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MARANATHA BROADCASTING COMPANY, INCORPORATED

LICENSEE OF

WFMZ-DT CHANNEL 46

ALLENTOWN, PENNSYLVANIA

FCC FACILITY ID # 39884

**FCC FILE No. BPCDT-20080619AKZ
BLCDT-20100126ABW**

APPLICATION FOR A DIGITAL REPLACEMENT TRANSLATOR

FOR WFMZ-DT ON CHANNEL 45

ENGINEERING EXHIBIT 11

December 16, 2010

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MARANATHA BROADCASTING COMPANY, INCORPORATED

ALLENTOWN, PENNSYLVANIA

**APPLICATION FOR A CONSTRUCTION PERMIT FOR
A REPLACEMENT TRANSLATOR FOR WFMZ-DT ON CH 45**

FOR PHILADELPHIA, PA

EXHIBIT 11

AMENDED FACILITIES REQUESTED

MARANATHA BROADCASTING COMPANY, INC (MBC), is filing this application to request authority to construct a digital replacement translator on channel 45. The instant application proposes operation on Channel 45 for WFMZ-DT, Channel 46, Allentown, PA (FCC File No. BLCDT-20100126ABW, operating under PTA and with an effective radiated power of 0.3 kW (DA) (C). The applicant is eligible for DTV replacement translator as outlined below:

- Figure 1 shows a plot of WFMZ-DT, Channel 46 presently licensed F(50,90) 41.7 dBu coverage as well as the F(50,90) 41.7 dBu proposed Ch 45 contour. The proposed changes herein mitigate calculated impermissible interference to another proposed facility.
- As shown in Figure 1, the proposed Channel 45 replacement translator F(50,90) 41.7 dBu does not extend outside of the presently authorized facilities of WFMZ-DT 41.7

dBu contour. Even though WFMZ-DT currently operates under PTA with an ERP of 800 kW (DA), measurements by this office and by the engineering staff of MARANATHA of the signal strength of WFMZ-DT in the general Philadelphia area have shown that the DTV reception is not as reliable as that of the previously operating WFMZ-TV, Channel 69 at 5,000 kilowatts (DA).

- Continued issues with primarily Verizon CATV and DirecTV satellite systems and numerous telephone and electronic complaints to MBC from viewers with difficulties with digital reception in the areas around Philadelphia, PA, who were able to reliably receive WFMZ-TV, Channel 69 NTSC but not WFMZ-DT, Channel 46 DTV.
- WFMZ-DT has been operating on Channel 46 for over 8 years and has requested and received several power increases¹. Even so, the significant number of complaints coupled with considerable digital signal level verification by MBC engineering staff on the WFMZ-DT current DTV channel, have clearly demonstrated to MBC that one option is to install a replacement translator to improve service to this portion of the MBC service area.

INTERFERENCE STUDY AND REQUEST FOR WAIVER OF 47 CFR 74.707 WITH RESPECT TO NOW DARK WELL-LP NTSC CH 45

Pursuant to FCC Public Notice, DA 08-2818² and the Final Rules (74.787(a)(5)(i)) regarding digital replacement translators, this office, with assistance from MSW, Inc., has completed a Longley-Rice analysis of the proposed digital operation on TV Channel 45 with an

¹ The currently operating PTA WFMZ-DT parameters of 800 kW (DA) at 331 meters HAAT is the maximum possible without obtaining as many as 3 more interference agreements with other DTV stations. Based on conversations by station management, there appears to be no likelihood of such further agreements being reached.

² See FCC DA08-2818, "MEDIA BUREAU ANNOUNCES APPLICATION AND STA FILING PROCEDURES FOR NEW REPLACEMENT DIGITAL TELEVISION TRANSLATORS BEGINNING JANUARY 5, 2009".

ERP of 0.3 kW directional with circular polarization, and with a “Stringent” channel filter per 74.794, and that study shows that no prohibited interference will occur to any other authorized or pending full service and LPTV analog or digital station as required by 74.792 and 74.793 with the exception of Co-Owned WFMZ-DT, WOLF-DT³, and now DARK WELL-LP, Channel 45 NTSC. The results of the Longley-Rice Study can be supplied to the staff if needed.

**WELL-LP CH 45 IS DARK AND HAS DISMANTLED ITS TRANSMITTING
ANTENNA AND REPLACED ITS ANALOG CH 45 TRANSMITTER WITH A DIGITAL
ONE ON CHANNEL 30**

In a recent TELCON discussion between MARANATHA’s council and the Media Bureau staff; Staff indicated to council that based on the known facts to the FCC staff, that the Word of GOD Fellowship, Inc. (“WORD”) LPTV station WELL-LP is considered dark and has been for over a year, therefore a digital replacement translator application by MBC on Channel 45 would be given favorable consideration, if timely filed.

