

Technical Report  
In Support of a  
47 C.F.R. Section 73.3555  
Based  
Interim Contour Method  
Multiple Ownership Study

*for*

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*Saga Communications of New England, LLC*

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*WRSI(FM).L - Turners Falls, MA*

*(Facility ID: 8775)*

*CH230A - 93.9 MHz*

*&*

*WHAI(FM).L - Greenfield, MA*

*(Facility ID: 25833)*

*CH252A - 98.3 MHz*

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**EXPLANATION OF REPORT:** This Technical Report has been prepared to determine the number of commercial and non-commercial principal community contours associated with these two concurrent, but not contingent, Schedule 301-FM Application(s) for WRSI(FM) - Turners Falls, MA (Facility ID: 8775) and WHAI(FM) - Greenfield, MA (Facility ID: 25833). While WHAI(FM) is not listed within any BIA Market, WRSI(FM) is presently listed within the Springfield, MA; BIA Market #100. Therefore, this Interim Contour-Overlap Methodology Study has been prepared to address the unrated market portion of each modification. Compliance within the Springfield, MA; BIA Market #100 has been addressed in a separate showing.

Saga Communications of New England, LLC, presently holds a broadcast interest in nine (9) total aural services relevant to the WRSI(FM) and WHAI(FM) modifications. Saga holdings not overlapping WRSI(FM) or WHAI(FM) need not be discussed herein. Concerning these nine (9) relevant holdings affecting the WRSI(FM) or WHAI(FM) modifications, there will be five (5) unique and distinct markets within this affected ownership group. "Market A" is comprised of three (3) stations. "Market B" is comprised of three (3) stations. "Market C" is comprised of four (4) stations. "Market D" is comprised of five (5) stations. "Market E" will be comprised of three (3) stations. Each market is defined as follows:

**"Market A"**

<u>CALL SIGN</u>	<u>CH/FREQ</u>	<u>CITY</u>	<u>STATE</u>	<u>FILE NUMBER</u>
WRSI(FM) .P	230A	Turners Falls	MA	Proposed Operation
WKVT-FM	224A	Brattleboro	VT	BMLH19900627KB
WPVQ-FM	237A	Greenfield	MA	BLH20180405AAL

**"Market B"**

<u>CALL SIGN</u>	<u>CH/FREQ</u>	<u>CITY</u>	<u>STATE</u>	<u>FILE NUMBER</u>
WRSI(FM) .P	230A	Turners Falls	MA	Proposed Operation
WKNE(FM)	279B	Keene	NH	BMLH20070212AAW
WPVQ-FM	237A	Greenfield	MA	BLH20180405AAL

**"Market C"**

<u>CALL SIGN</u>	<u>CH/FREQ</u>	<u>CITY</u>	<u>STATE</u>	<u>FILE NUMBER</u>
WRSI(FM) .P	230A	Turners Falls	MA	Proposed Operation
WHA I(FM) .P	252A	Greenfield	MA	Proposed Operation
WPVQ-FM	237A	Greenfield	MA	BLH20180405AAL
WPVQ(AM)	700	ORANGE-ATHOL	MA	BL20190424ABL

**"Market D"**

<u>CALL SIGN</u>	<u>CH/FREQ</u>	<u>CITY</u>	<u>STATE</u>	<u>FILE NUMBER</u>
WRSI(FM) .P	230A	Turners Falls	MA	Proposed Operation
WHA I(FM) .P	252A	Greenfield	MA	Proposed Operation
WPVQ-FM	237A	Greenfield	MA	BLH20180405AAL
WLZX-FM	257A	Northampton	MA	BLH20000112ABC
WHMQ(AM)	1240	GREENFIELD	MA	BML20191028ACR

**"Market E"**

<u>CALL SIGN</u>	<u>CH/FREQ</u>	<u>CITY</u>	<u>STATE</u>	<u>FILE NUMBER</u>
WRSI(FM) .P	230A	Turners Falls	MA	Proposed Operation
WLZX-FM	257A	Northampton	MA	BLH20000112ABC
WHMP(AM)	1400	Northampton	MA	BL-

**EXPLANATION OF METHODOLOGY:** The facilities and results reported herein were taken from current copies of AM and FM computer databases as prepared by the FCC and supplied by V-Soft Communications, LLC. The facilities listed above serve as the basis for the respective principal community contours studied. The accuracy of the results of this study is understood to be limited to the accuracy of these databases. The FCC databases give no indication of licensed facilities that may be inoperative, construction permit facilities that may now be operating under program test authority (but have not yet been issued a license) or facilities which may have been licensed since the last update. Therefore, some stations may have been included or excluded erroneously. However, unless otherwise indicated, all licensed facilities known to be inoperative and all known applications and construction permit facilities, have been eliminated from consideration in this study.

For AM stations, Map M3 soil conductivity values and the authorized licensed transmitting facilities served as the basis for the computation of the predicted 5.0 mV/m groundwave contour in accordance with 47 C.F.R. Section 73.183 of the FCC Rules. The distance to the contour was computed for seventy-two (72) equally spaced azimuths beginning with 0° True. For FM stations, the authorized Center of Radiation and ERP values were utilized to compute the predicted 3.16 mV/m (70 dBμ) contour as provided in 47 C.F.R. Section 73.313 of the Rules. The predicted FM contours shown in this report are based on seventy-two (72) equally spaced terrain radials beginning with 0° True and assume FCC 30 Second Terrain data.

As stated before, there will be five (5) unique and distinct markets associated with this proposal. The markets have been defined, in accordance with 47 C.F.R. Section 73.3555 of the FCC Rules, as the area within the total perimeter formed by the combined principal community contours of each relevant market as noted above.

