

APPLICATION FOR MINOR MODIFICATION  
TO  
KJMZ, CH 250A. CACHE, OK  
FOR  
PERRY BROADCASTING OF LAWTON, INC.  
LICENSEE OF  
KJMZ(FM)

NOVEMBER 2010

BY:  
BEEM CO.  
ARCADIA, CA  
(626) 446-3468

## ENGINEERING REPORT OF JOEL T. SAXBERG

This application for minor modification of KJMZ was prepared for Perry Broadcasting of Lawton, Inc., licensee of FM station KJMZ by Joel T. Saxberg of Arcadia. Perry Broadcasting proposes to relocate its main antenna. The present location tower collapsed during an ice storm and made seeking another site necessary. An STA was filed to operate horizontal polarization only using an antenna affixed to one of the KRKX AM towers in Lawton owned by Perry Broadcasting. This application for construction permit is for a permanent main antenna installation with near maximum Class A facilities at a location very near the site where the tower fell. There is an error in the tower overall height above mean sea level shown in ASR Registration #1223672. The tower was topped out at 340' making the overall tower height above ground level 104 meters.

CITY OF LICENSE COVERAGE - A coverage map is attached to this application which shows the predicted F(50,50) 70 dBu contour covers 100% of the city of Cache as required by §73.315.

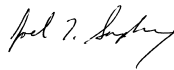
RADIOFREQUENCY ELECTROMAGNETIC FIELDS – It is proposed to use a 6 element, one-half wavelength spaced rototiller style antenna with center of radiation at 97 m above ground level and with an ERP of 6 kW. Using the FCC OET FM Model program the power density at 2 meters above ground level is shown to be less than  $0.5 \text{ uW/cm}^2$ . This is less than 0.25% of the Maximum Permitted Exposure limit for the general public. This application would be considered to be categorically excluded from environmental processing. When necessary for riggers to go aloft, KJMZ will reduce power or terminate transmissions to protect those workers from RF levels in excess of FCC guideline limits.

## ENGINEERING CERTIFICATION

**JOEL T. SAXBERG** deposes and says:

1. That he is President of Broadcast Engineering and Equipment Maintenance Company, "**BEEM CO.**", radio engineering consultants. **BEEM CO.** maintains offices at: 2322 S. Second Avenue, Arcadia, CA 91006. Telephone (626) 446-3468
2. That he was graduated from California State University at Los Angeles, February 1966, with a Bachelor of Science degree in Electronic Engineering. He received a MS degree in Electronic Engineering Technology in August 1996.
3. That he has submitted many applications to the Federal Communications Commission for broadcast and auxiliary broadcast construction permits and licenses.
4. That his experience in broadcast engineering is a matter of record and he has spent over forty years working in the field of radio engineering.
5. That the attached report was prepared by him or under his direction and supervision. That he believes the facts stated therein to be both true and accurate. Statements that are based on information supplied by others are also believed to be true and accurate.
6. That he has performed field work on AM and FM broadcast transmitting systems throughout this country and continues to provide technical consulting services on a daily basis to broadcasters.
7. That he declares under penalty of perjury the foregoing is true and correct.

