

Comprehensive Engineering Exhibit

Minor Change of W262CC

Facility ID 148289

This application requests for W262CC a change in location, elevation, and antenna only. No change in channel is requested. The transmitter site is moving approximately 1 km northwest of the current licensed site.

Antenna Location

The proposed operation is to be in “triplex” with stations W243EG and W287CO into the existing Nicom BKG77 antenna which is supported on a tower identified by registration number 1030925 at 144 meters above ground with a directional pattern as depicted in **Figure 0**. Below as **Figure 1** is an overlap and spacing study, that considers the directional antenna pattern, from which it can be determined that this proposal is within the licensed and proposed contour of **second** adjacent channel station WXTY as well as co-located **second** adjacent station WFLA-FM.

73.1204 Compliance

We will demonstrate that a lack of population and/or other factors allow this proposal to be compliant with 74.1204. The process commonly called “Living Way”, allows for the use of D/U Analysis, also known as “signal strength ratio methodology” to be utilized to demonstrate compliance. In this instant case the facility to be protected is on a second or third adjacent channel and is to be afforded protection from signals 40 dB stronger than the protected facility presents near the proposed translator antenna location.

Concerning WXTY Licensed Facility; In **Figure 2** a map showing the predicted 85.0 dBu signal contour of the protected WXTY facility at the proposed translator antenna location is given. This proposal can only cause predicted interference to the protected facility by having a signal exceeding 125.0 dBu (85. + 40) in a habitable/populated area. Utilizing the line of sight equation shown in **Figure 3** it has been determined that a 125.0 dBu signal developed by 99 watts, as proposed, emitted by the proposed antenna will not reach a habitable area. With examination of the image in **Figure 4** it can be determined that no habitable space extends into the confines of this contour.

Concerning WXTY Application; While only authorized facilities require protection, out of an abundance of caution, we have provided in the map of **Figure 2** the predicted 101.5 dBu signal contour of the applied for WXTY facility at the proposed translator antenna location is given. As this signal is due the same 40 dB protection, and is of higher value than that of WXTY licensed facility, the demonstrated protection of the weaker WXTY licensed facility provides for the protection of the applied for facility.

Concerning WFLA-FM; In **Figure 1** it can be seen that this proposal is co-located with full power station WFLA-FM. The proposed signal is several orders of magnitude lower than that of WFLA-FM and cannot exceed a value of 40 dB greater than the protected signal in habitable space.

Fill-In and Minor Change Status This proposal is to serve as a fill-in translator for station WGMY, Facility ID 61250 Thomasville, GA. The map of **Figure 5** demonstrates that the proposed 60 dBu contour is contained within that of the 5 mV/m of that facility. Also demonstrated in **Figure 2** is the required proposed service contour overlap.

Primary Station The proposed primary station signal to be rebroadcast by W262CC as requested to modified in this application is an HD channel stream of WGMY(FM), Thomasville, Georgia, FCC Facility ID No. 61250. The translator licensee has the written consent of the licensee of WGMY for this HD channel rebroadcast. Note that this HD channel stream will be a distinct HD channel -- with distinct programming -- from the WGMY HD channel rebroadcast on FM Translator W287CO, Tallahassee, Florida, FCC Facility ID No. 144674.

RF Fields Statement

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

For this analysis the combined power of 418 watts of the 3 translators has been considered. This proposal and W243EG operate with 99 watts each and W287CO with 220 watts ERP. The antenna system is a Nicom BKG77, a one (1) element antenna, mounted 144 meters above ground. FM Model RF Fields program has been set to calculate values for an "Opposed V Dipole" elements operated with an effective radiated power of 0.418 Kilowatts in the Horizontal and Vertical plane. At 2 meters above the surface, at 38 meters from the base of the tower, this proposal will contribute worst case, 0.83 microwatts per square centimeter, or 0.1 percent of the allowable ANSI limit for controlled exposure, and 0.5 percent of the allowable limit for uncontrolled exposure. This figure is less than 5.0% of the applicable FCC exposure limit at all locations extending out from the base of the tower. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

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, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

