

[Exhibit 12]

## **Non-Interference Compliance**

Regarding FCC File Number: BNPFT-20030317FLU

### **Description of Exhibit 12 Contents**

This exhibit demonstrates that the proposed facility complies with contour overlap and interference protection provisions in all the applicable rule sections and that this application for a construction permit is in full compliance with 47 CFR 74.1204.

Page 2 of this exhibit is an explanation of the tabulated data, which is included as evidence on page 4 of this exhibit.

Page 3 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference protection provisions based on 47 CFR 74.1204(d), which states:

*"an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable."*

In addition, page 3 includes a tabulation of the second and third adjacent stations which this application is required to protect and the field strengths of those stations in the vicinity of the proposed translator. The field strengths given were based on contours predicted using FCC contour algorithms and 3 arc second terrain data.

**Let it be noted that should any actual real world interference occur, the applicant certifies that it will promptly suspend operation of this translator in accordance with 47 CFR 74.1203.**

Page 4 of this exhibit is the tabulated data from the interference analysis, which shows all stations that this application had to consider for contour protection. These tabulated values were generated using high resolution 3 arc second terrain data for the best possible accuracy.

Page 5 of this exhibit is a portion of a USGS 1:24,000 scale 7.5 min quadrangle at full scale with the calculated area of interference overlayed. The sheet includes the quadrangle name and measurement scale at the bottom-left corner (note: "Mt" refers to meters). The area of interference was calculated using a free-space calculation (see FCC 98-117, Appendix A, pg. 41 for reference to the equation used).

Since the proposed translator is 209.2 km from the Canadian border, 47 CFR 74.1235(d) has been taken into account and this applicant certifies that in no direction does the 34 dBu F(50,10) extend beyond 60 km, and this application is therefore in full compliance with 47 CFR 74.1235(d)(3), which states that "the distance to the 34 dBu interfering contour may not exceed 60 km in any direction," and hence in compliance with 47 CFR 74.1204(h).

## Explanation of Frequency Finder Results

The interference analysis for this application was performed using the "Frequency Finder" module in RadioSoft's Comstudy, version 2.2.

Frequency Finder analyzes data taken directly from the FCC's FM database and looks for prohibited overlap with contours of adjacent stations and prohibited proximity to stations 53 or 54 channels from the proposed station (IF) using 3 arc second terrain data and the FCC's contour algorithms. The results tabulated are the stations returned from that analysis. (Note: Because Comstudy was looking at the FCC's FM database, it took into account the proposed translator when doing the analysis and returned it in the tabulated results. For the sake of simplicity, that record has been deleted from all tabulated results.)

The first several columns of the table are self-explanatory. They give various data on the stations in question. The column labeled "Clr" gives the proposed translator's "clearance" with respect to the tabulated station, either in dB or km. The values listed with no units are given in km and are for stations located on an IF to the proposed site's channel.

**A negative value in the "Clr" column does NOT necessarily represent prohibited contour overlap, as explained below.**

A negative value listed in the "Clr" column would indicate either overlap of interference and protected contours or prohibited proximity to an IF station except in the following situations:

- Since the proposed station's Effective Radiated Power (ERP) is 13 watts, a negative value in km (no units listed in the table) does not represent a violation of the CFR, according to 47 CFR 1204(g), which states that "FM translator stations and booster stations operating with less than 100 watts ERP will be treated as class D stations and will not be subject to intermediate frequency separation requirements."

- A second or third adjacent LP100 station cannot represent a violation of the CFR, as 47 CFR 74.1204(a)(4) requires protection of only co-channel and first adjacent LP100 stations.

- 47 CFR 74.1204(a) requires only the protection of "AUTHORIZED commercial or noncommercial educational FM broadcast stations, FM translators, ..." Any entry with a status listed as "RSV," "USE" or "APP" does not represent an authorized station and therefore is not protected under 47 CFR 74.1204. The one exception is the case of LP100 applications. The note to 47 CFR 74.1204(a)(4) states that "LPFM applications and permits that have not yet been licensed must be considered as operating with the maximum permitted facilities." Therefore, any first adjacent or co-channel LP100 station, no matter the status, is protected.

- Entries highlighted in red are those stations where there is overlap of predicted contours and lack of population has been demonstrated within the area of interference.

## Compliance with 47 CFR 74.1204(d)

The proposed application's Maximum Effective Radiated Power (ERP) is 0.013kW at 63 meters above ground level. According to 47 CFR, 74.1204(a), the desired to undesired ratio between 2nd/3rd adjacent stations is 40dB, making the proposed application's interfering contour 119.6dBu F(50,10).

