

TECHNICAL EXHIBIT
APPLICATION FOR FM CONSTRUCTION PERMIT
RADIO STATION WBZO
BAY SHORE, NEW YORK
CH 276A 1.55 KW 141 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an application for construction permit for WBZO at Bay Shore, New York. Station WBZO currently operates on channel 276A (103.1 MHz) with a directional antenna (DA) maximum effective radiated power (ERP) of 1.55 kilowatts (kW) and an antenna height above average terrain (HAAT) of 141 meters. By this instant application, WBZO proposes to change from directional to nondirectional (ND) operation on channel 276A. No other changes are proposed. Specifically, WBZO proposes to operate on channel 276A from its current site (ASR 1219580) with nondirectional antenna maximum ERP of 1.55 kW and an HAAT of 141 meters.¹ This application is contingent with an application for construction permit being concurrently filed by WDRC-FM on channel 275B at Hartford, Connecticut.² Processing under Section 73.215 is requested with respect to the short-spacing with the WDRC-FM contingent application as well as with WJGK on channel 276A at Newburgh, New York.

Response to Paragraph 16 - Interference

Figure 1 is a separation study for channel 276A operation from the current WBZO site. As shown, the proposed site complies with the minimum distance separation requirements of Section 73.207 for Class A operation on channel 276 towards all existing, authorized and proposed stations with the exceptions of the licensed operations of WWFS on channel 274B at New York, New York, WJGK on channel 276A at Newburgh, New York, and WKTU on channel 278B at Lake Success, New York and the licensed and contingent application operations of WDRC-FM on channel 275B at Hartford, Connecticut.

¹ The proposed WBZO facilities are equivalent to the old 3 kW/100 meter maximum.

² The contingent WDRC-FM application proposes to utilize a directional antenna operation in order to permit WBZO to operate with a nondirectional antenna.

The short-spacings with WWFS and WKTU are grandfathered pursuant to Section 73.213(c)(1). As there will be no change in transmitter site, operation with the proposed facilities (ERP 1.55 kW/HAAT 141 meters, ND), which are equivalent to the old 3 kW/100 meter Class A maximum, is permitted.

It is proposed to utilize the contour protection provisions of Section 73.215 with respect to the short-spacings with WJGK and the WDRC-FM contingent application. The distance between the proposed WBZO transmitter site and the WJGK transmitter site complies with the minimum distance separation requirement of Section 73.215(e).

The distance between the proposed/currently licensed WBZO transmitter site and the WDRC-FM contingent application/currently licensed site does not comply with the minimum distance separation requirement of Section 73.215(e) [required 96 km, actual 95.29 km]. When WBZO's formerly licensed operation (BLH-19930212KA) was authorized, the FCC limited the magnitude of a short-spacing permitted under Section 73.215 processing to no more than 8.0 kilometers without consideration to the table contained in Section 73.215. The FCC waived the 8.0 kilometer limitation to permit the formerly licensed WBZO operation under Section 73.215 with respect to WDRC-FM. The currently licensed WBZO operation (BLH-20021008AAG), which is also authorized under Section 73.215 with respect to WDRC-FM's current operation, increased the distance to WDRC-FM from 95.28 km to 95.29 km. There will be no change in the current distance between WBZO and WDRC-FM (95.29 km) as no site changes are proposed. Therefore, it is believed that the continued use of Section 73.215 with respect to WDRC-FM is justified. If necessary, a waiver of Section 73.215(e) is requested.

Figure 2 demonstrates that the proposed WBZO operation on channel 276A at Bay Shore complies with the contour protection provisions of Section 73.215 with respect to WJGK and the WDRC-FM contingent application. All contour locations were based on the use of the U.S. Geological Survey (U.S.G.S.) 30-second terrain database.

Response to Paragraph 14 - Community Coverage

Figure 3 is a map which demonstrates that the proposed operation complies with the provisions of Section 73.315 and

provides the entire community of Bay Shore, New York with a 70-dBu signal. The Bay Shore city limits shown on Figure 3 were obtained from a map contained in the 2010 U.S. Census of Population.

Radiofrequency Electromagnetic Field Exposure Analysis

The proposed WBZO facilities were evaluated in terms of potential radiofrequency radiation exposure at 2 meters above ground level in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation". This Bulletin provides assistance in determining whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) electromagnetic fields.

