

TECHNICAL EXHIBIT

APPLICATION FOR MODIFICATION OF
FM CONSTRUCTION PERMIT

WMKB(FM)
FCC FACILITY ID: 88204

KM RADIO OF EARLVILLE, ILLINOIS

EARLVILLE, ILLINOIS

CH 275A 2.15 KW 170 M HAAT

MARCH 2002

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TECHNICAL NARRATIVE

The technical exhibit, of which this narrative is part, was prepared on behalf of KM Radio of Earlville, L.L.C., in support of an application to modify the construction permit of FM Broadcast Station WMKB, Earlville, Illinois, FCC facility identification number 88204

The applicant proposes to specify changes in effective radiated power, antenna height above average terrain, antenna (center of radiation) height above ground, the overall height of the supporting structure and the antenna/transmitter site location from those previously provided to the Commission. The changes proposed herein, in accordance with the Commission's rules, are designated as minor changes to the licensed facility.

The proposed station will operate on FM Channel 275A (102.9 MHz) with an effective radiated power of 2.15 kilowatts and an antenna height above average terrain (HAAT) of 170 meters.

The proposal would not be subject to environmental processing in accordance with 47 C.F.R. §1.1306. This proposal does not involve a site location specified under 47 C.F.R. §1.1307

(a)(1)-(7), or involve high intensity lighting under 47 C.F.R. §1.1307(a)(8) or result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified in 47 C.F.R. §1.1307(b).

This application conforms with all applicable rules and regulations of the Federal Communications Commission. General specifications for the proposed operation are included herein as Figure 1. Exhibit E-4 contains an FM channel separation study, which shows that this proposal meets all required FM spacings in accordance with 47 C.F.R. §73.207.

FAA NOTICE OF PROPOSED TOWER CONSTRUCTION (EXHIBIT E-1)

The Federal Aviation Administration has been notified of this proposal. The tower will be registered with the Commission once approval has been obtained from the FAA.

ANTENNA SUPPORTING STRUCTURE & SITE MAP (EXHIBIT E-2)

The proposed transmitting facility will consist of a 3-bay FM antenna side-mounted on a guyed, uniform cross-section, steel tower. Exhibit E-2 contains a vertical sketch of the proposed antenna location and supporting structure.

The antenna location is uniquely described by the following NAD 27 geographical coordinates:

41° 37' 16" North Latitude
89° 05' 20" West Longitude.

The transmitter site address (or description) is: East 4th Road, La Salle County, Mendota, Illinois.

FCC F(50,50) COVERAGE CONTOURS (EXHIBIT E-3)

The predicted coverage contours were calculated in accordance with the provisions of 47 C.F.R. §73.313. In accordance with current FCC practice, no consideration was given to terrain roughness correction factors.

The average terrain elevations from 3 to 16 kilometers from the proposed site were obtained from the N.G.D.C. 3-second terrain database. The standard eight radials evenly spaced at 45-degree intervals were used for determining the average terrain elevations and the distance to the service contours.

The antenna radiation center heights above average terrain in the individual radial directions and the effective radiated power in the appropriate directions were used in conjunction with the F(50,50) curves of 47 C.F.R. §73.333 to determine the distances to the 70 dBu and 60 dBu contours.

Exhibit E-3 is a map showing the predicted 70 dBu and 60 dBu F(50,50) service contours. As the map in Exhibit E-3 shows, the 70 dBu (3.16 mV/m) contour from this proposal completely encompasses the city of license, Earlville, Illinois.

POPULATION AND AREA

The population to be served within the predicted 60 dBu contour was determined by a computer program that adds the population of census districts (at the block level) whose centroids lie within the contour. The 2000 U.S. Census data was employed. The area within the 60 dBu contour was calculated by a computer program using a root mean square algorithm. The predicted 60 dBu contour encompasses 2,537 square kilometers in which 36,945 persons reside.

OTHER CONSIDERATIONS

The "blanketing" contour of a 2.15-kilowatt FM station extends from the tower site a distance of 0.58 kilometers. The applicant recognizes its responsibility to remedy complaints of blanketing interference as required by 47 C.F.R. §73.318, and to protect existing facilities in accordance with the applicable rules.

