

Comprehensive Engineering Exhibit Minor Change Application W207BU, Facility ID No. 151587

In response to reported interference complaints to full power station WXJB, Homosassa, FL, this minor change application is being filed to specify channel 262 instead of permitted channel 260 for which a license application, BLFT-20140916ABE, has been filed. This fill-in translator is proposed to operate with 250 watts ERP, with a directional antenna mounted 327 meters above ground level, on the tower identified by ASR No. 1246632. The proposed antenna system is a custom configuration consisting of Two Scala CL-FM/VRM/50N, vertically polarized, log-periodic antennas mounted at the same height and oriented at 140 and 225 degrees true.

Below as Figure 1 is a spacing/clearance table from which it can be determined that the "Living Way" method is to be utilized to demonstrate no actual interference will be caused to WMTX.

As shown in Figure 2, in the vicinity of the proposed location, WMTX is predicted to have a signal of 68.3 dBu, thus the +40 dB interfering signal is 108.3 dBu. This instant proposal, due to the vertical directivity of the antenna and its height above ground, will not create any actual interference to WMTX as shown in Figure 3. Figure 4 is an aerial image allowing determination that no occupied space is located near the antenna.

The application seeks a minor change to a long existing facility and provides generous contour overlap as demonstrated by the contour map in Figure 5. From the same contour map it can be seen that the entire 60 dBu contour fits within that of the required limits of the primary station for which this translator is to be "fill-in".

The proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation."

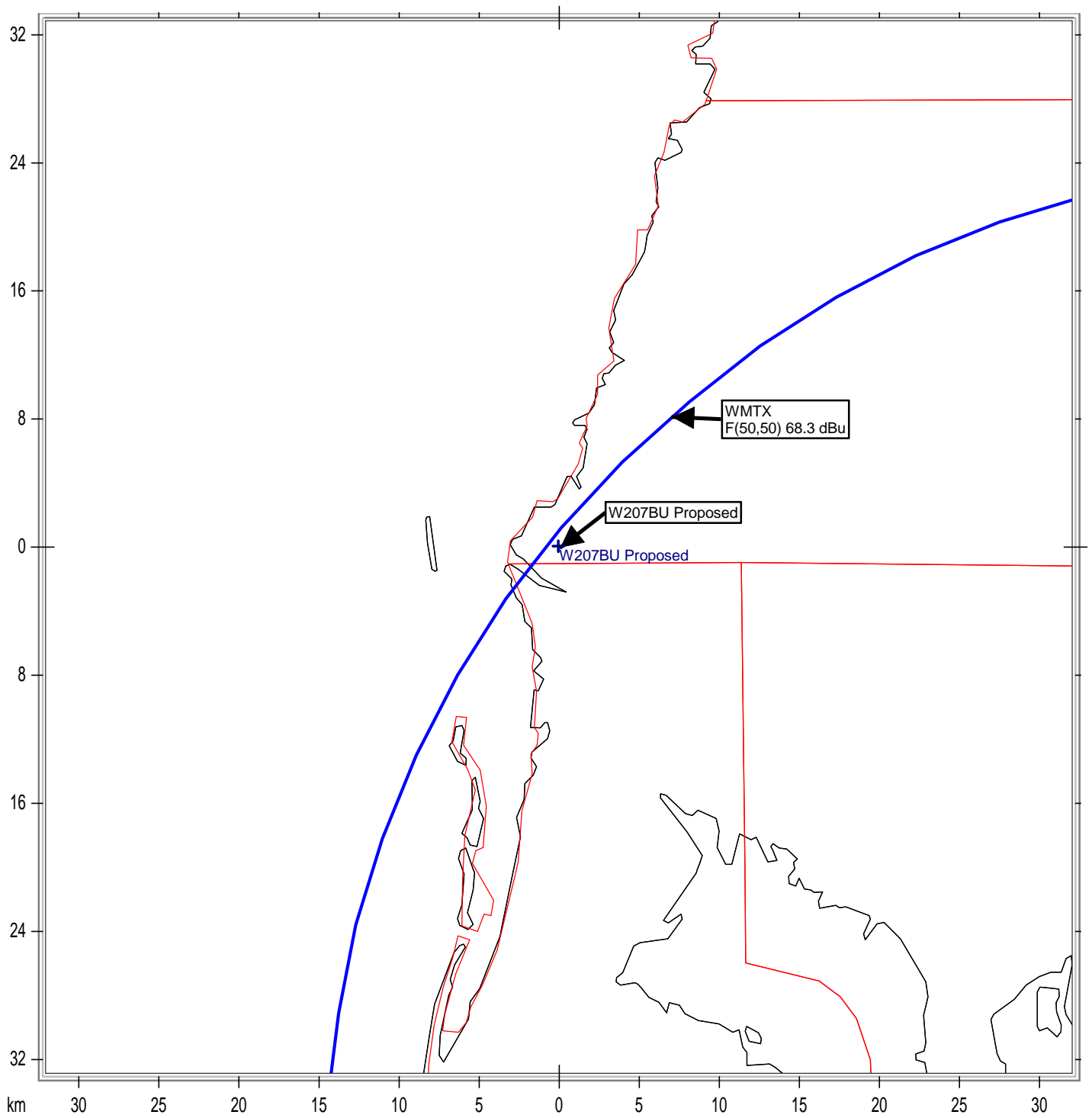
The proposed antenna system consists of two Scala model CL-FM/VRM/50N antennas mounted 327 meters above ground, with a vertically polarized effective radiated power of 250 watts. For purposes of this analysis the FM Model program has been set to calculate values for a worst case "Ring Stub" antenna element. At 2 meters above the surface, at 75 meters from the base of the tower, this proposal will contribute worst case, 0.07 microwatts per square centimeter, or 0.007 percent of the allowable ANSI limit for controlled exposure, and .035 percent of the allowable limit for uncontrolled exposure. This figure is less the 5% of the applicable FCC limit at all locations extending out from the base of the tower. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5% of the applicable exposure limit. It is therefore believed that his proposal is in compliance with OET Bulletin Number 65 as required by the FCC.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, was necessary to limit human exposure to levels less than specified by the FCC should anyone be required to climb the tower for maintenance or inspection.