The calculated power density at 2 meters above ground level at the base of the tower was calculated using the appropriate equation contained in the Bulletin. Using a greater than expected vertical relative field value of 0.1 (see Figure 4), the total ERP of 3.1 kW (H+V) and an antenna center of radiation height above ground level of 147 meters, the calculated power density at 2 meters above ground level at the base of the tower is 0.049 microwatts per square centimeter (mW/cm²), or less than 0.03% of the Commission's recommended limit applicable to general population/uncontrolled exposure areas (200 uW/cm² for FM frequencies). As the power density for WBZO's proposed operation does not exceed the 5% threshold it is believed that it is in full compliance with the FCC's requirements with regard to radio frequency radiation exposure.

Access to the tower site will be restricted and appropriately marked with warning signs. Furthermore, 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.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis should have been completed by the tower owner.



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CDBS FM SEPARATION STUDY - PROPOSED WBZO

Channel: 276 Coordinates: 040-45-03 073-12-49 (NAD 27)
 Class: A Buffer Distance: 5 km

Date: 03/25/2014
 Page: 1 of 1

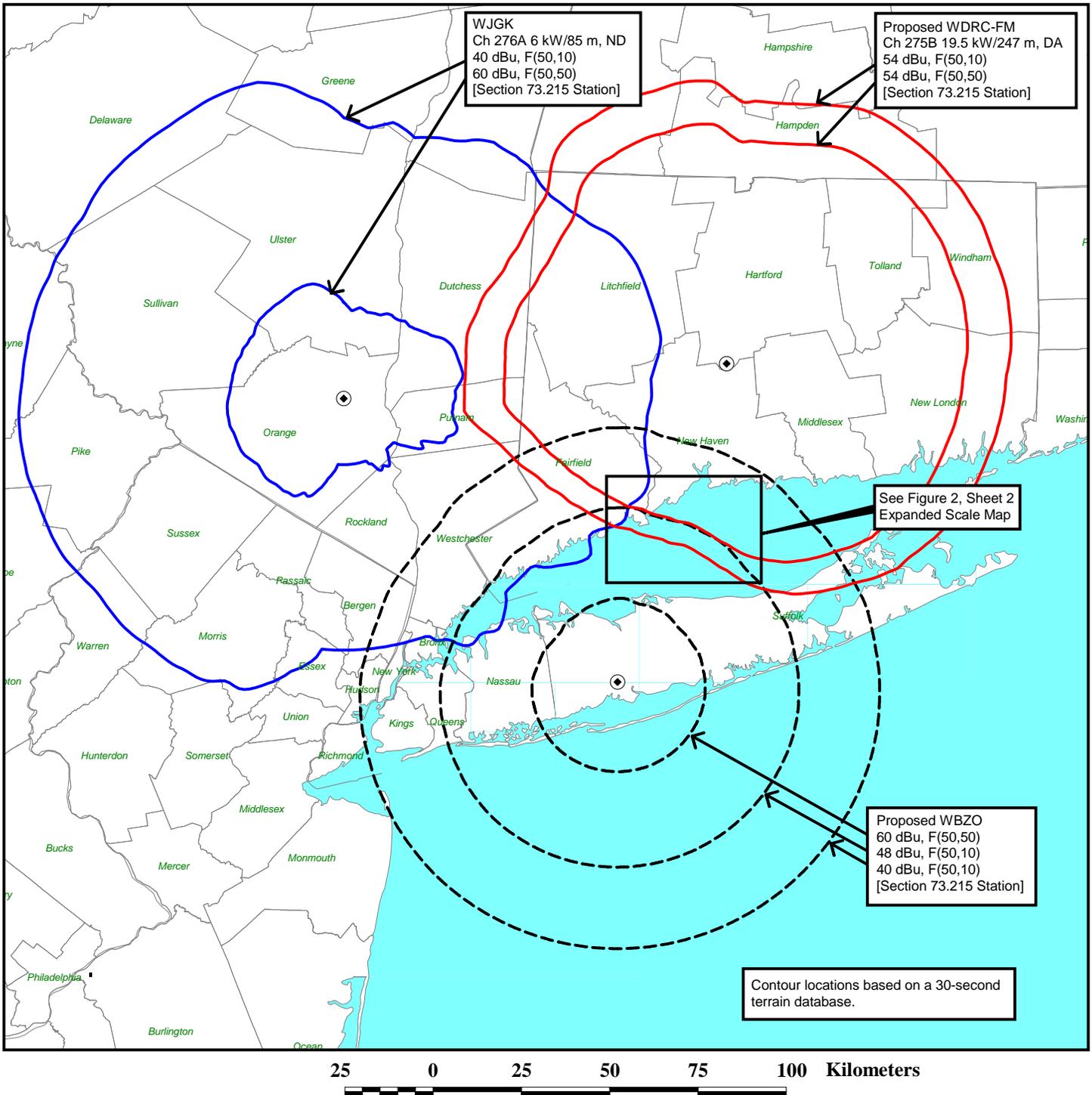
Callsign	Status	Chan.	Serv.	Freq.	City	State	Latitude	Dist.(km)	Sep.(km)	Spacing(km)
Fac. ID	ARN	Class	DA	Ant. ID	ERP(kW)	HAAT(m)	Longitude	Bear.(deg)	73.215	Comment
WWFS	LIC	274	FM	102.7	NEW YORK	NY	040-44-54	65.24	69	-3.76
25442	BLH 19940204KH	B	N		6	415	073-59-10	270.01	63 N	SHORT¹
WDRC-FM	LIC	275	FM	102.9	HARTFORD	CT	041-33-44	95.29	113	-17.71
7718	BMLH 20110107ACK	B	N		19.5	247	072-50-40	18.79	96 N	SHORT²
WDRC-FM	APP	275	FM	102.9	HARTFORD	CT	041-33-44	95.29	113	-17.71
7718	Proposed	B	D		19.5	247	072-50-40	18.79	96 N	SHORT³
WBZO	LIC	276	FM	103.1	BAY SHORE	NY	040-45-03	0		
60245	BLH 20021008AAG	A	D	40034	1.55	141	073-12-49	0		
WJGK	LIC	276	FM	103.1	NEWBURGH	NY	041-28-25	111.76	115	-3.24
63943	BLH 19971219KE	A	D	15228	6	85	074-08-22	316.32	92 Y	SHORT⁴
	ADD	277	FR	103.3	NOYACK	NY	040-54-21	73.83	72	1.83
	RM 11396		A				072-21-45	76.19	49	CLOSE
	ADD	277	FR	103.3	WATER MILL	NY	040-54-21	73.83	72	1.83
	RM 10650		A				072-21-45	76.19	49	CLOSE
WKTU	LIC	278	FM	103.5	LAKE SUCCESS	NY	040-44-54	65.24	69	-3.76
6595	BLH 20030604ACH	B	N		6	415	073-59-10	270.01	63 N	SHORT¹

