FCC Form
February 1977

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION

File No.: BL-821206AB
FAC ID: 35115
Call Sign: W D B C

STANDARD BROADCAST STATION LICENSE

MODIFIED

Subject to the provisions of the Communications Act of 1934, subsequent Acts, and Treaties, and Commission Rules made thereunder, and further subject to conditions set forth in this license, 1/ the LICENSEE

DELTA BROADCASTING COMPANY,
A JOINT VENTURE OF MIDWEST WIRELESS, INC. AND BLACKACRE, LTD.

is hereby authorized to use and operate the radio transmitting apparatus hereinafter described for the purpose of broadcasting for the term ending 3 a.m. Local Time OCTOBER 1, 1989

The licensee shall use and operate said apparatus only in accordance with the following terms:

1. On a frequency of 680 kHz.
2. With nominal power of 1 kilo watts nighttime and 10 kilo watts daytime,
   with antenna input power of 1.08 kilo watts --- directional [Common Point] current 4.60 amperes
   antenna nighttime ..... [Common Point] resistance 51 ohms,
   and antenna input power of 10.5 kilo watts --- directional [Common Point] current 14.0 amperes
   antenna daytime ..... [Common Point] resistance 53.6 ohms
3. Hours of operation: Unlimited Time.
   Average hours of sunrise and sunset:
   Jan. 8:3 am to 5:30 pm; Feb. 7:45 am to 6:15 pm;
   Mar. 7:00 am to 7:00 pm; Apr. 6:00 am to 7:30 pm;
   May 5:15 am to 8:15 pm; June 5:00 am to 8:45 pm;
   July 5:15 am to 8:30 pm; Aug. 5:45 am to 8:00 pm;
   Sep. 6:30 am to 7:00 pm; Oct. 7:00 am to 6:00 pm;
   Nov. 7:45 am to 5:15 pm; Dec. 8:15 am to 5:00 pm;
   Eastern Standard Time (Non-Advanced)
4. With the station located at: Escanaba, Michigan
5. With the main studio located at: 604-606 Ludington Street
   Escanaba, Michigan
6. Remote control point: 604-606 Ludington Street
   Escanaba, Michigan
7. Transmitter location: On Ski Hill Road, near
   Escanaba, Michigan
   North Latitude: 45° 45' 53"
   West Longitude: 87° 05' 48"
8. Obstruction marking specifications in accordance with the following paragraphs of FCC Form 715: None required.
9. Transmitter(s): Type Accepted
10. Conditions: ---

The Commission reserves the right during said license period of terminating this license or making effective any changes or modification of this license which may be necessary to comply with any decision of the Commission rendered as a result of any hearing held under the rules of the Commission prior to the commencement of this license period or any decision rendered as a result of any such hearing which has been designated but not held, prior to the commencement of this license period.

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 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.

1/ This license consists of this page and pages 2, 3, 4 & 5.

Dated: December 23, 1982 KJ

FEDERAL COMMUNICATIONS COMMISSION

FCC Form 353-A
June 1980

File NO.: BL-821206AB Call Sign: W D B C Date: 12-23-82

1. DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM DA-

No. and Type of Elements: Four (4) uniform cross section, guyed, series excited vertical radiators.

Height above Insulators: 282' (70.2°)

Overall Height: 285'

Spacing and Orientation: Four towers in the form of a parallelogram with long sides 763' (190°) on a line bearing 75° true; short sides spaced 362' (90°) on a line bearing 10° true.

Non-Directional Antenna: NE(#1) tower used for Auxiliary Daytime operation

Ground System consists of 120 equally spaced, buried, copper radials 362 feet in length about the base of each tower. Intersection radials shortened and bonded to transverse copper straps midway between adjacent elements.

2. THEORETICAL SPECIFICATIONS

	TOWER:	NE(#1)	SE(#2)	NW(#3)	SW(#4)
Phasing:	NIGHT:	-55°	+55°	-55°	+55°
	DAY:	0°	+70°	—	—
Field Ratio:	NIGHT:	1.0	1.50	1.56	2.34
	DAY:	1.0	0.50	—	—

3. OPERATING SPECIFICATIONS

Phase Indication*:	NIGHT:	0°	110°	-10°	110°
	DAY:	0°	70°	—	—
Antenna Base Current Ratio:	NIGHT:	1.00	1.426	0.623	0.909
	DAY:	0.553	1.00	—	—
Antenna Monitor Sample Current Ratio:	NIGHT:	1.00	1.50	0.64	0.96
	DAY:	0.50	1.00	—	—

* As indicated by Potomac Instruments AM-19 (204) antenna monitor.