The undersigned has been observing WELL-LP off-air signals since before September 2008. As outlined in the MBC “PETITION TO RECIND THE LICENSSE GRANT FOR WELL-LP, et all”, filed by MBC about September 29, 2008⁴, the following is a summary of the information reported to the commission by MARANATHA on December 18, 2008 and by the recent TELCON.

³ See Unconditional Interference acceptance Statement (Exhibit 11 Attachment I) and previously submitted interference agreement with WOLF-DT (Exhibit 11 Attachment II) attached hereto. The proposed directional antenna field values (ERP less than 0.0005 kW) and physical distance from the WOLF-DT service area for the proposed replacement translator herein comply with the radiation limits in the previously executed Agreement.

⁴ See Engineering Exhibit in support of MARANATHA’s “ENGINEERING STATEMENT IN SUPPORT OF A PETITION TO RECIND THE LICENSE GRANT FOR WELL-LP AND TO ORDER IMMEDIATE TERMINATION OF STATION OPERATION AS OF A RESULT OF INPERMISSABLE INTERFERENCE TO WFMZ-DT”, dated September 29, 2008.

- Immediately after WELL-LP began NTSC operation on Channel 45, destructive interference was observed on the WFMZ-DT signal as received at the DirecTV head-end on Market Street in Philadelphia only 11 kilometers from WELL-LP⁵.
- WELL-LP was confirmed as the facility causing interference to Satellite head end equipment of DirecTV in Philadelphia, PA and the FCC was formally notified by MARANATHA. From the December 18, 2008 memorandum;
- “Additional information has come to WFMZ-TV's attention which indicates that, not only is the WELL-LP transmitter the source of significant out-of-band emissions that interfere with reception of WFMZ-TV but also that the entire WELL-LP transmission system is out of step with the terms of the license for the station granted on January 8, 2008.

A review of WELL-LP'S history on Channel 45 is vital to the understanding of the position WFMZ-TV and the FCC now face as the consequence of WELL-LP'S failure to observe well-established rules and policies.

On July 30, 2004, WELL-LP filed a displacement application to change from CH 15 to CH 45 (BP'ITA - 200407308). A highly-directional PSI antenna was proposed, with an orientation of 200 degrees True. This application, as we documented in our initial complaint erroneously used only the horizontal ERP of 50 kW and did not include the actual maximum ERP at any elevation angle, which in this case was 150 kW.

Relying on data that was colored by a major omission, the FCC improvidently granted this application on September 27th, 2004. On September 26, 2007, WELL-LP filed for a covering license (BLTTL- 20070926ARB). The application in Exhibit 21 stated that the applicant has substituted an antenna of another manufacturer without any specific pattern detail. The license application also stated that the station had been constructed as authorized in the underlying construction permit when, in facts the included Exhibit 7 showed otherwise:

⁵ MARANATHA Engineering staff determined that the aural carrier level, while in compliance with FCC Rules, as received from WELL-LP exceeded FCC allowable U/D ratios from NTSC one channel below DTV.

Exhibit 7

Description: CONSTRUCTED AS AUTHORIZED
THE SWR ANTENNA MATCHES THE PSILP24CRA TO
WITHIN +/- .2 DB, HOWEVER DUE TO TOWER LOADING
PROBLEMS, WE HAD TO REDUCE OUR HEIGHT FROM
330.2 M ABOVE GROUND LEVEL TO 198M ABOVE
GROUND LEVEL.

This application was granted on January 8, 2008. Because of facts presented below, this Grant resulted in WELL-LP beginning operations with facilities that interfered with both WFMZ-DT and WOLF-DT, using the FCC established LPTV processing software. This fact clearly required another CP and, indeed, WELL-LP, filed for a new construction permit the next day (BPTTL- 20070927AJT documenting the new antenna, the changed ERP and acknowledging the 150 kW maximum power. Among the changes included in the modification application was a change in the geographic coordinates for the WELL-LP site, from 40-02-19N, 75-14-14W to 40-02-30N, 75-14-11W, the antenna RCAMSL from 276 to 291 meters and specifying a bi-lobe composite SCA directional antenna oriented to 140 degrees True from 200 degrees True.

On October 12, 2007, The FCC staff wrote to WELL-LP that the new CP application, as filed, was "incomplete", stating Our preliminary engineering review reveals that your proposed facility does not comply with the Commission's interference rules. Specifically, the proposal is predicted to cause interference to the following facilities:
WOLF-TV BLCDDT-20050906ACK Channel 45 Hazelton, PA
WFMZ-TV BLCDDT-20060621AAU Channel 46 Allentown, PA
You are hereby given the opportunity to file a minor amendment to resolve these specified problems within (30) days from the date of this letter.

Apparently because of the WELL-LP license's failure to respond to this letter, the new CP application was dismissed by the Commission staff on December 17, 2007.