**EXPLANATION OF RESULTS:** The nine (9) stations, under common control and relevant for this ownership group, have been noted in **Exhibit 1.0**. As stated before, no other Saga Communications of New England, LLC. holdings or any other holdings of parent company Saga Communications, Inc. are affected by the WRSI(FM) or WHAI(FM) modifications. To aid in identifying the respective contours, currently controlled AM contours have been shown with solid light red lines. Currently controlled FM contours have been shown with solid light blue lines. The facilities to be modified have been shown in darker dashed lines. The “Market A, B, C, D & E” common overlap areas have been designated as well.

**"Market A"**

<u>CALL SIGN</u>	<u>CH/FREQ</u>	<u>CITY</u>	<u>STATE</u>	<u>FILE NUMBER</u>
WRSI (FM) .P	230A	Turners Falls	MA	Proposed Operation
WKVT-FM	224A	Brattleboro	VT	BMLH19900627KB
WPVQ-FM	237A	Greenfield	MA	BLH20180405AAL

For "Market A", the market defining contours have been shown in **Exhibit 2.0** of this report along with a minimum number of principal community contours entering the market. The defining contours have been shown with pink lines on this map. AM contours entering the market have been denoted in red lines. FM contour entering the market have been shown in purple lines. As stated before, the contours shown represent enough stations to satisfy the minimum requirement of the Rules. Co-owned stations entering the market, but not defining the market have been omitted. Under the current rules, the market falls within the minimum limitations set forth in §73.3555 (a)(1)(iii): *In a radio market with between 15 and 29 (inclusive) full-power, commercial and noncommercial radio stations, not more than 6 commercial radio stations in total and not more than 4 commercial stations in the same service (AM or FM).* The principal community contours of at least fifteen (15) other stations entering the market are shown in **Exhibit 2.0**. Including the three (3) FM station(s) which define the market, there are at least eighteen (18) aural services in this market. **Exhibit 2.1** lists the facilities of the individual stations used in this report.

**"Market B"**

<u>CALL SIGN</u>	<u>CH/FREQ</u>	<u>CITY</u>	<u>STATE</u>	<u>FILE NUMBER</u>
WRSI (FM) .P	230A	Turners Falls	MA	Proposed Operation
WKNE (FM)	279B	Keene	NH	BMLH20070212AAW
WPVQ-FM	237A	Greenfield	MA	BLH20180405AAL

For "Market B", the market defining contours have been shown in **Exhibit 3.0** of this report along with a minimum number of principal community contours entering the market. The defining contours have been shown with orange lines on this map. AM contours entering the market have been denoted in red lines. FM contour entering the market have been shown in purple lines. As stated before, the contours shown represent enough stations to satisfy the minimum requirement of the Rules. Co-owned stations entering the market, but not defining the market have been omitted. Under the current rules, the market falls within the minimum limitations set forth in §73.3555 (a)(1)(iii): *In a radio market with between 15 and 29 (inclusive) full-power, commercial and noncommercial radio stations, not more than 6 commercial radio stations in total and not more than 4 commercial stations in the same service (AM or FM).* The principal community contours of at least fifteen (15) other stations entering the market are shown in **Exhibit 3.0**. Including the three (3) FM station(s) which define the market, there are at least eighteen (18) aural services in this market. **Exhibit 3.1** lists the facilities of the individual stations used in this report.

**"Market C"**

<u>CALL SIGN</u>	<u>CH/FREQ</u>	<u>CITY</u>	<u>STATE</u>	<u>FILE NUMBER</u>
WRSI (FM) .P	230A	Turners Falls	MA	Proposed Operation
WHAI (FM) .P	252A	Greenfield	MA	Proposed Operation
WPVQ-FM	237A	Greenfield	MA	BLH20180405AAL
WPVQ (AM)	700	ORANGE-ATHOL	MA	BL20190424ABL

For "Market C", the market defining contours have been shown in **Exhibit 4.0** of this report along with a minimum number of principal community contours entering the market. The defining contours have been shown with yellow lines on this map. AM contours entering the market have been denoted in red lines. FM contour entering the market have been shown in purple lines. As stated before, the contours shown represent enough stations to satisfy the minimum requirement of the Rules. Co-owned stations entering the market, but not defining the market have been omitted. Under the current rules, the market falls within the minimum limitations set forth in §73.3555 (a)(1)(iii): *In a radio market with between 15 and 29 (inclusive) full-power, commercial and noncommercial radio stations, not more than 6 commercial radio stations in total and not more than 4 commercial stations in the same service (AM or FM).* The principal community contours of at least fifteen (15) other stations entering the market are shown in **Exhibit 4.0**. Including the three (3) FM station(s) and one (1) AM station which define the market, there are at least nineteen (19) aural services in this market. **Exhibit 4.1** lists the facilities of the individual stations used in this report.

