

**Section 74.1204**  
**Interference Analysis**  
**W244AS, Oakhurst, NJ**

Pursuant to 47 C.F.R. §74.1204(c), applications for a change in an existing FM translator station will be accepted even though overlap of field strength contours would occur with another station if: (1) the total area of existing overlap is not increased; (2) the area of overlap with any other station is not increased; (3) the area of overlap does not move significantly closer to the station receiving overlap; and (4) no area of overlap would be created with any station with which the overlap does not now exist.

W244AS currently operates with a maximum Effective Radiated Power of 8 watts from an ERI, 1-bay, directional antenna. The present W244AS transmitter site is located within the protected contour of second-adjacent channel, full service stations WQHT(FM), New York, NY (Channel 246B) and WQXR-FM, New York, NY (Channel 242B). Consequently, the present W244AS interfering contour is located with the WQHT and the WQXR-FM protected contour resulting in contour overlap as defined in Section 74.1204 of the FCC Rules. The present W244AS facility causes no overlap to any other authorized or proposed facility.

Attached is a Table (entitled ‘*Section 74.1204 Contour Overlap Study*’) which shows that the proposed W244AS facility [23 watts (DA-MAX)] also causes 74.1204 contour overlap to only WQHT and WQXR-FM. At the W244AS transmitter site, both WQHT and WQXR-FM produce an F(50,50) signal strength of 58 dBu. Therefore, in the vicinity of the second-adjacent channel translator station, the relevant W244AS interfering contour is the 98 dBu F(50,10) contour.

Considering the presently licensed W244AS facility [ERI, 1-bay directional antenna, 8 watts (DA-MAX)], the predicted interference presently caused by W244AS to both WQHT and WQXR-FM is within a “donut” shaped area – and occurs beyond 12 meters from the W244AS tower to 187 meters from the W244S tower (See Exhibit 1). As shown in Exhibit 2, the proposed increase in power and change in antenna type will eliminate the present area of interference.<sup>1</sup> As demonstrated in Exhibit 2, the predicted interference caused by the proposed W244AS facility to WQHT and WQXR-FM will not reach ground level. Consequently the W244AS proposal satisfies the provisions of Section 74.1204(c) of the FCC Rules because the present area of interference is eliminated.

Further, the proposed W244AS facility also satisfies Section 74.1204(d) of the FCC Rules because it has been “demonstrated that no actual interference will occur due to lack of population or such other factors as may be applicable”. Clearly, because the predicted area of interference does not reach ground level, there is no population within the proposed interference area.

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<sup>1</sup> The Audio Division routinely permits use of an antenna’s vertical plane radiation characteristics to demonstrate lack of interference. See W288BS, Reston, VA (BNPFT-20030828BBZ, granted 11/24/2004); W237CS, Bradford, PA (BNPFT-20030826AIW, granted 11/01/2004); and W292DJ, Lake Bluff, IL (BNPFT-20030826AHL, granted 10/27/2004).

Section 74.1204 Contour Overlap Study  
W244AS, Oakhurst, NJ  
23 Watts (DA-MAX), 122 m RCMSL  
November, 2006