No adverse impact (intermodulation or otherwise) on existing facilities or pending applications is anticipated. However, the applicant recognizes its responsibility to correct such matters if they occur as a result of its operation.

ENVIRONMENTAL CONSIDERATIONS

The proposed facilities were evaluated in terms of potential radiofrequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields."

Power density contributions from the proposed operation were computed using the appropriate equations of the OST Bulletin. The combined maximum radiated power (H & V) is 4.3-kilowatts. Using a "worst-case" relative field pattern of 1.0 for values all values below and the horizon, the power density was computed at a level of 2 meters above ground to be 0.0069 mW/cm² or 0.69 % of the recommended limit of 1.0 mW/cm² for a controlled area at the base of the tower and 3.45 % of the recommended limit of 0.2 mW/cm² for an uncontrolled area.

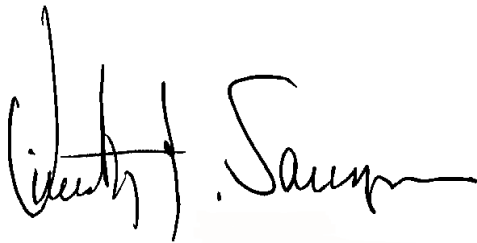
Therefore, at ground level (and 2 meters above), at the base of the tower, the potential for radiofrequency radiation exposure will be well within the FCC guidelines.

The "worst-case" minimum distance from the antenna was computed to be 12.0 meters for a controlled environment. As the minimum distance is more than 134 meters above ground level, no exposure in excess of the guidelines to workers is predicted to occur from this proposal at ground level.

Suitable warning signs and a fence or other devices will be placed at the base of the tower to prevent unauthorized access. If work is required on the tower, the power to the antenna will be terminated or reduced as required. The applicant will fully comply with the provisions contained within the OET bulletin.

Inquiries concerning the technical portion of this application should be directed to the office of the undersigned.

March 28, 2002

A handwritten signature in black ink, appearing to read "Timothy Z. Sawyer". The signature is fluid and cursive, with a large initial "T" and "S".

Digitized Signature - Original ON FILE - Timothy Z. Sawyer

Timothy Z. Sawyer

T.Z. Sawyer Technical Consultants

5272 River Road, Suite 460

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EARLVILLE, ILLINOIS

CH 275A 2.15 KW 170 M HAAT

MARCH 2002

TECHNICAL SPECIFICATIONS

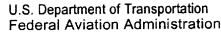
FM Channel:	275A
Frequency:	102.9 MHz
Site coordinates: (NAD1927)	41° 37' 16" North Latitude 89° 05' 20" West Longitude
Site elevation above mean sea level:	275.54 m
Average elevation above mean sea level of standard eight radials, 3-16 kilometers N.D.G.C. 3-Second Terrain Database:	. 251.86 m
Overall height of antenna structure:	
Above ground:	152.40 m
Above mean sea level:	427.94 m
Height of FM antenna radiation center	
Above ground:	146.30 m
Above mean sea level:	421.84 m
Above average terrain:	169.98 m
	(rounds to 170 m.)

Transmitter:	FCC type accepted
Transmission line:	* Andrew HJ7-50A
Nominal diameter (over protective jacket):	50.3 mm (1-5/8")
Nominal inside transverse dimensions:	3.99 cm
Dielectric:	Air
Length:	297.2 m (975 feet)
Efficiency (2.04dB loss):	62.5 %
Nondirectional FM Antenna:	* Jampro JMPC-3
Number of Bays:	3
Input power rating:	10 kW
Polarization:	Circular
Power gain:	
Horizontal polarization:	1.5
Vertical polarization:	1.5

Proposed Operation

Transmitter power output:	2.292 kW
Transmission line loss:	. 0.859 kW
Antenna input power:	1.433 kW
Effective radiated power:	
Horizontal polarization:	2.15 kW
Vertical polarization:	2.15 kW

