

[Exhibit 12]

Non-Interference Compliance

Regarding FCC File Number: BNPFT-20030317HQU

Channel: 227

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 306.7 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 19 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 translator's Maximum Effective Radiated Power (ERP) is 0.019kW at 84 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 translator's interfering contour 119.1dBu 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: 84m

Antenna Manufacturer: SWR

Maximum ERP: 0.019kW

Antenna Model: FM1

F(50,10) Interfering Contour: 119.1dBu

F(50,10) Max Distance: 34.0m

The F(50,50) signal strength of all relevant second and third adjacent stations have been examined, and are tabulated below. Column three shows the station's signal level at the proposed translator's tower site, and column four gives 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
BLH19800616AK	WBCT	79.36dBu	79.07dBu
Minimum F(50,50) Protected Contour of Adjacent Station Within Proposed Translator's standard F(50,10) Contour:			79.07dBu

Frequency Finder

Callsign	State	City	Channel	ERP_w	Licensee	ARN	Class	Status	Distance_km	Clr	Facility_id
WBCT	MI	GRAND RAPIDS	229	320000	CLEAR CHANNEL BROADCASTING LIC	BLH19800616AK	B	LIC	38.55	-25.86 dB	73606
WQTX	MI	CHARLOTTE	224	1500	RUBBER CITY RADIO GROUP	BMLH19940610KA	A	LIC	26.2	0.72 dB	24645
NEW	MI	WAYLAND	227	10	RADIO ASSIST MINISTRY INC.	BNPFT20030317HUF	D	APP	43.33	7.38 dB	145401
NEW	MI	HASTINGS	226	100	AUTOMATED MICRO, INC.	BNPL20000901AFS	LP100	APP	19.11	8.63 dB	126913
NEW	MI	JENISON	227	10	RADIO ASSIST MINISTRY INC.	BNPFT20030317HQP	D	APP	70.65	12.62 dB	145380
NEW	MI	ROCKFORD	227	13	RADIO ASSIST MINISTRY INC.	BNPFT20030317HSD	D	APP	57.97	15.39 dB	145394
NEW	MI	ALLEGAN	227	10	RADIO ASSIST MINISTRY INC.	BNPFT20030317GVK	D	APP	69.64	18.99 dB	145372
WVGR	MI	GRAND RAPIDS	281	0	REGENTS OF THE UNIVERSITY OF MICHIGAN		B	USE	34.85	19.9	66309
WVGR	MI	GRAND RAPIDS	281	108000	REGENTS OF THE UNIVERSITY OF MIC	BLH19800402AB	B	LIC	34.85	19.9	66309
NEW	MI	GRAND HAVEN	227	120	RADIO ASSIST MINISTRY INC.	BNPFT20030317HQC	D	APP	97.76	21.02 dB	145379
WVGR	MI	GRAND RAPIDS	281	108000	REGENTS OF THE UNIVERSITY OF MIC	BPED20030714AFD	B	APP	37.01	22	66309
NEW	MI	BATTLE CREEK	226	100	KELLOGG COMMUNITY COLLEGE	BNPL20000828ADA	LP100	APP	45.06	24.74 dB	125896
	MI	CHARLOTTE	224	0		RMbg-42	A	APP	26.2	25.85 dB	0
NEW	MI	BATTLE CREEK	226	100	FAITH FOR LIFE RADIO BROADCAST C	BNPL20000901ADJ	LP100	APP	46.45	25.04 dB	126787
WQTX	MI	CHARLOTTE	224	0	RUBBER CITY RADIO GROUP		A	USE	26.2	25.85 dB	24645
WHMI-FM	MI	HOWELL	228	5200	THE LIVINGSTON RADIO COMPANY	BLH19980911KF	A	LIC	94.63	26.60 dB	65917