w244AS, Oakhurst, NJ Proposed 23 watts ERP										
CH# 244D - 96.7 MHz, Pwr= 0.023 kw, HAAT=0.0M, COR= 122 M										
Average Protected F(50-50)= 3.9 km										
Ave. F(50-10) 40 dBu= 12.4 54 dBu= 5.5 80 dBu= 1.6 100 dBu= .3										
DISPLAY DATES										
DATA 11-07-06										
SEARCH 11-07-06										
CH	CALL	TYPE	AZI.	DIST	LAT.	Pwr(kw)	COR(M)	PRO(km)	*IN*	*OUT*
CITY		STATE	<--	FILE #	LNG.	HAAT(M)	INT(km)	LICENSEE	(Overlap	in km)
246B	WQHT	LIC	5.1	56.80	40 44 54	6.700	422	66.5	44.43	-10.35*
New York		NY	185.1	BMLH20050215AAH	73 59 10	408	4.7	Emmis License Corporation		
242B	WQXR-FM	LIC	5.1	56.80	40 44 54	6.000	429	65.8	44.61	-9.65*
New York		NY	185.1	BLH19940204KG	73 59 10	415	4.5	The New York Times Radio C		
244A	RDEL	DEL	25.8	99.90	41 02 49	6.000	133	32.1	0.42	42.16
Stamford		CT	206.2		73 31 36	133	91.9	Cox Radio, Inc.		
244A	RADD	ADD	25.8	99.90	41 02 49	6.000	133	32.1	0.42	42.16
Port Chester		NY	206.2		73 31 36	133	91.9	Cox Radio, Inc.		
244D	AP5638	APP	14.1	38.68	40 34 36	0.170	39	7.3	6.70	5.91
Brooklyn		NY	194.1	BNPFT20030317ASZ	73 56 04	39	24.4	Kingsborough Community Col		
244A	WCTZ	LIC	25.8	99.90	41 02 49	3.000	135	27.6	10.54	46.74
Stamford		CT	206.2	BLH19860131KF	73 31 36	135	81.7	Cox Radio, Inc.		
244D	AP6326	APP	336.7	42.10	40 35 12	0.038	88	7.3	10.60	10.81
Carteret		NJ	156.6	BNPFT20030312BFC	74 14 36	82	24.3	Oh P. Tschand		
244D	AP4743	APP	11.1	44.30	40 37 49	0.038	84	7.4	11.97	11.23
Brooklyn		NY	191.2	BNPFT20030317ATO	73 56 40	84	24.7	Kingsborough Community Col		
244D	AP8151	APP	4.7	45.34	40 38 45	0.170	43	7.5	12.58	12.21
Brooklyn		NY	184.7	BNPFT20030317GMB	74 00 06	41	25.1	Kingsborough Community Col		
244D	AP5930	APP	317.8	43.67	40 31 45	0.038	103	7.3	12.35	13.18
Edison		NJ	137.6	BNPFT20030312BET	74 23 34	82	24.4	Oh P. Tschand		
244D	AP8171	APP	8.9	47.84	40 39 52	0.019	104	6.9	16.96	15.16
Brooklyn		NY	189.0	BNPFT20030317GLU	73 57 28	103	23.2	Kingsborough Community Col		

Section 74.1204 Contour Overlap Study  
W244AS, Oakhurst, NJ  
(continued)

CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	COR(M) INT(km)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
244D New Brunswick	AP0995	APP C NJ	317.8 137.6	43.67 BNPFT20030317AKM	40 31 45 74 23 34	0.010 79	100 16.7	5.2 River Vale Media Foundatio	20.03	15.29
244D Franklin Township	AP5872	APP C NJ	305.0 124.7	46.19 BNPFT20030312BEK	40 28 33 74 29 34	0.010 148	178 23.7	7.0 Oh P. Tschand	15.59	16.15
244D Tremley	AP0229	APP C NJ	336.3 156.1	43.38 BNPFT20030313AVF	40 35 46 74 15 10	0.019 29	35 11.9	3.7 Bridgelight, L.L.c.	24.35	15.70
244D Brooklyn	AP1157	APP C NY	8.1 188.1	48.67 BNPFT20030317LMH	40 40 22 73 57 52	0.038 79	81 23.9	7.1 Kingsborough Community Col	17.13	15.80
244D Brooklyn	AP8194	APP C NY	3.4 183.4	51.66 BNPFT20030317GLQ	40 42 12 74 00 35	0.010 206	212 28.0	8.4 Kingsborough Community Col	16.04	17.70
244D Brooklyn	AP6380	APP C NY	7.7 187.7	48.59 BNPFT20030317BAZ	40 40 21 73 58 07	0.013 120	123 22.8	6.8 Kingsborough Community Col	18.17	16.05
244D Brooklyn	AP9099	APP C NY	7.4 187.4	49.67 BNPFT20030317ECN	40 40 57 73 58 13	0.019 107	113 23.7	7.1 Kingsborough Community Col	18.33	16.87
244D Brooklyn	AP8136	APP C NY	3.0 183.1	57.21 BNPFT20030317GMH	40 45 12 74 00 35	0.010 273	278 32.1	9.7 Kingsborough Community Col	17.49	21.94
244D Brooklyn	AP8282	APP C NY	6.7 186.7	50.35 BNPFT20030317GJN	40 41 21 73 58 35	0.080 52	62 23.6	7.0 Kingsborough Community Col	19.10	17.61
243B Philadelphia	WRDW-FM	LIC CX PA	258.0 77.2	103.94 BMLH20040623ABQ	40 02 19 75 14 14	17.000 271	330 77.9	66.1 wdas License Limited Partn	19.19	24.26
243B Philadelphia	WRDW-FM	CP CX PA	258.2 77.4	103.80 BPH20050425ABD	40 02 30 75 14 11	9.600 341	403 77.3	65.7 wdas License Limited Partn	19.68	24.56
244D Brooklyn	AP8218	APP C NY	5.4 185.5	58.69 BNPFT20030317GLK	40 45 54 73 58 47	0.010 242	255 30.2	9.1 Kingsborough Community Col	20.81	23.93
245B Atlantic City	WFG	LIC CN NJ	199.9 19.6	101.57 BLH19860312KC	39 22 42 74 26 53	50.000 112	112 72.0	59.3 Millennium Atlantic City L	22.38	28.03
244D Brooklyn	AP8235	APP C NY	11.7 191.8	57.29 BNPFT20030317GLC	40 44 38 73 54 27	0.019 105	114 23.4	7.0 Kingsborough Community Col	26.27	24.62

Section 74.1204 Contour Overlap Study  
W244AS, Oakhurst, NJ  
(continued)

CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	COR(M) INT(km)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
244D Brooklyn	AP8247	APP C NY	19.3 199.4	58.55 BNPFT20030317GKQ	40 44 10 73 48 58	0.170 44	49 26.0	7.8 Kingsborough Community Col	24.94	25.10
244D Brooklyn	AP8268	APP C NY	20.5 200.6	62.09 BNPFT20030317GKD	40 45 44 73 47 16	0.038 82	94 24.4	7.3 Kingsborough Community Col	30.03	29.15
244D West Orange	AP5323	APP C NJ	345.0 164.8	64.71 BNPFT20030317FEI	40 48 05 74 14 44	0.010 196	233 27.3	8.1 New Jersey Public Broadcas	30.02	31.86
244D Somerville	AP5583	APP C NJ	307.9 127.5	62.06 BNPFT20030317FFZ	40 34 48 74 37 30	0.120 47	77 24.6	7.3 New Jersey Public Broadcas	30.54	31.63
245D Trenton	AP5913	APP C NJ	275.3 94.9	54.71 BNPFT20030317BGB	40 16 58 74 41 11	0.010 258	289 13.2	9.4 WYRS Broadcasting	34.97	35.98
241D Bordentown	AP8855	APP C NJ	261.0 80.5	56.26 BNPFT20030310AWF	40 09 28 74 41 53	0.080 38	67 0.6	6.0 Burlington County College	48.78	49.96
247B Millville	WXKW	LIC C NJ	211.5 31.0	119.39 BLH19981104KD	39 19 15 74 46 17	50.000 148	151 5.9	64.7 Millennium Atlantic City I	106.57	53.98
244D Netcong	W244BO	CP C NJ	322.8 142.4	90.77 BNPFT20030827AGU	40 53 14 74 41 55	0.006 146	374 20.6	6.2 New Jersey Public Broadcas	63.20	61.31
241D Mount Holly	AP6155	APP C NJ	247.7 67.3	68.81 BNPFT20030312BGH	40 00 09 74 47 31	0.013 22	47 0.3	3.4 Burlington County College	61.66	65.11
244D Mahwah	AP5214	APP C NJ	353.3 173.3	94.14 BNPFT20030317EZH	41 04 51 74 10 34	0.080 35	119 18.8	5.7 New Jersey Public Broadcas	67.74	63.10
244A Port Jervis	WTSX	LIC CN NY	335.7 155.2	138.59 BLH4949	41 22 24 74 43 49	3.000 65	377 68.3	19.6 Pj Radio, L.L.C.	63.11	95.00

Terrain database is NGDC 30 SEC  
ERP and HAAT on direct-line with reference station.  
"\*"affixed to 'IN' or 'Out' values = site inside protected contour.