- With assistance from MARANATHA's Engineering Consultant, it was determined that if WELL-LP reduced visual power to 18.9 kW from the 150 kW authorized, the Longley-Rice predicted interference to WFMZ-DT would be reduced from over 10 percent to just below FCC permitted 0.5%. WORD filed for a new Construction Permit (BPTTL-20081022AAB) to reduce visual power to 18.9 kW and the application was granted by the commission on December 18, 2008. However, even with the lower operating power, the aural carrier from WELL-LP continued to be in excess of the U/D ratio for an NTSC station operating on one channel below at the DirecTV headend and the interference continued⁶.
- In conjunction with testing at DirecTV, WORD did reduce the aural carrier level of WELL-LP from 5% visual to approximately 0.5% visual (-23 dBc) to eliminate the adjacent channel interference to WFMZ-DT at the DirecTV headend. That operation more or less continued until the Channel 45 signal was completely turned off⁷.
- After considerable pressure from MARANATHA from the above tests, WORD filed an STA application; BSTA-20081217AAO for authority to operate WELL-LP on Channel 45 with reduced aural power to protect the Satellite head-end of DirecTV in Philadelphia was dismissed on 12/30/2008⁸.

⁶ As previously pointed out to commission staff, the required antenna orientation to WFMZ-DT from the DirecTV headend was such that there was virtually no azimuth pattern discrimination from the WELL-LP transmitting antenna.

⁷ Even though the interference to WFMZ-DT was mostly mitigated, the WELL-LP operation of the aural carrier at -23 dBc greatly reduced the effective coverage area of WELL-LP. Any practical filter to reduce the amplitude of the lower adjacent channel aural carrier located only 250 kilohertz below the DTV Channel 45 signal caused attenuation of the lower shoulder of the Channel 46 DTV signal thus reducing the desired station MER to the point where the headend receiver could not correct the errors caused by said filter.

⁸ The application BSTA-20081217AAO was dismissed because the Commission had by then issued a CP to WORD to authorize the construction of the WELL-LD, Channel 30 facility.

- Pursuant to another STA, this time granted by the staff, to WORD, permittee of WELL-LP's DTV proposed operation on Channel 30 (BSTA-20081222AAN, granted 12/23/2008), and as personally observed by the undersigned⁹, the WELL-LP Channel 45 antenna has been removed from the transmitting tower and replaced with a Channel 30 antenna and the existing transmitting equipment had been retuned to Channel 30 and was operational on that channel¹⁰. This STA expired on June 23, 2009 and was never extended or renewed by WORD. A copy is attached as Exhibit 11-III.
- The FCC CDBS lists the grant of the WORD WELL-LD CP (BDCCDTL-20081215AAS) as granted on February 20, 2009. An application for a covering License for WELL-LD on Channel 30 (BLDTL-20100208AAC) and was granted by the Commission on February 18, 2010.
- Even though the WELL-LP Channel 45 signal was turned off as a result of retuning the transmitter and replacing the transmitting antenna, WORD never formally notified the Commission for authority for WELL-LP, Channel 45, to remain silent per 47 CFR 73.1635.

SUMMARY

WORD has been operating WELL-LD on CH 30 with a valid License, File Nr. BLDTL-20100208AAC. WORD has discontinued all operation on Channel 45 by virtue of the retuning

⁹ On or about October 11, 2010, I personally witnessed that the transmitting equipment of WELL_LP (LD) had been modified to operate on CH 30 in the digital mode and at an estimated power output pursuant to the terms of BSTA-20081222AAN and at the coordinates specified in that STA.

¹⁰ The undersigned previously had visited the WELL-LP, Channel 45 transmitting equipment room in sometime in 2008.

and replacement of the CH 45 equipment with Channel 30 digital equipment. WORD as never requested authority to remain silent as required 47 CFR 74.1635.

CONCLUSIONS

By using the FCC recognized Longley-Rice terrain model, OET-69 receiver antenna directivity, CDBS data, and various technical filings by MARANTHA and by WORD, we have shown that the instant proposal for DTV replacement translator operation on CH 45 meets the requirements for a DTV replacement digital channel for WFMZ-DT, Channel 46. Further, that WELL-LP Channel 45 is permanently off-air and thus there is no impediment that the instant proposal by MARANTHA to operate a DTV replacement translator on Channel 45 and MARANTHA requests that its instant modification application should be GRANTED.