¹ Grandfathered short-spacing pursuant to Section 73.213(c)(1). See Technical Narrative.

² Current WDRC-FM operation being modified by a contingent application that will be filed concurrently with the instant WBZO application.

³ Contingent WDRC-FM application that will be filed concurrently with the instant WBZO application. Processing pursuant to Section 73.215 is requested with respect to the short-spacing with the WDRC-FM application. See Technical Narrative and Figure 2.

⁴ Processing pursuant to Section 73.215 is requested with respect to the short-spacing with WJGK. See Technical Narrative and Figure 2.



WJGK
Ch 276A 6 kW/85 m, ND
40 dBu, F(50,10)
60 dBu, F(50,50)
[Section 73.215 Station]

Proposed WDRC-FM
Ch 275B 19.5 kW/247 m, DA
54 dBu, F(50,10)
54 dBu, F(50,50)
[Section 73.215 Station]

See Figure 2, Sheet 2
Expanded Scale Map

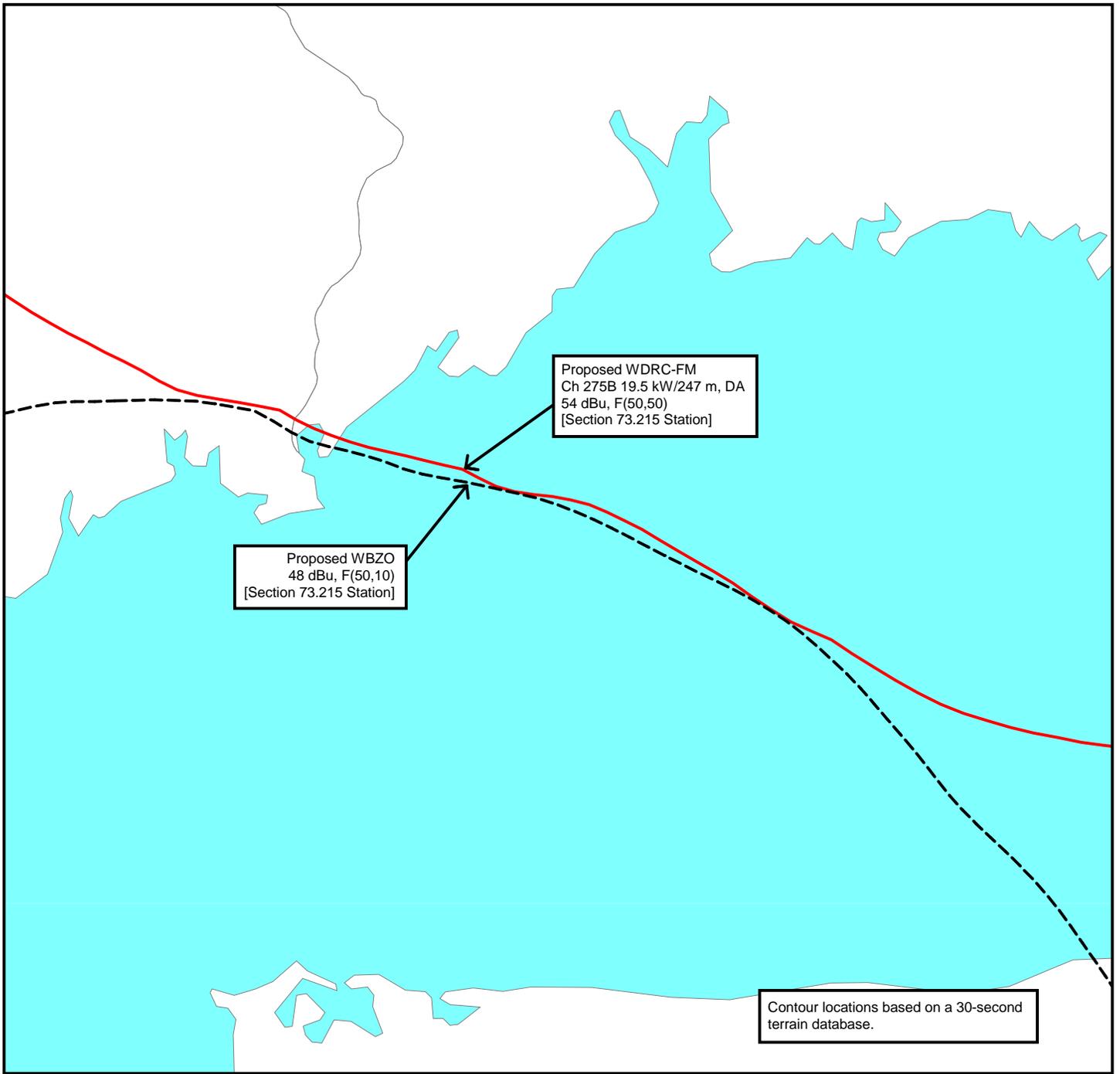
Proposed WBZO
60 dBu, F(50,50)
48 dBu, F(50,10)
40 dBu, F(50,10)
[Section 73.215 Station]

Contour locations based on a 30-second
terrain database.

