

## **Abstract**

This report supports a long form application and its amendment filed within Auction Window 100 for FM translators where the application BNPFT-20180125AHU was designated a singleton, and a long form application was timely filed. This amendment proposes to change the directional antenna and show that under the new rules effective 15 August 2019, that the Tidewater Communications petition to deny is moot, as the area where there are alleged listeners to its FM translator, W221CF, would be interfered with by the proposed facility are not within the area that under the new rules, W221CF is entitled to protection from the proposed FM translator.

## **Fill In Translator Eligibility**

Exhibit 10 shows that this application is eligible to serve as a fill in translator for WXVA(AM), Winchester, VA. The licensee of WXVA(AM) is the applicant for the proposed translator.

## **Interference**

This report is a narrative showing that the requirements of FCC Rules §74.1204 are met.

### **Co-Channel and First Adjacent**

Exhibit 13 Figure 1 is a map showing compliance with co-channel and first adjacent contour overlap requirements.

## **Cochannel**

Cochannel Class A Station WNUZ and FM translator W221CF F(50,50) 60 dbu contours are shown in red along with the proposed F(50,10) 40 dbu contour.

Cochannel Class B1 Station WCDX is shown with its 57dbu F(50,50) contour and the proposed 37 dbu F(50,10) contour shown in rose.

### **Petition to Deny**

The Tidewater Communications, licensee of W221CF filed a petition to deny against this



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application on the basis of reports of listeners to W221CF within the proposed 60 dbu contour of the proposed translator, allegedly failing to comply with §74.1204(f). The applicant has previously responded to this petition with a reply, citing that the purported listeners to W221CF are not within the area that W221CF is authorized to serve, and other arguments as to the validity of the complaints. The petitioner has filed an opposition to Winchester Radio Broadcaster's reply, asserting that the Winchester's contention of authorized service area is incorrect. Subsequently, on August 12, 2018 the construction permit (BNPFT-20150710ACY) for changes to significantly increase the coverage of W221CF expired. The requirement to protect potential listeners to the W221CF that might be able to hear W221CF from that expanded facility no longer existed.

On August 15 2019 the FCC's amendment to fundamentally modify §74.1204 of the rules became final. This application is hereby amended to include a new Exhibit 13 Figure 4 that shows that none of the alleged listeners to W221CF fall within the area wherein W221CF is protected from interference to existing listeners, and only one of them fall within the area that W221CF is authorized to repeat the signals of WSVA. The proposed facilities unequivocally meet the requirements of §74.1204 of the rules with respect to W221CF.

The expiration of BNPFT-20150710ACY and the subsequent rule changes effectively moot the objections contained in the Tidewater petition, making this application immediately grantable.

### **First Adjacent**

First adjacent Class A Station WNUN and Class B1 NCE Educational station WFWM F(50,50) 60 dbu contours and the proposed F(50,10) 54 dbu are shown in amber, and Noncommercial Educational Class B Station WGTS F(50,50) 60 dbu contour and the proposed F(50,10) 54 dbu contour are shown in amber no overlap.

### **Second and Third Adjacent**

Exhibit 13 Figure 2 is a map showing the relative contour and spacing requirement for second

and third adjacent stations and IF spaced stations. There is considerable spacing between the proposed facility interfering contour and the service contours except with respect to WZXH.

The F(50,50) 54 dbu contour of second adjacent channel class B station WINC-FM is shown along with the proposed F(50,10) 94 dbu contour indicating that the WINC-FM contour extends far beyond the proposed site. The WINC-FM F(50, 50) 80 dbu contour is also shown encompassing the proposed 94 dbu contour.

In a letter granting Jersey Shore Broadcasting Corporation's application BPFT-950830TD (September 26, 1996 1800B3-JDB) the FCC stated that the Ratio method is suitable for translator applicants to demonstrate lack of interference for application purposes.

Since the distance to this contour is below the minimum distances for the F(50,10) and F(50,50) curves the signal level existing on the ground in the vicinity of the translator was calculated using inverse distance, with an adjustment for ground reflections, as has been accepted by the FCC in recent applications.

Since the minimum WINK-FM signal level is 80 dbu, and the protection ratio is 40 db, the potential interfering contour is 120 dbu. Using inverse distance, it has been determined that the maximum distance from the tower to the 120 dbu contour is 110 meters. Exhibit 13 Figure 3 is a satellite photograph showing the proposed antenna tower with a circle of radius 110 meters about it. (the circle is slightly irregular because it is painted on the ground which slopes away from the tower quite steeply. This circle represents the absolute maximum distance that an interfering signal to WINC-FM might impinge on the ground. As is clear from the satellite picture, there are no structures within the area excepting the unmanned transmitter shelter and the tower. The antenna tower is an inclusion within a National Forest.

From this, it is clear that there is no potential for interference to WINC-FM.

## **IF spacing**

IF Spaced FM Translator W275BV is the closest IF spaced station to the proposed translator.



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It is located 25.33 km from the proposed site. This exceeds the minimum required distance of 10 km in FCC rules §73.207(b)(1) for full power operation of an FM translator.

**In conclusion, the proposed translator meets all the overlap requirements of § 74.1204 of the FCC rules and regulations.**

### **Multiple Translators**

Figure 10 shows that W275BV, which also repeats WXVA has a F(50,50) 60 dbu contour that overlaps 39% of the proposed service area. W275BV is not owned by the applicant and therefore is not subject to §74.1232 of the FCC Rules.

### **Environment**

Exhibit 17 is a study showing that the proposed translator is excluded from environmental processing according to § 1.1306 of the FCC rules. The RF exposure worksheet is included to show that there is no location on the ground where the radiation from the translator exceeds exposure standards for general public, and represents less than 13% of the allowable general population level. The antenna tower is fenced and very remote.

When work on the tower requires working in the vicinity of the antenna, operations will be suspended or power reduced when workers are on the tower and could be exposed to RF radiation levels above those permitted.

### **Conclusion**

This amendment shows that this application is now compliant with all FCC rules. It proposes no changes to the requested facility except a different transmitting antenna. The Tidewater Petition has become moot due to the expiration of its Construction Permit for W221CF and the rule changes that became effective August 15<sup>th</sup>. The Common Frequency, Inc / Prometheus Informal objection was rejected on January 29, 2019 by the Commission's Memorandum Opinion and Order.



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This application is now eligible for grant.

### **Engineer's Statement**

This is to certify that this report has been prepared by myself. It is correct and accurate of my own knowledge, except where stated otherwise, and where that is so, the information is correct to the best of my knowledge and belief.

I further certify that I am a Licensed Professional Engineer in the State of New Jersey, and the Commonwealth of Pennsylvania with a BSEE degree from the Newark College of Engineering of NJIT, and that I am, and have been regularly engaged in the practice of radio engineering for nearly forty years with the firm of Radiotechniques Engineering, LLC, with offices at 402 Tenth Avenue, Haddon Heights, NJ. I am a member of the AFCCE, Senior member of the IEEE and SBE and hold a FCC General Radiotelephone Operator License. My qualifications are a matter of record with the FCC.

A handwritten signature in blue ink that reads "Edward A. Schober".

16 August 2019

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Edward A. Schober, PE