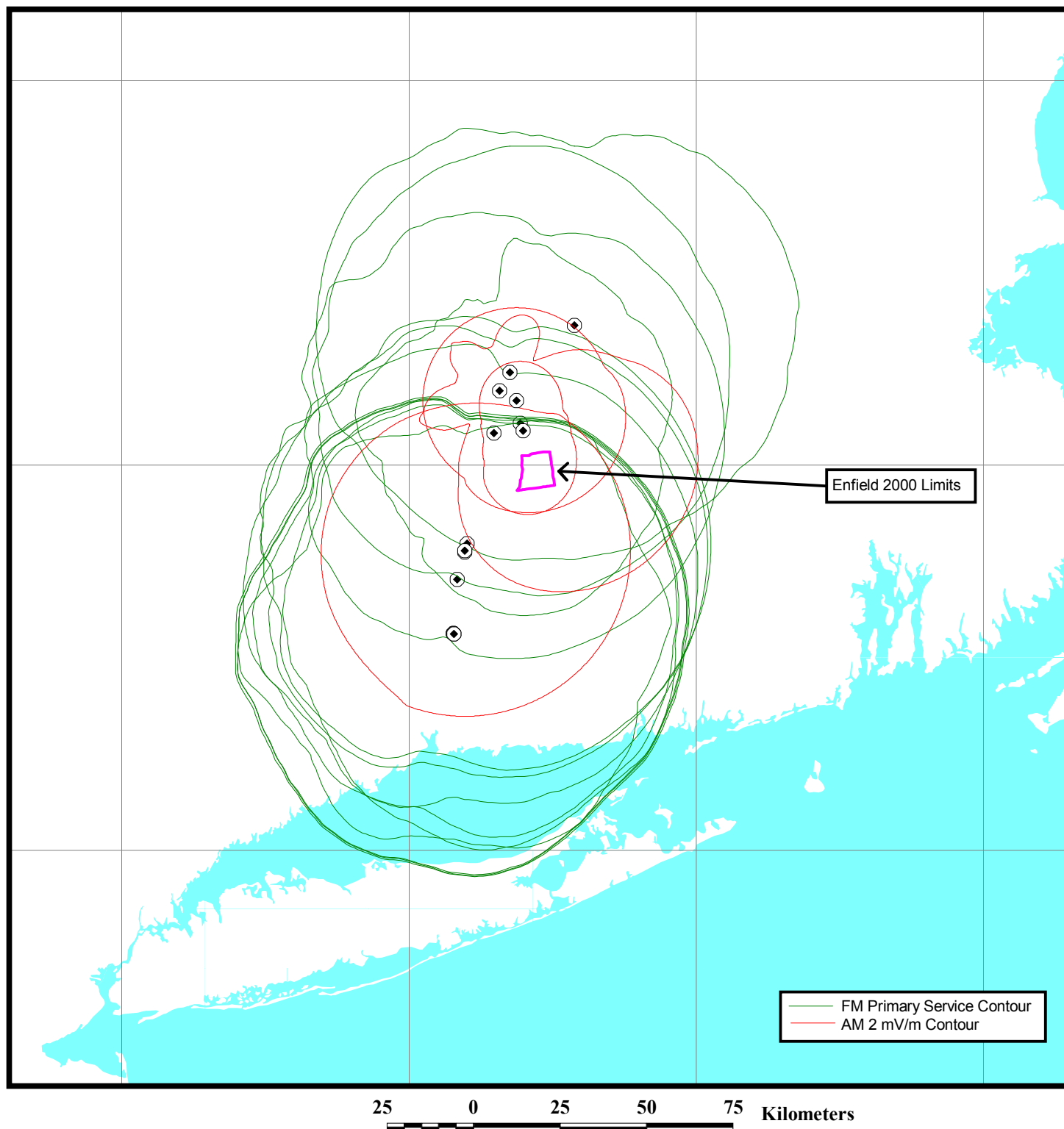


URBANIZED AREA COVERAGE

FM STATION WMAS-FM
ENFIELD, CONNECTICUT
CH 234B 50 KW 55 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 6



OTHER FM AND AM PROTECTED SERVICES AVAILABLE TO ENFIELD

STATION WMAS-FM
ENFIELD, CONNECTICUT
CH 234B 50 KW 55 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

TECHNICAL EXHIBIT
STATION WMAS-FM
ENFIELD, CONNECTICUT
CH 234B 50 KW 55 M

Tabulation of Other AM and FM Protected Services
Available to Enfield, Connecticut

FM CONTOURS

<u>Call Sign</u>	<u>Community of License</u>	<u>State</u>	<u>Channel</u>
WAQY	SPRINGFIELD	MA	271B
WTIC-FM	HARTFORD	CT	243B
WRCH	NEW BRITIAN	CT	263B
WHCN	HARTFORD	CT	290B
WWYZ	WATERBURY	CT	223B
WDRC-FM	HARTFORD	CT	275B
WZMX	HARTFORD	CT	229B
WKSS	HARTFORD-MERIDEN	CT	239B
WMAS-FM	ENFIELD	CT	234B
WHYN-FM	SPRINGFIELD	MA	226B
WCCC-FM	HARTFORD	CT	295B
WFCR	AMHERST	MA	203B
WMRQ-FM	WATERBURY	CT	281B

AM CONTOURS

<u>Call Sign</u>	<u>Community of License</u>	<u>State</u>	<u>Frequency (kHz)</u>
WSPR	SPRINGFIELD	MA	1270
WTIC	HARTFORD	CT	1080
WACE	CHICOPEE	MA	730
WHYN	SPRINGFIELD	MA	560