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MARANATHA BROADCASTING COMPANY, INCORPORATED

LICENSEE OF

WFMZ-DT CHANNEL 46

ALLENTOWN, PENNSYLVANIA

FCC FACILITY ID # 39884

FCC FILE No. BLCDT-20060621AAU

APPLICATION FOR A

DIGITAL REPLACEMENT TRANSLATOR FOR WFMZ-DT

ENGINEERING EXHIBIT 11

June 4, 2009

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MARANATHA BROADCASTING COMPANY, INCORPORATED
ALLENTOWN, PENNSYLVANIA
APPLICATION FOR A CONSTRUCTION PERMIT FOR
A REPLACEMENT TRANSLATOR ON CH 51
FOR PHILADELPHIA, PA

EXHIBIT 11

FACILITIES REQUESTED

MARANATHA BROADCASTING COMPANY, INC (MBC), is filing this application to request authority to construct a digital replacement translator on Channel 47 for WFMZ-DT, Channel 46, Allentown, PA (FCC File No. BLCDT-20060621AAU), with an effective radiated power of 0.2 kW (DA) (H). The applicant is eligible for DTV replacement translator as outlined below:

A: Figure 1 shows a plot of WFMZ-DT, Channel 46 presently licensed coverage as well as the 41 and 51 dBu F(50,90) proposed Ch 47 contours.

B: As shown in Figure 1, the presently licensed WFMZ-DT, Channel 46, 41 dBu F(50,90) contour exceeds the area of the proposed Channel 47 replacement translator 41 dBu contour. Even though WFMZ-DT currently operates with an ERP of 400 kW (DA), measurements by this office and by the engineering staff of the signal strength of WFMZ-DT in the general

Philadelphia area are not is reliable as those of the existing WFMZ-TV, Channel 69 at 5,000 kilowatts (DA).

C: Based on telephone and electronic complaints to MBC from viewers of difficulties with digital reception in the areas around Philadelphia, PA, who are able to receive WFMZ-TV, Channel 69 NTSC but not WFMZ-DT, Channel 46 DTV.

D: WFMZ-DT has been operating on Channel 46 for over 6 years and has requested and received several power increases. 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 a replacement translator is required to improve service to this portion of the MBC service area.

Pursuant to FCC Public Notice, DA 08-2818¹ and the Final Rules (74.787(a)(5)(i)) regarding digital replacement translators, this office, with assistance from Techware, Inc., has completed a Longley-Rice analysis of the proposed digital operation on TV Channel 47 with an ERP of 0.2 kW directional, 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. The results of the Longley-Rice Study can be supplied to the staff if needed. The 41 F(50,90) replacement translator proposed on CH 47 does not extend beyond the 41 dBu Channel 46 F(50,50) contour.

CONCLUSIONS

By using the FCC recognized Longley-Rice terrain model and receiver antenna directivity, we have shown that the instant proposal for DTV operation on CH 47 meets the

¹ See FCC DA08-2818, "MEDIA BUREAU ANNOUNCES APPLICATION AND STA FILING PROCEDURES FOR NEW REPLACEMENT DIGITAL TELEVISION TRANSLATORS BEGINNING JANUARY 5, 2009".

requirements for a DTV replacement digital channel for WFMZ-DT, Channel 46 and we believe that this proposal for DTV replacement operation on Channel 47 should be GRANTED.

SIGNAL™: wfmzdt_phila_replacement_xltr.map

Interference contour study

Propagation methods:

service contour : FCC-FCC 90.0%

= 41.0 dBµV/m service contour

quick contours



Sites

Site: 46 rep

N40°02'31.00" W75°14'12.00" 62.0 m

newphl Tx.Ht.AGL: 88.0 m Total ERPd: -7.00dBkW

Grp: 1 directional-horizontal/100.0° 669.3100 MHz

Site: ALLENTOWN

N40°33'52.00" W75°26'24.00" 259.7 m

WFMZ_DT Tx.Ht.AGL: 222.3 m Total ERPd: 26.02dBkW

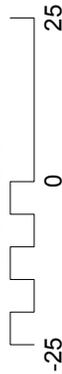
Grp: 1 directional-horizontal/0.0° 663.2500 MHz

Notes

Plot of FCC F(50,90) service contours for WFMZ-TV Lic 400 kW and proposed NEW Replacement Translator on CH 47.

prepared by
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KILOMETERS



COVERAGE STUDY

WFMZDT Replacement Xltr

06/01/2009

Figure 1