**"Market D"**

<u>CALL SIGN</u>	<u>CH/FREQ</u>	<u>CITY</u>	<u>STATE</u>	<u>FILE NUMBER</u>
WRSI (FM) .P	230A	Turners Falls	MA	Proposed Operation
WHAI (FM) .P	252A	Greenfield	MA	Proposed Operation
WPVQ-FM	237A	Greenfield	MA	BLH20180405AAL
WLZX-FM	257A	Northampton	MA	BLH20000112ABC
WHMQ (AM)	1240	GREENFIELD	MA	BML20191028ACR

For "Market D", the market defining contours have been shown in **Exhibit 5.0** of this report along with a minimum number of principal community contours entering the market. The defining contours have been shown with blue lines on this map. AM contours entering the market have been denoted in red lines. FM contour entering the market have been shown in purple lines. As stated before, the contours shown represent enough stations to satisfy the minimum requirement of the Rules. Co-owned stations entering the market, but not defining the market have been omitted. Under the current rules, the market falls within the minimum limitations set forth in §73.3555 (a)(1)(iii): *In a radio market with between 15 and 29 (inclusive) full-power, commercial and noncommercial radio stations, not more than 6 commercial radio stations in total and not more than 4 commercial stations in the same service (AM or FM).* The principal community contours of at least fifteen (15) other stations entering the market are shown in **Exhibit 5.0**. Including the four (4) FM station(s) and one (1) AM station which define the market, there are at least twenty (20) aural services in this market. **Exhibit 5.1** lists the facilities of the individual stations used in this report.

**"Market E"**

<u>CALL SIGN</u>	<u>CH/FREQ</u>	<u>CITY</u>	<u>STATE</u>	<u>FILE NUMBER</u>
WRSI (FM) .P	230A	Turners Falls	MA	Proposed Operation
WLZX-FM	257A	Northampton	MA	BLH20000112ABC
WHMP (AM)	1400	Northampton	MA	BL-

For "Market E", the market defining contours have been shown in **Exhibit 6.0** of this report along with a minimum number of principal community contours entering the market. The defining contours have been shown with green lines on this map. AM contours entering the market have been denoted in red lines. FM contour entering the market have been shown in purple lines. As stated before, the contours shown represent enough stations to satisfy the minimum requirement of the Rules. Co-owned stations entering the market, but not defining the market have been omitted. Under the current rules, the market falls within the minimum limitations set forth in §73.3555 (a)(1)(iii): *In a radio market with between 15 and 29 (inclusive) full-power, commercial and noncommercial radio stations, not more than 6 commercial radio stations in total and not more than 4 commercial stations in the same service (AM or FM).* The principal community contours of at least fifteen (15) other stations entering the market are shown in **Exhibit 3.0**. Including the two (2) FM station(s) and one (1) AM station which define the market, there are at least eighteen (18) aural services in this market. **Exhibit 6.1** lists the facilities of the individual stations used in this report.

**CERTIFICATION OF TECHNICAL CONSULTANT:** *I declare, under penalty of perjury, that the contents of this report are true and accurate to the best of my knowledge and belief. I further certify I have over twenty-one years of experience as a broadcast technical consultant before the Federal Communications Commission ("the FCC"); and am familiar with the Code of Federal Regulations Title 47 ("the Rules") as pertaining to this report and its contents herein. The underlying data utilized in this report was taken directly from FCC databases or indirectly through third party software vendors securing data directly from FCC databases. This firm cannot be held liable for errors or omissions resulting from the underlying data. The information contained herein is believed accurate to the date reported below.*



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Justin W. Asher, Technical Consultant  
June, 22, 2020

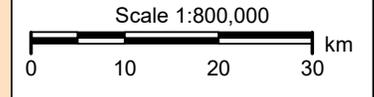
# Exhibit 1 Map of Commonly Owned Stations

- Co-Owned AM Station(s)
- AM Station(s) to be Acquired/Modified
- Co-Owned FM Station(s)
- FM Station(s) to be Acquired/Modified
- "Market A" Common Overlap Area
- "Market B" Common Overlap Area
- "Market C" Common Overlap Area
- "Market D" Common Overlap Area
- "Market E" Common Overlap Area

AM Contours: Daytime 5.0 mV/m  
Map M3 Ground Conductivity  
NAD 1983 Coordinate Datum

FM Contours: 70 dBμ F(50:50)  
FCC 30 sec Terrain Database  
NAD 1983 Coordinate Datum

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**"Market A" Defining Contours**  
 WRSI(FM).P - Springfield BIA 100  
 WKVT-FM - Unrated  
 WPVQ-FM - Unrated

**"Market B" Defining Contours**  
 WRSI(FM).P - Springfield BIA 100  
 WKNE(FM) - Unrated  
 WPVQ-FM - Unrated

**"Market C" Defining Contours**  
 WRSI(FM).P - Springfield BIA 100  
 WHAI(FM).P - Unrated  
 WPVQ-FM - Unrated  
 WPVQ(AM) - Boston BIA 10

**"Market D" Defining Contours**  
 WRSI(FM).P - Springfield BIA 100  
 WHAI(FM).P - Unrated  
 WPVQ-FM - Unrated  
 WLZX-FM - Springfield BIA 100  
 WHMQ(AM) - Unrated

**"Market E" Defining Contours**  
 WRSI(FM).P - Springfield BIA 100  
 WLZX-FM - Springfield BIA 100  
 WHMP(AM) - Springfield BIA 100

**BIA Market Status (as of 06/20/2020)**

- WPVQ(AM) - ORANGE-ATHOL, MA (Boston BIA 10)
- WFEA(AM) - MANCHESTER, NH (Manchester BIA 198)
- WZBK(AM) - KEENE, NH (unrated)
- WINQ(AM) - BRATTLEBORO, VT (unrated)
- WHMQ(AM) - GREENFIELD, MA (unrated)
- WKBK(AM) - KEENE, NH (unrated)
- WLZX(AM) - East Longmeadow, MA (Springfield BIA 100)
- WHMP(AM) - Northampton, MA (Springfield BIA 100)
- WMLL(FM) - Bedford, NH (Manchester BIA 198)
- WZID(FM) - Manchester, NH (Manchester BIA 198)
- WRSI(FM).P - Turners Falls, MA (Springfield BIA 100)
- WHA1(FM).P - Greenfield, MA (unrated)
- WPVQ-FM - Greenfield, MA (unrated)
- WKVT-FM - Brattleboro, VT (unrated)
- WINQ-FM - Winchester, NH (unrated)
- WKNE(FM) - Keene, NH (unrated)
- WSNI(FM) - Keene, NH (unrated)
- WRSY(FM) - Marlboro, VT (unrated)
- WLZX-FM - Northampton, MA (Springfield BIA 100)
- WAQY(FM) - Springfield, MA (Springfield BIA 100)

