FCC Form 352
May 1988

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION

File No. : BS-950111WW

AM BROADCAST STATION LICENSE

Call Sign : WPHM

LICENSEE: Hanson Communications, Inc.

1. Community of License. . . : Port Huron, Michigan

2. Transmitter location. . . . . : 1403 Range Road
St. Clair Twsp., Michigan

North Latitude. . . . . : 42° 51' 50"
West Longitude . . . . . : 82° 29' 40"

3. Transmitter(s): Type Accepted. See Sections 73 1660, 73.1665 and 73.1670 of the Commission's rules)

4. Main Studio Location: *(See Section 73.1125)*
2379 Military Street
Port Huron, Michigan

5. Remote control location
2379 Military Street
Port Huron, Michigan

6. Antenna and ground system:
Attached.

7. Obstruction marking and lighting specifications - FCC Form 715, paragraphs: 1,3,11 & 21 for tower 1, 4, 5 & 7; no obstruction marking or lighting for tower #2, 3, & 6

8. Frequency. . . . . : 1380 kHz

9. Nominal power (kW). . . . . : 5 Day 5 Night

Antenna input power (kW):

5.4 Day ☐ Non-directional antenna: ☒ Directional antenna : current 10.4 amperes: resistance 50 ohms.

5.4 Night ☐ Non-directional antenna: ☒ Directional antenna : current 10.4 amperes: resistance 50 ohms.

10. Hours of operation : Unlimited

11. Conditions. . . . . :

Increase monitor point limitations on the 65°, 168° & 250° TN daytime radials.

Subject to the provisions of the Communications Act of 1934, as amended, subsequent Acts, Treaties, and Commission rules made thereunder, and further subject to conditions set forth in this license,[1] the LICENSEE is hereby authorized to use and operate the radio transmitting apparatus herein described for the purpose of broadcasting for the term ending 3 A.M. Local Time October 1, 1996.

The Commission reserves the right during said license period of terminating this license or making effective any change, 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.

The license is issued on the licensee's representation that the statements contained in the 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, as amended. This license is subject to the right of control by the Government of the United States conferred by section 606 of the Communications Act of 1934, as amended.

EAL:rao

[1] This license consists of this page and pages 2, 3 & 4

Dated: APR 24 1995

FEDERAL COMMUNICATIONS COMMISSION

FCC Form 353-A
June 1980

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1. **DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM**

No. and Type of Elements: Seven uniform cross-section, guyed, series excited vertical radiators. Theoretical RMS: 682.36 mV/m at 1 km, day; 682.36 mV/m at 1 km, night. Augmented RMS: 720.30 mV/m at 1 km, day; 719.20 mV/m at 1 km, night. Q = 22.36 mV/m, day; 30.17 mV/m at 1 km, night.

Height above Insulators: 61.87m (101°)

Overall Height: 62.79m

Spacing and Orientation: Daytime: Towers in the form of a right angle parallelogram. Long sides consists of towers No. 1, 2, 3, 5, 6 and 7, spaced 54.24m (90°) on lines bearing 168° true with a total length of 108.48m for each long side. The short sides consist of towers No. 1, 5, 2, 6 and towers 3 and 7 spaced 105.49m (175°) on a line bearing 78° true. Nighttime: Towers #1, #2, #3, and #4 in line bearing 168° true and spaced 54.24m between adjacent elements.

Non-Directional Antenna: None used.

Ground System consists of 120- equally spaced buried, copper radials 54.27m in length plus 7.32m x 7.32m ground screen about the base of each tower. Intersecting radials shortened and bonded to transverse copper strap midway between adjacent elements.

2. **THEORETICAL SPECIFICATIONS**

Towers:		NW(#1)	WC(#2)	SW(#3)	S(#4)	NE(#5)	EC(#6)	SE(#7)
Phasing:	Night:	-218.6°	-71.19°	73.89°	218.6°	–	–	–
	Day:	-127.5°	3.67°	122.5°	–	-122.5°	9.27°	127.5°
Field Ratio:	Night:	0.381	1.0	0.985	0.381	–	–	–
	Day:	1.0	1.654	1.0	–	1.0	1.474	1.0