Using a free-space calculation (equation referenced in FCC 98-117, Appendix A, pg. 41), this proposed translator's F(50,10) interference contour was calculated and plotted on the pertinent portion of a USGS quadrangle (page 5 of this exhibit). As demonstrated on the quadrangle, there are no populated structures or highways within the calculated area of interference (Note: FCC 02-244, II, A, 6 states that USGS quadrangles are sufficient for demonstrating lack of population). Hence, in accordance with 47 CFR 74.1204(d) and the clarification provided by the FCC in the decision Re: Living Way Ministries (FCC 02-244), a lack of population has been demonstrated within the area of interference and therefore this application is in full compliance with 47 CFR 74.1204.

CORAGL: 63m

Antenna Manufacturer: SWR

Maximum ERP: 0.013kW

Antenna Model: FM1

F(50,10) Interfering Contour: 119.6dBu

F(50,10) Max Distance: 26.5m

The F(50,50) signal strength of all relevant second and third adjacent stations have been examined, and are tabulated below. The levels of signal recorded are that at the proposed translator's tower site and the minimum value within the entire proposed translator's standard F(50,10) contour (100 dBu for most classes, 94 dBu for class B's, 97 dBu for class B1's). For signal levels too great to determine, 999 was entered. The minimum F(50,50) contour within the proposed translator's standard F(50,10) contour was used to calculate the proposed translator's interference contour, thereby assuring a minimum undesired-to-desired ratio of 40dB for all relevant adjacent stations, as required in 47 CFR, 74.1204(a).

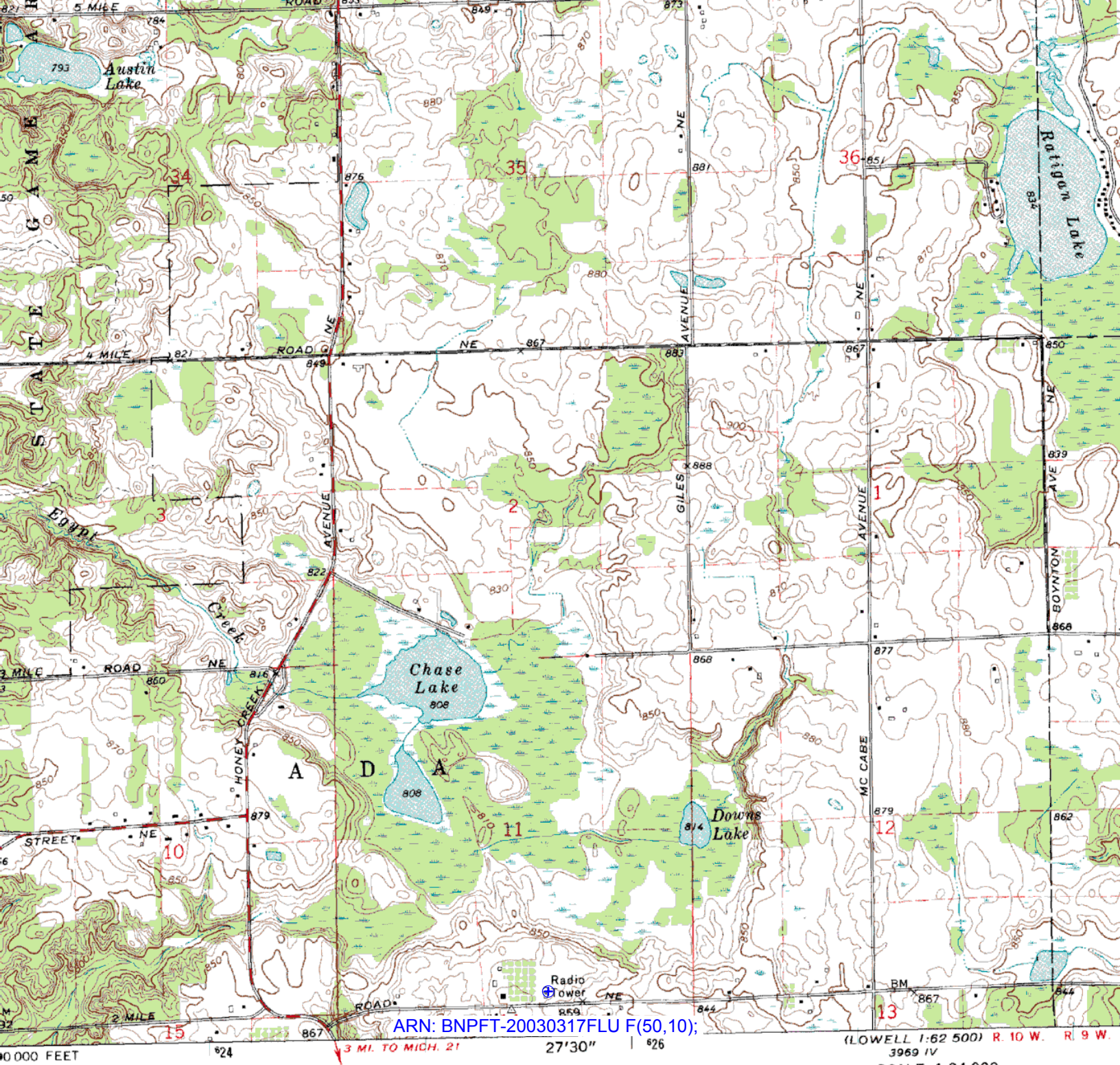
FCC File Number	Call Sign	F(50,50) Contour at Tower	Min. F(50,50) Contour
BLH19840120AE	WLHT-FM	80.3dBu	79.6dBu
Minimum F(50,50) Protected Contour of Adjacent Station Within Proposed Application's 100dBu F(50,10) Contour:			<b>79.6dBu</b>