Executed on Nov. 4, 2010



Joel T. Saxberg

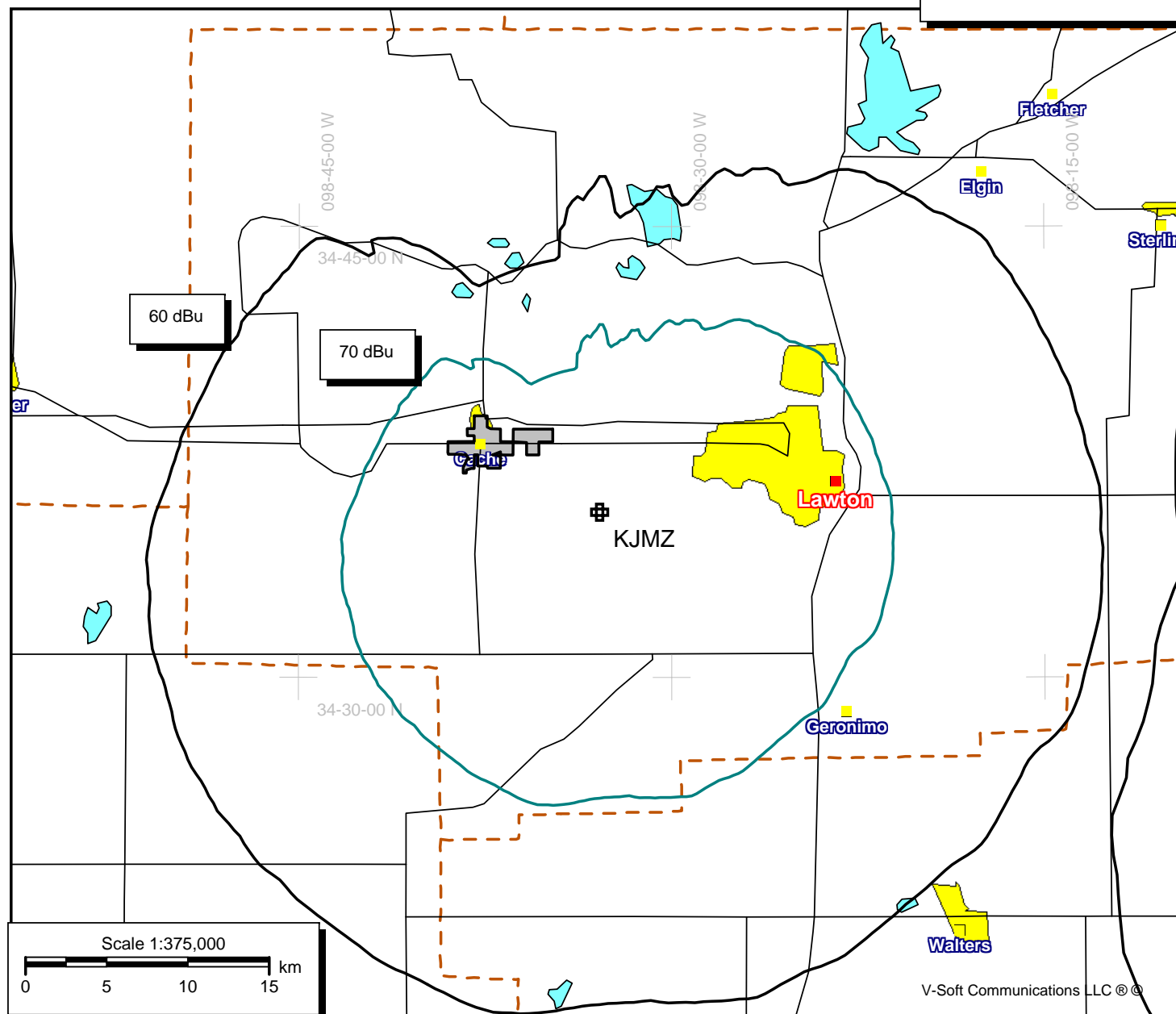
BEEM Co. 626 446-3468

**KJMZ**

BLH20060130AXC  
Latitude: 34-35-30 N  
Longitude: 098-32-54 W  
ERP: 6.00 kW  
Channel: 250  
Frequency: 97.9 MHz  
AMSL Height: 466.7 m  
Elevation: 370.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: FCC Model  
Loc. Variability: 50.0%  
Time Variability: 50.0%

**COVERAGE MAP**

KJMZ CH 250A

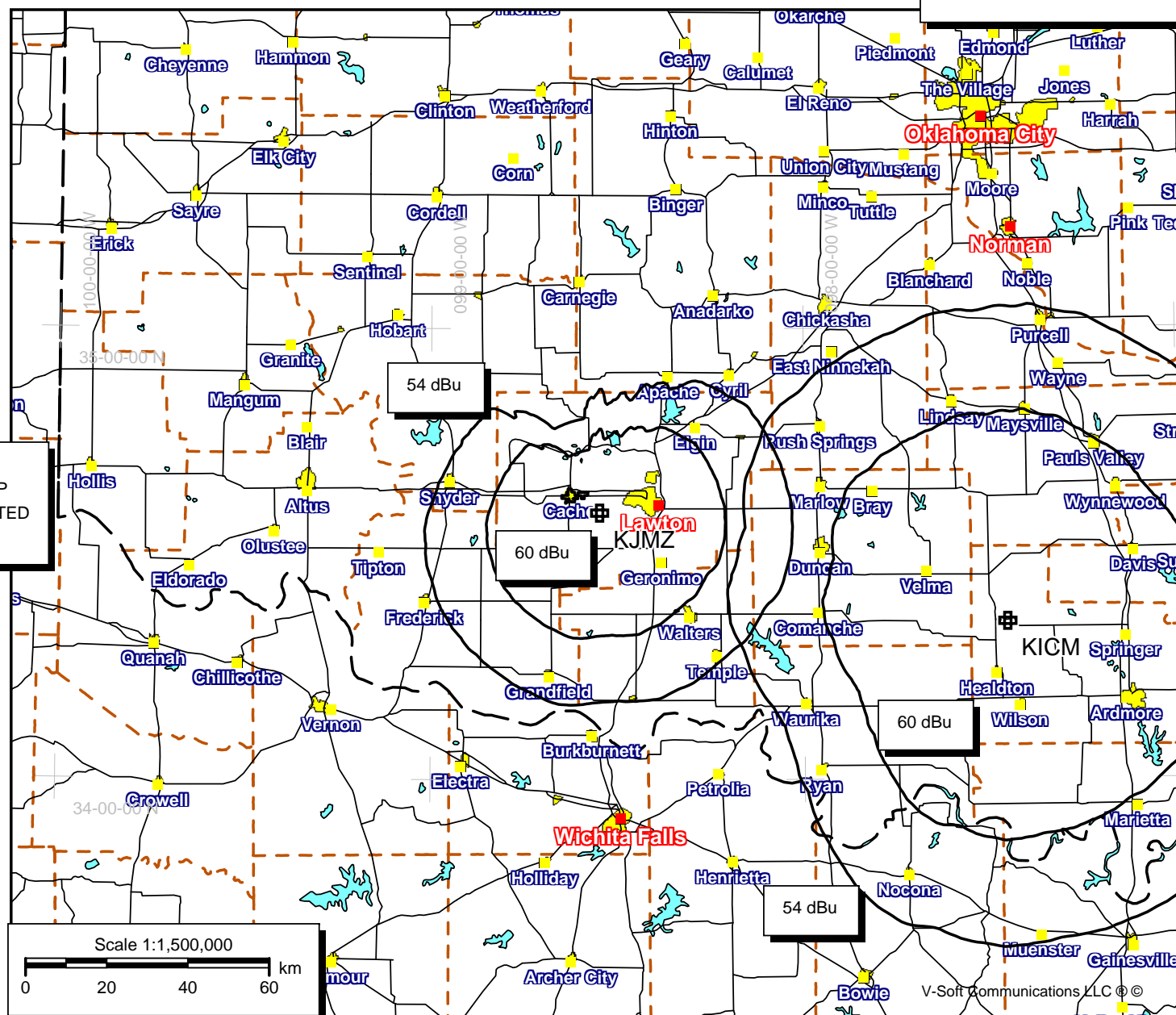


BEEM Co. 626 446-3468

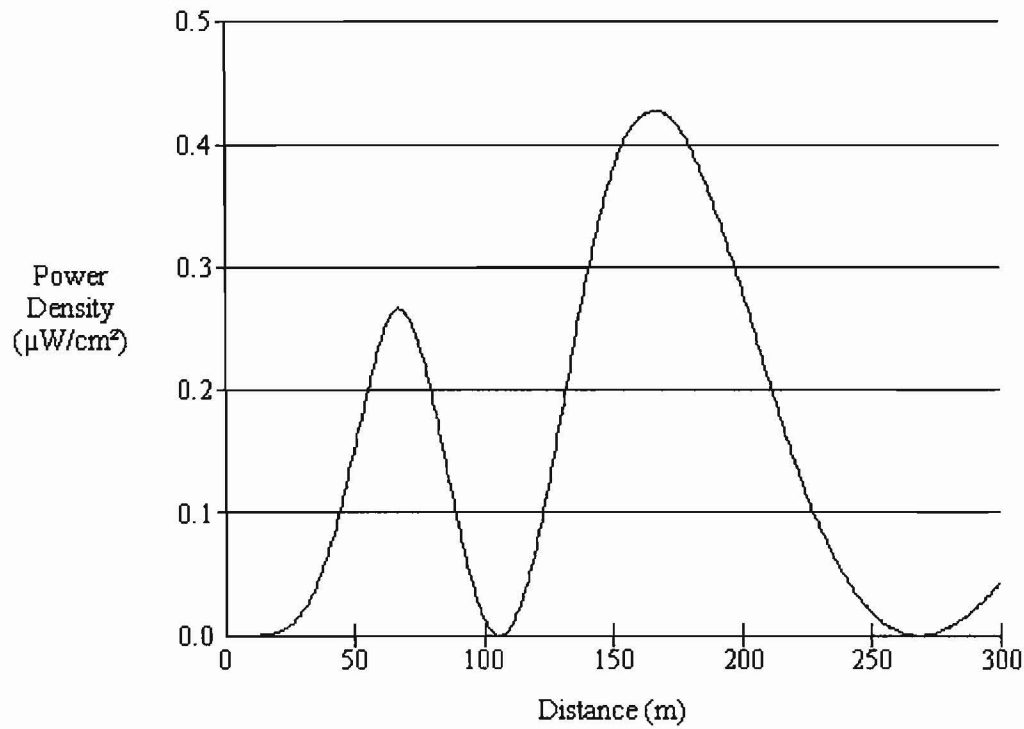
### KJMZ

BLH20060130AXC  
Latitude: 34-35-30 N  
Longitude: 098-32-54 W  
ERP: 6.00 kW  
Channel: 250  
Frequency: 97.9 MHz  
AMSL Height: 466.7 m  
Elevation: 370.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: FCC Model  
Loc. Variability: 50.0%  
Time Variability: 50.0%

KJMZ VS. KICM  
CONTOUR PROTECTION MAP  
INTERFERING AND PROTECTED  
CONTOURS SHOWN



## Power Density vs Distance



### Office of Engineering and Technology

|                     |                                   |                     |  |
|---------------------|-----------------------------------|---------------------|--|
| Distance (m):       | <input type="text" value="300"/>  | Antenna Type:       | <input type="text" value="ERI or JAMPRO JBCP 'Rototiller' (EPA)"/> |
| Horizontal ERP (W): | <input type="text" value="6000"/> | Number of Elements: | <input type="text" value="6"/>                                     |
| Vertical ERP (W):   | <input type="text" value="6000"/> | Element Spacing:    | <input type="text" value=".5"/>                                    |
| Antenna Height (m): | <input type="text" value="96.7"/> |                     |  |

FM Study for: KJMZ  
Location: CACHE, OK

FCC Database Date: 10/1/2010  
Channel Class: A

34-35-30  
98-32-54

[\*] by HAAT indicates calculated as missing in database.