SECTION 73.215 COMPLIANCE

FM STATION WBZO
BAY SHORE, NEW YORK
CH 276A 1.55 KW (ND) 141 M

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



5 0 5 10 15 Kilometers

**SECTION 73.215 COMPLIANCE
[EXPANDED SCALE MAP]**

FM STATION WBZO
BAY SHORE, NEW YORK
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du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 3



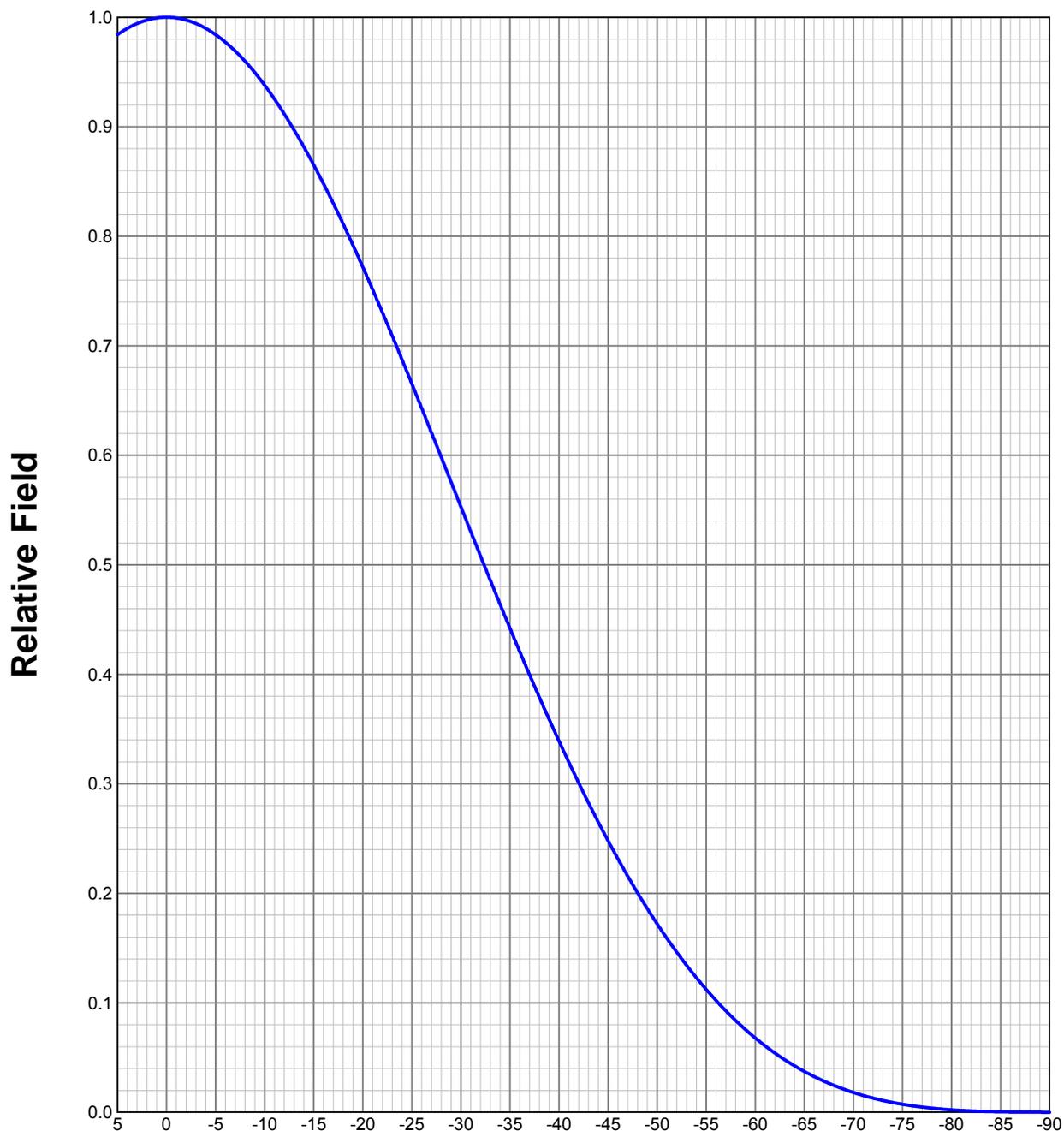
FCC PREDICTED COVERAGE CONTOURS

FM STATION WBZO
BAY SHORE, NEW YORK
CH 276A 1.55 KW (ND) 141 M

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

ELEVATION PATTERN

Type:	LPX2H		Channel:	276
Directivity:	Numeric	dBd	Location:	
Main Lobe:	0.70	-1.54	Beam Tilt:	0.00
Horizontal:	0.70	-1.54	Polarization:	Circular



Preliminary, subject to final design and review.