Frequency Finder

Callsign	State	City	Channel	ERP_w	Licensee	ARN	Class	Status	Distance_km	Clr	Facility_id
WLHT-FM	MI	GRAND RAPIDS	239	40000	REGENT BROADCASTING OF GRAND RAPIDS, INC.	BLH19840120AE	B	LIC	19.61	-26.97 dB	37457
NEW	MI	GRAND RAPIDS	236	100	HEARTSIDE MINISTRY, INC.	BNPL20000831ABV	LP100	APP	17.56	4.63 dB	126115
NEW	MI	HUDSONVILLE	237	10	EDGEWATER BROADCASTING INC.	BNPFT20030317FNL	D	APP	36.51	4.25 dB	147577
WMMQ	MI	EAST LANSING	235	50000	CITADEL BROADCASTING COMPANY	BLH19911106KF	B	LIC	83.47	7.02 dB	24641
WLHT-FM	MI	GRAND RAPIDS	239	0	REGENT BROADCASTING OF GRAND RAPIDS, INC.		B	USE	19.61	11.44 dB	37457
NEW	MI	GRAND RAPIDS	236	100	SIGHT SEER - WEST MICHIGAN RADIO	BNPL20000901ACC	LP100	APP	24.91	12.24 dB	126250
WGVS-FM	MI	WHITEHALL	237	2000	GRAND VALLEY STATE UNIVERSITY	BLH19821105AF	A	LIC	80.67	17.09 dB	33696
WBXX	MI	BATTLE CREEK	237	3000	CASPTAR TX LIMITED PARTNERSHIP	BLH6625	A	LIC	82.89	18.75 dB	37461
NEW	MI	MASON	237	38	EDUCATIONAL MEDIA FOUNDATION	BNPFT20030317BGI	D	APP	91.09	22.98 dB	148800
WCFX	MI	CLARE	237	6000	GOLDSSEN BROADCASTING, LLC	BMLH19901227KB	A	LIC	98.21	23.72 dB	39546
WGVS-FM	MI	WHITEHALL	237	0	GRAND VALLEY STATE UNIVERSITY		A	USE	80.67	24.24 dB	33696
WBXX	MI	BATTLE CREEK	237	0	CASPTAR TX LIMITED PARTNERSHIP		A	USE	82.89	25.80 dB	37461
WFBE	MI	FLINT	236	50000	CITADEL BROADCASTING COMPANY	BMLH19970808KC	B	LIC	145.27	25.97 dB	21730
NEW	MI	HOLLAND	236	100	DELTA SIGMA TAU FRATERNITY	BNPL20000831ADU	LP100	APP	57.86	29.42 dB	126830
NEW	MI	HOLLAND	236	100	MACATAWA AREA COMMUNITY MEDIA	BNPL20000831AAQ	LP100	APP	57.75	29.38 dB	126268
NEW	MI	PORTAGE	238	175	MIDWEST COMMUNICATIONS, INC.	BNPFT20030317JWW	D	APP	86.4	29.16 dB	145136
WCFX	MI	CLARE	237	0	GOLDSSEN BROADCASTING, LLC		A	USE	98.21	30.86 dB	39546
NEW	MI	16240 QUINCY ST	236	100	VENTURA BAPTIST CHURCH	BNPL20000901ABS	LP100	APP	61.84	30.80 dB	126651
WKQI	MI	DETROIT	238	100000	AMFM RADIO LICENSES, L.L.C.	BLH19990920ABM	B	LIC	194.15	30.15 dB	6592
NEW	MI	REED CITY	236	250	MENTOR PARTNERS, INC.	BNPFT20030317JWP	D	APP	97.19	32.00 dB	144413
WIIL	WI	KENOSHA	236	50000	NM LICENSING, LLC	BLH19851125KB	B	LIC	205.38	34.01 dB	28473
NEW	MI	CADILLAC	236	50	FORT BEND BROADCASTING COMPAN	BNPFT20030313BNL	D	APP	140.14	35.84 dB	145665
NEW	MI	KALAMAZOO	236	38	FAMILY LIFE BROADCASTING SYSTEM	BNPFT20030313BMY	D	APP	82.36	35.82 dB	142077
NEW	MI	REED CITY	236	50	GREAT LAKES COMMUNITY BROADCASTING	BNPFT20030311AMK	D	APP	93.4	35.46 dB	142487