**Boston BIA Market (10)**



# ***Exhibit 2.1***

## **Tabulation of Select Stations Entering “Market A”**

Total number of overlapping contours: 18

Reference:

Callsign	Type	Chan City	St	File Number	Dist (km)	Azi (deg)
WRSI (FM) .P	FM	230A Turners Falls	MA	Proposed Operation	0.0	0.0
WKVT-FM.L	FM	224A Brattleboro	VT	BMLH19900627KB	36.1	357.6
WPVQ-FM.L	FM	237A Greenfield	MA	BLH20180405AAL	14.5	12.9

Overlapping Contours:

Callsign	Type	Chan City	St	File Number	Dist (km)	Azi (deg)
WTSA-FM	FM	244A Brattleboro	VT	BLH19910821KF	35.5	4.2
WKMY (FM)	FM	260A Athol	MA	BLH19891204KC	36.6	85.8
WRNX (FM)	FM	265A Amherst	MA	BLH20120110ADN	35.4	179.9
WWEI (FM)	FM	288A Easthampton	MA	BMLH20141103AER	36.6	180.5
WYRY (FM)	FM	285A Hinsdale	NH	BLH20010402AAV	27.6	34.4
WAMC-FM	FM	212B Albany	NY	BMLED20101102ABH	43.6	279.9
WEIB (FM)	FM	292A Northampton	MA	BLH19980318KB	22.0	186.2
WFCR (FM)	FM	203B Amherst	MA	BLED19970605KB	29.4	141.5
WNNZ-FM	FM	219A Deerfield	MA	BMLD20100908ACV	6.0	133.0
WHYN-FM	FM	226B Springfield	MA	BMLH19990121KA	36.6	180.5
WVBA (FM)	FM	205B1 Brattleboro	VT	BLED20180712AAL	28.9	7.3
WMUA (FM)	FM	216A Amherst	MA	BLED20031110ACU	22.1	152.8
WAMH (FM)	FM	207A Amherst	MA	BLED20121019ACF	29.4	141.5
WNNZ (AM)	AM	640 WESTFIELD	MA	BML20100820ABW	44.4	191.5
WIZZ (AM)	AM	1520 GREENFIELD	MA	BL19800819AB	4.8	41.5

Distance and bearing calculations from coordinates: 42-34-15.10 N, 072-38-41.10 W

Duopoly Options:

TV: Not Included

FM: 3.16 mV/m (70 dBu); Include NCE

AM: 5.0 mV/m

- \* Only a minimum number of stations necessary to meet the relevant provisions of §73.3555 have been included. Stations in excess of these provisions have been excluded.**
- \* Co-owned stations entering, but not defining the market, have been excluded.**
- \* Stations more than 92 km from the common area have been excluded.**

**"Market B" Defining Contours**

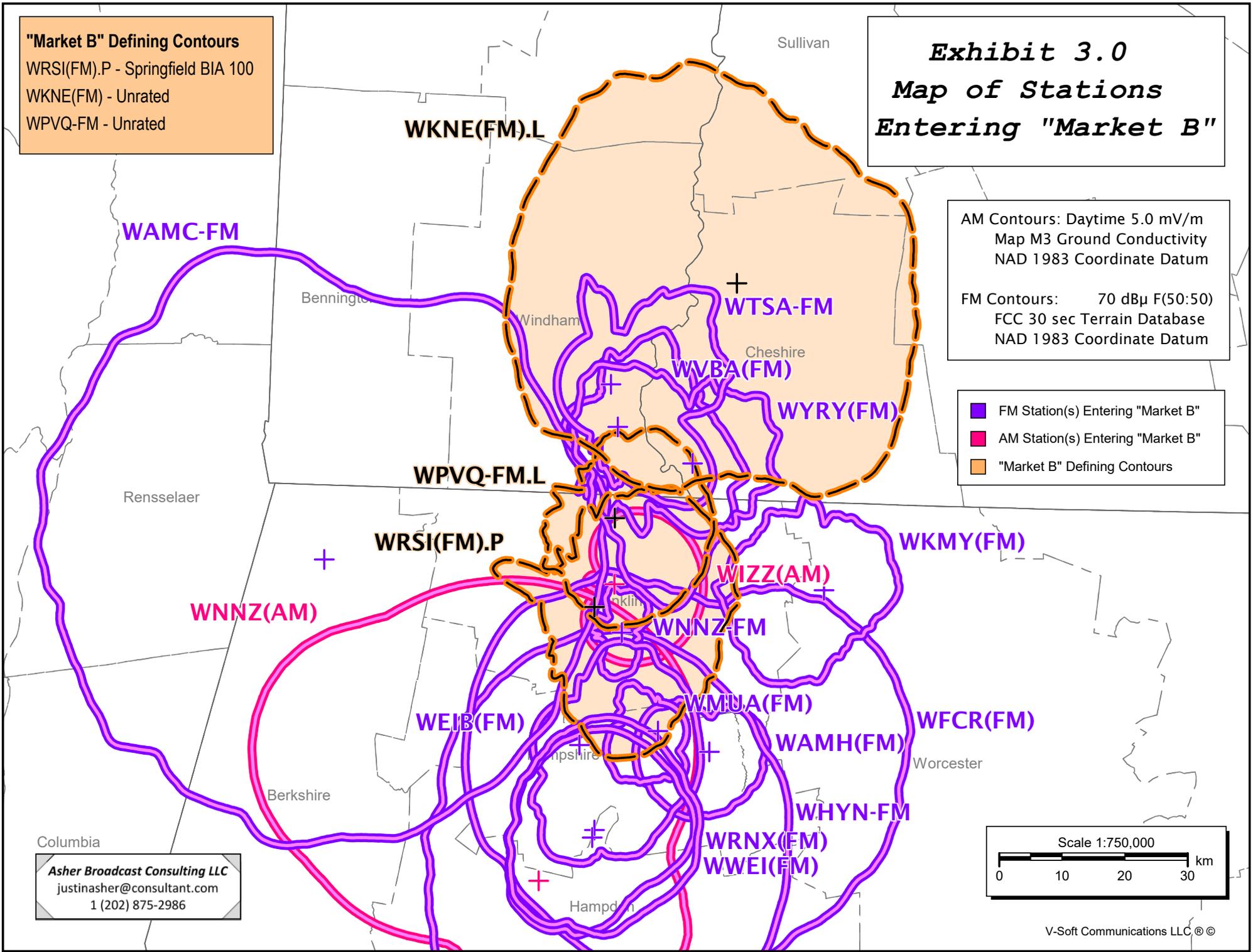
WRSI(FM).P - Springfield BIA 100  
WKNE(FM) - Unrated  
WPVQ-FM - Unrated