Attachment I: Unconditional Interference Statement

Attachment II: Existing Interference Agreement between WFMZ-DT and WOLF-DT

Attachment III: FCC 30 day letter with respect to BPTTL-20070927AJT

Exhibit 11 Attachment I

Unconditional Acceptance of and Non-Objection to Predicted Interference From and to Co-Owned Facilities, Pursuant to Section 74.703(a)

Pursuant to FCC Rule section 74.703(a), Maranatha Broadcasting Company, Incorporated {"MBC"} hereby consents unconditionally to any excess interference that might occur between or among the following TV Translator facilities and proposed DTS operation as a result of the instant application and other applications filed contemporaneously with the instant application. All of the following facilities are owned and operated by MBC:

- WFMZ-DT (File No. BPCDT-20080619AKZ) and the pending application for a covering License (BLCDT-20100126ABW).
- W47DO-D (File No. BDRTCT-20090604ABI and its pending application as amended for a proposed replacement channel 45, which includes a copy of this Unconditional Acceptance of and Non-objection to predicted Interference from and to Co-owned Facilities, Pursuant to Section 74.703(a)). This application is being filed contemporaneously with the new application for a DTS facility for WFMZ-DT.
- NEW DTS facility on Channel 46 for Philadelphia, PA, (File No. (to be determined)), which includes a copy of this Unconditional Acceptance of and Non- Objection to Predicted Interference from and to Co-owned Facilities, Pursuant to Section 74.703(a)). This application is being filed contemporaneously with the amendment to BDRTCT-20090604ABI.

As discussed in the technical exhibit to the instant applications, Longley-Rice coverage studies show that interference between and among the above-referenced stations is likely in excess of the de minimis amounts allowed by Rule Section 74.793¹¹. Each of these stations does not receive interference from all others but, in the aggregate, mutual interference is possible between some

¹¹ We note that the FCC's TV Process software does not account for interference abatement by use of precision timing for DTV DTS systems.

stations. The proposed interference is acceptable to MBC and the instant application does not cause prohibited interference within the principal service community of WFMZ-DT, Allentown, Pennsylvania.

Exhibit 11 - Attachment II
WFMZ-TV - WOLF-TV

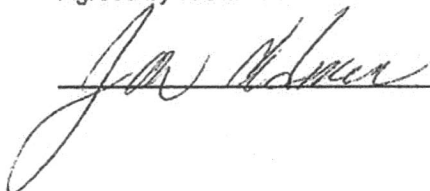
Agreement dated June 25, 2009, between WOLF-TV, Wilkes-Barre Scranton, and WFMZ-TV, Allentown, PA, to allow each station to increase its transmission power by 3 db towards each other from their current power levels as of the date of this agreement.

WOLF-TV currently operates on Channel 45 at 420 KW ERP at 153 degrees towards WFMZ-TV's transmission tower. WFMZ-TV currently operates on Channel 46 at 25 KW ERP at 333 degrees towards WOLF-TV's tower. Each station hereby agrees to allow the other to increase its currently licensed ERP to the maximum permitted by the FCC except that any increase shall be limited to a maximum of 3 db in the direction of the other station's tower and plus or minus 22 degrees from the azimuth toward each tower.

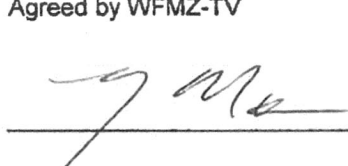
This agreement assumes the respective tower locations and elevations will remain at the present locations and, in the case of WOLF-TV, the shall not be permitted to move its antenna south of its current location, and WFMZ-TV shall not be permitted to move its tower north of its current location without mutually agreement to accept the increased inference generated by such a move of tower locations or a corresponding reduction in ERP to maintain the predicted interference to each station as if the stations had remained at their present tower locations. Both stations agree to not increase the center of radiation or HAAT without a corresponding reduction in power to compensate for the increased antenna height in the direction of the other station's tower as described defined above.

This agreement shall remain in force until such time as both parties agree to terminate this agreement in writing or at such time as one station moves to another TV channel.

Agreed by WOLF-TV

 Date 6.30.09

Agreed by WFMZ-TV

 Date 6/30/09



**FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D. C. 20554**

1800E1-MTU

WORD OF GOD FELLOWSHIP, INC.
3901 HIGHWAY 121 SOUTH
BEDFORD, TX 76021

Re: Facility ID: 10558
WELL-LP, PHILADELPHIA, PA
WORD OF GOD FELLOWSHIP, INC.
BPTTL-20070927AJT

Dear Applicant:

We are currently processing your above-referenced application. Our preliminary engineering review reveals that your proposed facility does not comply with the Commission's interference rules. Specifically, the proposal is predicted to cause interference to the following facilities:

WOLF-TV BLCDDT-20050906ACK Channel 45 Hazelton, PA
WFMZ-TV BLCDDT-20060621AAU Channel 46 Allentown, PA

You are hereby given the opportunity to file a minor amendment to resolve these specified problems within (30) days from the date of this letter. Your amendment must be filed electronically. If not so amended, your application will be considered incomplete and subsequently dismissed.

Sincerely

Hosseini Hashemzadeh
Associate Chief
Video Division
Media Bureau