

# Long Form Engineering Exhibit

## Auction 83; BNPFT – 20130317AHB

### Facility ID No. 140790

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This exhibit is part of the Long-Form application of Facility ID No. 140790, BNPFT – 20130317AHB. It specifies a change in location, power, antenna elevation, and antenna model only.

#### **Antenna Location**

The proposed facility antenna is to be mounted on an existing tower identified by registration number 1004484 at 57 meters above ground, having a horizontal plane azimuth gain pattern as given in **Figure 0** below. Below as **Figure 1** is an overlap and spacing study from which it can be determined that this proposal has no prohibited contour overlap with other authorized facilities or prior filed applications.

#### **Fill-in and Minor Change Status**

This proposal is to serve as a fill-in translator for station WHYN-FM, Facility ID 55758, Springfield, MA. The map of **Figure 2** demonstrates that the proposed 60 dBu contour is contained within that of the WHYN-FM facility. It can also be seen that the proposed and permitted facilities have service contour overlap.

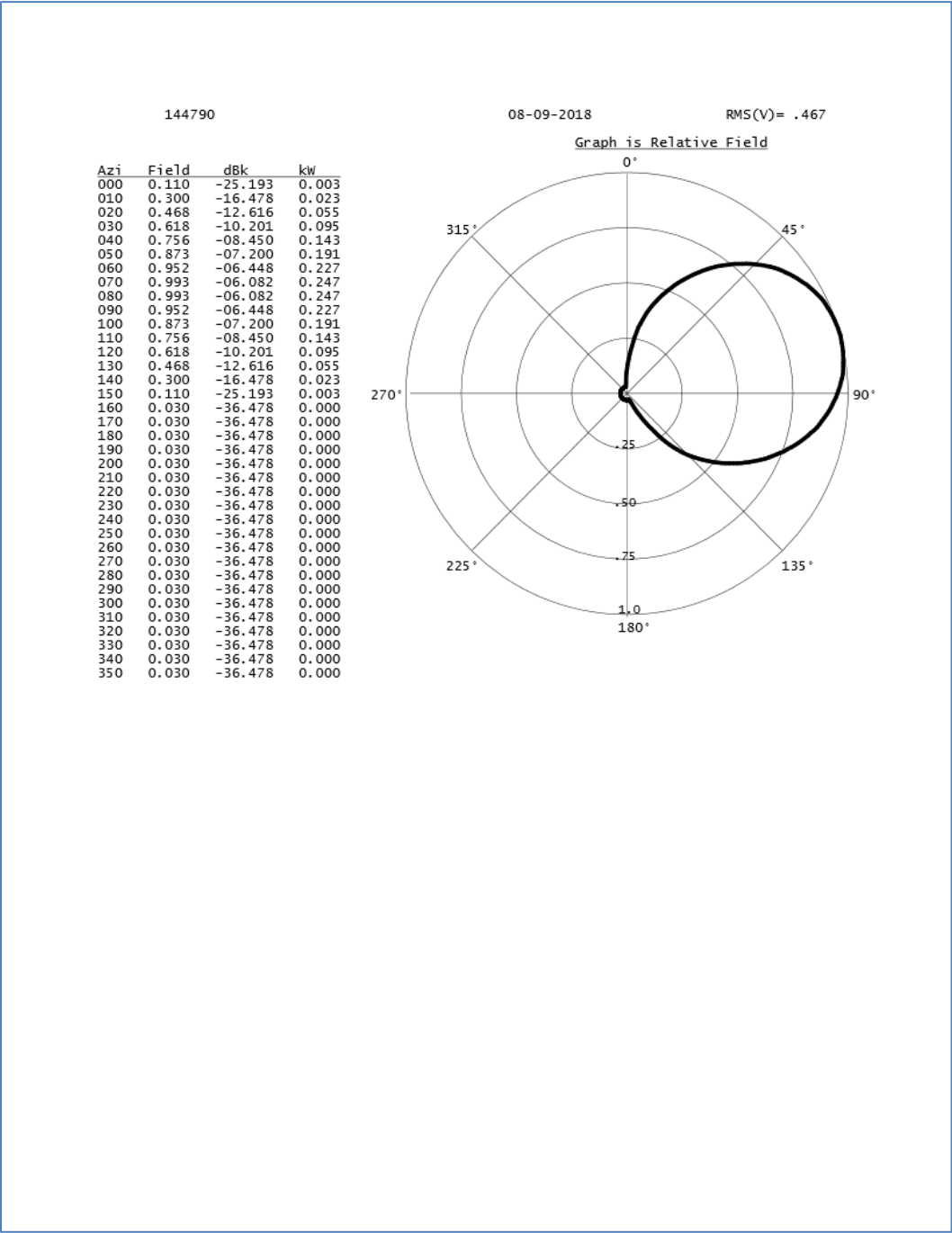
#### **RF Fields Statement**

The proposed facilities were evaluated in terms of potential radio frequency energy 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 is a **Scala/Kathrein, CL-FM/VRM**, mounted 57 meters above ground. As this element type is not modeled in any current RF Fields calculation computer program, for purposes of this analysis the FM Model application at FCC.Gov has been set to calculate values for an array of "worst case" type of antenna element "Ring Stub", operated with an effective radiated power of 0.25 Kilowatts in the Vertical plane. At 2 meters above the surface, at 12.6 meters from the base of the tower, this proposal will contribute worst case, 2.6 microwatts per square centimeter, or 0.26 percent of the allowable ANSI limit for controlled exposure, and 1.3 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. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5.0% of the applicable exposure limit. 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 0. Antenna Pattern