**Exhibit 3.0  
Map of Stations  
Entering "Market B"**

AM Contours: Daytime 5.0 mV/m  
Map M3 Ground Conductivity  
NAD 1983 Coordinate Datum

FM Contours: 70 dBμ F(50:50)  
FCC 30 sec Terrain Database  
NAD 1983 Coordinate Datum

- FM Station(s) Entering "Market B"
- AM Station(s) Entering "Market B"
- "Market B" Defining Contours



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# ***Exhibit 3.1***

## **Tabulation of Select Stations Entering “Market B”**

Total number of overlapping contours: 18

Reference:

Callsign	Type	Chan	City	St	File Number	Dist (km)	Azi (deg)
WRSI (FM) .P	FM	230A	Turners Falls	MA	Proposed Operation	0.0	0.0
WKNE (FM) .L	FM	279B	Keene	NH	BMLH20070212AAW	56.2	23.7
WPVQ-FM.L	FM	237A	Greenfield	MA	BLH20180405AAL	14.5	12.9

Overlapping Contours:

Callsign	Type	Chan	City	St	File Number	Dist (km)	Azi (deg)
WTSA-FM	FM	244A	Brattleboro	VT	BLH19910821KF	35.5	4.2
WKMY (FM)	FM	260A	Athol	MA	BLH19891204KC	36.6	85.8
WRNX (FM)	FM	265A	Amherst	MA	BLH20120110ADN	35.4	179.9
WWEI (FM)	FM	288A	Easthampton	MA	BMLH20141103AER	36.6	180.5
WYRY (FM)	FM	285A	Hinsdale	NH	BLH20010402AAV	27.6	34.4
WAMC-FM	FM	212B	Albany	NY	BMLD20101102ABH	43.6	279.9
WEIB (FM)	FM	292A	Northampton	MA	BLH19980318KB	22.0	186.2
WFCR (FM)	FM	203B	Amherst	MA	BLED19970605KB	29.4	141.5
WNNZ-FM	FM	219A	Deerfield	MA	BMLD20100908ACV	6.0	133.0
WHYN-FM	FM	226B	Springfield	MA	BMLH19990121KA	36.6	180.5
WVBA (FM)	FM	205B1	Brattleboro	VT	BLED20180712AAL	28.9	7.3
WMUA (FM)	FM	216A	Amherst	MA	BLED20031110ACU	22.1	152.8
WAMH (FM)	FM	207A	Amherst	MA	BLED20121019ACF	29.4	141.5
WNNZ (AM)	AM	640	WESTFIELD	MA	BML20100820ABW	44.4	191.5
WIZZ (AM)	AM	1520	GREENFIELD	MA	BL19800819AB	4.8	41.5

Distance and bearing calculations from coordinates: 42-34-15.10 N, 072-38-41.10 W

Duopoly Options:

TV: Not Included

FM: 3.16 mV/m (70 dBu); Include NCE

AM: 5.0 mV/m

**\* Only a minimum number of stations necessary to meet the relevant provisions of §73.3555 have been included. Stations in excess of these provisions have been excluded.**

**\* Co-owned stations entering, but not defining the market, have been excluded.**

**\* Stations more than 92 km from the common area have been excluded.**



# ***Exhibit 4.1***

## ***Tabulation of Select Stations Entering "Market C"***

Total number of overlapping contours: 19

Reference:

Callsign	Type	Chan City	St	File Number	Dist (km)	Azi (deg)
WRSI (FM) .P	FM	230A Turners Falls	MA	Proposed Operation	0.0	0.0
WHAI (FM) .P	FM	252A Greenfield	MA	Proposed Operation	0.0	0.0
WPVQ-FM.L	FM	237A Greenfield	MA	BLH20180405AAL	14.5	12.9
WPVQ (AM) .L	AM	700 ORANGE-ATHOL	MA	BL20190424ABL	29.9	86.9