*Or equivalent device



Notice of Proposed Construction or Alteration

-OE

21. Complete Description of Proposal:		Frequency/Power (kW)
Proposal corrects coordinates of proposed tower and overall height above ground and mean sea level as study in aeronautical study # 97-AGL-1876-0E		102.9 MHZ 2.15 KW
Uniform Cross-Section, guyed steel radio broadcast tower.		
FM Broadcast Station WMKB, Earlville, IL		
Frequency: 102.9 MHz. Power: 2.15 kilowatts.		
Standard Red Lights (night) and paint (red/white) marking requested.		
NOTE THIS IS A REVISION TO A PREVIOUS STUDY SUBMITTED ON 3/27/2002 AND REVISES THE HEIGHT OF THE PROPOSED TOWER AND A SLIGHT INCREASE IN POWER OF THE STATION.		
REVISED TO SPECIFY A POWER OUTPUT OF 2.15 KW AND A TOWER HEIGHT OF 500 FEET AGL AND 1404 FEET AMSL.		

Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of \$1,000 per day until the notice is received, pursuant to 49 U.S.C., section 46301(a).

I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and/or light the structure in accordance with established marking and lighting standards as necessary.

Date
04/05/2002 (REVISED)

Typed or Printed name and Title of Person Filing Notice
Timothy Z. Sawyer, Technical Consultant

Signature _____

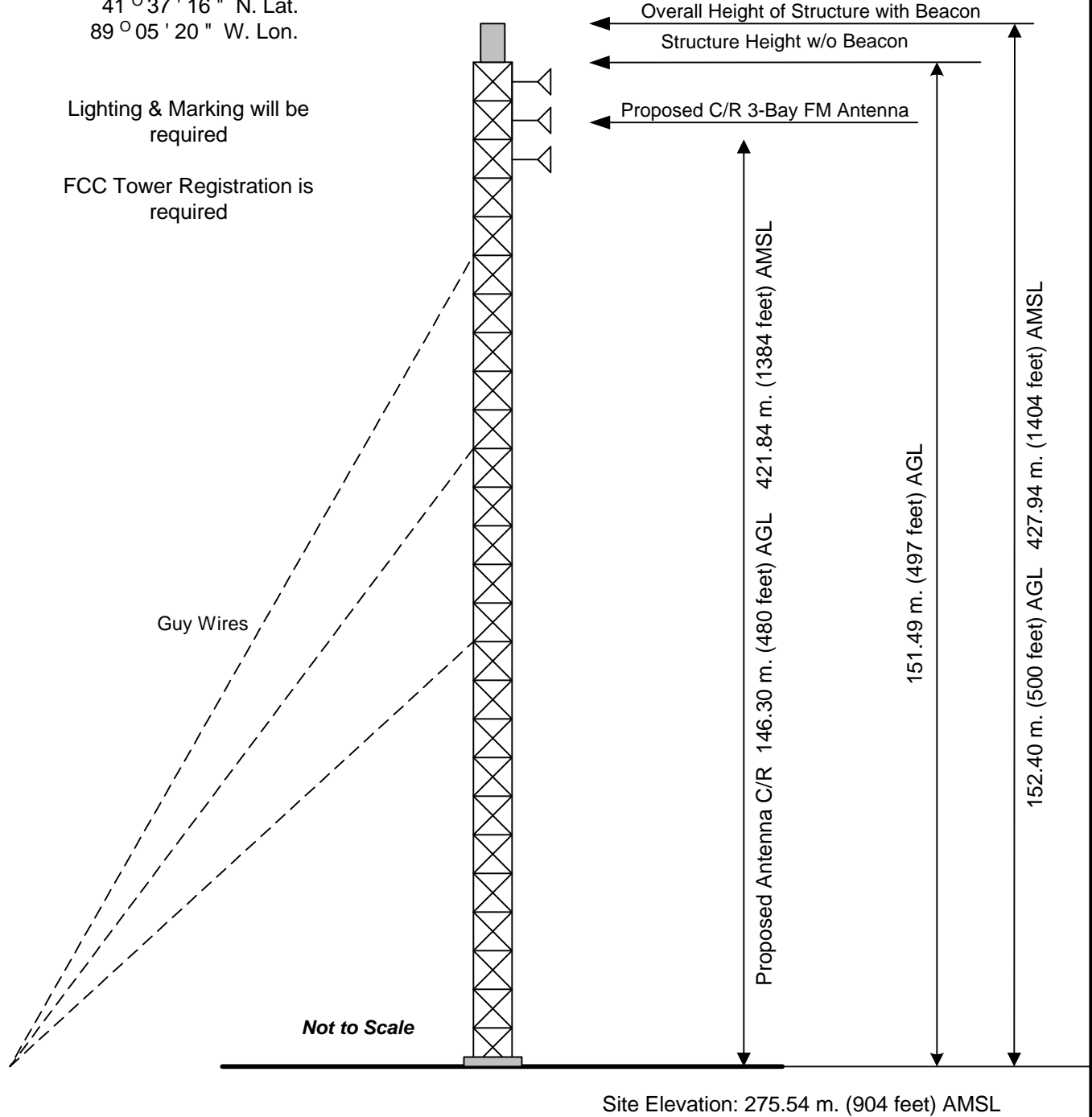
<i>T.Z. Sawyer Technical Consultants</i>	FAA NOTICE OF PROPOSED CONSTRUCTION				
	WMKB (FM) KM RADIO OF EARLVILLE, L.L.C. EARLVILLE, ILLINOIS				Exhibit E-1
BETHESDA, MARYLAND 20816 U.S.A	SIZE A	FSCM NO N/A	DWG NO KMC20020329E1		REV
(c) 2002, ALL RIGHTS RESERVED	SCALE N/A	MARCH 2001		SHEET 1 OF 1	

