

# United States of America

# FEDERAL COMMUNICATIONS COMMISSION AM BROADCAST STATION LICENSE

Authorizing Official:

Official Mailing Address:

ALTON RAINBOW CORPORATION 1188 LAKE VIEW DR

ALTAMONTE SPRINGS FL 32714

Facility Id: 1185

Call Sign: WHIM

License File Number: BL-19990309DE

Son Nguyen

Supervisory Engineer

Audio Division

Media Bureau

Grant Date: April 27, 1999

This license expires 3:00 a.m. local time, February 01, 2004.

This supersedes authorization of same date to correct the application file number from BL-19990220DE to BL-19990309DE. (HKC-05/19/04)

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 west 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. | 7:15 | AM   | 5:45 | PM | Jul. | 5:30 | AM | 7:30 | PM |
|------|------|------|------|----|------|------|----|------|----|
| Feb. | 7:00 | AM · | 6:15 | PM | Aug. | 6:00 | AM | 7:00 | PM |
| Mar. | 6:30 | AM   | 6:30 | PM | Sep. | 6:15 | AM | 6:30 | PM |
| Apr. | 6:00 | AM   | 6:45 | PM | Oct. | 6:30 | AM | 6:00 | PM |
| May  | 5:30 | AM   | 7:15 | PM | Nov. | 6:45 | AM | 5:30 | PM |
| Jun. | 5:30 | AM   | 7:30 | PM | Dec. | 7:15 | AM | 5:30 | PM |

Callsign: WHIM License No.: BL-19990309DE

Name of Licensee: ALTON RAINBOW CORPORATION

Station Location: APOPKA, FL

Frequency (kHz): 1520

Station Class: B

#### Antenna Coordinates:

Day

Latitude: N 28 Deg 39 Min 08 Sec Longitude: W 81 Deg 29 Min 40 Sec

Transmitter(s): Type Accepted. See Sections 73.1660, 73.1665 and

73.1670 of the Commission's Rules.

Nominal Power (kW): Day: 5.0 Night: 0.35

Antenna Input Power (kW): Day: 5.4 Night: 0.38

Antenna Mode: Day: DA Night: DA

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

Current (amperes): Day: 10 Night: 2.64

Resistance (ohms): Day: 54 Night: 54

Antenna Registration Number(s):

Day:

Tower No. ASRN Overall Height (m)

1 1029266

2 None 49.7

Night:

Tower No. ASRN Overall Height (m)

1 1029266

4

2 None 49.7

3 None 49.7

None 49.7

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## DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Day: 806.28 Night: 186.9

Standard RMS (mV/m/km): Day: 846.92 Night: 196.53

Augmented RMS (mV/m/km):

Q Factor: Day: 22.36 Night: 10

#### Theoretical Parameters:

## Day Directional Antenna:

| Tower | Field<br>Ratio | Phasing<br>(Deg.) |         | Orientation (Deg.) | Tower Ref<br>Switch * | Height<br>(Deg.) |
|-------|----------------|-------------------|---------|--------------------|-----------------------|------------------|
| 1     | 1.0000         | 0.000             | 0.0000  | 0.000              | 0                     | 178.0            |
| 2     | 0.5200         | 103.000           | 88.4000 | 270.000            | 0                     | 89.0             |

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

0 = Spacing and orientation from reference tower

1 = Spacing and orientation from previous tower

#### Theoretical Parameters:

### Night Directional Antenna:

| Tower<br>No. | Field<br>Ratio | Phasing<br>(Deg.) | Spacing<br>(Deg.) | Orientation (Deg.) | Tower Ref<br>Switch * | Height<br>(Deg.) |
|--------------|----------------|-------------------|-------------------|--------------------|-----------------------|------------------|
| 1.           | 1.0000         | 0.000             | 0.0000            | 0.000              | 0                     | 178.0            |
| 2            | 0.9520         | 188.900           | 88.4000           | 270.000            | 0                     | 89.0             |
| . 3          | 1.3400         | 245.800           | 88.6000           | 134.900            | 0                     | 89.0             |
| 4            | 0.9700         | 104.000           | 85.5000           | 206.400            | 0                     | 89.0             |

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

0 = Spacing and orientation from reference tower

## Day Directional Operation:

|   | Phase<br>(Deg.) | Antenna Monitor<br>Sample Current Ratio |
|---|-----------------|---|
| 1 | -135.6          | 0.945                                   |
| 2 | Ω               | .1                                      |

#### Night Directional Operation:

| Twr. | Phase  | Antenna Monitor      |
|------|--------|----------------------|
| No.  | (Deg.) | Sample Current Ratio |
| 1    | 114.5  | 0.453                |
| 2    | -55.4  | 0.75                 |
| 3    | 0      | 1 .                  |
| 4    | -137.9 | 0.693                |

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

\* Antenna Monitor: POTOMAC INSTRUMENTS AM-19

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

Monitoring Points:

Day Operation:

| Radial (Deg. T) | Distance | From Transmi (kM) | Ltter Maximum | Field Strengt (mV/m) | :h |
|-----------------|----------|-------------------|---------------|----------------------|----|
| 240.5           |          | 2.74              |               | 31                   |    |
| 270             |          | 3.06              |               | 22.6                 |    |
| 299.5           |          | 2.95              |               | 35.6                 |    |

# Night Operation:

| Radial   | Distance | From Tra | ansmitter | Maximum | Field :            | Strength |
|----------|----------|----------|-----------|---------|--------------------|----------|
| (Deg. T) | •        | (kM)     |           |         | $(m \setminus Vm)$ |          |
| 25       |          | 1.8      |           |         | 1.51               |          |
| 160      |          | 3.45     |           | -       | 1.89               |          |

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