| Call   | City, State | Chan Class  | Freq | kW        | Latitude | Dist.      | Required |
|--------|-------------|-------------|------|-----------|----------|------------|----------|
| Status | Proponent   | File Number | HAAT | Longitude | Azm.     | Clear (km) |          |

>>>>>>> Study For Channel 250 97.9 mHz <<<<<<<<

|        |   |                 |      |       |          |       |              |
|--------|---|-----------------|------|-------|----------|-------|--------------|
| KJMZ   | CACHE, OK                                 | 250 A           | 97.9 | 6.00  | 34-35-31 | 0.0   | 115          |
| LIC    | Fac. No. 35031                            | BLH-20060130AXC | 89   |       | 98-32-55 | 320.4 | -115.0 SHORT |
|        | Use of 73.215 for short spacing requires: |                 |      |       | 92       | -92.0 | SHORT        |
| KJMZ   | CACHE, OK                                 | 250 A           | 97.9 | 6.00+ | 34-34-23 | 6.8   | 115 73.215   |
| CP     | Fac. No. 35031                            | BPH-20100507AAO | 100  |       | 98-28-39 | 107.6 | -108.2 SHORT |
|        | Use of 73.215 for short spacing requires: |                 |      |       | 92       | -85.2 | SHORT        |
| KICM   | HEALDTON, OK                              | 249 C2          | 97.7 | 50.0+ | 34-20-57 | 103.8 | 106 73.215   |
| LIC    | Fac. No. 71054                            | BLH-20070419AAV | 150  |       | 97-27-24 | 104.7 | -2.2 SHORT   |
|        | Use of 73.215 for short spacing requires: |                 |      |       | 89       | +14.8 | CLOSE        |
| KACO   | APACHE, OK                                | 253 C3          | 98.5 | 18.5  | 34-56-30 | 41.92 | 42 73.215    |
| LIC    | Fac. No. 70015                            | BLH-20060130AUS | 93   |       | 98-22-33 | 22.1  | -0.08 CLOSE  |
| WWLSFM | THE VILLAGE, OK                           | 251 C1          | 98.1 | 28.8  | 35-33-37 | 144.7 | 133          |
| LIC    | Fac. No. 37435                            | BLH-20080721ACN | 470  |       | 97-29-07 | 41.8  | +11.7 CLOSE  |
| ALLOCR | HEALDTON, OK                              | 249 C3          | 97.7 |       | 34-17-28 | 102.8 | 89           |
| DEL    | Dockt-2000-148                            |                 | 0    |       | 97-29-23 | 108.6 | +13.8 CLOSE  |
| KHIM   | MANGUM, OK                                | 249 A           | 97.7 | .540  | 34-58-39 | 89.7  | 72           |
| LIC    | Fac. No. 85874                            | BLH-20080530AFX | 329  |       | 99-24-35 | 298.7 | +17.7 CLEAR  |
| ALLOC  | QUANAH, TX                                | 251 C3          | 98.1 |       | 34-24-09 | 113.9 | 89           |
| RSV    | RM-11428                                  |                 | 0    |       | 99-46-02 | 259.7 | +24.9 CLEAR  |
| KRZB   | ARCHER CITY, TX                           | 248 C2          | 97.5 | 50.0  | 33-51-40 | 81.6  | 55           |
| CP     | Fac. No. 79024                            | BPH-19990217IB  | 150  |       | 98-38-52 | 186.5 | +26.6 CLEAR  |
| ALLOC  | WEATHERFORD, OK                           | 247 C1          | 97.3 |       | 35-33-02 | 107.7 | 75           |
| USE    | Fac. No. 73947                            | -               | 0    |       | 98-43-59 | 351.1 | +32.7 CLEAR  |
| ALLOCR | ARCHER CITY, TX                           | 248 C1          | 97.5 |       | 33-36-58 | 112.0 | 75           |
| DEL    | Dockt-2000-148                            |                 | 0    |       | 98-51-42 | 195.0 | +37.0 CLEAR  |