Site Coordinates:
(NAD1927)

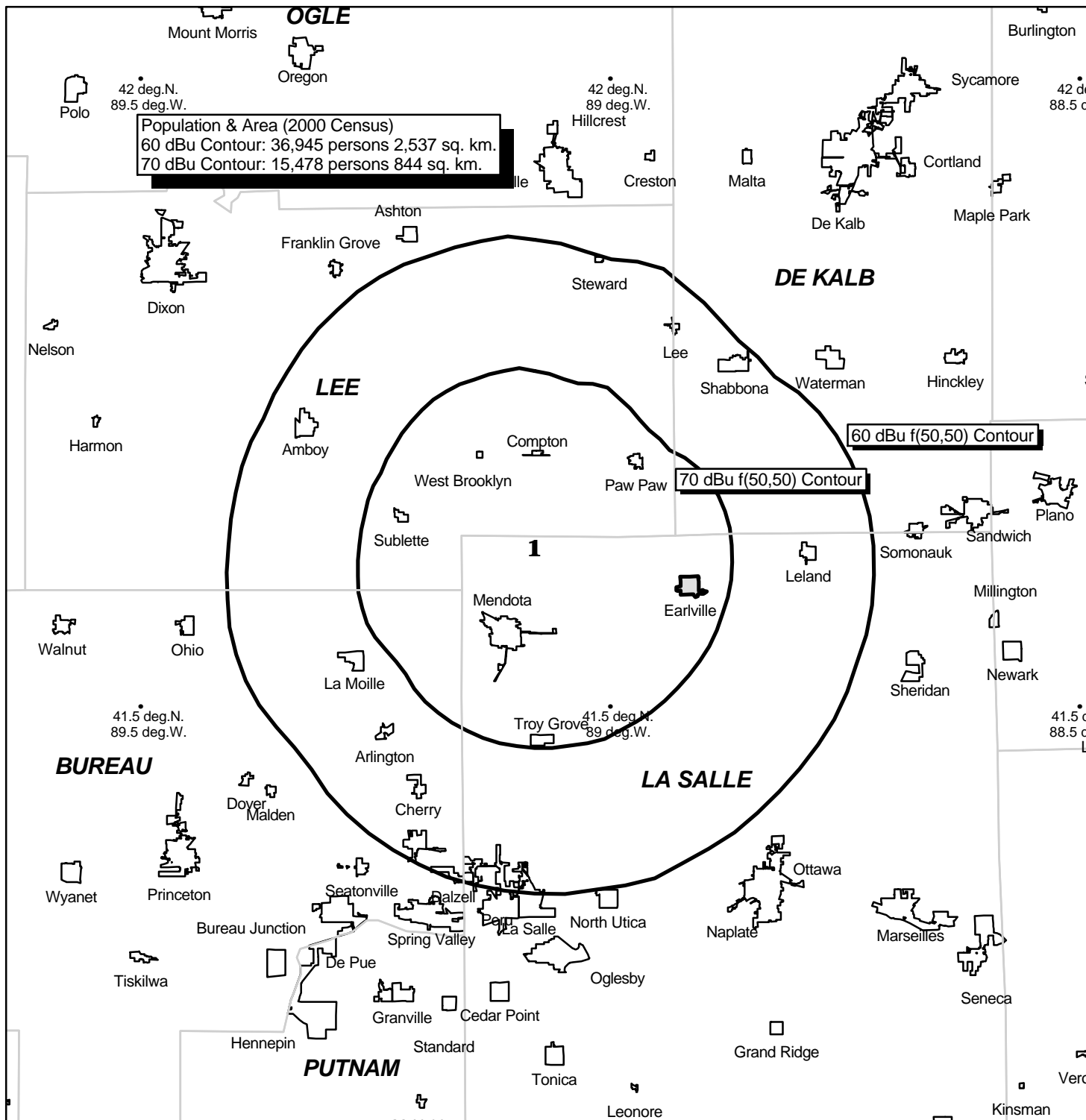
41 ° 37 ' 16 " N. Lat.
89 ° 05 ' 20 " W. Lon.