Overlapping Contours:

Callsign	Type	Chan City	St	File Number	Dist (km)	Azi (deg)
WTSA-FM	FM	244A Brattleboro	VT	BLH19910821KF	35.5	4.2
WKMY (FM)	FM	260A Athol	MA	BLH19891204KC	36.6	85.8
WRNX (FM)	FM	265A Amherst	MA	BLH20120110ADN	35.4	179.9
WWEI (FM)	FM	288A Easthampton	MA	BMLH20141103AER	36.6	180.5
WYRY (FM)	FM	285A Hinsdale	NH	BLH20010402AAV	27.6	34.4
WAMC-FM	FM	212B Albany	NY	BMLD20101102ABH	43.6	279.9
WEIB (FM)	FM	292A Northampton	MA	BLH19980318KB	22.0	186.2
WFCR (FM)	FM	203B Amherst	MA	BLED19970605KB	29.4	141.5
WNNZ-FM	FM	219A Deerfield	MA	BMLD20100908ACV	6.0	133.0
WHYN-FM	FM	226B Springfield	MA	BMLH19990121KA	36.6	180.5
WVBA (FM)	FM	205B1 Brattleboro	VT	BLED20180712AAL	28.9	7.3
WMUA (FM)	FM	216A Amherst	MA	BLED20031110ACU	22.1	152.8
WAMH (FM)	FM	207A Amherst	MA	BLED20121019ACF	29.4	141.5
WNNZ (AM)	AM	640 WESTFIELD	MA	BML20100820ABW	44.4	191.5
WIZZ (AM)	AM	1520 GREENFIELD	MA	BL19800819AB	4.8	41.5

Distance and bearing calculations from coordinates: 42-34-15.10 N, 072-38-41.10 W

Duopoly Options:

TV: Not Included

FM: 3.16 mV/m (70 dBu); Include NCE

AM: 5.0 mV/m

**\* Only a minimum number of stations necessary to meet the relevant provisions of §73.3555 have been included. Stations in excess of these provisions have been excluded.**

**\* Co-owned stations entering, but not defining the market, have been excluded.**

**\* Stations more than 92 km from the common area have been excluded.**

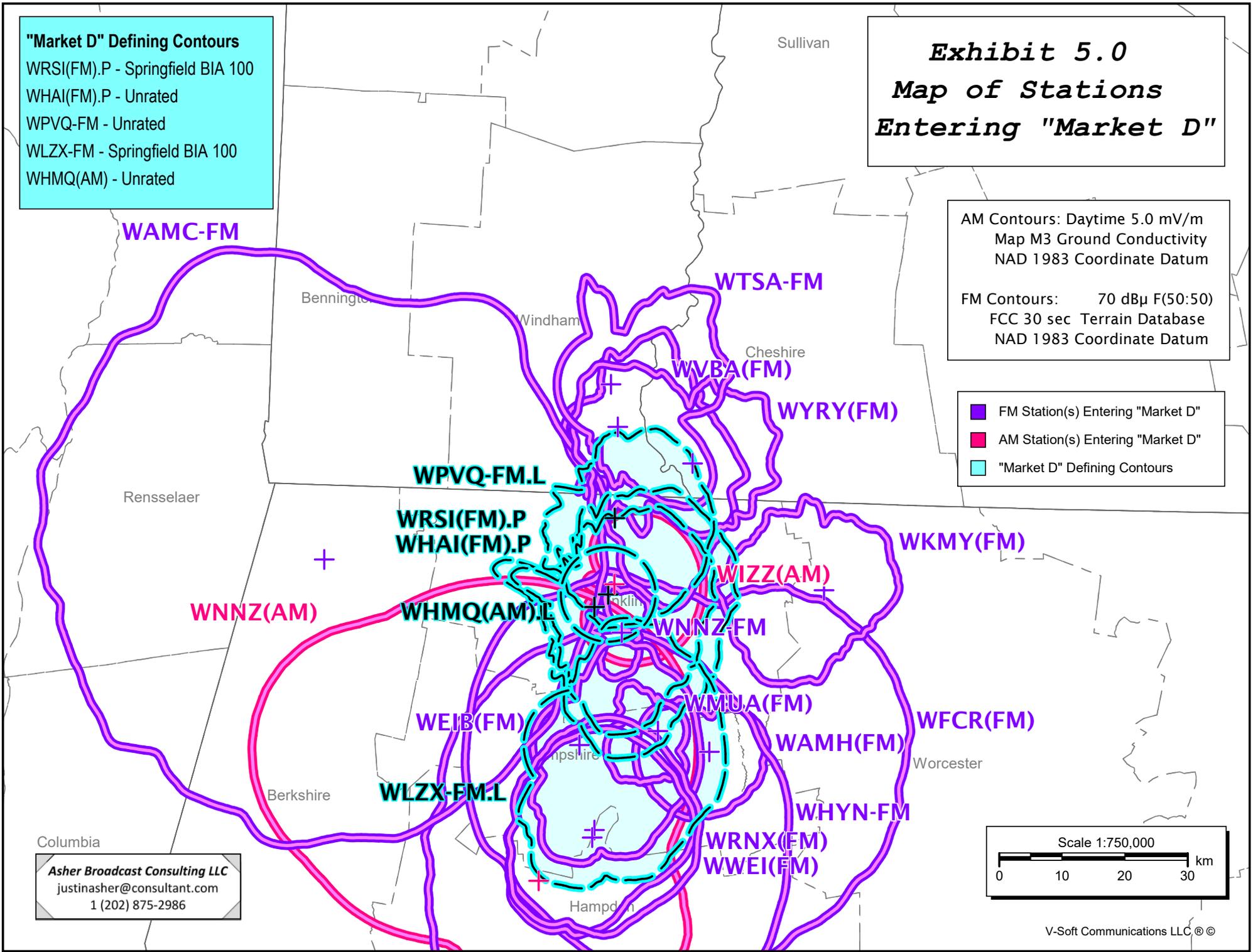
**"Market D" Defining Contours**

WRSI(FM).P - Springfield BIA 100  
WHAI(FM).P - Unrated  
WPVQ-FM - Unrated  
WLZX-FM - Springfield BIA 100  
WHMQ(AM) - Unrated

**Exhibit 5.0  
Map of Stations  
Entering "Market D"**

AM Contours: Daytime 5.0 mV/m  
Map M3 Ground Conductivity  
NAD 1983 Coordinate Datum  
  
FM Contours: 70 dBμ F(50:50)  
FCC 30 sec Terrain Database  
NAD 1983 Coordinate Datum

- FM Station(s) Entering "Market D"
- AM Station(s) Entering "Market D"
- "Market D" Defining Contours



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# ***Exhibit 5.1***

## **Tabulation of Select Stations Entering “Market D”**

Total number of overlapping contours: 20

Reference:

Callsign	Type	Chan City	St	File Number	Dist (km)	Azi (deg)
WRSI (FM) .P	FM	230A Turners Falls	MA	Proposed Operation	0.0	0.0
WHAI (FM) .P	FM	252A Greenfield	MA	Proposed Operation	0.0	0.0
WPVQ-FM.L	FM	237A Greenfield	MA	BLH20180405AAL	14.5	12.9
WLZX-FM.L	FM	257A Northampton	MA	BLH20000112ABC	22.0	186.2
WHMQ (AM) .L	AM	1240 GREENFIELD	MA	BML20191028ACR	3.0	47.6

Overlapping Contours:

Callsign	Type	Chan City	St	File Number	Dist (km)	Azi (deg)
WTSA-FM	FM	244A Brattleboro	VT	BLH19910821KF	35.5	4.2
WKMY (FM)	FM	260A Athol	MA	BLH19891204KC	36.6	85.8
WRNX (FM)	FM	265A Amherst	MA	BLH20120110ADN	35.4	179.9
WWEI (FM)	FM	288A Easthampton	MA	BMLH20141103AER	36.6	180.5
WYRY (FM)	FM	285A Hinsdale	NH	BLH20010402AAV	27.6	34.4
WAMC-FM	FM	212B Albany	NY	BMLED20101102ABH	43.6	279.9
WEIB (FM)	FM	292A Northampton	MA	BLH19980318KB	22.0	186.2
WFCR (FM)	FM	203B Amherst	MA	BLED19970605KB	29.4	141.5
WNNZ-FM	FM	219A Deerfield	MA	BMLD20100908ACV	6.0	133.0
WHYN-FM	FM	226B Springfield	MA	BMLH19990121KA	36.6	180.5
WVBA (FM)	FM	205B1 Brattleboro	VT	BLED20180712AAL	28.9	7.3
WMUA (FM)	FM	216A Amherst	MA	BLED20031110ACU	22.1	152.8
WAMH (FM)	FM	207A Amherst	MA	BLED20121019ACF	29.4	141.5
WNNZ (AM)	AM	640 WESTFIELD	MA	BML20100820ABW	44.4	191.5
WIZZ (AM)	AM	1520 GREENFIELD	MA	BL19800819AB	4.8	41.5

Distance and bearing calculations from coordinates: 42-34-15.10 N, 072-38-41.10 W

Duopoly Options:

TV: Not Included

FM: 3.16 mV/m (70 dBu); Include NCE

AM: 5.0 mV/m

**\* Only a minimum number of stations necessary to meet the relevant provisions of §73.3555 have been included. Stations in excess of these provisions have been excluded.**

