

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
RADIO STATION WNYE
NEW YORK, NEW YORK
CH 218B1 3.2 KW 281 M

Technical Narrative

This Technical Exhibit was prepared on behalf of noncommercial, educational FM (NCE-FM) station WNYE. Station WNYE is licensed (BLED-20090205ABP, Facility ID 3539) to operate on Channel 218B1 (91.5 MHz) at New York, NY with a non-directional (ND) antenna maximum ERP (horizontal and vertical polarization) of 2.0 kW and an antenna height above average terrain (HAAT) of 281 meters. It is proposed to increase the ND ERP from 2.0 kW to 3.2 kW. No other changes are proposed. A continued waiver of the allocation requirements of Section 73.509 of the FCC's Rules is requested with respect to WFMU on channel 216A (91.1 MHz) at East Orange, New Jersey. Support for the waiver request is provided below.

Minor Change Application

The proposed operation does not involve a change in transmitter site or channel. Therefore, the instant application is considered a minor change in facilities pursuant to Section 73.3573(a)(1).

City Coverage

As indicated on Figure 1, the proposed 60 dBu will encompass 100% of the New York city limits (obtained from the 2010 Census) which comports with Section 73.515.

The predicted 60 dBu contour was calculated in accordance with Section 73.313 of the FCC Rules. The average terrain elevations from 3 to 16 km were computed along 72 equally spaced radials using the U.S.G.S. 1-second terrain database. The overall antenna HAAT was determined according to the provisions of

Section 73.313 of the FCC Rules. The antenna radiation center HAAT and ERP in each radial direction were used in conjunction with the propagation prediction curves of Section 73.333 to determine the distances to contours.

Allocation Study

Figure 2 provides a summary of an allocation study for the proposed facility. There are no intermediate frequency (IF) related facilities in close proximity to the proposed facility. Figure 2 lists the results of a numerical analysis of the potential for contour overlap for all nearby co-channel and first-, second-, and third-adjacent-channel facilities. For the purposes of the numerical study, the maximum HAAT and ERP values were used in calculating the maximum distance to the predicted service and interfering contours.

Figure 3, is a map depicting the predicted protected and interfering contours of those stations close enough to warrant further study. This is based on the numerical analysis in Figure 2, where there is an indication of the potential for prohibited overlapping contours. As indicated, the Section 73.509 allocation requirements for the proposed facility are fully met with respect to all pertinent facilities with the exception of WFMU on channel 216A at East Orange, New Jersey. A continued waiver of Section 73.509 is requested with respect to WFMU as detailed below.

Continued Waiver of Section 73.509

Figure 4, depicts the 60 dBu protected and 100 dBu interfering contours for the licensed and proposed operations of WNYE and the licensed operation of WFMU. It is noted that the licensed WNYE 100 dBu contour is completely engulfed ('donuted') by the licensed WFMU 60 dBu contours and the licensed WFMU 100 dBu is complete engulfed by the licensed WNYE 60 dBu contour. In other words, WNYE and WFMU are currently involved in overlap caused and received based on a waiver of Section 73.509 (see below). Furthermore, based on

the proposed WNYE operation, the WNYE 100 dBu contour will continue to be completely engulfed by the licensed WFMU 60 dBu contour and the WFMU 100 dBu will also continue to be completely engulfed by the WNYE 60 dBu contour. As such, a continued waiver Section 73.509 is requested. The following is provided in support of the waiver request.

The licensed operations of both WNYE and WFMU were granted based on *Raleigh* waivers of the contour overlap requirements of Section 73.509.¹ *Raleigh* waivers allow NCE stations to receive overlap from second and third adjacent channel stations. Specifically, Figure 5 is a copy of the WNYE license which contains Special Operating Condition 2 (“per se” condition on page 2) indicating that the WNYE licensed operation was based on a *Raleigh* waiver with respect to WFMU. In addition, Figure 6 is a copy of the construction permit (CP, BMPED-19980113ID) which authorized the licensed WFMU operation and which also contains Special Operating Condition 1 (“per se” condition on page 2) indicating that the WFMU operation was based on a *Raleigh* waiver with respect to WNYE. As such, the proposed WNYE modification would continue to be considered under the *Raleigh* waiver criteria.

As noted in the *Raleigh* waiver decision, the FCC is aware of the increasing limitations within the NCE band which reflect the increased demand for service and is now inclined to grant waivers of second and third adjacent channel overlap in situations where the benefit of increased noncommercial educational service outweighs the potential for interference in very small areas. The following tabulates the land area within the 60 dBu contours for the current and proposed WNYE operations and the current WFMU operation. Also tabulated are land areas within the 60 dBu/100 dBu overlap received areas and the percentage of the land area within the 60 dBu contour that the overlap area represents.

¹ See *Educational Information Corporation, Memorandum Opinion and Order, 6 FCC Rcd 2207, 2208 (1991)* (“*Raleigh*”).

<u>Operation</u>	<u>Total Land Area (sq. km)</u>
Current WNYE 60 dBu	3,151
Current WFMU 60 dBu	1,778
Proposed WNYE 60 dBu	3,767

<u>Overlap Received</u>	<u>Total Land Area (sq. km)</u> <u>(% of 60 dBu)</u>
<u>By WFMU</u>	
Current WNYE 100 dBu/WFMU 60 dBu overlap	19 (1.1%)
Proposed WNYE 100 dBu/WFMU 60 dBu overlap	27 (1.5%)
<u>By WNYE</u>	
Current WNYE 60 dBu/WFMU 100 dBu overlap	12 (0.4%)
Proposed WNYE 60 dBu/WFMU 100 dBu overlap	12 (0.3%)

As indicated above, the overlap received by WNYE would not increase and the resulting percentage of 60 dBu overlap will decrease by 0.1%. Furthermore, the increased overlap received by WFMU would increase by only 8 square kilometers which represents a 0.4% increase within the WFMU 60 dBu contour. In addition, the current WNYE 60 dBu encompasses 12,976,347 persons within a land area 3,151 square kilometers and the proposed WNYE 60 dBu contour will encompass 13,668,115 persons within a land area of 3,767 square kilometers. Thus, the WNYE 60 dBu service area will increase by 691,768 persons within a land area of 616 square kilometers.² Therefore, the proposed WNYE operation will result in additional NCE 60 dBu service, and the increase in overlap received by WNYE and WFMU is considered to be *de minimus*. For these reasons, it is believed that the public interest will be served by a continued waiver of Section 73.509.³

² Population figures based on the 2010 Census.

³ The applicant is aware that a waiver of overlap received must be granted with the acknowledgement that future modifications proposed by WFMU will not be construed as a *per se* modification of the waiver recipient's license.

TV Channel 6 Protection

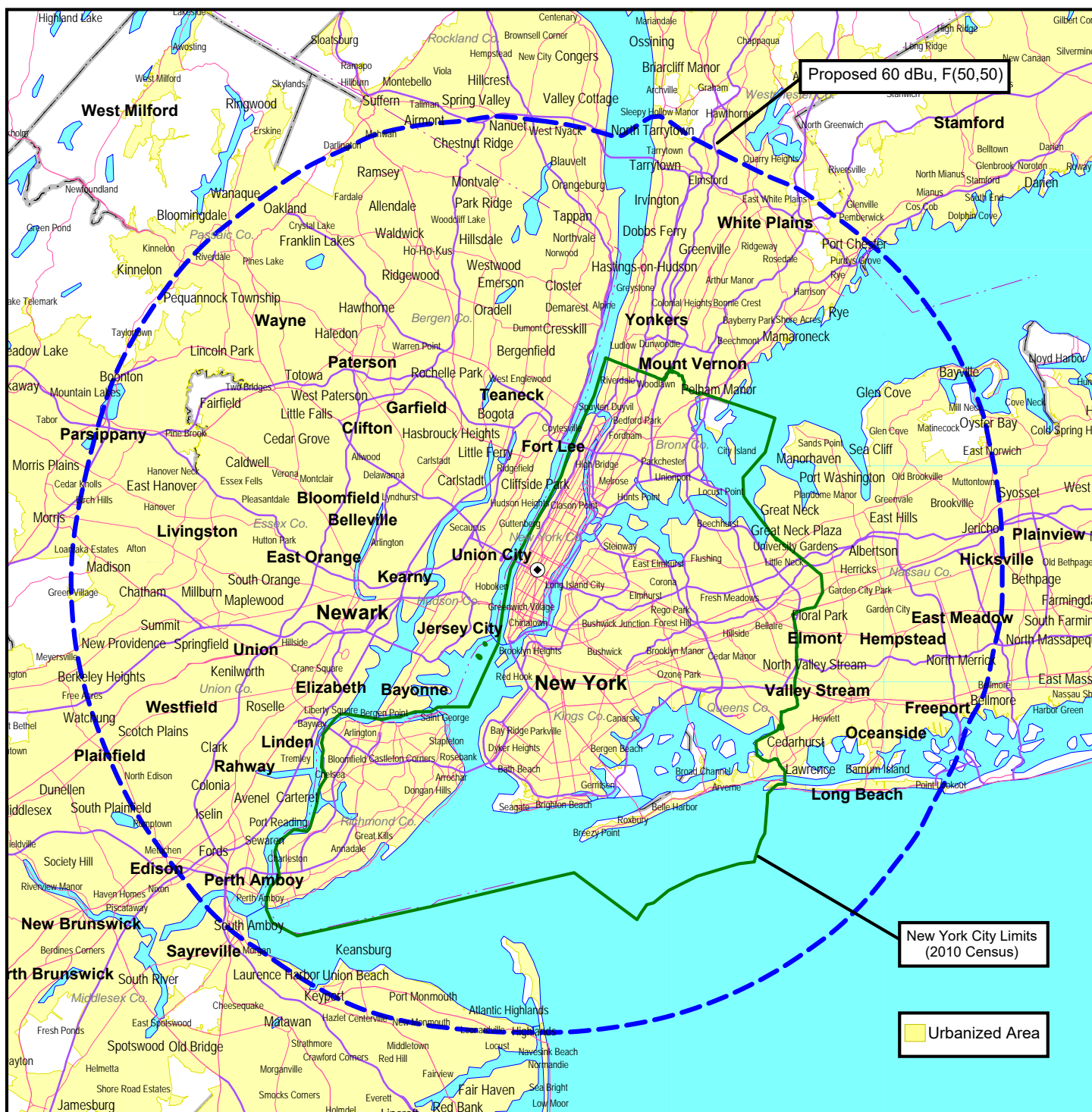
It is required that NCE-FM facilities in the reserved band (Chs. 201-220) provide interference protection to affected TV channel 6 facilities as defined in Section 73.525. Pursuant to Section 73.525 (a) (1), all pertinent TV channel 6 facilities within 166 kilometers of the proposed WNYE channel 218 FM facility must be protected. Figure 7 shows 1 full-service TV/DTV station operating on channel 6 that is located within 166 kilometers of the proposed site, namely WPVI-TV on channel 6 at Philadelphia, PA. As indicated on Figure 8, the proposed NCE-FM interfering contour does not overlap any portion of the normally protected contours of the WPVI-TV licensed and pending application operations. Therefore, it is believed that the proposed WNYE operation complies with the provisions of Section 73.525.

Environmental Considerations

Measurements will be made to demonstrate that the proposed operation complies with the FCC's limits for human exposure to radiofrequency (RF) electromagnetic fields.

Access to the transmitter site will be restricted. Furthermore, the site will be appropriately marked with RFR warning signs. In addition, as this is a multi-user site, procedures will be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such procedures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the station is at reduced power or shut down.

Figure 1



PREDICTED FCC 60 DBU COVERAGE CONTOUR

FM STATION WNYE
NEW YORK, NEW YORK,
CH 218B1 3.2 KW 281 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

FM Contour Study LMS

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida



Channel: 218 **Coordinates:** 040-45-22.4 073-59-10.5 (NAD 83) **ERP:** 3.2 kW **Max. HAAT:** 300 m

Comment: Proposed WNYE

Callsign	Chan.	Service	Status	Freq.	City	State	Co.	Rec.	Latitude	Dist. (km)	Sep. (km)	Spac. (km)
Facility ID	ARN			Class	DA	73.215	ERP (kW)	HAAT (m)	Longitude	Bear. (deg)	Comment	
WFMU	216	FM	AMD	91.1	EAST ORANGE	NJ	US	C	40-47-19.3	22.99	42.37	-19.38
3249	BLANK	BMLD-2005040	A	NDI			1.25	151	074-15-18.5	279.15	SHORT	
WFMU 60.0 dBu desired distance: 26.9 km				Proposed 100.0 dBu undesired distance: 3.2 km				Raleigh Waiver requested.				
Proposed 60.0 dBu desired distance: 40.3 km				WFMU 100.0 dBu undesired distance: 2.1 km				See Technical Narrative, Figure 4				
WOSS	216	FM	L2C	91.1	OSSINING	NY	US	C	41-09-36.3	46.09	40.55	5.54
68811	BLANK	BLED-19830719	D	OT			0.015	21	073-51-36.4	13.23	CLOSE	
WOSS 60.0 dBu desired distance: 5.9 km				Proposed 100.0 dBu undesired distance: 3.2 km				Class D - not an allocation issue				
Proposed 60.0 dBu desired distance: 40.3 km				WOSS 100.0 dBu undesired distance: 0.3 km								
WVKR-FM	217	FM	L2C	91.3	POUGHKEEPSIE	NY	US	C	41-38-25.3	98.23	102.35	-4.12
69833	BLANK	BLED-19940816	B1	DRI			3.7	250	074-01-14.5	358.33	SHORT	
WVKR-FM 60.0 dBu desired distance: 41.7 km				Proposed 54.0 dBu undesired distance: 60.0 km								
Proposed 60.0 dBu desired distance: 40.3 km				WVKR-FM 54.0 dBu undesired distance: 62.1 km								
WTSR	217	FM	L2C	91.3	TRENTON	NJ	US	C	40-16-17.3	86.26	72.63	13.63
67625	BLANK	BLED-1325	A	OT			1.5	11	074-46-53.5	231.54	CLOSE	
WTSR 60.0 dBu desired distance: 12.6 km				Proposed 54.0 dBu undesired distance: 60.0 km								
Proposed 60.0 dBu desired distance: 40.3 km				WTSR 54.0 dBu undesired distance: 18.5 km								
WNYE	218	FM	L2C	91.5	NEW YORK	NY	US	C	40-45-22.4	0	138.42	-138.42
3539	BLANK	BLED-20090205	B1	NDI			2	281	073-59-10.5	0	SHORT	
WNYE 60.0 dBu desired distance: 36.4 km				Proposed 40.0 dBu undesired distance: 102.0 km								
Proposed 60.0 dBu desired distance: 40.3 km				WNYE 40.0 dBu undesired distance: 95.2 km								
WPAU	218	FM	L2C	91.5	PALMYRA TOWNSHIP	PA	US	C	41-24-43.3	122.86	126	-3.14
173824	BLANK	BLED-20121204	A	DRI			0.4	167	075-09-49.6	306.85	SHORT	
WPAU 60.0 dBu desired distance: 24.0 km				Proposed 40.0 dBu undesired distance: 102.0 km								
Proposed 60.0 dBu desired distance: 40.3 km				WPAU 40.0 dBu undesired distance: 71.1 km								
WGRS	218	FM	L2C	91.5	GUILFORD	CT	US	C	41-17-19	126.38	121.34	5.04
43527	BLANK	BLED-20130516	A	NDI			2.8	30.1	072-39-29.8	61.58	CLOSE	
WGRS 60.0 dBu desired distance: 19.3 km				Proposed 40.0 dBu undesired distance: 102.0 km								
Proposed 60.0 dBu desired distance: 40.3 km				WGRS 40.0 dBu undesired distance: 67.3 km								
WXCI	219	FM	L2C	91.7	DANBURY	CT	US	C	41-23-42.3	82.44	86.31	-3.87
71786	BLANK	BLED-19970702	A	DRI			3	67	073-29-12.4	30.35	SHORT	
WXCI 60.0 dBu desired distance: 26.3 km				Proposed 54.0 dBu undesired distance: 60.0 km								
Proposed 60.0 dBu desired distance: 40.3 km				WXCI 54.0 dBu undesired distance: 40.0 km								

FM Contour Study LMS

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida

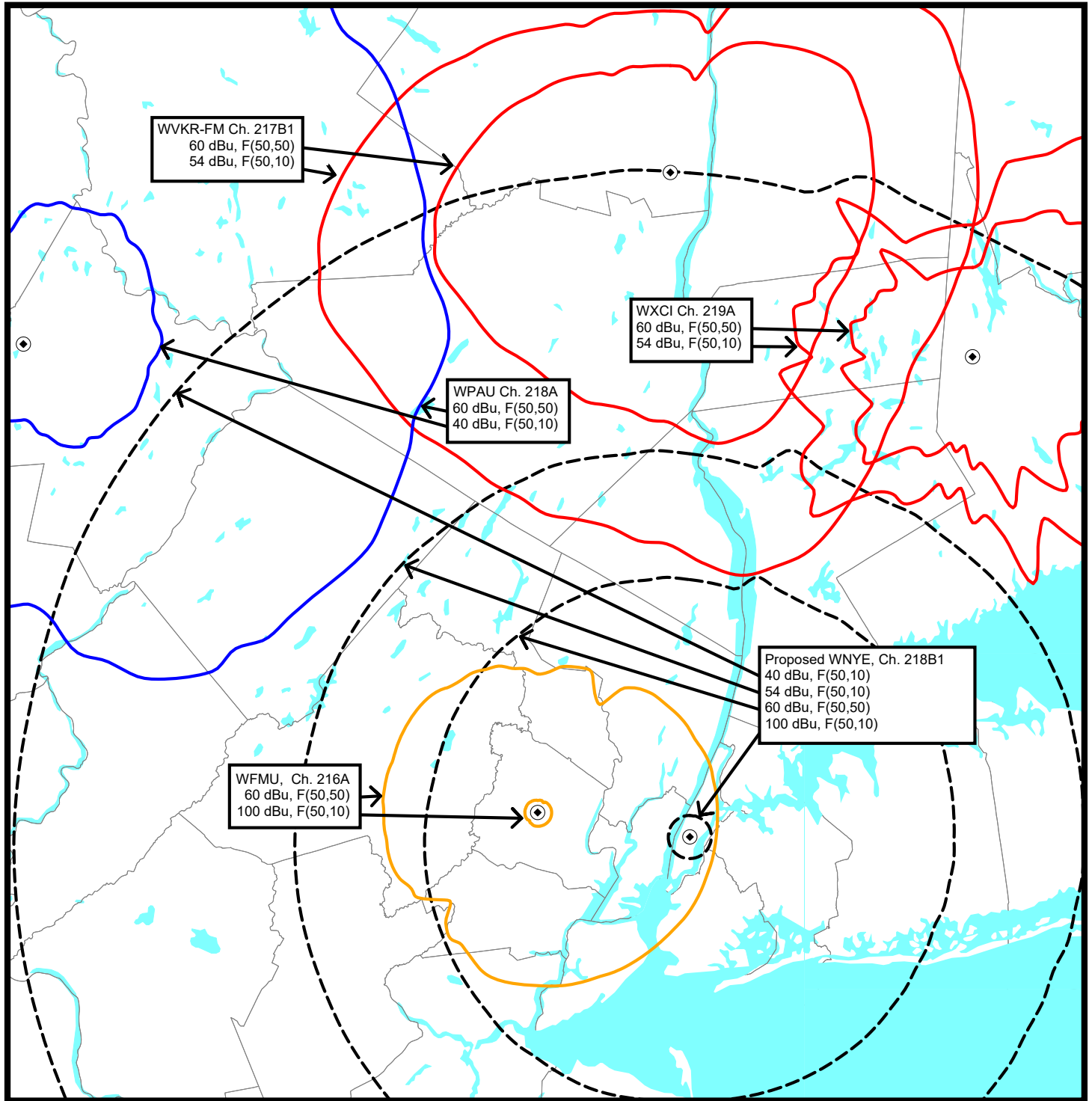


Channel: 218 **Coordinates:** 040-45-22.4 073-59-10.5 (NAD 83) **ERP:** 3.2 kW **Max. HAAT:** 300 m

Comment: Proposed WNYE

Callsign	Chan.	Service	Status	Freq.	City	State	Co.	Rec.	Latitude	Dist. (km)	Sep. (km)	Spac. (km)
Facility ID	ARN			Class	DA	73.215	ERP (kW)	HAAT (m)	Longitude	Bear. (deg)	Comment	
WLNJ	219	FM	L2C	91.7	LAKEHURST	NJ	US	C	40-04-07.4	86.63	80.19	6.44
174908	BLANK	BLED-20120118	A	DRI			3.5	49	074-28-07.5	208.28	CLOSE	
WLNJ 60.0 dBu desired distance: 20.2 km				Proposed 54.0 dBu undesired distance: 60.0 km								
Proposed 60.0 dBu desired distance: 40.3 km				WLNJ 54.0 dBu undesired distance: 29.6 km								
WOSR	219	FM	L2C	91.7	MIDDLETOWN	NY	US	C	41-36-04.3	105.25	97.26	7.99
70848	BLANK	BLED-19911231	B1	DRI			1.8	192	074-33-15.5	333.35	CLOSE	
WOSR 60.0 dBu desired distance: 37.2 km				Proposed 54.0 dBu undesired distance: 60.0 km								
Proposed 60.0 dBu desired distance: 40.3 km				WOSR 54.0 dBu undesired distance: 55.9 km								

Figure 3



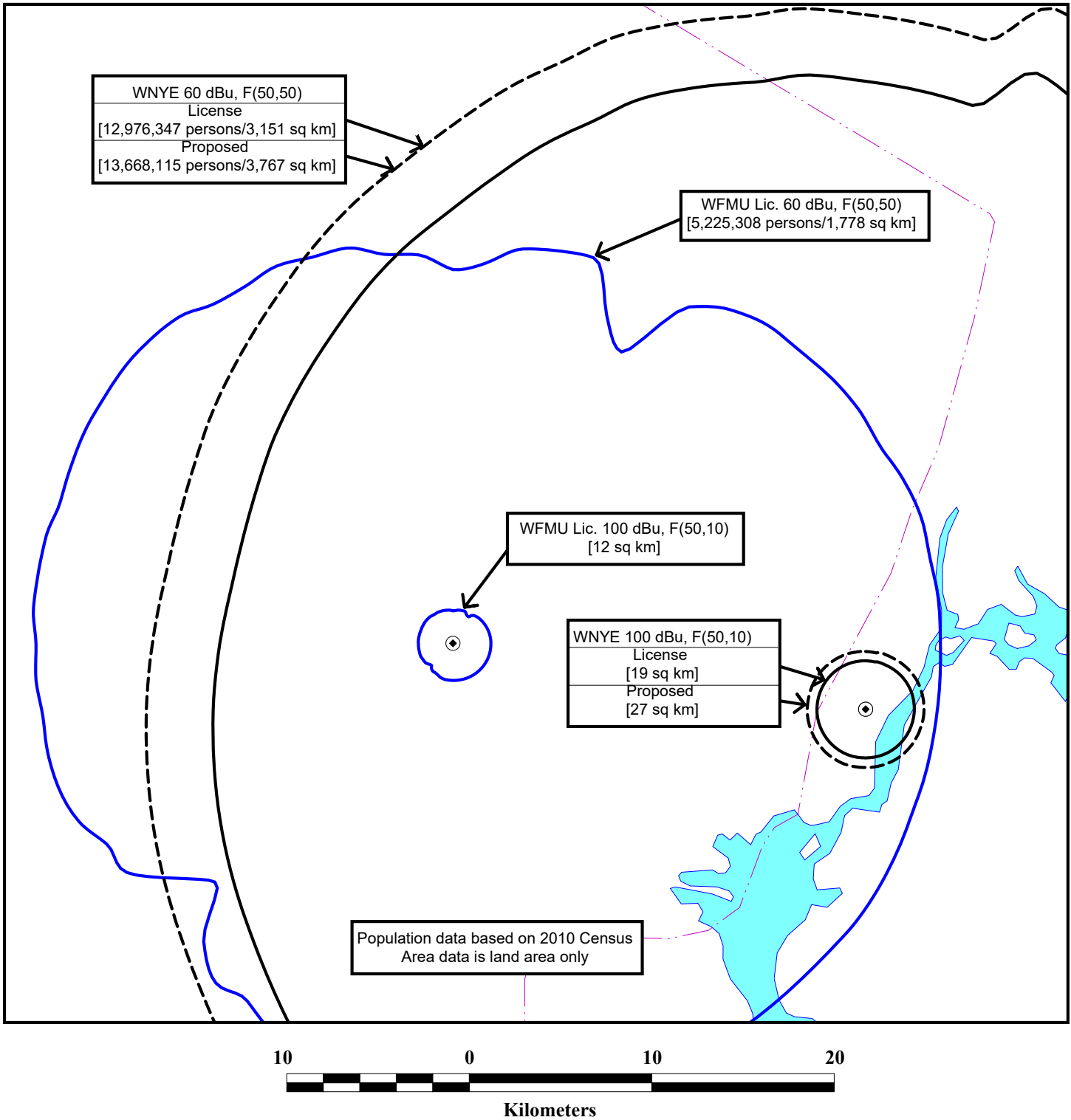
25 0 25 50
Kilometers

SECTION 73.509 COMPLIANCE

FM STATION WNYE
NEW YORK, NEW YORK,
CH 218B1 3.2 KW 281 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 4



SECTION 73.509/RALEIGH WAIVER MAP

FM STATION WNYE
NEW YORK, NEW YORK,
CH 218B1 3.2 KW 281 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



United States of America
FEDERAL COMMUNICATIONS COMMISSION
FM BROADCAST STATION LICENSE

Authorizing Official:

Official Mailing Address:

NEW YORK CITY DEPT. OF INFO TECHNOLOGY &
TELECOMMUNICATIONS

NYC MEDIA - ATTN: JANET CHOI,
GM

1 CENTRE STREET, 27TH FLOOR

NEW YORK NY 10007

Facility Id: 3539

Call Sign: WNYE

License File Number: BLED-20090205ABP

This license covers permit no.: BPED-20080801ASL

Dale E. Bickel

Senior Engineer

Audio Division

Media Bureau

Grant Date: April 27, 2009

This license expires 3:00 a.m.
local time, June 01, 2014.

Subject to the provisions of the Communications Act of 1934, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this license, the licensee is hereby authorized to use and operate the radio transmitting apparatus herein described.

This license is issued on the licensee's representation that the statements contained in licensee's application are true and that the undertakings therein contained so far as they are consistent herewith, will be carried out in good faith. The licensee shall, during the term of this license, render such broadcasting service as will serve the public interest, convenience, or necessity to the full extent of the privileges herein conferred.

This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequency designated in the license beyond the term hereof, nor in any other manner than authorized herein. Neither the license nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This license is subject to the right of use or control by the Government of the United States conferred by Section 606 of the Communications Act of 1934.

Callsign: WNYE

License No.: BLED-20090205ABP

Sheet 2 of 2

Name of Licensee: NEW YORK CITY DEPT. OF INFO TECHNOLOGY & TELECOMMUNICATIONS

Station Location: NY-NEW YORK

Frequency (MHz): 91.5

Channel: 218

Class: B1

Hours of Operation: Unlimited

Transmitter: Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.

Transmitter output power: 1.80 kW

Antenna type: Non-Directional

Description: SHI 6016-3/4-SPL

Antenna Coordinates: North Latitude: 40 deg 45 min 22 sec

West Longitude: 73 deg 59 min 12 sec

	Horizontally Polarized Antenna	Vertically Polarized Antenna
Effective radiated power in the Horizontal Plane (kW):	2.00	2.00
Height of radiation center above ground (Meters):	282	282
Height of radiation center above mean sea level (Meters):	297	297
Height of radiation center above average terrain (Meters):	281	281

Antenna structure registration number: 1238745

Overall height of antenna structure above ground (including obstruction lighting if any) see the registration for this antenna structure.

