

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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*McKibbin Media Group, Inc.*

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*For the Purchase of*

*WIBM(AM) - Jackson, MI  
WKHM(AM) - Jackson, MI  
WKHM-FM - Brooklyn, MI*

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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 the purchase of WIBM(AM) - Jackson, MI; WKHM(AM) - Jackson, MI; and WKHM-FM - Brooklyn, MI, by the McKibbin Media Group, Inc. ("MMG"). None of the affected facilities are presently listed in, or reside within, any BIA Market; therefore, this report has been prepared solely using the Interim Contour-Overlap Methodology.

The McKibbin Media Group, Inc. does not presently hold any other broadcast interests. Therefore, there will be one (1) unique and distinct market within this affected ownership group. This sole "Market A" is comprised of all three (3) stations as identified below.

**"Market A"**

<b><u>CALL SIGN</u></b>	<b><u>CH/FREQ</u></b>	<b><u>CITY</u></b>	<b><u>STATE</u></b>	<b><u>FILE NUMBER</u></b>
WIBM(AM)	1450	JACKSON	MI	BL20030807AJF
WKHM(AM)	970	JACKSON	MI	BL20160620ACG
WKHM-FM	287A	Brooklyn	MI	BLH19940201KC

**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 NED 03 Second Terrain data.

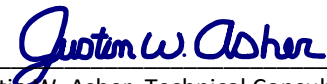
As stated before, there will be one (1) unique and distinct market associated with this proposal. The market has been defined, in accordance with 47 C.F.R. Section 73.3555 of the FCC Rules, as the area within the total perimeter formed by the combined principal community contours of the market as noted above.

**EXPLANATION OF RESULTS:** The three (3) stations, to be under common control and relevant for this ownership group, have been noted in ***Exhibit 1.0***. No other MMG holdings will be affected by this purchase. To aid in identifying the respective contours, AM contours to be purchased have been shown with solid orange lines. FM contours to be purchased have been shown with solid blue lines. The “Market A” common overlap area has been designated as well.

For “Market A”, the market defining contours have been shown in ***Exhibit 2.0*** of this report along with the total 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 the total station count as outlined in the Rules. When applicable, co-owned stations entering the market, but not defining the market have been omitted. However, in this instance this condition does not apply.

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 sixteen (16) other stations entering the market are shown in **Exhibit 2.0**. Including the one (1) FM station and two (2) AM stations which define the market, there are nineteen (19) aural services in this market. **Exhibit 2.1** 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 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  
September 27, 2019

WKHM(AM)

WIBM(AM)

WKHM-FM

Jackson

Brooklyn

**Exhibit 1.0**  
**Map of Commonly**  
**Owned Stations**

- FM Station(s) to be Acquired
- AM Station(s) to be Acquired
- "Market A" Common Overlap Area

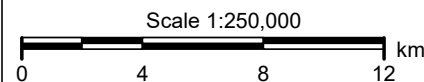
**"Market A" Defining Contours**

WIBM(AM) - JACKSON, MI  
WKHM(AM) - JACKSON, MI  
WKHM-FM - BROOKLYN, MI

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

FM Contours: 70 dBμ F(50:50)  
NED 03 sec Terrain Database  
NAD 1983 Coordinate Datum

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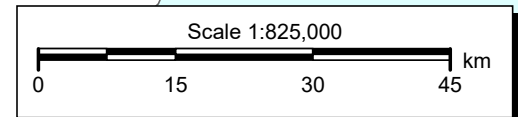
# Exhibit 2.0 Map of Stations Entering "Market A"

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

"Market A" Defining Contours  
 WIBM(AM) - JACKSON, MI  
 WKHM(AM) - JACKSON, MI  
 WKHM-FM - BROOKLYN, MI

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

FM Contours: 70 dBμ F(50:50)  
 NED 03 sec Terrain Database  
 NAD 1983 Coordinate Datum



# ***Exhibit 2.1***

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

Total number of overlapping contours: 19

Reference:

Callsign	Type	Chan City	St	File Number	Dist (km)	Azi (deg)
WKHM-FM	FM	287A Brooklyn	MI	BLH19940201KC	0.0	0.0
WIBM (AM)	AM	1450 JACKSON	MI	BL20030807AJF	9.8	18.5
WKHM (AM)	AM	970 JACKSON	MI	BL20160620ACG	4.9	332.7

Overlapping Contours:

Callsign	Type	Chan City	St	File Number	Dist (km)	Azi (deg)
WJKN-FM	FM	207A Spring Arbor	MI	BLED20050411AAG	12.2	269.9
WKAR-FM	FM	213B East Lansing	MI	BLED20110817ACF	60.9	359.1
WUOM	FM	219B Ann Arbor	MI	BLED19990204KA	49.1	54.9
WWDK	FM	231B Jackson	MI	BMLH20150427AAT	34.3	320.5
WMMQ	FM	235B East Lansing	MI	BLH19911106KF	56.2	346.6
WUPN	FM	244A Albion	MI	BLED20031031ADT	23.6	301.8
WJIM-FM	FM	248B Lansing	MI	BLH19971226KC	58.5	352.1
WFMK	FM	256B East Lansing	MI	BLH19870605KA	58.5	352.1
WITL-FM	FM	264B Lansing	MI	BLH19850610KF	58.5	352.1
WJXQ	FM	291B Charlotte	MI	BMLH20150427AAU	32.1	325.4
WSAE	FM	295A Spring Arbor	MI	BMLH20141105ACS	12.2	269.9
WJR	AM	760 DETROIT	MI	BL19970212AC	98.1	88.7
WILS	AM	1320 LANSING	MI	BL20080114ADF	55.7	339.1
WJKN	AM	1510 JACKSON	MI	BML20140304ADO	8.0	339.7
WKAR	AM	870 EAST LANSING	MI	BML20170814ABM	61.6	354.4
WUNN	AM	1110 MASON	MI	BL	44.1	359.8

Distance and bearing calculations from coordinates: 42-09-14.14 N, 084-24-06.83 W

Duopoly Options:

TV: Not Included

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

AM: 5.0 mV/m

Stations more than 92 km from the common area were excluded.