WAOR	MI	NILES	237	5500	PATHFINDER COMMUNICATIONS CORPORATION	BLH20030314AZG	A	LIC	154.88	35.40 dB	48911
WRIT-FM	WI	MILWAUKEE	239	34000	CLEAR CHANNEL BROADCASTING LIC	BLH20000606ACL	B	LIC	200.35	35.34 dB	60233
WAJI	IN	FORT WAYNE	236	39000	SARKES TARZIAN, INC.	BLH19900226KE	B	LIC	212.02	35.29 dB	59132
NEW	MI	HOWARD CITY	235	100	GREAT LAKES COMMUNITY BROADCASTING	BNPFT20030314BCD	D	APP	44.48	35.19 dB	147742
WKQI	MI	DETROIT	238	31000	AMFM RADIO LICENSES, L.L.C.	BPH19990809IG	B	APP	194.15	36.18 dB	6592
WKZC	MI	SCOTTVILLE	235	17000	LAKE MICHIGAN BROADCASTING, INC.	BLH19931022KC	C3	LIC	140.48	36.88 dB	10811
NEW	MI	LANSING	238	100	GREATER LANSING COMMUNITY RADIO	BNPL20000831AEG	LP100	APP	79.83	37.17 dB	126957
NEW	MI	EAST LANSING	238	100	M&M COMMUNITY DEVELOPMENT INC.	BNPL20000831ACJ	LP100	APP	81.47	37.87 dB	125715
NEW	MI	EAST LANSING	238	100	M&M COMMUNITY DEVELOPMENT INC.	BNPL20000831ACJ	LP100	APP	81.47	37.87 dB	125715
WCSX	MI	BIRMINGHAM	234	13500	GREATER BOSTON RADIO, INC.	BMLH19981008KA	B	LIC	197.63	37.99 dB	25084
NEW	MI	LANSING	238	100	MICHIGAN HOUSE OF REPRESENTATIVES	BNPL20000828ADB	LP100	APP	79.62	37.11 dB	125994
WCSX	MI	BIRMINGHAM	234	13500	GREATER BOSTON RADIO, INC.	BMLH19981008KA	B	LIC	197.63	37.99 dB	25084
WCSX	MI	BIRMINGHAM	234	14000	GREATER BOSTON RADIO, INC.	BXPB20000830AFX	B	CP	194.13	38.19 dB	25084
WCSX	MI	BIRMINGHAM	234	14000	GREATER BOSTON RADIO, INC.	BXPB20000830AFX	B	CP	194.13	38.19 dB	25084
WCSX	MI	BIRMINGHAM	234	14000	GREATER BOSTON RADIO, INC.	BMLH19981106KE	B	LIC	197.63	38.82 dB	25084
WCSX	MI	BIRMINGHAM	234	14000	GREATER BOSTON RADIO, INC.	BMLH19981106KE	B	LIC	197.63	38.82 dB	25084
WTCU	MI	FIFE LAKE	240	50000	ROY E. HENDERSON D/B/A FIFE LAKE BROADCASTING	BMPH20010607ABA	C2	APP	177.53	38.86 dB	88723
WAOR	MI	NILES	237	0	PATHFINDER COMMUNICATIONS CORPORATION		A	USE	147.53	38.86 dB	48911

# Frequency Finder

WNUA	IL	CHICAGO	238	8300 AMFM RADIO LICENSES, L.L.C.	BLH19881011KC	B	LIC	216.09 39.95 dB	53971
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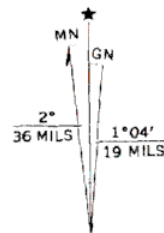


ARN: BNPFT-20030317FLU F(50,10);

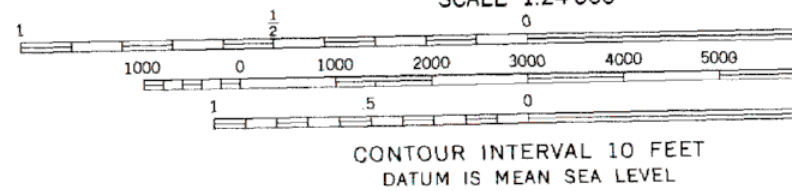
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mmetric methods from aerial  
9. Field checked 1972  
1927 North American datum  
on Michigan coordinate system, south zone  
transverse Mercator grid ticks,

indicate selected fence and field lines where  
al photographs. This information is unchecked



UTM GRID AND 1972 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE