

## **KWRF-FM Minor Modification Application**

This technical report has been developed for a minor change to KWRF-FM 288A at Warren, AR, FCC file no. BLH-7115. A correction of the existing facility tower coordinates is submitted.

The following exhibits are provided for the form 301 minor application:

- E-1 KWRF-FM Spacing study
- E-2 HAAT Calculation
- E-3 KWRF-FM 70 dBu Community Coverage Plot
- E-4 KWRF-FM Corrected Tower ASR #1040901

### **KWRF-FM 288A Modification Analysis:**

KWRF-FM is a 3 kW grandfathered short-spaced facility. Therefore, the minimum distance spacing requirements in C.F.R §73.213(c)(1) apply. A spacing study is included in Exhibit E-1, and demonstrates KWRF-FM will remain fully spaced at the corrected site coordinates:

**33-38-08N 92-03-56W NAD27.**

The KWRF-FM facility will continue to operate at 3 kW ERP at a HAAT of 74 meters, calculated using the 30-second NGDC terrain database with eight radials (Exhibit E-2). Additionally, KWRF-FM places a 70 dBu city-grade contour over the Warren, AR community of license (Exhibit E-3).

# Anderson Associates

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Broadcast Consultants  
1519 Euclid Avenue  
Bowling Green, KY 42103

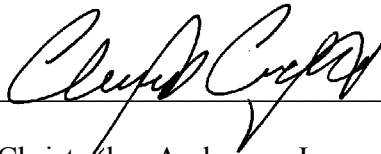
## **RF Exposure Calculation:**

The RF contribution was calculated using the Commission's FMMODEL program for the existing three bay, full wavelength spaced antenna. The resulting RF at 2 meters above ground is  $4.05 \mu\text{W}/\text{cm}^2$  at a distance of 36 meters from the base of the tower, which is well below the  $200 \mu\text{W}/\text{cm}^2$  maximum permissible for general public exposure.

It is noted that KWRF-FM is co-located on the KWRF(AM) tower at Warren, AR, Facility I.D. 52650. Since there is no physical change to the KWRF-FM facility on the tower, it is requested that a condition for a direct resistance measurement of the AM facility is not required for grant of this application.

## **Conclusion:**

It is concluded the minor modification to KWRF-FM is in full compliance with the Commission rules and policies.



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Christopher Anderson January 19, 2011  
andersce@bham.rr.com

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# E-1 KWRF-FM Spacing Study

REFERENCE		DISPLAY DATES
33 38 08.0 N.	CLASS = A	DATA 01-18-11
92 03 56.0 W.	Former Spacings to 3rd Adj.	SEARCH 01-18-11
----- Channel 288 - 105.5 MHz -----		

Call	Channel	Location		Azi	Dist	FCC	Margin
KWRF-FM	LIC	288A	Warren	AR	155.2	0.3	104.5 -104.2
KWAK-FM	LIC	288A	Stuttgart	AR	33.1	105.7	104.5 1.2*
KRKD	LIC	289A	Dermott	AR	99.2	64.7	63.5 1.2*
KLIP	LIC	287C2	Monroe	LA	183.4	120.4	104.5 15.9
DKWHN-FM	VAC	288A	Haynesville	LA	234.3	124.0	104.5 19.5
KXRR	LIC	291C0	Monroe	LA	181.1	108.2	85.5 22.7
WNLA-FM	LIC	288A	Indianola	MS	97.2	133.4	104.5 28.9
WNLA-FM	CP	288A	Indianola	MS	97.2	133.4	104.5 28.9
KAGH-FM	LIC	285A	Crossett	AR	168.8	56.6	26.5 30.1
KLAZ	LIC	290C1	Hot Springs	AR	312.4	122.1	73.5 48.6
KMJX	LIC	286C1	Conway	AR	343.2	134.8	73.5 61.3
KHKN	LIC	235C	Maumelle	AR	351.2	90.5	27.5 63.0
KNAS	LIC-N	288A	Nashville	AR	284.6	171.9	104.5 67.5
WVBG-FM	LIC-N	288A	Redwood	MS	139.4	181.3	104.5 76.8
KYEL	LIC	288A	Danville	AR	327.0	195.0	104.5 90.5
KFXV	LIC-N	289C3	Kensett	AR	8.3	185.4	83.5 101.9
KHPA	LIC-N	285A	Hope	AR	274.5	132.1	26.5 105.6
KAKJ	LIC	287A	Marianna	AR	42.6	175.0	63.5 111.5
KCRJ-LP	LIC	235L1	Monroe	LA	179.0	121.8	5.5 116.3
KYKX	CP -Z	289C	Longview	TX	247.7	278.0	160.5 117.5
WTNM	LIC	288A	Water Valley	MS	72.7	223.7	104.5 119.3

\* 73.213(c)(1) minimum spacing with respect to KWRF-FM 3 kW grandfathered facility.

## E-2 KWRF-FM HAAT Calculation

N. Lat. = 333808.0 W. Lng. = 920356.0  
HAAT and Distance to Contour,  
3-16 km, 51 pts Method - NGDC 30 SEC

Azi. AV EL HAAT dBk 60-F5

000	48.5	86.5	4.77	22.57
045	51.5	83.5	4.77	22.19
090	53.6	81.4	4.77	21.92
135	41.9	93.1	4.77	23.41
180	69.8	65.2	4.77	19.72
225	72.9	62.1	4.77	19.28
270	74.0	61.0	4.77	19.13
315	72.2	62.8	4.77	19.38

Ave El= 60.53 M HAAT= 74.47 M AMSL= 135

# E-3 KWRF-FM 70 dBu Contour Plot

## KWRF-FM

BLH7115

Latitude: 33-38-08 N

Longitude: 092-03-56 W

ERP: 3.00 kW

Channel: 288

Frequency: 105.5 MHz

AMSL Height: 135.0 m

Elevation: 61.0 m

Horiz. Pattern: Omni

Vert. Pattern: No

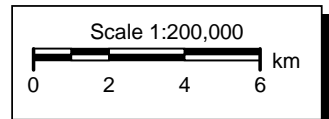
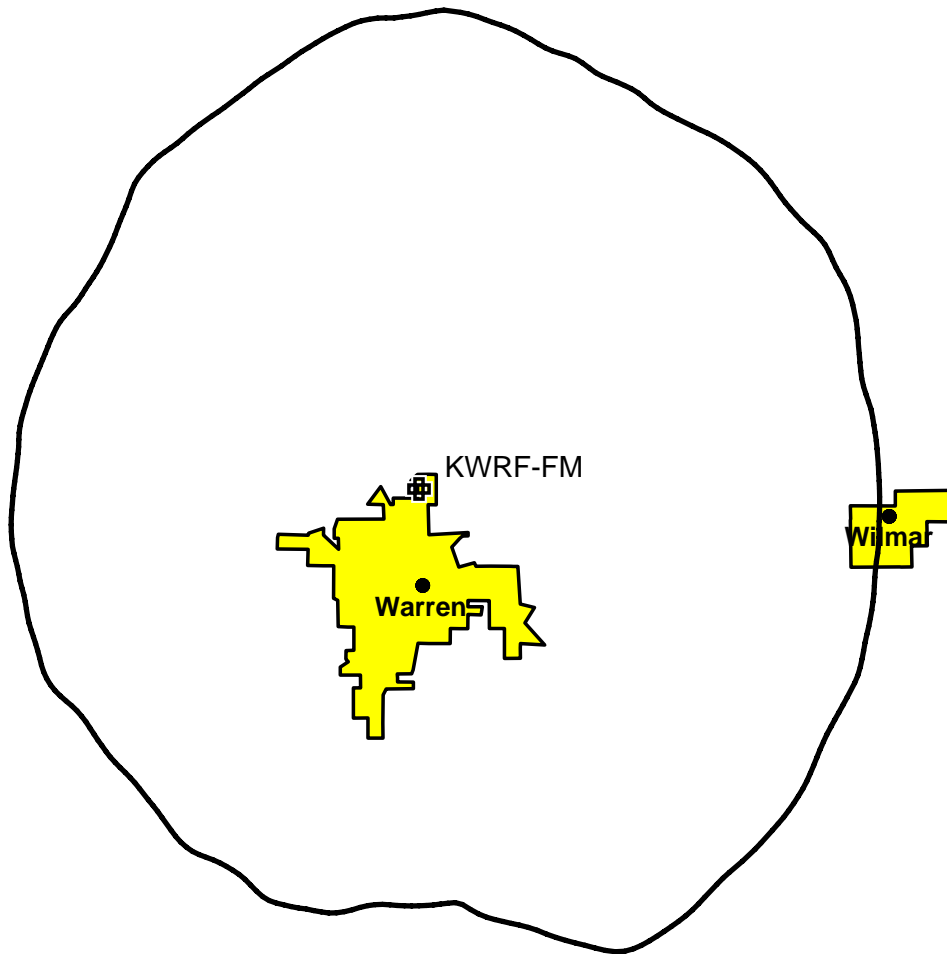
Prop Model: None

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KWRF-FM  
70 dBu F(50-50) Contour



Banks



## E-4 KWRF Tower Corrected ASR

### Registration 1040901

 [Map Registration](#)

#### Registration Detail

Reg Number	1040901	Status	Constructed
File Number	A0708435	Constructed	06/01/1976
FAA Study	2010-ASW-6377-OE	EMI	No
FAA Issue Date	12/07/2010	NEPA	No

#### Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Communications Purposes

**Location** (in NAD83 Coordinates)

Lat/Long 33-38-08.3 N 092-03-56.2 W ON HWY 15 ONE MI N  
City, State WARREN , AR  
Center of  
AM Array

#### Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
61.0	77.1
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
138.1	1.0