Figure 1. Spacing/Clearance Table

Callsign	Channel	ERP_w	ARN	Class	Status	Dist_km	Sep	Clr	Clr Notes
WMTX	264	96000	BLH-20111005AAC	C	LIC	64.11	0	-8.95 dB	Living Way
NEW	261	54.9	BNPL-20131114BRI	LP100	APP	37.48	13	0.84 dB	Clear
NEW	261	17.3	BNPL-20131114ACQ	LP100	CP	46.74	13	3.19 dB	Clear
NEW	261	19.5	BNPL-20131114BJY	LP100	APP	52.13	13	7.47 dB	Clear
NEW	261	100	BNPL-20131107AFX	LP100	APP	56.09	13	9.08 dB	Clear
WXJB	260	9200	BPH-20130711AAH	C3	CP	60.32	0	10.85 dB	Clear
WGGF-LP	261	80.9	BPL-20140909AFQ	LP100	CP	65.23	13	11.53 dB	Clear
WGGF-LP	261	100	BLL-20140821AGH	LP100	LIC	68.8	13	12.99 dB	Clear
WRUM	262	95000	BMLH-20031010ADF	C	LIC	171.7	0	14.43 dB	Clear
NEW	261	66.3	BNPL-20131114BIK	LP100	CP	80.74	13	15.91 dB	Clear
WXJB	260	2300	BLH-20100629AMS	A	LIC	60.32	0	16.87 dB	Clear
WZJZ	261	84000	BLH-20061222ABC	C1	LIC	182.17	0	26.54 dB	Clear

Figure 2 - Contour Map



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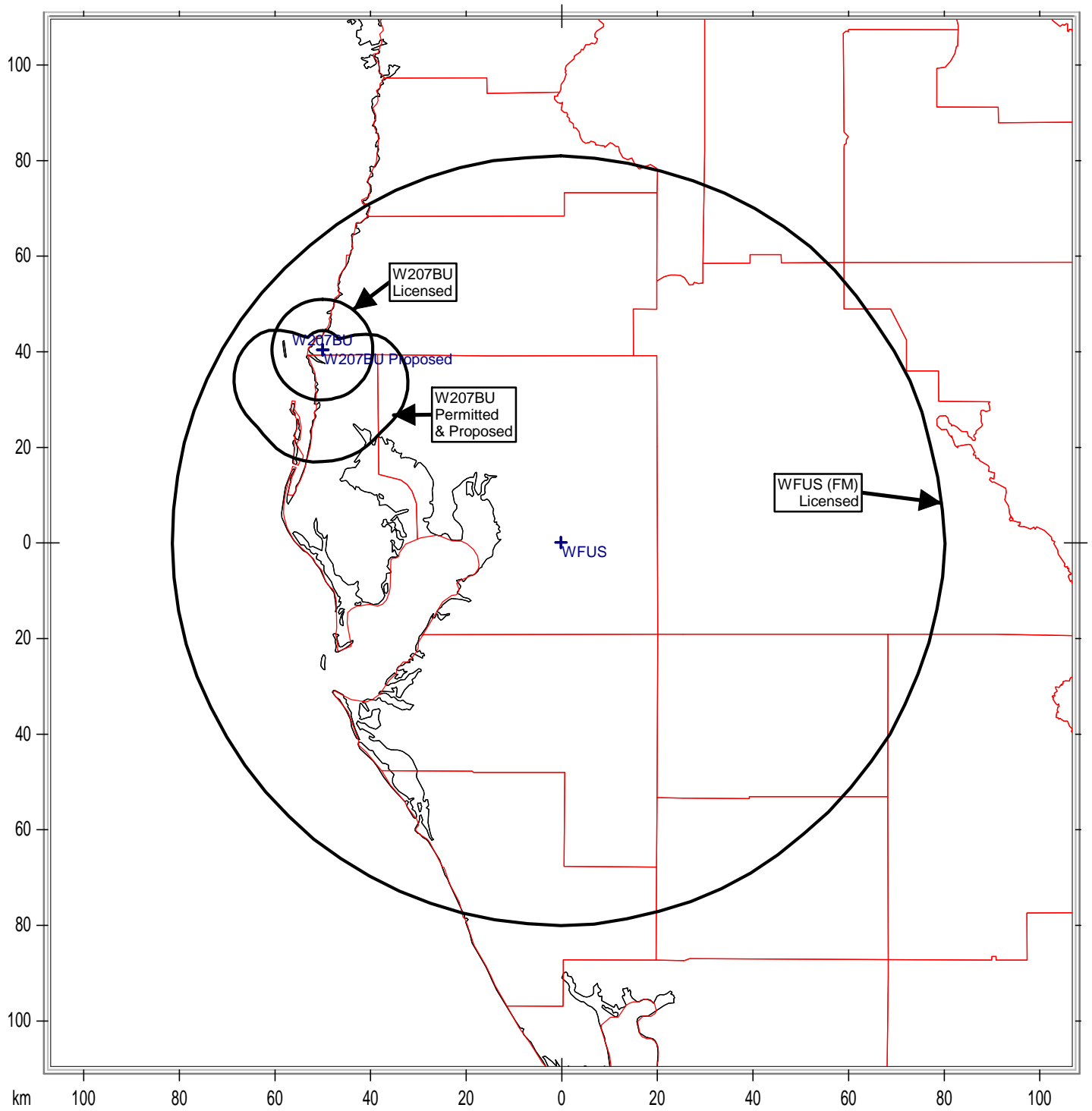
Figure 3. Distance to Signal Contour WMTX