EXEMPTIONS AS LISTED IN SECTION 73.68(b) OF THE RULES WILL APPLY DURING PROPER OPERATION OF APPROVED SAMPLING SYSTEM.

Field measuring equipment shall be available at all times and the field intensity at each of the monitoring points shall be measured at least once monthly and an appropriate record kept of all measurements so made.

DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS:

Direction of 20° true North. From the transmitter access drive, turn right (east) on Ski Hill Rd. and proceed 0.20 mile to intersection with Danforth Rd. Turn sharp left (northwest) on Danforth Rd. and proceed 1.90 miles to intersection with "M" Rd. Turn right (north) on "M" Rd. and proceed 1.00 mile to intersection with 18th Rd. Turn right (east) on 18th Rd. and proceed 1.75 miles to intersection with County 426 Rd. Turn right (southeast) on County 426 Rd. and proceed 0.40 mile to Dam Rd. which bears off to left. Bear left (southeast) on Dam Rd. and proceed 0.35 mile to point. Point is in dirt driveway opposite white post on north side of road just before entry onto Highways 2, 41 and M35. This is Point No. 4 of the survey and is 2.37 miles from the array. The field intensity measured at this point should not exceed 260 mv/m Daytime.

Direction of 54.5° true North. From the transmitter access drive, turn right (east) on Ski Hill Rd. and proceed 0.20 mile to intersection with Danforth Rd. Turn sharp left (northwest) on Danforth Rd. and proceed 0.35 mile to intersection with New Danforth Rd. and proceed 0.70 mile to intersection with Highways 2 and 41. Turn left (north) on Highways 2 and 41. Turn left (north) on Highways 2 and 41 and proceed 0.45 mile to Main St. Turn right (east) on Main St. and proceed 0.55 mile to jog at Sheraton Rd. Continue east (around jog) on Main St. and proceed 0.35 mile to end which intersects with dirt road following the Escanaba River. Turn right (southeast) on dirt road bearing to left and proceed 0.10 mile to point. Point is in middle of dirt road opposite marked tree on east side of road. The point is approximately 50 feet south of old railroad bridge pilings. This is Point No. 6 of the survey and is 1.82 miles from the array. The field intensity measured at this point should not exceed 59.0 mv/m Nighttime.

Direction of 100.5° true North. From the transmitter access drive, turn right (east) on Ski Hill Rd. and proceed 0.20 mile to intersection with Danforth Rd. Turn sharp left (northwest) on Danforth Rd. and proceed 0.35 mile to intersection with New Danforth Rd. Turn right (east) on New Danforth Rd. and proceed 0.70 mile to intersection with Highways 2 and 41. Turn left (north) on Highways 2 and 41 and proceed 0.45 mile to Main St. Turn right (east) on Main St. and proceed 0.55 mile to intersection with Sheraton Rd. Turn right (south) on Sheraton Rd. and proceed 1.15 miles to point. Point is on sidewalk at entry walk to house No. 1117. This is Point No. 6 of the survey and is 1.22 miles from the array. The field intensity measured at this point should not exceed 67.5 mv/m Nighttime.

Direction of 145° true North. From the transmitter access drive, turn right (east) on Ski Hill Rd. and proceed 0.20 mile to intersection with Danforth Rd. Turn sharp left (northwest) on Danforth Rd. and proceed 0.35 mile to intersection with New Danforth Rd. Turn right (east) on New Danforth Rd. and proceed 0.70 mile to intersection with Highways 2 and 41. Turn left (north) on Highways 2 and 41 and proceed 0.45 mile to Main St. Turn right (east) on Main St. and proceed 0.55 mile to intersection with Sheraton Rd. Turn right (south) on Sheraton Rd. and proceed 1.45 miles to Ludington St. Turn left (east) on Ludington St. and proceed 0.20 mile to S. 14th St. Turn right (south) on S. 14th St. and proceed 0.95 mile to 12th Ave. S. Turn

DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS: (CONT'D)

left (east) on 12th Avenue S. and proceed 0.30 mile to Lake Shore Dr. Turn right (south) on Lake Shore Dr. and proceed one-half block to point. Point is on concrete stepping-stone walkway into park 30 paces west of marked tree. This is Point No. 14 of the survey and is 2.72 miles from the array. The field intensity measured at this point should not exceed 40.8 mv/m Nighttime.