Lighting & Marking will be
required

FCC Tower Registration is
required



T.Z. Sawyer Technical Consultants	VERTICAL SKETCH OF ANTENNA / TOWER				
	WMKB(FM) CH. 275A EARLVILLE, ILLNOIS			EXHIBIT E-2	
BETHESDA, MARYLAND U.S.A	SIZE A	FSCM NO N/A	DWG NO KMC20020327-E2		REV 4/4/02
(c) 2002, ALL RIGHTS RESERVED	SCALE	N/A	March 2002	SHEET	1 OF 2

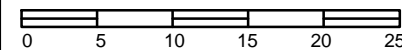


Predicted Service Contours

WMKB(FM), Earlvile, IL

Ch. 275A, 2.15 KW 170 Meters HAAT

Kilometers



Map Scale: 1: 750,000

Map Source:
 U.S.G.S. Digital Line Graph - 100K Series
 Dept. of Commerce - TigerLine 95 Digital Data

Map Legend - Exhibit E-3

- 60 & 70 dBu Service Contours
- 1 Transmitter Site
- Corp. Limits - Earlvile, IL
- Lat.-Lon. Tics at 30' Intervals

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MARCH 2002

ALLOCATION /CHANNEL STUDY

Job Title : WMKB EARLVILLE, IL					Separation Buffer 32 km			
Channel 275A (102.9 MHz)					Coordinates : 41-37-16 89-05-20			
Call	City		Channel	ERP(kW)	Latitude	Bearing	Dist.	Req.
Status	State	FCC File No.	Freq.	HAAT(m)	Longitude	deg-Tru	(km)	(km)
WRHL- FM ROCHELLE			272A	4.60	41-55-24	4.3	33.67	31
LIC	IL	BMLH970220KC	102.3	55.0	89-03-30		2.67	CLOSE
WZZT	MORRISON		274A	6.00	41-50-16	289.4	73.60	72
LIC	IL	BMLH990219KC	102.7	100.0	89-55-29		1.60	CLOSE
WLZR	MILWAUKEE		275B	50.0	43-02-49	29.5	182.82	178
CP	WI	BPH990624IC	102.9	130.0	87-58-52		4.82	CLOSE
WLZR	MILWAUKEE		275B	50.0	43-02-49	29.5	182.82	178
LIC	WI	BLH890921KA	102.9	133.0	87-58-52		4.82	CLOSE
WYXX	MORRIS		276A	6.00 DA	41-17-35	119.9	72.82	72
LIC	IL	BLH990609KB	103.1	100.0	88-20-04	SS	.82	CLOSE
WGFB	ROCKTON		276A	1.20	42-22-02	.0	82.88	72
LIC	IL	BLH891218KB	103.1	160.0	89-05-13		10.88	CLOSE
WVQ	SPRING VALLEY		277A	4.90	41-18-09	199.2	37.48	31
LIC	IL	BLH991227AA	103.3	110.0	89-14-11		6.48	CLOSE

** End of separation study for channel 275A **