**\* Co-owned stations entering, but not defining the market, have been excluded.**

**\* Stations more than 92 km from the common area have been excluded.**

**"Market E" Defining Contours**

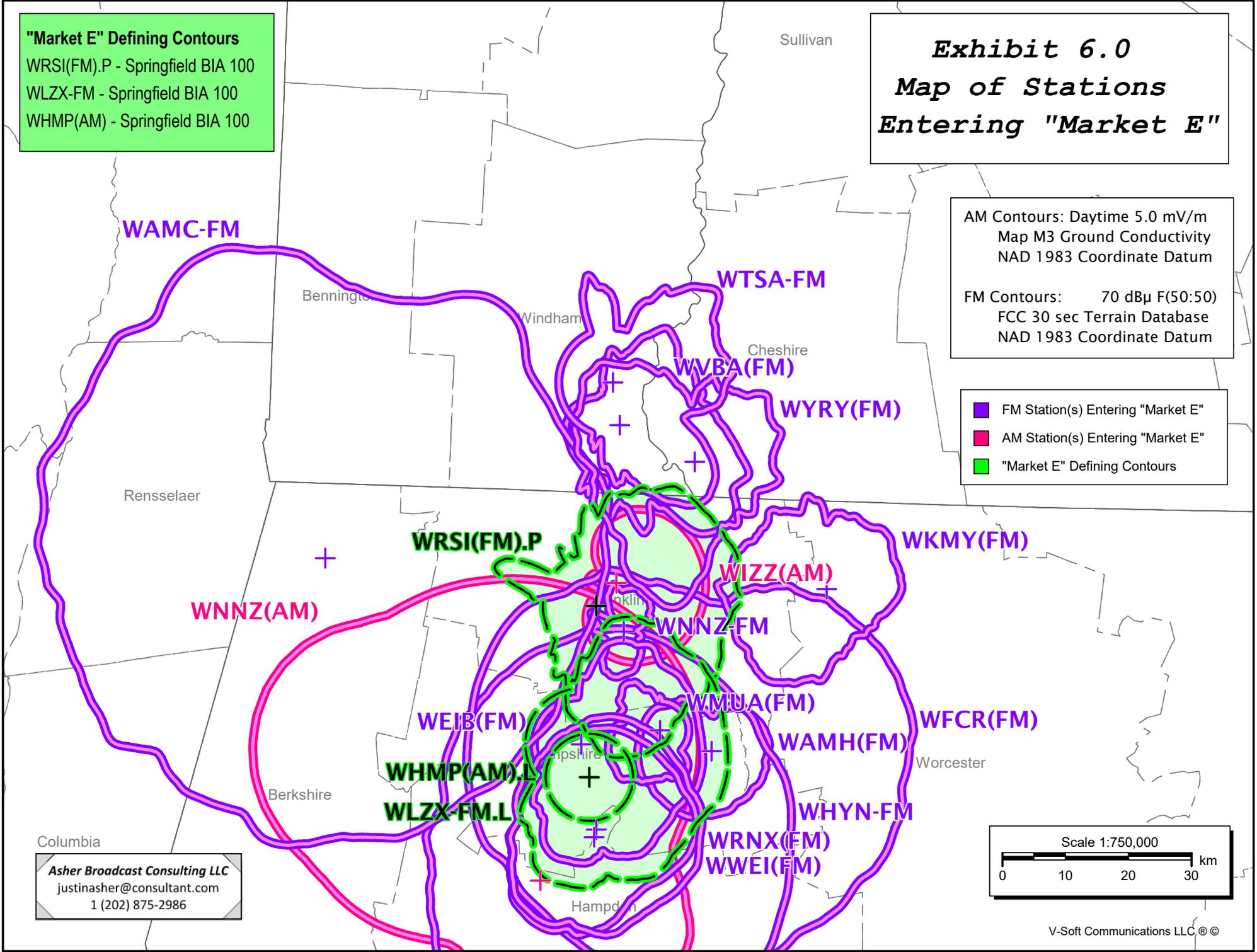
WRSI(FM).P - Springfield BIA 100  
WLZX-FM - Springfield BIA 100  
WHMP(AM) - Springfield BIA 100

**Exhibit 6.0  
Map of Stations  
Entering "Market E"**

AM Contours: Daytime 5.0 mV/m  
Map M3 Ground Conductivity  
NAD 1983 Coordinate Datum

FM Contours: 70 dBμ F(50:50)  
FCC 30 sec Terrain Database  
NAD 1983 Coordinate Datum

- FM Station(s) Entering "Market E"
- AM Station(s) Entering "Market E"
- "Market E" Defining Contours



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# ***Exhibit 6.1***

## **Tabulation of Select Stations Entering “Market E”**

Total number of overlapping contours: 18

Reference:

Callsign	Type	Chan City	St	File Number	Dist (km)	Azi (deg)
WRSI (FM) .P	FM	230A Turners Falls	MA	Proposed Operation	0.0	0.0
WLZX-FM.L	FM	257A Northampton	MA	BLH20000112ABC	22.0	186.2
WHMP (AM) .L	AM	1400 NORTHAMPTON	MA	BL	27.1	182.3

Overlapping Contours:

Callsign	Type	Chan City	St	File Number	Dist (km)	Azi (deg)
WTSA-FM	FM	244A Brattleboro	VT	BLH19910821KF	35.5	4.2
WKMY (FM)	FM	260A Athol	MA	BLH19891204KC	36.6	85.8
WRNX (FM)	FM	265A Amherst	MA	BLH20120110ADN	35.4	179.9
WWEI (FM)	FM	288A Easthampton	MA	BMLH20141103AER	36.6	180.5
WYRY (FM)	FM	285A Hinsdale	NH	BLH20010402AAV	27.6	34.4
WAMC-FM	FM	212B Albany	NY	BMLED20101102ABH	43.6	279.9
WEIB (FM)	FM	292A Northampton	MA	BLH19980318KB	22.0	186.2
WFCR (FM)	FM	203B Amherst	MA	BLED19970605KB	29.4	141.5
WNNZ-FM	FM	219A Deerfield	MA	BMLD20100908ACV	6.0	133.0
WHYN-FM	FM	226B Springfield	MA	BMLH19990121KA	36.6	180.5
WVBA (FM)	FM	205B1 Brattleboro	VT	BLED20180712AAL	28.9	7.3
WMUA (FM)	FM	216A Amherst	MA	BLED20031110ACU	22.1	152.8
WAMH (FM)	FM	207A Amherst	MA	BLED20121019ACF	29.4	141.5
WNNZ (AM)	AM	640 WESTFIELD	MA	BML20100820ABW	44.4	191.5
WIZZ (AM)	AM	1520 GREENFIELD	MA	BL19800819AB	4.8	41.5

Distance and bearing calculations from coordinates: 42-34-15.10 N, 072-38-41.10 W

Duopoly Options:

TV: Not Included

FM: 3.16 mV/m (70 dBu); Include NCE

AM: 5.0 mV/m

- \* Only a minimum number of stations necessary to meet the relevant provisions of §73.3555 have been included. Stations in excess of these provisions have been excluded.**
- \* Co-owned stations entering, but not defining the market, have been excluded.**
- \* Stations more than 92 km from the common area have been excluded.**