Direction of 190° true North. From the transmitter access drive, turn right (east) on Ski Hill Rd. and proceed 0.20 mile to intersection with Danforth Rd. Turn sharp left (northwest) on Danforth Rd. and proceed 0.35 mile to intersection with New Danforth Rd. Turn right (east) on New Danforth Rd. and proceed 0.70 mile to intersection with Highways 2 and 41. Turn left (north) on Highways 2 and 41 and proceed 0.45 mile to Main St. Turn right (east) on Main St. and proceed 0.55 mile to intersection with Sheraton Rd. Turn right (south) on Sheraton Rd. and proceed 1.45 miles to Ludington St. Turn right (west) on Ludington St. and proceed 1.40 miles to point. Point is on south side of road west of "City Limit"sign. This is Point No. 2 of the survey and is 1.21 miles from the array. The field intensity measured at this point should not exceed 181.5 mv/m Daytime.

Direction of 210° true North. From the transmitter access drive, turn right (east) on Ski Hill Rd. and proceed 0.20 mile to intersection with Danforth Rd. Turn sharp left (northwest) on Danforth Rd. and proceed 0.35 mile to intersection with New Danforth Rd. Turn right (east) on New Danforth Rd. and proceed 0.70 mile to intersection with Highways 2 and 41. Turn left (north) on Highways 2 and 41 and proceed 0.45 mile to Main St. Turn right (east) on Main St. and proceed 0.55 mile to intersection with Sheraton Rd. Turn right (south) on Sheraton Rd. and proceed 1.45 miles to Ludington St. Turn right (west) on Ludington St. and proceed 1.85 miles to point. Point is on north side of road at driveway to Pioneer Truck Company. This is Point No. 2 of the survey and is 1.40 miles from the array. The field intensity measured at this point should not exceed 162 mv/m Daytime.

Direction of 225° true North. From the transmitter access drive, turn right (east) on Ski Hill Rd. and proceed 0.20 mile to intersection with Danforth Rd. Turn sharp left (northwest) on Danforth Rd. and proceed 0.35 mile to intersection with New Danforth Rd. Turn right (east) on New Danforth Rd. and proceed 0.70 mile to intersection with Highways 2 and 41. Turn left (north) on Highways 2 and 41 and proceed 0.45 mile to Main St. Turn right (east) on Main St. and proceed 0.55 mile to intersection with Sheraton Rd. Turn right (south) on Sheraton Rd. and proceed 1.45 miles to Ludington St. Turn right (west) on Ludington St. and proceed 2.40 miles to point. Point is on south side of road and 20 paces east of driveway to yellow house No. 4909. This is Point No. 1 of the survey and is 1.70 miles from the array. The field intensity measured at this point should not exceed 13.5 mv/m Nighttime.

Direction of 260° true North. From the transmitter access drive, turn right (east) on Ski Hill Rd. and proceed 0.20 mile to intersection with Danforth Rd. Turn sharp left (northwest) on Danforth Rd. and proceed 3.50 miles to bend in road to left (west). Continue west on Danforth Rd. an additional 2.70 miles to intersection with "I" Rd. Turn left (south) on "I" Rd. and proceed 1.75 miles to intersection with "J" Rd. Turn left (east) on "J" Rd. and proceed 2.25 miles (follow turns) to driveway on west side of road. ("J" Rd. is running north-south at this point.) Turn right (west) into driveway and proceed a short distance to point. Point is at bend in driveway toward garage of blue-gray house No. 5703 on west side of road. This is Point No. 3 of

DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS: (CONT'D)

the survey and is 4.38 miles from the array. The field intensity measured at this point should not exceed 8.0 mv/m Nighttime.

Direction of 270° true North. From the transmitter access drive, turn right (east) on Ski Hill Rd. and proceed 0.20 mile to intersection with Danforth Rd. Turn sharp left (northwest) on Danforth Rd. and proceed 3.50 miles to bend in road to left (west). Continue west on Danforth Rd. an additional 2.70 miles to intersection with "I" Rd. Turn ledt (south) on "I" Rd. and proceed 1.75 miles to intersection with "J" Rd. Turn left (east) on "J" Rd. and proceed 1.45 miles (follow turns) to driveway on right. Turn right (west) into driveway and proceed a short distance (approximately 0.05 mile) to point. Point is in middle of driveway between trees on north and south sides. This is Point No. 3 of the survey and is 4.33 miles from the array. The field intensity measured at this point should not exceed 9.6 mv/m Nighttime.

Direction of 280° true North. From the transmitter access drive, turn right(east) on Ski Hill Rd. and proceed 0.20 mile to intersection with Danforth Rd. Turn sharp left (northwest) on Danforth Rd. and proceed 3.50 miles to bend in road to left (west). Continue west on Danforth Rd. an additional 2.70 miles to intersection with "I" Rd. Turn left (south) on "I" Rd. and proceed 1.45 miles to point. Point is on east side of road opposite tar paper shack No. 6384 to east. This is Point No. 8 of the survey and is 5.30 miles from the array. The field intensity measured at this point should not exceed 9.2 mv/m Nighttime.