3. **OPERATING SPECIFICATIONS**

Phase Indication*:								
	Night:	-159°	0°	145.0°	-68.7°	–	–	–
	Day:	-126.0°	0°	107°	–	-111.2°	-1.6°	101.0°
Antenna Base Current Ratio:								
	Night:	0.413	1.00	1.215	0.537	–	–	–
	Day:	0.507	1.00	0.696	–	0.401	0.856	0.705
Antenna Monitor Sample Current Ratio:								
	Night:	0.395	1.00	1.185	0.504	–	–	–
	Day:	0.48	1.00	0.66	–	0.409	0.771	0.61

* As indicated by Potomac Instruments AM-19 (210) Antenna Monitor.
Antenna sampling system approved under Section 73.68 (b) of the Rules.

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DESCRIPTION OF AND FIELD INTENSITY MEASURED AT MONITORING POINTS:

Direction of 65° True North. From the transmitter access road, proceed North 0.75 miles on Range Road. Turn right and proceed 0.82 miles East on Davis Road. Turn right and proceed 0.55 miles South on Busha Highway. The monitoring point is next to "No Passing" sign on West side of Busha Highway. Distance from transmitters is 1.05 miles. The field intensity measured at this point should not exceed 31.0 mv/m, daytime.

Direction of 78° True North. From the transmitter access road, proceed North 0.75 miles on Range Road. Turn right and proceed 0.82 miles East on Davis Road. Turn right and proceed 0.74 miles South on Busha Highway. The monitoring points is East of Route 29 on the Northeast end of the "River Crap" parking lot, 25 ft. Southwest of the "River Crab" sign. Distance from the transmitter site is 0.95 miles. The field intensity measured at this point should not exceed 22 mV/m, daytime & 21 mV/m, nighttime.

Direction of 98° True North. From the transmitter access road, proceed North 0.75 miles on Range Road. Turn right and proceed 0.82 miles East on Davis Road. Turn right and proceed 1.1 miles South on Busha Highway to Neuman Road. Turn right and proceed 0.1 miles West on Neuman Road. The monitoring point is on the East side of No. 4055 Neuman Road. Distance from the transmitter site is 0.9 miles. The field intensity measured at this point should not exceed 46 mV/m, daytime and 48 mV/m, nighttime.

Direction of 135° True North. From the transmitter access road, proceed South 1.26 miles on Range road. Turn left and proceed 1.1 miles East on Yankee Road. Turn left and proceed 0.12 miles North on Busha Highway. The monitoring point is located 50 feet East of highway between first brick pillers for the River Estates 1935. Distance from transmitter site is 1.38 miles. The field intensity measured at this point should not exceed 50 mV/m, daytime.

Direction of 168° True North. From the transmitter access road, proceed South 2.2 miles on Range Road. Turn left and proceed 0.48 miles East on Brown Street. Turn left and proceed 0.12 miles North on Fourth Street. Turn right and proceed past turn on Meldrum Circle to corner of Meldrum Circle and Devon. The monitoring point is on the Southeast corner of Meldrum and Devon. Distance from the transmitter site is 2.05 miles. The field intensity measured at this point should not exceed 31 mV/m, daytime and 33 mV/m, nighttime.

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DESCRIPTION OF AND FIELD INTENSITY MEASURED AT MONITORING POINTS:

Direction of 205° True North. From the transmitter access road, proceed South 2.2 miles on Range Road. turn right and proceed on Carney Drive to intersection of Fred W. Moore Highway. Turn right and proceed 0.48 miles West of King Road. Turn left and proceed on Ring Road 2.05 miles South to Puttygut Road. Turn right and proceed 1.58 miles West on Puttygut Road. The monitoring point is on Puttygut Road 200 feet East of 5820 Puttygut Road by East fence line of field. Distance from transmitter site is 5.92 miles. The field intensity measured at this point should not exceed 18 mV/m, daytime and 10 mV/m, nighttime.

Direction of 250° True North. From the transmitter access road, proceed South 2.2 miles on Range Road. Turn right and proceed on Carney Road to intersection of Clinton Street. Turn right and proceed 2.95 miles Northwest on Clinton which becomes Rattle Run. Turn right and proceed 0.6 miles North on Wadhams Road. The monitoring point is on the road opposite telephone pole on West side of road. Distance from transmitter site is 3.35 miles. The field intensity measured at this point should not exceed 12.0 mV/m, daytime.