Figure 1. Overlap and Spacing Study

W262CC triplex with W243EG and W287CO
Ihm Licenses, LLC

REFERENCE CH# 262D - 100.3 MHz, Pwr= 0.099 kw DA, HAAT= 173.6 M, COR= 210 M DISPLAY DATES
30 29 33.10 N. Average Protected F(50-50)= 13.56 km DATA 03-02-22
84 17 12.70 W. Standard Directional SEARCH 03-02-22

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PMR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap)	*OUT* (in km)
262CO	W0BB	LIC_CN GA		25.9	116.10	31 25 51.70	100.000	173.1	73.2	-67.1*	9.5
	Tifton			206.2	BMLH20060308ACZ	83 45 09.60	304	412	Ihm Licenses, LLC		
262D	W262CC	LIC_CN FL		126.1	0.86	30 29 16.70	0.027	21.9	6.6	-33.9*	-48.3*
	Tallahassee			306.1	BLFT20160815AAA	84 16 46.60		112	Piedmont Communications, I		
264C3	WFLA-FM	LIC_CN FL		0.0	0.00	30 29 32.70	11.500	3.8	38.5	-14.9*	-39.0*
	Midway			347.8	BMLH20020222AAQ	84 17 12.60	149	184	Ihm Licenses, LLC		
260A	WXTY	CP_ZCN FL		126.0	0.84	30 29 17.10	1.900	1.6	22.8	-13.7*	-22.6*
	Lafayette			306.0	0000153427	84 16 47.10		180	Adams Radio Of Tallahassee		
260A	WXTY	LIC_NCN FL		87.8	5.14	30 29 39.40	3.570	2.3	24.6	-7.7*	-19.8*
	Lafayette			267.8	BLH20180202AAM	84 13 59.60	106	141	Adams Radio Of Tallahassee		
261D	W261DU	APP_CN FL		290.8	56.12	30 40 14.60	0.250	10.1	7.1	32.5	28.8
	Chattahoochee			110.5	0000166400	84 50 07.70		103	Mount Vernon Broadcasting		
261D	W261DU	CP_CN FL		290.8	56.12	30 40 14.60	0.250	10.1	7.1	32.5	28.8
	Chattahoochee			110.5	BNPFT20171208ACB	84 50 07.70		103	Mount Vernon Broadcasting		
263C3	W0YS	LIC_CN FL		214.6	102.46	29 43 57.80	11.500	57.7	38.5	30.9	43.0
	Apalachicola			34.3	BLH20030218AAG	84 53 23.70	145	146	East Bay Broadcasting, Inc		
259C1	WOOF-FM	LIC_CN AL		311.8	127.40	31 15 07.60	100.000	10.2	72.9	103.9	53.9
	Dothan			131.3	BLH19850506K5	85 17 11.70	299	380	Woof, Inc.		
261C3	WWLY	APP_CN FL		256.2	131.50	30 12 13.15	18.000	57.9	37.9	60.0	73.1
	Panama City Beach			75.5	0000094105	85 36 57.54	120	124	Magic Broadcasting II, LLC		
263C3	WJRL-FM	LIC_NCN AL		306.2	132.63	31 11 33.60	10.000	55.1	36.6	64.1	75.9
	Stocomb			125.6	BLH20161114AAG	85 24 42.80	132	212	Alabama Media, LLC		
263C3	AL8977	USE ___ AL		299.1	142.50	31 06 36.64	25.000	60.6	39.5	68.3	82.7
	Stocomb			118.5	RM10871	85 35 39.76	100	174	From CDBS		
265A	WJAQ	CP_NCN FL		288.6	97.13	30 46 04.60	6.000	2.7	27.7	81.0	68.7
	Marianna			108.1	BPH20190415AAL	85 15 01.70	96	131	Mfr, Inc.		
265A	WJAQ	LIC_HN FL		289.5	98.10	30 47 01.60	5.900	2.7	28.0	81.9	69.4
	Marianna			109.0	BMLH19941123KG	85 15 17.70	101	134	Mfr, Inc.		
261A	AL3358	USE ___ FL		104.3	125.26	30 12 26.81	6.000	44.3	28.7	69.5	80.0
	Live Oak			285.0	RM11377	83 01 25.47	100	132	From CDBS		
261A	WILA	LIC_ZCN FL		98.3	130.31	30 18 55.80	6.000	40.9	26.7	78.2	87.5
	Live Oak			279.0	BLED20150710ADA	82 56 36.50	100	133	Learning Avenue, Inc.		
261C3	WWLY	LIC_ZCN FL		256.7	147.62	30 10 44.70	12.000	54.9	36.1	79.1	91.0
	Panama City Beach			76.0	BLH20031030ABY	85 46 54.80	123	124	Magic Broadcasting II, LLC		
263C2	WHHZ	LIC_NCN FL		125.0	169.66	29 36 32.00	44.000	75.9	50.7	80.9	99.8
	Newberry			305.7	BMLH20180306AAH	82 50 58.10	143	155	Marc Radio Gainesville, LL		
261D	W261AT	LIC_CN AL		311.8	127.38	31 15 06.60	0.250	31.3	21.1	82.8	86.4
	Dothan			131.2	BLFT20100127AAT	85 17 11.80	256	335	Woof, Inc.		
265D	W265CC	LIC_CN GA		12.8	120.52	31 32 57.60	0.010	0.2	9.1	110.0	111.0
	Albany			192.9	BLFT20100604AFV	84 00 18.70	240	313	Cathy Gilmore		

