

This report is prepared to support an application for minor change to FM translator W267BP, to increase power and recharacterize its FM antenna as directional. No physical changes are proposed except ERP and transmitter output power. The primary station remains AM station WIBG (AM) Ocean City, NJ.

Minor Change Eligibility

Exhibit 10 is a map showing that the proposed W267BP 60 dbu contour does not exceed the WIBG 2 mV/m contour and also within the 25 mile radius about the WIBG transmitter location.

The proposed changes do not relocate the translator, so the 60 dbu proposed and licensed contours overlap.

Channel Allocations

Exhibit 13 Figure 1 is an overall allocations map showing that there is no overlap of protected contours of other stations and applications' protected contours and the interference contours specified in § 74.1204 of the FCC rules, with the exception of co-owned W267CU, Palermo, NJ. Both the W267BP licensed and proposed 40 dbu contour completely overlap the 60 dbu contour of W267CU, thereby causing no increase in overlap. W267CU was authorized after W267BP and is not protected from interference over its 60 dbu contour. The licensee intends to use synchronizing technology to make W267CU and W267BP operate as a synchronized network, and will accept any interference that either translator causes to each other.

Figure 2 is a map showing the second and third adjacent channel allocations. There is overlap with third adjacent channel WZXL, Wildwood, NJ and second adjacent channel WMRH-LP, Linwood, NJ. Figure 3 shows that there is no potential for interference between the proposed facilities and WZXL. There are no multi-story buildings within the area where the potentially interfering contour approaches the ground.

The 54 dbu F(50,50) contour of WZXL (dark blue) is shown extending beyond the proposed

facility, the WZXL 65 dbu F(50,50) contour is shown in thinner blue, extending beyond the proposed transmitter site. Similarly the 60 dbu F(50,50) contour of WMRH-LP (dark blue) is shown extending beyond the proposed facility, the WMRH-LP 65 dbu F(50,50) contour is shown in thinner blue. The second and third adjacent channel protection ratio is 40 db, so it is required that the 65 dbuV contours of WZXL and WMRH-LP be protected from the proposed 105 dbu contour of the translator.

IF Spaced station WXGN is located 10.84 km from the W267BP location, meeting the IF mileage specifications for Class A to Class A stations.

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

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 where the radiation from the translator exceeds exposure standards for general public.

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.

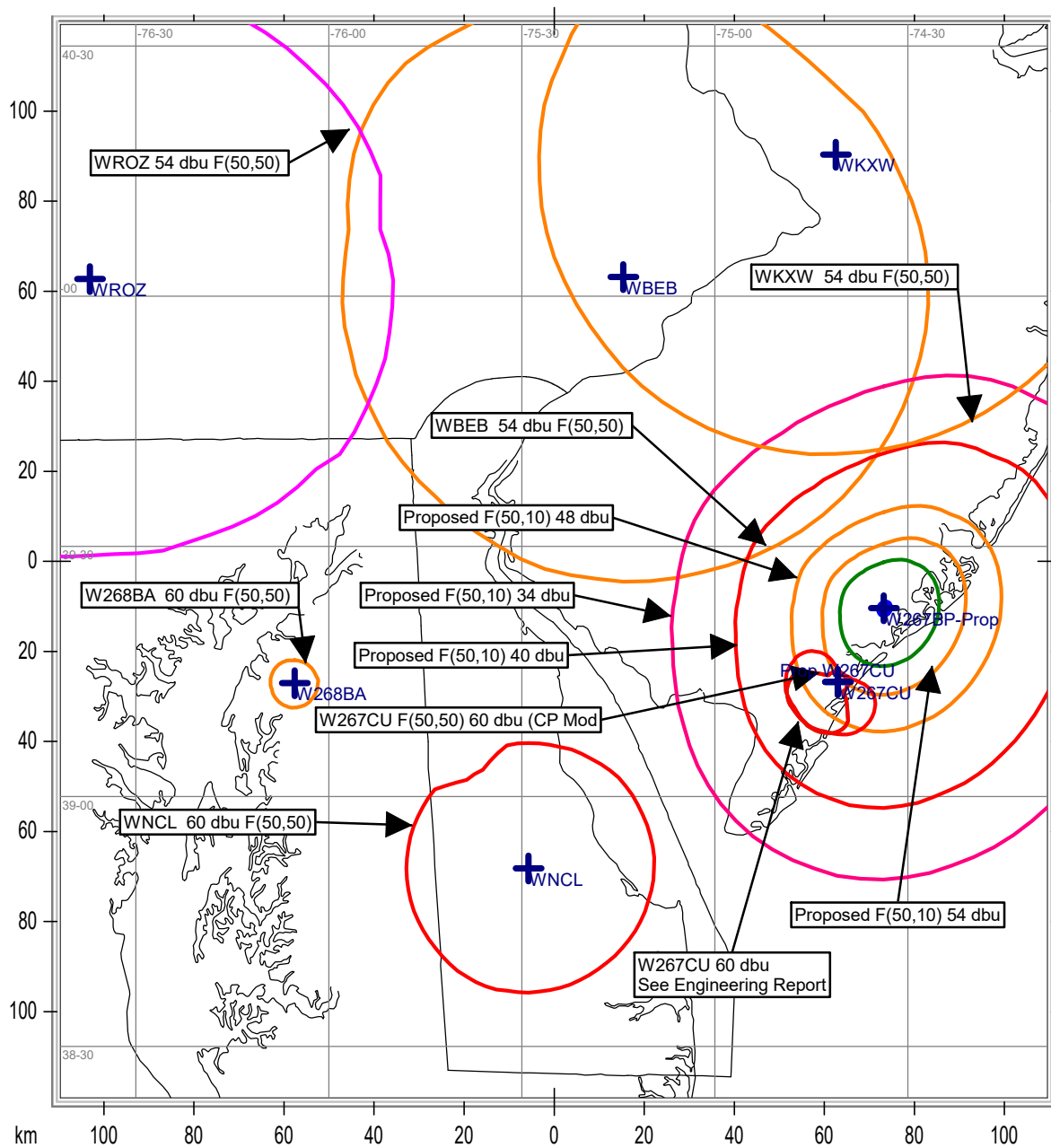
I further certify that I am a Licensed Professional Engineer in the State of New Jersey, and the Commonwealth of Pennsylvania with a BSEE degree from the Newark College of Engineering of NJIT, and that I am, and have been for over thirty years, regularly engaged in the practice of radio engineering with 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.



