

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
AM BROADCAST STATION LICENSE

File No. : BZ-941116AA
FAC ID : 22978
Call Sign : K W B G

LICENSEE: G. O. RADIO BOONE, INC.

1. Community of License . . . : Boone, IA
2. Transmitter location : 1469 230th Street
Boone, IA

North Latitude : 42° 01' 22"
West Longitude : 93° 52' 36"

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)
724 Story Street
Boone, IA

5. Remote control location
724 Story Street
Boone, IA

6. Antenna and ground system:
SEE PAGE 2.

7. Obstruction marking and lighting specifications - FCC Form 715, paragraphs: NONE REQUIRED.

8. Frequency : 1590 kHz

9. Nominal power (kW) : 1.0 Day 0.5 Night

Antenna input power (kW) :

| | | | | | | | | |
|--------------|-------|--|---------|-------------|----------|------------|------------|-------|
| <u>1.0</u> | Day | <input checked="" type="checkbox"/> Non-directional antenna: | current | <u>1.98</u> | amperes: | resistance | <u>254</u> | ohms. |
| | | <input type="checkbox"/> Directional antenna : | | | | | | |
| <u>0.540</u> | Night | <input type="checkbox"/> Non-directional antenna: | current | <u>3.29</u> | amperes: | resistance | <u>50</u> | ohms. |
| | | <input checked="" type="checkbox"/> Directional antenna : | | | | | | |

10. Hours of operation : Unlimited

11. Conditions :

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
February 1, 1997

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.

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¹ This license consists of this page and pages 2 and 3.

Dated: APR 18 1995

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1. **DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM**

No. and Type of Elements: Two (2) vertical, guyed, series-excited steel radiators of uniform cross section. Theoretical RMS Nighttime: 228.53 mV/m at one km; Augmented RMS Nighttime: 240.73 mV/m at one km. Q = 10.

| | | |
|---------------------------------|-----------------|-----------------|
| | #1(S) | #2(N) |
| Height above Insulators: | 56.1 m (107.1°) | 62.2 m (118.7°) |

| | | |
|------------------------|------|--------|
| Overall Height: | 57 m | 63.1 m |
|------------------------|------|--------|

Spacing and Orientation: Using tower #1 (S) as reference, tower #2 is spaced 80° on a line bearing 336° true.

Non-Directional Antenna: Tower #1 (S): Theoretical Efficiency: 317.04 mV/m/kW at one km.

Ground System consists of 120 equally spaced, buried, copper radials 47.2 m in length, plus 120 interspersed radials 15.2 m in length.

2. **THEORETICAL SPECIFICATIONS**

| | | |
|----------------|-------|-------|
| Towers: | #1(S) | #2(N) |
|----------------|-------|-------|

| | | | |
|-----------------|--------|----|-------|
| Phasing: | Night: | 0° | -137° |
|-----------------|--------|----|-------|

| | | | |
|---------------------|--------|-----|------|
| Field Ratio: | Night: | 1.0 | 0.85 |
|---------------------|--------|-----|------|

3. **OPERATING SPECIFICATIONS**

Phase Indication*:

| | | |
|--------|----|-------|
| Night: | 0° | -137° |
|--------|----|-------|

Antenna Base

Current Ratio:

| | | |
|--------|------|-------|
| Night: | 1.00 | 0.462 |
|--------|------|-------|

Antenna Monitor Sample

Current Ratio:

| | | |
|--------|------|------|
| Night: | 1.00 | 0.94 |
|--------|------|------|

* As indicated by Potomac Instruments AM-19 (204) Antenna Monitor.
Antenna sampling system approved under Section 73.68 (b) of the Rules.

DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS:

Direction of 92° True North. From intersection adjacent to transmitter grounds proceed north 0.7 mile on paved road R23 to U.S. Highway 30, then east 1.5 miles to paved road R27. Turn right and proceed south 1.0 mile to 230th Street and then east 0.4 mile. The monitor point is located 155 feet due north from the fence line and is 1.7 miles (2.7 km) from the center of the antenna. The field intensity measured at this point should not exceed 13.2 mV/m.

Direction of 112° True North. From intersection adjacent to transmitter grounds proceed north 0.7 mile on paved road R23 to U.S. Highway 30, then east 1.5 miles to paved road R27. Turn right and proceed south approximately 2.2 miles to 240th Street and then east 1.6 miles. The monitor point is located 45 feet due south from the fence line and is 3.0 miles (4.8 km) from the center of the antenna. The field intensity measured at this point should not exceed 10.5 mV/m.

Direction of 213.5° True North. From intersection adjacent to transmitter grounds proceed west on 230th Street a distance of 0.5 mile. From this point curve south for 1.2 miles. The monitor point is located 30 feet west of the road edge at 1403 230th Street. This location is 1.3 miles (2.1 km) from the center of the antenna. The field intensity measured at this point should not exceed 15.4 mV/m.