Proposed Antenna: Two Scala CL-FM/VRM/50N Oriented 140° & 225° True Proposed Power: 0.25 kW Antenna Height AGL: 327 meters Interference Contour: 108.3 dBu Artificial Rcv Antenna Height: 2 meters Distance (Free Space) Equation: $= (10^{((106.92 - [\text{desired dBu}] + [\text{ERP in dBk}]) / 20)) * 1000}$ Field Strength (dBu) Equation: $" = 106.92 - (20 * (\text{LOG10}[\text{DistMeters}] / 1000)) + [\text{ERP in dBk}]$								
Fill in "yellow" cells								
Depression				Distance				
Angle	Antenna			from Ant.	Distance	Field Strength	Distance	Field Strength
Below	Relative	ERP	ERP	to Interf	from Ant. to	in dBu @	from Ant.	in dBu @
Horizon	Field	in kW	in dBk	Contour	Artificial Plane	Artificial Plane	to Ground Level	Ground Level
0°	1.000	0.250	-6.02	426.55 m	infinite	---	infinite	---
-5°	0.980	0.240	-6.20	418.02 m	3728.96 m	89.29 dBu	3751.90 m	89.24 dBu
-10°	0.950	0.226	-6.47	405.22 m	1871.60 m	95.01 dBu	1883.12 m	94.96 dBu
-15°	0.895	0.200	-6.98	381.76 m	1255.70 m	97.96 dBu	1263.43 m	97.90 dBu
-20°	0.820	0.168	-7.74	349.77 m	950.24 m	99.62 dBu	956.08 m	99.57 dBu
-25°	0.735	0.135	-8.69	313.51 m	769.02 m	100.51 dBu	773.75 m	100.45 dBu
-30°	0.645	0.104	-9.83	275.12 m	650.00 m	100.83 dBu	654.00 m	100.78 dBu
-35°	0.562	0.079	-11.03	239.72 m	566.62 m	100.83 dBu	570.11 m	100.77 dBu
-40°	0.470	0.055	-12.58	200.48 m	505.61 m	100.27 dBu	508.72 m	100.21 dBu
-45°	0.360	0.032	-14.89	153.56 m	459.62 m	98.78 dBu	462.45 m	98.72 dBu
-50°	0.250	0.016	-18.06	106.64 m	424.26 m	96.31 dBu	426.87 m	96.25 dBu
-55°	0.155	0.006	-22.21	66.12 m	396.75 m	92.74 dBu	399.19 m	92.68 dBu
-60°	0.085	0.002	-27.43	36.26 m	375.28 m	88.00 dBu	377.59 m	87.95 dBu
-65°	0.045	0.001	-32.96	19.19 m	358.60 m	82.87 dBu	360.80 m	82.82 dBu
-70°	0.020	0.000	-40.00	8.53 m	345.86 m	76.14 dBu	347.99 m	76.09 dBu
-75°	0.010	0.000	-46.02	4.27 m	336.46 m	70.36 dBu	338.54 m	70.31 dBu
-80°	0.010	0.000	-46.02	4.27 m	330.01 m	70.53 dBu	332.04 m	70.48 dBu
-85°	0.010	0.000	-46.02	4.27 m	326.24 m	70.63 dBu	328.25 m	70.58 dBu
-90°	0.010	0.000	-46.02	4.27 m	325.00 m	70.66 dBu	327.00 m	70.61 dBu

Figure 4. Proposed Location Aerial Image



Figure 5 - Map of F(50,50) 60 dBu Contours



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