WBCT	MI	GRAND RAPIDS	229	0	CLEAR CHANNEL BROADCASTING LICENSES, INC.		B	USE	38.55	26.34 dB	73606
WKQZ	MI	MIDLAND	227	39000	CITADEL BROADCASTING COMPANY	BLH19881027KB	C2	LIC	147.29	27.83 dB	72924
WDRQ	MI	DETROIT	226	26500	ABC, INC.	BLH19860613KB	B	LIC	157.87	27.79 dB	70040
NEW	MI	MARSHALL	226	100	MARSHALL CHRISTIAN RADIO	BNPL20000901AFI	LP100	CP	56.01	28.93 dB	126902
NEW	MI	KALAMAZOO	226	100	FAITH TEMPLE CHURCH OF GOD	BNPL20000831AAZ	LP100	APP	56.26	28.11 dB	126386
NEW	MI	GRAND RAPIDS	226	100	MONTENAY BROADCASTING	BNPL20000828AAC	LP100	APP	54.31	28.05 dB	125883
NEW	MI	FREMONT	227	19	RADIO ASSIST MINISTRY INC.	BNPFT20030317HPJ	D	APP	106.74	28.79 dB	145377
WYVN	MI	SAUGATUCK	224	3300	MIDWEST COMMUNICATIONS, INC.	BLH20021002ABE	A	LIC	88.5	30.87 dB	13676
WBTU	IN	KENDALLVILLE	227	18500	ARTISTIC MEDIA PARTNERS, INC.	BLH20030602AXS	B1	LIC	169.65	31.02 dB	22106
WNDV-FM	IN	SOUTH BEND	225	12000	ARTISTIC MEDIA PARTNERS, INC.	BPH19971020IB	B	CP	156.36	31.36 dB	41675
WNDV-FM	IN	SOUTH BEND	225	20000	ARTISTIC MEDIA PARTNERS, INC.	BPH19971020IG	B	CP	156.37	31.73 dB	41675
WNDV-FM	IN	SOUTH BEND	225	20000	ARTISTIC MEDIA PARTNERS, INC.	BLH19980727KC	B	LIC	156.37	31.73 dB	41675
WNDV-FM	IN	SOUTH BEND	225	12000	ARTISTIC MEDIA PARTNERS, INC.	BLH19791015AO	B	LIC	156.35	31.35 dB	41675
NEW	MI	WHITEHALL	227	10	RADIO ASSIST MINISTRY INC.	BNPFT20030822AIJ	D	APP	123.93	32.22 dB	145404
NEW	MI	WHITEHALL	227	10	RADIO ASSIST MINISTRY INC.	BNPFT20030317HUM	D	APP	123.93	32.22 dB	145404
	MI	GRAND LEDGE	225	0		RMbg-42	A	APP	38.51	32.34 dB	0
WBTU	IN	KENDALLVILLE	227	0	ARTISTIC MEDIA PARTNERS, INC.		B	USE	149.46	32.40 dB	22106
WJZI	WI	MILWAUKEE	227	12500	MILWAUKEE RADIO ALLIANCE, LLC	BLH19840515CB	B	LIC	232.97	34.60 dB	59974
NEW	MI	CEDAR LAKE	228	100	GREAT LAKES ADVENTIST ACADEMY	BNPL20000901AIE	LP100	CP	74.17	34.55 dB	127139
CIDR	ON	WINDSOR	230	100000			C1		183.81	34.31 dB	124896
WBTU	IN	KENDALLVILLE	227	0	ARTISTIC MEDIA PARTNERS, INC.		B1	USE	149.46	35.40 dB	22106
NEW	MI	HOLLAND	226	100	RADIO COMUNIDAD	BNPL20000901ACB	LP100	APP	82.89	36.71 dB	126625
WDLF-LP	MI	FENWICK	225	100	MONTCALM PUBLIC RADIO, INC.	BNPL20000831AAU	LP100	CP	46.84	37.55 dB	126066
WKQZ	MI	MIDLAND	227	0	CITADEL BROADCASTING COMPANY		C2	USE	147.3	37.71 dB	72924
WJZQ	MI	CADILLAC	225	100000	WKJF RADIO, INC.	BMLH20020517AAG	C1	APP	206.39	37.05 dB	5207
WJZQ	MI	CADILLAC	225	100000	WKJF RADIO, INC.	BLH20011226AAG	C1	LIC	206.39	37.05 dB	5207

Frequency Finder

NEW	MI	GRAND RAPIDS	225	100 NEW BIRTH APOSTOLIC CHURCH AND BNPL20000830ABA	LP100 APP	53.84 39.76 dB	126257
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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF MICHIGAN

