



September 3, 2021

W277DZ (W224DK) Durham, NC - Facility ID: 146901
Fill-In Translator for WPTF(AM) Raleigh, NC - Facility ID: 21630
Amendment of Application 0000157554

This amendment to Application 0000157554 (an application for minor modification of CP BLANK-0000100657), is to change the antenna pattern, antenna height, and power. This amendment also includes an exhibit to show contour overlap to the license for W224DK, BLFT-20170104AAX. In this amendment 360 radial calculations and the National Elevation Dataset (NED) 3 second terrain database is used for all contour calculations. The authorized site is an existing multiple use communications tower.

47 C.F.R. Sections 74.1204, 74.1205, 74.1232, 74.1234, 74.1235

The channel study on the last sheet shows the contour overlap values for the proposed translator. The only potential contour overlap is to second adjacent WKIX-FM 275A Raleigh, NC. WKIX-FM places a signal strength of 65.5 dBu at the proposed translator tower site. A translator interfering signal level 40 dBu greater will be 105.5 dBu. The proposed translator with the proposed antenna using the power and height proposed will generate an interfering signal that will at no point be less than 35 feet from the ground, as shown on the attached table. There are no tall structures close to the supporting structure to be used. Therefore no actual interference will occur to WKIX-FM in accordance with Section 74.1204 of the rules. There are no other contour overlaps shown on the table. Contour to contour maps are included for five other facilities with less than 16 kilometers separation from the proposed translator interfering contour.



W277DZ Durham, NC – Minor Modification of CP Application – Sheet 2

W277DZ will rebroadcast AM station WPTF Raleigh, NC. A map is included showing the FM fill-in translators used by WPTF, including the proposed W277DZ.

A map is included to show compliance with 74.1232.

47 C.F.R. Section 1.1306

A Commission grant of Authorization for this location would not be an action which will have a significant environmental effect. The FCC FM Model software predicts the proposed facility will create a maximum power density near the ground of $0.034 \mu\text{W}/\text{cm}^2$ 231 meters out from the tower. This is far less than 1% of the maximum power density for uncontrolled public access areas in accordance with OET Bulletin 65. The permittee/licensee in coordination with other users of the site will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.

Carl E. Gluck

Carl E. Gluck, CPBE



Delmarva Educational Association

REFERENCE CH# 277D - 103.3 MHz, Pwr= 0.155 kW DA, HAAT= 121.1 M, COR= 226.8 M

35 58 39.6 N.
78 48 57.1 W.

Average Protected F(50-50)= 12.5 km
Standard Directional

DISPLAY DATES
DATA 09-02-21
SEARCH 09-03-21

CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
277C1 Danville	WAKG	LIC	CN VA	329.2	98.90	36 44 28.40 79 23 04.00	100.000 199	162.4 410	64.4 Piedmont Broadcasting Corp	-73.6*	0.9
277D Durham	W277DZ/W2	CP	DCN NC	0.0 0.0	0.00 0000100657	35 58 39.60 78 48 57.10	0.140	39.9 227	11.8 Delmarva Educational Assoc	-42.6*	-21.3*
277D Durham	W277DZ/W2	APP	DVN NC	0.0 0.0	0.00 0000157554	35 58 39.60 78 48 57.10	0.120	5.6 227	1.5 Delmarva Educational Assoc	-8.4*	-11.1*
275A Raleigh	WKIX-FM	LIC	NCN NC	166.4 346.4	20.96 BLH19980702KF	35 47 38.50 78 45 40.00	1.700 189	2.3 298	27.2 Fm 102.9 LLC	12.4	-6.3*
277L1 Cary	WSHP-LP	LIC	CN NC	174.3 354.3	21.38 BLL20171128ABD	35 47 09.30 78 47 32.60	0.037 49	165	Diocese Of Raleigh	-4.0	3.0
278L1 Chapel Hill	WCOM-LP	LIC	CN NC	244.0 63.8	25.40 BLL20040629ACS	35 52 38.50 79 04 08.00	0.100 28	149	Public Gallery Of Carrboro	2.5	1.0
278L1 Wake Forest	WFNE-LP	LIC	CN NC	90.8 271.0	27.43 BLL20151016ABG	35 58 26.20 78 30 42.10	0.061 39	146	Epic Radio, Inc.	5.5	1.9
280C3 Fuquay-Varina	WNNL	LIC	ZCN NC	172.6 352.6	42.64 BLH19921001KA	35 35 47.50 78 45 17.00	7.900 176	3.5 272	34.6 Radio One Licenses, LLC	33.1	7.6
277C1 Newport	WMGV	LIC	CN NC	117.6 298.7	199.40 BLH19960508KC	35 07 55.60 76 52 30.80	100.000 299	171.1 300	71.7 Cmg Coastal Carolina, LLC	16.6	91.1
278C2 Dunn	WRCQ	LIC	CN NC	171.6 351.6	103.75 BLH19900207KB	35 03 09.50 78 38 53.00	48.000 153	76.9 187	51.2 Cumulus Licensing LLC	20.4	47.8
276A Robbins	WLHC	LIC	CN NC	223.8 43.4	82.14 BLH20030609AAG	35 26 33.50 79 26 36.10	6.000 100	48.0 210	31.4 Woolstone Corporation	23.8	38.3
276A Sharpsburg	WLQC	LIC	CN NC	89.7 270.2	78.12 BLH20101022ACF	35 58 40.60 77 56 58.90	4.400 117	41.2 172	26.8 Pinestone Media Corporatio	24.1	32.1

Terrain database is NED 03 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference Zone= East Zone, Co-3rd adjct.
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.
« = Station meets FCC minimum distance spacing for its class.