Terrain database is USGS 03 SEC , R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference zone= East Zone, Co to 3rd adjacer
All separation margins (if shown) include rounding.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"="affixed to 'IN' or 'OUT' values = site inside restricted contour.

Figure 2. Contour Map

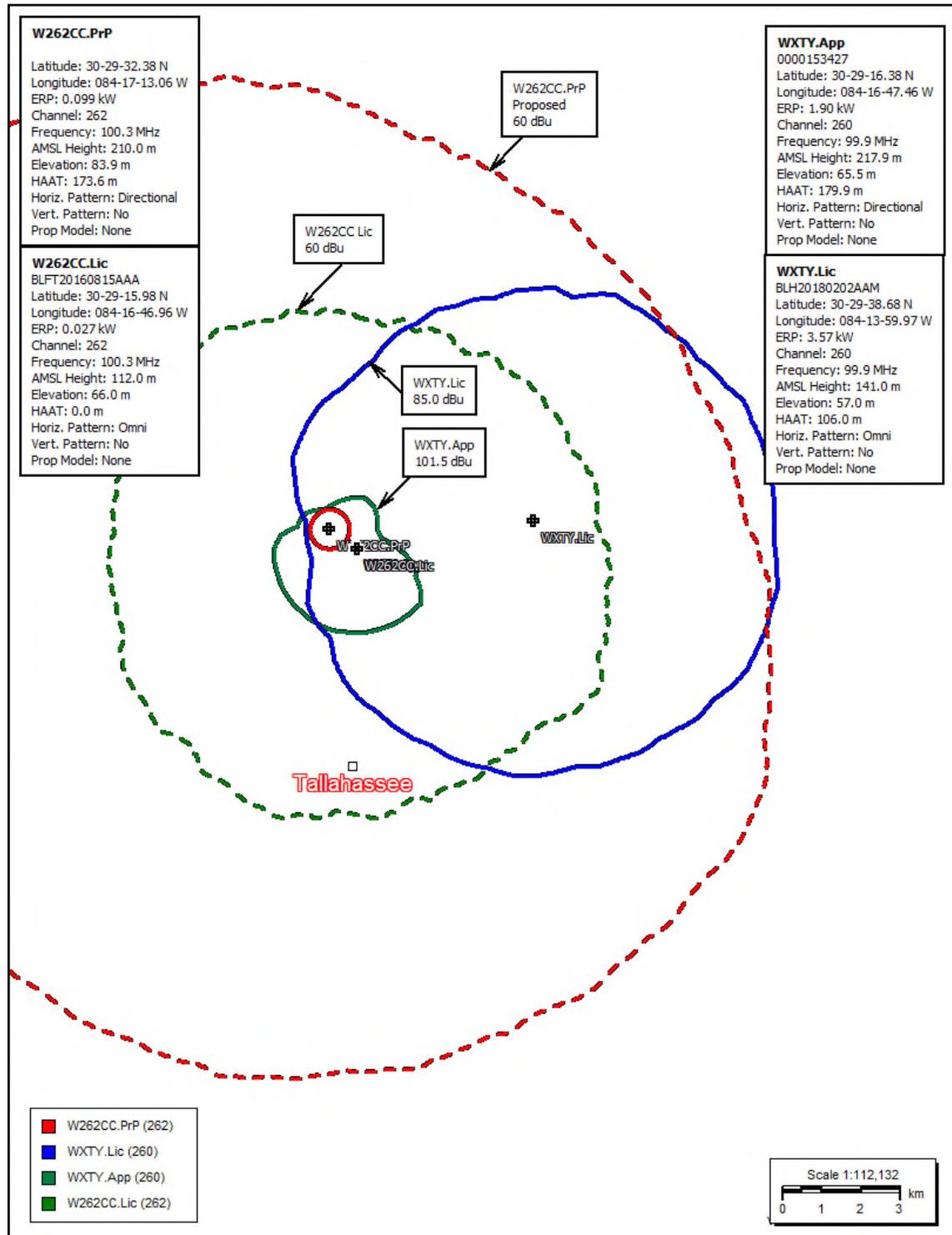


Figure 3. Distance to Interference Signal Level

<p>Proposed Antenna: Isotropic</p> <p>Proposed Power: 0.099 kW</p> <p>Antenna Height AGL: 144 meters</p> <p>Interference Contour: 125 dBu</p> <p>Artificial Rcv Antenna Height: 2 meters</p> <p>Distance (Free Space) Equation: $= (10^{((106.92 - [\text{desired dBu}] + [\text{ERP in dBk}]) / 20)}) * 1000$</p> <p>Field Strength (dBu) Equation: $= 106.92 - (20 * (\text{LOG}_{10}[\text{DistMeters} / 1000])) + [\text{ERP in dBk}]$</p>								
<p>Fill in "yellow" cells</p>								
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	0.099	-10.04	39.25 m	infinite	---	infinite	---
-5°	1.000	0.099	-10.04	39.25 m	1629.27 m	92.64 dBu	1652.21 m	92.52 dBu
-10°	1.000	0.099	-10.04	39.25 m	817.75 m	98.62 dBu	829.26 m	98.50 dBu
-15°	1.000	0.099	-10.04	39.25 m	548.65 m	102.09 dBu	556.37 m	101.97 dBu