Special operating conditions or restrictions:

- 1 The permittee/licensee in coordination with other users of the site must 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.
- 2 Further modifications to the facilities WFMU(FM), BMLD-20050408ACI and BPED-20080530ABA, FID #3249, East Orange, NJ, will not be construed as per se modification of the WNYE(FM) construction permit BPED-20080801ASL. (See "Educational Information Corporation" 6 FCC Rcd 2207).

*** END OF AUTHORIZATION ***



United States of America
FEDERAL COMMUNICATIONS COMMISSION
FM BROADCAST STATION CONSTRUCTION PERMIT

Authorizing Official:

Official Mailing Address:

AURICLE COMMUNICATIONS
P.O. BOX 2011
JERSEY CITY NJ 07303

James D. Bradshaw
Associate Chief
Audio Division
Media Bureau

Facility ID: 3249

Grant Date: April 20, 1998

Call Sign: WFMU

The authority granted herein has no effect on the expiration date of the underlying construction permit.

Permit File Number: BMPED-19980113ID

This Permit Modifies Permit No.: 890913ID,
as last extended by BMPED-980113JB,
and as modified by BMPED-960215ID.

Subject to the provisions of the Communications Act of 1934, as amended, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this permit, the permittee is hereby authorized to construct the radio transmitting apparatus herein described. Installation and adjustment of equipment not specifically set forth herein shall be in accordance with representations contained in the permittee's application for construction permit except for such modifications as are presently permitted, without application, by the Commission's Rules.

Commission rules which became effective on February 16, 1999, have a bearing on this construction permit. See Report & Order, Streamlining of Mass Media Applications, MM Docket No. 98-43, 13 FCC RCD 23056, Para. 77-90 (November 25, 1998); 63 Fed. Reg. 70039 (December 18, 1998). Pursuant to these rules, this construction permit will be subject to automatic forfeiture unless construction is complete and an application for license to cover is filed prior to expiration. See Section 73.3598.

Equipment and program tests shall be conducted only pursuant to Sections 73.1610 and 73.1620 of the Commission's Rules.

Callsign: WFMU

Permit No.: BMPED-19980113ID

Name of Permittee: AURICLE COMMUNICATIONS

Station Location: NJ-EAST ORANGE

Frequency (MHz): 91.1

Channel: 216

Class: A

Hours of Operation: Unlimited

Transmitter: Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.

Transmitter output power: As required to achieve authorized ERP.

Antenna type: Non-Directional

Antenna Coordinates: North Latitude: 40 deg 47 min 19 sec

West Longitude: 74 deg 15 min 20 sec

	Horizontally Polarized Antenna	Vertically Polarized Antenna
Effective radiated power in the Horizontal Plane (kW):	1.25	1.25
Height of radiation center above ground (Meters):	28	28
Height of radiation center above mean sea level (Meters):	217	217
Height of radiation center above average terrain (Meters):	151	151

Antenna structure registration number: Not Required

Overall height of antenna structure above ground: 30 Meters

Obstruction marking and lighting specifications for antenna structure:

It is to be expressly understood that the issuance of these specifications is in no way to be considered as precluding additional or modified marking or lighting as may hereafter be required under the provisions of Section 303(q) of the Communications Act of 1934, as amended.

None Required

Special operating conditions or restrictions:

1 Further modifications to the facilities of stations

- WJSV(FM), Morristown, New Jersey
- WFUV(FM), New York, New York
- WNYE(FM), New York, New York

will not be construed as a per se modification of WFMU(FM)'s construction permit (BMPED-980113ID).

(See "Educational Information Corporation," 6 FCC Rcd 2207)

Special operating conditions or restrictions:

- 2 The permittee/licensee in coordination with other users of the site must 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.