**Figure 1. Overlap and Spacing Study**

Long Form 144790 at Nextar Tower CLFM AT 75°T V-POL											
REFERENCE 42 05 04.7 N. 72 42 13.7 W.		CH# 247D - 97.3 MHz, Pwr= 0.25 kW DA, HAAT= 167.9 M, COR= 252.1 M Average Protected F(50-50)= 17.0 km Standard Directional						DISPLAY DATES DATA 08-09-18 SEARCH 08-09-18			
CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT* (in km)
247D	637213 Westfield	APP	MA	78.0 258.1	9.57 BNPFT20030317AHB	42 06 09.0 72 35 25.0	0.100 -13	18.6 51	5.6 Capstar Tx Limited Partner	-27.7*<	-54.6*<
247A	WZBG Litchfield	LIC	CT	230.6 50.3	49.30 BMLH20150701ACV	41 48 09.0 73 09 49.8	3.000 100	81.7 411	27.6 Local Girls And Boys Broad	-34.8*<	13.2
247A	WJDF Orange	LIC	MA	24.5 204.7	63.13 BLH19950814KC	42 36 03.0 72 23 01.0	5.800 25	67.5 255	15.6 Deane Brothers Broadcastin	-16.7*<	6.5
246D	W246CC Bolton	LIC	CT	145.2 325.4	38.10 BLFT20110125ABH	41 48 10.0 72 26 30.0	0.100 187	24.8 328	16.5 Red Wolf Broadcasting Corp	5.2	10.0
250A	WUCS Windsor Locks	LIC	CT	176.4 356.4	35.42 BLH20120123AEO	41 46 00.0 72 40 38.0	3.400 135	2.7 183	29.8 Capstar Tx, Llc, As Debtor	30.1	5.6
247B	WJFD-FM New Bedford	LIC	MA	107.5 288.8	159.67 BLH20120913AAL	41 38 14.8 70 52 16.7	50.000 152	136.0 161	63.3 Wjfd-fm, Inc.	7.1	26.5
249D	W249DP Springfield	CP	MA	77.7 257.9	29.97 BPFT20180713AAD	42 08 30.0 72 20 55.0	0.250 356	1.0 356	20.3 Kurt Jackson	10.2	8.6
249D	W249DP Springfield	LIC	MA	77.7 257.9	29.97 BLFT20171205ACE	42 08 30.0 72 20 55.0	0.200 356	0.9 356	19.4 Kurt Jackson	10.3	9.5
248D	W248CR Windsor	LIC	CT	175.4 355.4	25.80 BLFT20171026AAF	41 51 12.0 72 40 43.0	0.250 78	10.9 78	7.6 Gois Broadcasting Of Conne	12.3	14.1
245D	W245BK Amherst	LIC	MA	4.4 184.4	32.22 BLFT20141003AAT	42 22 25.0 72 40 26.0	0.250 249	1.1 249	17.5 Saga Communications Of Ne	24.0	14.5
248L1	WNRC-LP Dudley	LIC	MA	93.7 274.3	63.93 BLL20050223ACH	42 02 40.0 71 55 52.0	0.031 53	223	39.8 Nichols College	32.6	