-20°	1.000	0.099	-10.04	39.25 m	415.18 m	104.51 dBu	421.03 m	104.39 dBu
-25°	1.000	0.099	-10.04	39.25 m	336.00 m	106.35 dBu	340.73 m	106.23 dBu
-30°	1.000	0.099	-10.04	39.25 m	284.00 m	107.81 dBu	288.00 m	107.69 dBu
-35°	1.000	0.099	-10.04	39.25 m	247.57 m	109.00 dBu	251.06 m	108.88 dBu
-40°	1.000	0.099	-10.04	39.25 m	220.91 m	109.99 dBu	224.02 m	109.87 dBu
-45°	1.000	0.099	-10.04	39.25 m	200.82 m	110.82 dBu	203.65 m	110.70 dBu
-50°	1.000	0.099	-10.04	39.25 m	185.37 m	111.52 dBu	187.98 m	111.39 dBu
-55°	1.000	0.099	-10.04	39.25 m	173.35 m	112.10 dBu	175.79 m	111.98 dBu
-60°	1.000	0.099	-10.04	39.25 m	163.97 m	112.58 dBu	166.28 m	112.46 dBu
-65°	1.000	0.099	-10.04	39.25 m	156.68 m	112.98 dBu	158.89 m	112.85 dBu
-70°	1.000	0.099	-10.04	39.25 m	151.11 m	113.29 dBu	153.24 m	113.17 dBu
-75°	1.000	0.099	-10.04	39.25 m	147.01 m	113.53 dBu	149.08 m	113.41 dBu
-80°	1.000	0.099	-10.04	39.25 m	144.19 m	113.70 dBu	146.22 m	113.58 dBu
-85°	1.000	0.099	-10.04	39.25 m	142.54 m	113.80 dBu	144.55 m	113.68 dBu
-90°	1.000	0.099	-10.04	39.25 m	142.00 m	113.83 dBu	144.00 m	113.71 dBu

Figure 4. Image of Support Structure



Figure 5. Fill-in Contour Map