27 December 2019

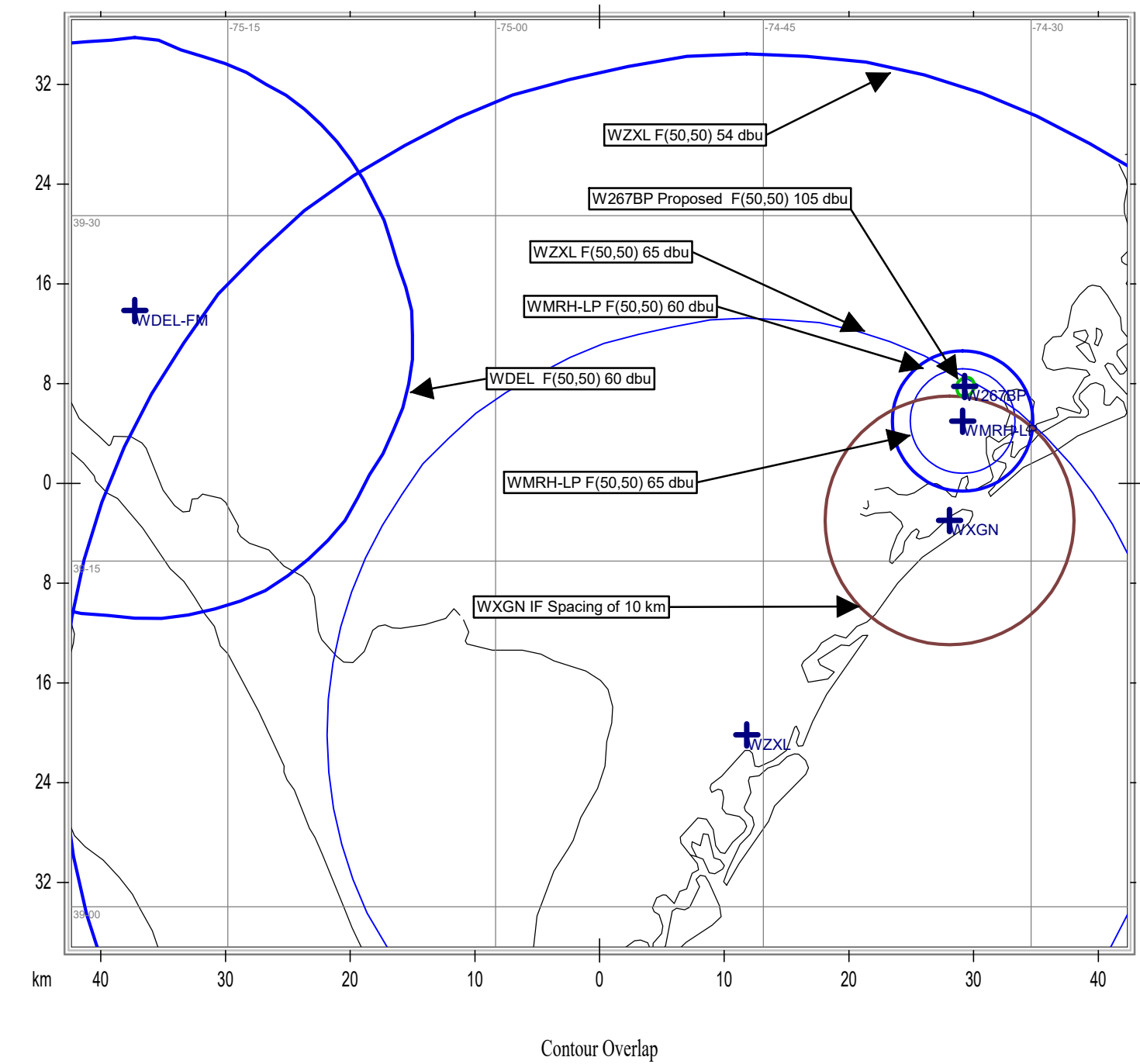
Edward A. Schober, PE

Cochannel and 1st Adjacent Channel Overlap



State Borders Lat/Lon Grid

2nd and 3rd Adjacent Channel Overlap



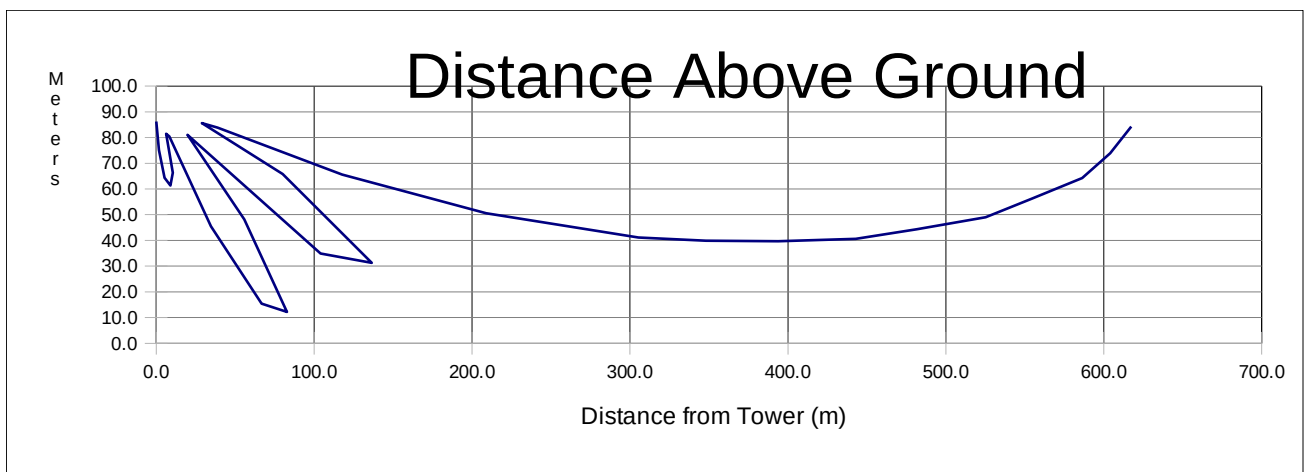
State Borders Lat/Lon Grid

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.

The 54 dBμV F(50,50) and the 65 dBμV F(50,50) contour of third adjacent Class B station WZXL, Wildwood, NJ encompasses the 94 dBμV F(50,10) proposed contour. Similarly, The 60 dBμV F(50,50) and the 65 dBμV F(50,50) contour of second adjacent LPFM station WMRH-LP, Linwood, NJ encompasses the 94 dBμV F(50,10) proposed contour. For a protection ratio of 40 db the interfering contour would be 105 dbuV.

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. If a waiver of Section 74.1203(a)(2) is required, one is hereby requested.

Below is a graph and tabulation of these calculations showing the location above ground at which the proposed translator will produce an interfering contour. This table and chart shows that the potentially interfering signal is more than 12 meters from the ground at its closest approach.



Plot of Distance Above Ground for the Nuisance Contour

Engineering Report
2nd and 3rd Adjacent Protection Calculations Page 2
W267BP, Pleasantville, NJ
December 2019

The proposed 105 db μ V potentially interfering signal does not reach the ground or approach it closer than 12 meters. There are no multi-story occupied buildings in the area.