**W244AS Oakhurst, NJ**  
**Licensed 8 Watts ERP**

**Maximum ERP**

**0.008 kW**

Interfering contour value ----->

**98**

**dBu**

RCAGL (m)----->

**77**

**meters**

Antenna Type ----->

**1**

Antenna Type

**1**

**=**

**ERI, 1-bay, full-wave spaced**

Angle Below Horizontal (degrees)	Vertical Pattern (REL. FIELD)	W244AS ERP (kW)	W244AS ERP (dBk)	Free-Space Distance to 98 dBu interfering contour (meters)	Slant Distance (meters) *	Interference within 30 ' of ground level?	Horizontal Distance (meters) **
0	1.000	0.0080	-20.969	249.2	N/A		
5	0.998	0.0080	-20.986	248.7	779.1	No	776.1
10	0.987	0.0078	-21.083	246.0	391.0	No	385.1
15	0.970	0.0075	-21.234	241.7	262.3	No	253.4
20	0.950	0.0072	-21.415	236.7	198.5	Yes	186.6
25	0.920	0.0068	-21.693	229.3	160.7	Yes	145.6
30	0.885	0.0063	-22.030	220.5	135.8	Yes	117.6
35	0.842	0.0057	-22.463	209.8	118.4	Yes	97.0
40	0.800	0.0051	-22.907	199.4	105.6	Yes	80.9
45	0.745	0.0044	-23.526	185.7	96.0	Yes	67.9
50	0.690	0.0038	-24.192	171.9	88.6	Yes	57.0
55	0.630	0.0032	-24.982	157.0	82.9	Yes	47.5
60	0.565	0.0026	-25.928	140.8	78.4	Yes	39.2
65	0.498	0.0020	-27.025	124.1	74.9	Yes	31.7
70	0.428	0.0015	-28.340	106.7	72.3	Yes	24.7
75	0.355	0.0010	-29.965	88.5	70.3	Yes	18.2
80	0.280	0.0006	-32.026	69.8	68.9	Yes	12.0
85	0.205	0.0003	-34.734	51.1	68.2	No	5.9
90	0.130	0.0001	-38.690	32.4	67.9	No	0.0

\* Slant distance to location 30 feet (9.1 meters)  
 above ground level at angle below horizontal  
 (meters from site - along hypotenuse)

\*\* Horizontal distance from tower base

**W244AS Oakhurst, NJ**  
**Proposed 23 Watts ERP**

**Maximum ERP**  
0.023 kW

Interfering contour value ----->  
RCAGL (m)----->  
Antenna Type ----->

98 dBu  
77 meters  
5

Antenna Type      5      =      ERI, 4-bay, half-wave spaced

Angle Below Horizontal (degrees)	Vertical Pattern (REL. FIELD)	W244AS ERP (kW)	W244AS ERP (dBk)	Proposed Free-Space Distance to 98 dBu interfering contour (meters)	Slant Distance (meters) *	Proposed Interference within 30 ' of ground level?	Horizontal Distance (meters) **
0	1.000	0.0230	-16.383	422.5	N/A		
5	0.950	0.0208	-16.828	401.4	779.1	No	776.1
10	0.815	0.0153	-18.160	344.4	391.0	No	385.1
15	0.615	0.0087	-20.605	259.9	262.3	No	253.4
20	0.392	0.0035	-24.517	165.6	198.5	No	186.6
25	0.180	0.0007	-31.277	76.1	160.7	No	145.6
30	0.000	0.0000	-96.383	0.0	135.8	No	117.6
35	0.117	0.0003	-35.019	49.4	118.4	No	97.0
40	0.183	0.0008	-31.134	77.3	105.6	No	80.9
45	0.200	0.0009	-30.362	84.5	96.0	No	67.9
50	0.188	0.0008	-30.900	79.4	88.6	No	57.0
55	0.151	0.0005	-32.803	63.8	82.9	No	47.5
60	0.113	0.0003	-35.321	47.7	78.4	No	39.2
65	0.075	0.0001	-38.881	31.7	74.9	No	31.7
70	0.045	0.0000	-43.318	19.0	72.3	No	24.7
75	0.025	0.0000	-48.424	10.6	70.3	No	18.2
80	0.011	0.0000	-55.555	4.6	68.9	No	12.0
85	0.009	0.0000	-57.298	3.8	68.2	No	5.9
90	0.000	0.0000	-96.383	0.0	67.9	No	0.0

\* Slant distance from antenna center of radiation to location 30 feet (9.1 meters) above ground level at angle below horizontal.

\*\* Horizontal distance from tower base to interfering contour (relevant only if interference reaches ground level).