*** END OF AUTHORIZATION ***

TV Inquiry LMS

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida

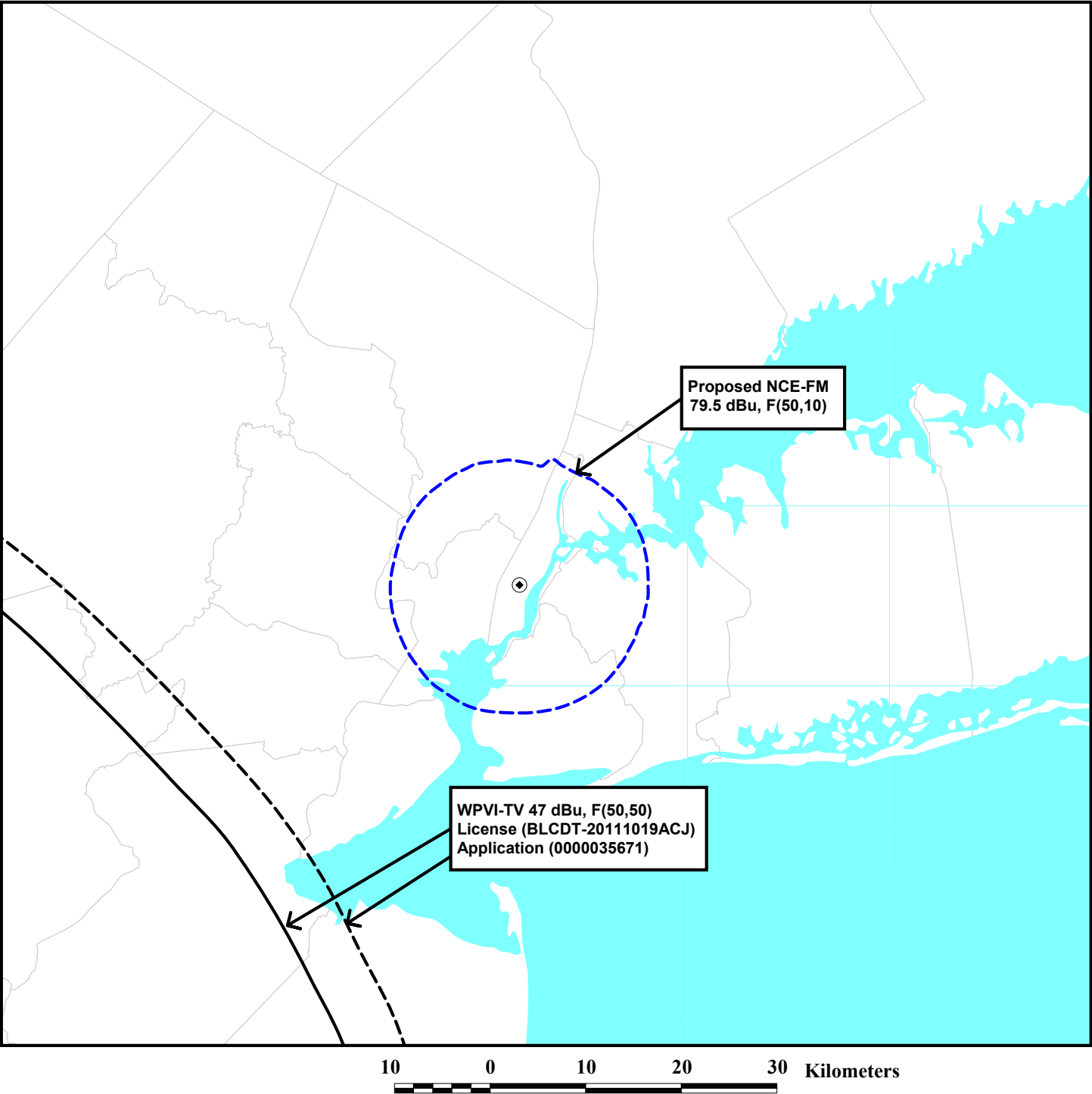


Listed stations are within 200 km of the point at 040-45-22.4 073-59-10.5.

<i>Callsign</i>	<i>Chan.</i>	<i>Type</i>	<i>Zone</i>	<i>Service</i>	<i>Status</i>	<i>City</i>	<i>State</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Distance (km)</i>	
<i>ARN</i>			<i>DA</i>	<i>Ant. ID</i>	<i>Rotation</i>	<i>ERP (kW)</i>	<i>HAAT (m)</i>	<i>RCAMSL (m)</i>	<i>Rec. Type</i>	<i>Facility ID</i>	<i>Bearing (deg)</i>
WPVI-TV	6	GRA	1	DTV	AMD	PHILADELPHIA		PA	040-02-39	075-14-25	132.61
0000034890			NDIR	108369		56	332	404	C	8616	233.7 /1
WPVI-TV	6	PEN	1	DTV	MOD	PHILADELPHIA		PA	040-02-39	075-14-25	132.61
0000035671			NDIR	1002641		56	332	404.4	C	8616	233.7
WPVI-TV	6	GRA	1	DTV	L2C	PHILADELPHIA		PA	040-02-33	075-14-32	132.85
BLCDT-20111019ACJ			NDIR	108369		34	330	394.7	C	8616	233.68

/1 STA operation, protection not required.

Figure 8



SECTION 73.525 COMPLIANCE

FM STATION WNYE
NEW YORK, NEW YORK,
CH 218B1 3.2 KW 281 M