

#### United States of America

# FEDERAL COMMUNICATIONS COMMISSION AM BROADCAST STATION LICENSE

Official Mailing Address:

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GOETZ BROADCASTING CORPORATION P. O. BOX 94

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FORT ATKINSON, WI 53538

Call Sign: WFAW

License File No.: BZ-971202KA

Authorizing Official

Son Nguyen

Supervisory Engineer AM Branch Audio Services Division

Mass Media Bureau

Grant Date: MAR 6

This license expires 3:00 a.m. Local time, December 1, 2004

Direct Measurement of Power

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.

Hours of Operation: Unlimited

Average hours of sunrise and sunset: Local Standard Time (Non-Advanced)

Jan.			4:45	p.m.	Jul.	4:30	a.m.	7:30	p.m.
Feb.			5:30	p.m.	Aug.	5:00	a.m.		
Mar.			6:00	p.m.	Sep.	5:30	a.m.	6:00	p.m.
Apr.	5:15	a.m.		p.m.	Oct.	6:00	a.m.	5:15	p.m.
May		a.m.		p.m.		6:45	a.m.	4:30	p.m.
Jun.	4:15	a.m.	7:30	p.m.	Dec.	7:15	a.m.	4:15	p.m.

Licensee: GOETZ BROADCASTING CORPORATION

Station Location: FT. ATKINSON, WI

Frequency (kHz): 940

Station Class: B

Transmitter Location:

WI - W4362 Findlay Road, Cold Spring

Latitude:

N 42° 54' 24"

Longitude:

W 88° 45' 6"

Main Studio Location: (See Section 73.1125) WI - W6355 Eastern Ave., Fort Atkinson

Nominal Power (kW):

Day: 0.50

Night: 0.55

Antenna Input Power (kW): Day: 0.5400

Night: 0.5940

Antenna Mode:

Day; DA

Night: DA

(DA=Directional Antenna; ND=Non-directional Antenna; CH=Critical Hours)

Current (amperes):

Day: 3.29

Night: 3,45

Resistance (ohms):

Day: 50.00

Night: 50.00

Antenna Description:

Five (5) vertical, guyed, series-excited steel radiators of uniform cross section (Daytime: uses tower #5 as reference and tower #3 of the nighttime).

Ground System Description:

120 equally spaced, buried, copper radials about the base of each tower, each 155.06 meters in length except where terminated by property boundaries or where intersecting radials are shortened and bonded to a transverse copper strap midway between adjacent towers, plus 120 interspersed radials 15.24 meters in length about the base of each tower.

Antenna Registration Number(s):

Daytime:

Twr No. ASRN

1035465

2

1035463

## Nighttime:

ľwr	No.	ASRN
1		1035461
2		1035462
3		1035463
4		1035464

### DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m @ 1km): Day: 223.02 Night: 209.71
Standard RMS (mV/m @ 1km): Day: 234.41 Night: 220.45

Q Factor: Day: 10.00 Night: 10.00

#### Theoretical Parameters:

## Daytime Directional Antenna:

Tower	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref. Switch *	Height (Deg.)
1	1.0000	0.000	0.000	0.000	0	90.0
2	0.6200	240.000	85.000	310.000	0	90.0

### Nighttime Directional Antenna:

Tower No.	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref. Switch *	Height (Deg.)
1	1.0000	0.000	0.000	0.000	0	90.0
2	2.5000	311.000	175.000	226.000	0	90.0
3	2.5000	266.000	350.000	226.000	O	90.0
4	1.0000	221.000	525,000	226.000	0	90.0

<sup>\*</sup> Tower Reference Switch:

### Operating Parameters:

## Daytime Directional Operation:

Twr.	Phase (Deg.)	Antenna Monitor Sample Current Ratio	Antenna Base Current Ratio
1	0.00	1.000	1.000
2	116.50	1.590	1.515

<sup>0 =</sup> Spacing and orientation from reference tower

<sup>1 =</sup> Spacing and orientation from previous tower

## Nighttime Directional Operation:

Twr.	Phase (Deg.)	Antenna Monitor Sample Current Ratio	Antenna Base Current Ratio
1	89.00	0.380	0.395
2	45.00	0.970	0.988
3	0.00	1.000	1.000
4	-53.00	0.385	0.399

Antenna Monitor: Potomac Instruments AM-19 (204)

Sampling System Approved Under Section 73.68(b) of the Rules.

## Monitoring Points:

## Daytime Operation:

Radial (Deg. T)	Distance From Transmitter (kM)	Maximum Field Strength (mV/m)
85.0	6.68	10.70
130.0	3.22	31.10
175.0	5.46	17.23

## Nighttime Operation:

Radial (Deg. T)	Distance From Transmitter (kM)	Maximum Field Strength $(mV/m)$
2.5	3.62	2,51
46.0	8.69	1.20
89.5	6.68	1.31
102.5	11.40	0.68
226.0	3.52	2.81

Special Operating Conditions or Restrictions:

None Required

\*\*\* END OF AUTHORIZATION \*\*\*