Study for center of Radiation 95 m AGL ERP 250
 Element Bays Spacing
 Antenna TFC2k-4 4 0.86 Wavelength

Distance above Ground Level of Interfering Contour

Depression Angle (Degrees)	Slant Distance To 105 db μ V (meters)	Horiz Distance To 105 db μ V (meters)	Relative Field	ERP Watts	105 db μ V Above Gnd (meters)
1	617.53	617.4	0.992	246.016	84.2
2	604.46	604.1	0.971	235.710	73.9
3	587.03	586.2	0.943	222.312	64.3
4	555.90	554.5	0.893	199.362	56.2
5	527.27	525.3	0.847	179.352	49.0
6	484.31	481.7	0.778	151.321	44.4
7	446.34	443.0	0.717	128.522	40.6
8	397.78	393.9	0.639	102.080	39.6
9	352.34	348.0	0.566	80.089	39.9
10	310.01	305.3	0.498	62.001	41.2
12	213.52	208.9	0.343	29.412	50.6
14	121.39	117.8	0.195	9.506	65.6
16	40.46	38.9	0.065	1.056	83.8
18	30.50	29.0	0.049	0.600	85.6
20	85.28	80.1	0.137	4.692	65.8
25	150.65	136.5	0.242	14.641	31.3
30	120.14	104.0	0.193	9.312	34.9
35	24.28	19.9	0.039	0.380	81.1
40	72.83	55.8	0.117	3.422	48.2
45	117.03	82.8	0.188	8.836	12.2
50	103.96	66.8	0.167	6.972	15.4
55	60.38	34.6	0.097	2.352	45.5
60	16.81	8.4	0.027	0.182	80.4
65	14.94	6.3	0.024	0.144	81.5
70	30.50	10.4	0.049	0.600	66.3
75	34.86	9.0	0.056	0.784	61.3
80	31.13	5.4	0.050	0.625	64.3
85	19.92	1.7	0.032	0.256	75.2
90	8.72	0.0	0.014	0.049	86.3

Min Height above Gnd

Exhibit 17
Environmental Statement
W267BP – Minor change
Deceber 2019

Section 106 Review

The proposed translator antenna is the existing antenna recharacterized as a directional antenna. No changes tot the tower or antenna are required

FCC Part 1.1306

- The site is not within an officially designated wilderness area or wildlife preserve.
- The mounting of the antenna will not effect endangered species.
- The site is not in a floodplain.
- The mounting of the antenna will not involve a significant change in surface features.
- The tower will not use high intensity white lights.
- The mounting of the antenna does not exceed human exposure limits. See below.
- Compliance with RF safety requirements in accordance with FCC part 1.1306(8)b) as demonstrated below. The operation does not exceed human exposure limits.

Exhibit 17
Environmental Statement
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RF Worksheet #1 - FM (Including translators and boosters)

Effective Radiation Center Height Line #

Enter the proposed "Height of radiation center above ground"	95 m	
or as listed in Line 1 of Worksheet 1A	95 m	(1)
Is the Antenna supporting structure located on the roof of a building	NO	YES/NO (2)
if Line 2 is "YES" enter the building height measured at the base of the antenna supporting structure in line 3		
If line 2 is "NO" enter "0" in Line 3	0 m	(3)
Subtract Line (3) from Line (1)	95 m	(4)
Subtract the value 2.0 from Line (4)	93 m	(5)

Total Effective Radiated Power

lif "beam tilt" is utilized, list maximum values)

List Effective Radiated Power in the Horizontal Plane	0.25 kW	(6)
List Effective Radiated in the Vertical Plane	0.25 kW	(7)
Add lines 6 and 7 OR listed value from line 2 in Worksheet 1A	0.5 kW	(8)

PERCENTAGE OF FCC RF LIMIT(S) FOR MAXIMUM PERMISSIBLE EXPOSURE

Mulply line 8 by 3341	1670.5	(9)
Multiply the value listed in line 5 by itself	8649.0	(10)
Divide line 9 by line 10	0.193	(11)
Multiply line 11 by .5	0.097 %	(12)

DETERMINATION OF COMPLIANCE WITH CONTROLLED/OCCUPATIONAL LIMIT

Does Line 12 exceed 100%	NO	YES/NO	(13)
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IF YOU ANSWERED "YES" IN LINE 13, THE WORKSHEETS MANY NOT BE USED IN THIS CASE.*

IF YOU ANSWERED "NO" IN LINE 13, THEN THE SITE SHOULD COMPLY WITH THE FCC CONTROLLED/OCCUPATIONAL RF EXPOSURE LIMITS FOR GROUND LEVEL EXPOSURE. #

DETERMINATION OF COMPLIANCE WITH UNCONTROLLED/GENERAL POPULATION LIMIT

Does Line 12 exceed 20%	NO	(14)
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IF YOU ANSWERED "NO" IN LINE 14, THEN THE SITE SHOULD COMPLY WITH THE FCC'S UNCONTROLLED / GENERAL POPULATION RF EXPOSURE LIMITS FOR GROUND LEVEL EXPOSURE. NO FURTHER STUDY REQUIRED