#### Painting and Lighting Specifications

FCC Paragraphs 1, 3, 11, 21

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#### Owner & Contact Information

FRN	0003765864	Licensee ID	L01268796
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#### Owner

PINES BROADCASTING INC DBA = KWRF RADIO  
Attention To: JIMMY SLEDGE  
1255 N MYRTLE  
WARREN , AR 71671

P: (870)226-2653  
E:

#### Contact

P:  
E:

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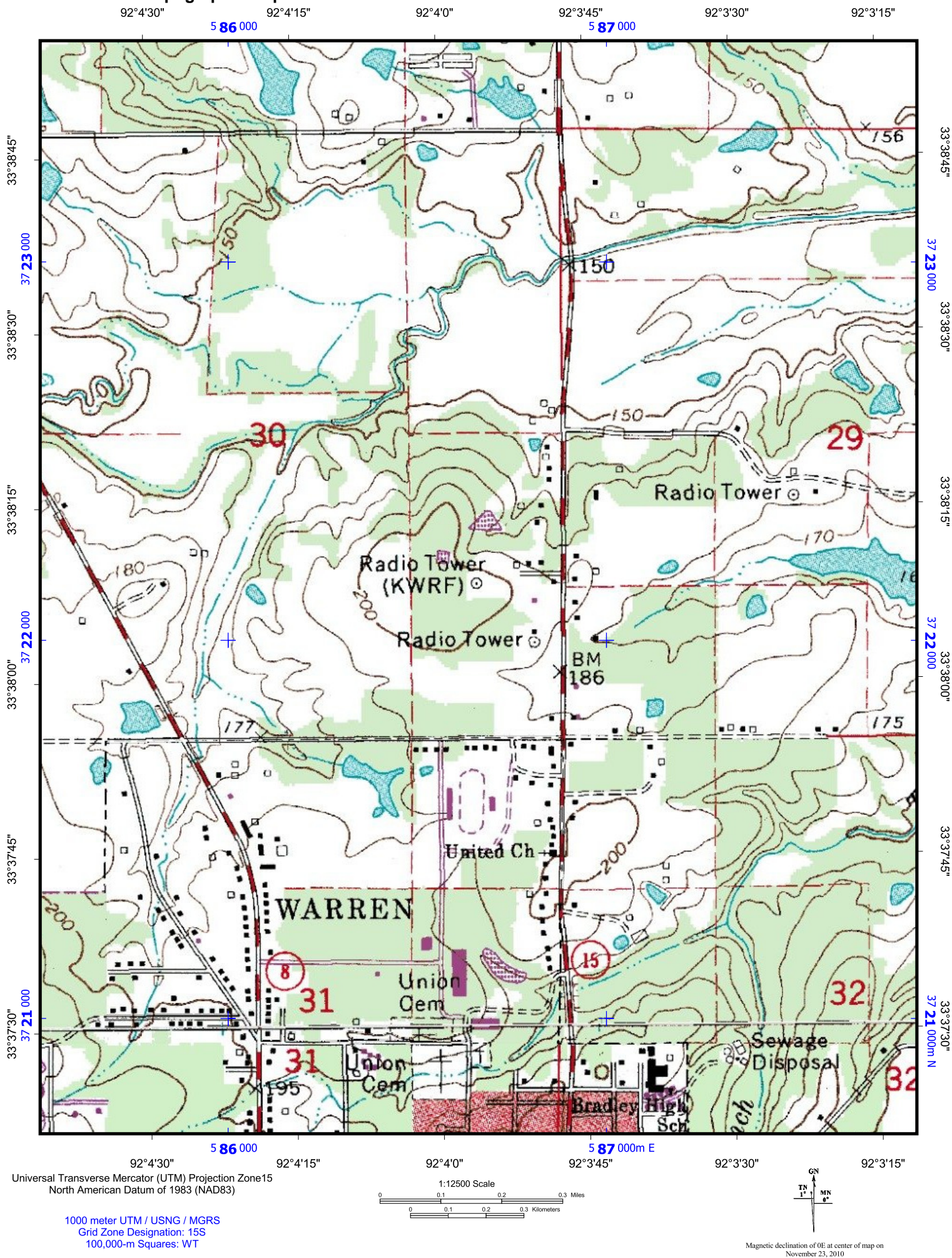
#### Last Action Status

Status	Constructed	Received	12/28/2010
Purpose	Notification	Entered	12/28/2010
Mode	Interactive		

#### Related Applications



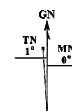
# KWRF Tower Topographic Map



Universal Transverse Mercator (UTM) Projection Zone15  
North American Datum of 1983 (NAD83)

1000 meter UTM / USNG / MGRS  
Grid Zone Designation: 15S  
100,000-m Squares: WT

1:12500 Scale  
0 0.1 0.2 0.3 Miles  
0 0.1 0.2 0.3 Kilometers



Magnetic declination of 0°E at center of map on  
November 23, 2010