246D	W246DN Putnam	CP	CT	106.6 287.1	69.78 BNPFT20171201AIN	41 54 09.0 71 53 44.0	0.250 136	10.1 136	7.1 Osprey Broadcasting Compan	43.0	37.7
249D	W249CW Torrington	LIC	CT	234.6 54.3	46.64 BLFT20170501AAL	41 50 26.0 73 09 46.0	0.010 399	0.2 399	6.4 Connecticut Public Broadca	44.1	40.3
246D	W246DM Pittsfield	CP	MA	313.3 132.9	63.59 BNPFT20171212ABO	42 28 31.0 73 16 07.0	0.250 437	10.1 437	7.1 Wbrk, Inc.	51.0	52.7
247D	W247DE Old Saybrook	CP	CT	162.6 342.9	88.15 BNPFT20180418AAG	41 19 38.6 72 23 19.7	0.250 110	33.8 110	10.1 Crossroads Communications	51.7	67.8
249D	W249DY Waterbury	CP	CT	191.5 11.4	59.15 BNPFT20180426AAO	41 33 47.0 72 50 42.0	0.250 351	0.1 351	5.5 Watr Inc	56.7	53.6
248A	WHAZ-FM Hoosick Falls	LIC	NY	333.6 153.2	96.87 BLH20070126ADA	42 51 49.0 73 13 59.0	0.420 361	34.6 730	23.1 Capital Media Corporation	59.9	70.1
246L1	WWBW-LP Higganum	LIC	CT	142.2 322.6	79.97 BLL20131216CJX	41 30 52.0 72 06 56.0	0.100 68	68	62.4 Connecticut River Educatio	61.0	
247A	WYYY Schoharie	LIC	NY	295.8 114.8	142.05 BLH20070604AAT	42 37 51.0 74 16 01.0	0.800 273	77.9 659	27.1 Capital Media Corporation	61.9	107.2
249A	WCTY Norwich	LIC	CT	143.6 324.0	84.12 BLH19920206KD	41 28 28.0 72 06 14.0	1.900 125	2.0 194	21.8 Hall Communications, Inc.	73.2	62.1
249A	WSNI Keene	LIC	NH	18.2 198.4	97.32 BLH20090901AFG	42 54 57.0 72 19 53.0	2.150 169	2.7 432	34.7 Saga Communications Of New	84.5	62.2
244A	WTSa-FM Brattleboro	LIC	VT	4.7 184.8	89.75 BLH19910821KF	42 53 21.0 72 36 47.0	5.200 41	2.3 330	23.8 Four Seasons Media, Inc.	80.2	65.8
248B	WALK-FM Patchogue	LIC	NY	191.4 11.2	140.56 BLH19910524KA	40 50 41.0 73 02 01.0	39.000 169	72.3 192	61.1 Connoisseur Media Licenses	65.9	74.0
245D	W245DK New Haven	CP	CT	195.7 15.5	76.40 BNPFT20180507ABG	41 25 21.9 72 57 06.5	0.215 364	0.2 364	10.4 CC Licenses, Ltc	73.8	65.9
248D	W248CZ Kent	CP	CT	239.4 58.8	80.20 BNPFT20171206ACK	41 42 50.0 73 32 07.0	0.250 436	12.0 436	8.5 Tri-state Public Communica	65.9	68.2

**Figure 2. Contour Map**

