

Technical Report Minor Modification to W299AN

This technical report has been developed in support of a minor modification to the translator W299AN at Union City, TN, FCC file no. BLFT-19980921TA. A change to channel 300 and relocation to a new tower site is requested for the facility to serve as a fill-in to rebroadcast WQAK(FM) 289A at Union City, TN, facility I.D. 68611.

The following exhibits are provided in support of the form 349 application:

- E-1 W299AN to Ch. 300 Overlap Study
- E-2 60 dBu Contour Plots
- E-3 ASR 1239795

W299AN Modification Analysis:

W299AN is to be relocated at a new tower site, ASR 1239795 at coordinates:

36 24 48N 89 08 59W NAD27.

The translator will use a Shively 6812B three bay, full wavelength, nondirectional antenna mounted at a COR AGL of 145 meters, and operate at 0.030 kW ERP. The attached exhibits show that the modification to W299AN overlaps its current 60 dBu licensed contour, will not interfere with any other facilities, and is contained within the primary WQAK(FM) 60 dBu contour.

RF Exposure Calculation:

The RF contribution was calculated using the Commission's FMMODEL program. The resulting RF for the 0.030 kW facility is calculated to be 0.009 $\mu\text{W}/\text{cm}^2$ at

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Broadcast Consultants
1519 Euclid Avenue
Bowling Green, KY 42103

a distance of 75 meters from the tower, which is well below 5% of the $200 \mu\text{W}/\text{cm}^2$ maximum permissible for general public exposure, allowing its exclusion from consideration.

Conclusion:

It is concluded that the minor modification of W299AN complies with all Commission policies and rules.



Christopher Anderson June 07, 2009
andersce@bham.rr.com
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E-1 W299AN Overlap Study

REFERENCE
36 24 48.0 N.
89 08 59.0 W.

CH# 300D - 107.9 MHz, Pwr= 0.03 kW, HAAT= 187.0 M, COR= 298 M
Average Protected F(50-50)= 10.54 km
Omni-directional

DISPLAY DATES
DATA 06-05-09
SEARCH 06-06-09

| CH CITY | CALL | TYPE | ANT STATE | AZI <-- | DI ST FILE # | LAT LNG | PWR(kW) HAAT(M) | INT(km) COR(M) | PRO(km) LICENSEE | *IN* (Overlap in km) | *OUT* |
|----------------------|---------|------|-----------|----------------|--------------------------|--------------------------|-----------------|----------------|------------------------------------|----------------------|--------|
| 299D Union City | W299AN | LIC | DCN TN | 180.0 0.0 | 0.0 BLFT19980921TA | 36 24 47.0 89 08 59.0 | 0.037 59 | 3.2 173 | 2.3 Heartland Ministries, Inc. | -13.8* | -17.1* |
| 300C1 Fort Campbell | WCVQ | LIC | _CN KY | 83.5 264.4 | 134.0 BLH19880923KB | 36 32 23.0 87 39 45.0 | 100.000 275 | 171.0 439 | 71.6 Saga Communications Of Tuc | -47.7*< | 26.8 |
| 300C1 Jonesboro | KFIN | LIC | _CY AR | 244.9 64.0 | 158.8 BLH6136 | 35 47 56.0 90 44 31.0 | 100.000 183 | 160.3 266 | 62.5 East Arkansas Broadcasters | -11.6*< | 62.6 |
| 300D Sikeston | K300BU | LIC | _C_ MO | 323.5 143.3 | 56.0 BMLFT20090219ABE | 36 49 05.0 89 31 27.0 | 0.018 | 19.7 169 | 6.0 Educational Media Foundati | 26.0 | 15.7 |
| 298C3 Campbell | KFEB | LIC | NCN MO | 278.8 98.3 | 63.9 BLH19981113KA | 36 29 55.0 89 51 16.0 | 17.500 119 | 4.0 199 | 39.0 Eagle Bluff Enterprises | 49.3 | 24.5 |
| 299C2 Henderson | WHHM-FM | LIC | ZEX TN | 156.0 336.3 | 116.2 BLH20031022AAE | 35 27 23.0 88 37 36.0 | 50.000 140 | 77.1 283 | 51.4 Thomas Radio, LIC | 28.3 | 49.4 |
| 300L1 Cape Girardeau | KHIS-LP | LIC | _ MO | 339.6 159.4 | 105.6 BLL20071213AAU | 37 18 15.0 89 33 58.0 | 0.043 45 | 20.7 172 | 6.2 Flat Foot Media, Inc. | 74.8 | 65.7 |
| 297A Osceola | KQMJ | LIC | NCN AR | 224.4 44.0 | 100.4 BLH19980714KD | 35 45 59.0 89 55 43.0 | 1.600 102 | 1.9 171 | 21.0 Phoenix Broadcasting Group | 88.5 | 79.0 |
| 297B Johnston City | AL6270 | RSV | _ IL | 7.2 187.4 | 150.0 RM10628 | 37 45 15.0 88 56 05.0 | 50.000 150 | 5.8 286 | 64.1 | 133.8 | 85.1 |
| 297B Johnston City | WDDD-FM | LIC | _CX IL | 7.2 187.4 | 150.0 BLH20050503ABU | 37 45 15.0 88 56 05.0 | 50.000 150 | 5.8 285 | 64.0 Withers Broadcasting Of So | 133.9 | 85.3 |
| 300L1 Somerville | WQFR-LP | LIC | _ TN | 186.7 6.6 | 130.9 BLL20050512AEV | 35 14 31.0 89 19 03.0 | 0.095 30 | 15.6 160 | 4.9 Somerville Educational Bro | 104.7 | 90.8 |
| 298A Germantown | WHBQ-FM | LIC | NCX TN | 201.3 21.0 | 147.4 BLH20020529AAU | 35 10 30.0 89 44 26.0 | 3.900 124 | 2.6 218 | 28.1 Flinn Broadcasting Corpora | 134.4 | 118.9 |
| 298C1 Lebanon | WRVW | LIC | _CX TN | 93.8 275.2 | 212.1 BLH20040607ADK | 36 15 50.0 86 47 39.0 | 46.000 409 | 9.2 593 | 71.1 Capstar Tx Limited Partner | 192.1 | 140.6 |
| 299C0 St. Louis | KSLZ | LIC | _C_ MO | 337.0 156.3 | 261.3 BMLH20061027ACR | 38 34 24.0 90 19 30.0 | 100.000 313 | 108.8 466 | 74.8 Citicasters Licenses, Inc. | 142.3 | 172.3 |
| 297C1 Florence | WOLT-FM | LIC | _CN AL | 145.7 326.6 | 232.8 BLH20000120AAP | 34 40 24.0 87 42 56.0 | 93.000 310 | 10.5 490 | 74.4 Big River Broadcasting Cor | 211.6 | 157.9 |

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference zone = 2, Co to 3rd adjacent.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
***affixed to 'IN' or 'OUT' values = site inside protected contour.

E-2 W299AN.Mod 60 dBu Contour Plots

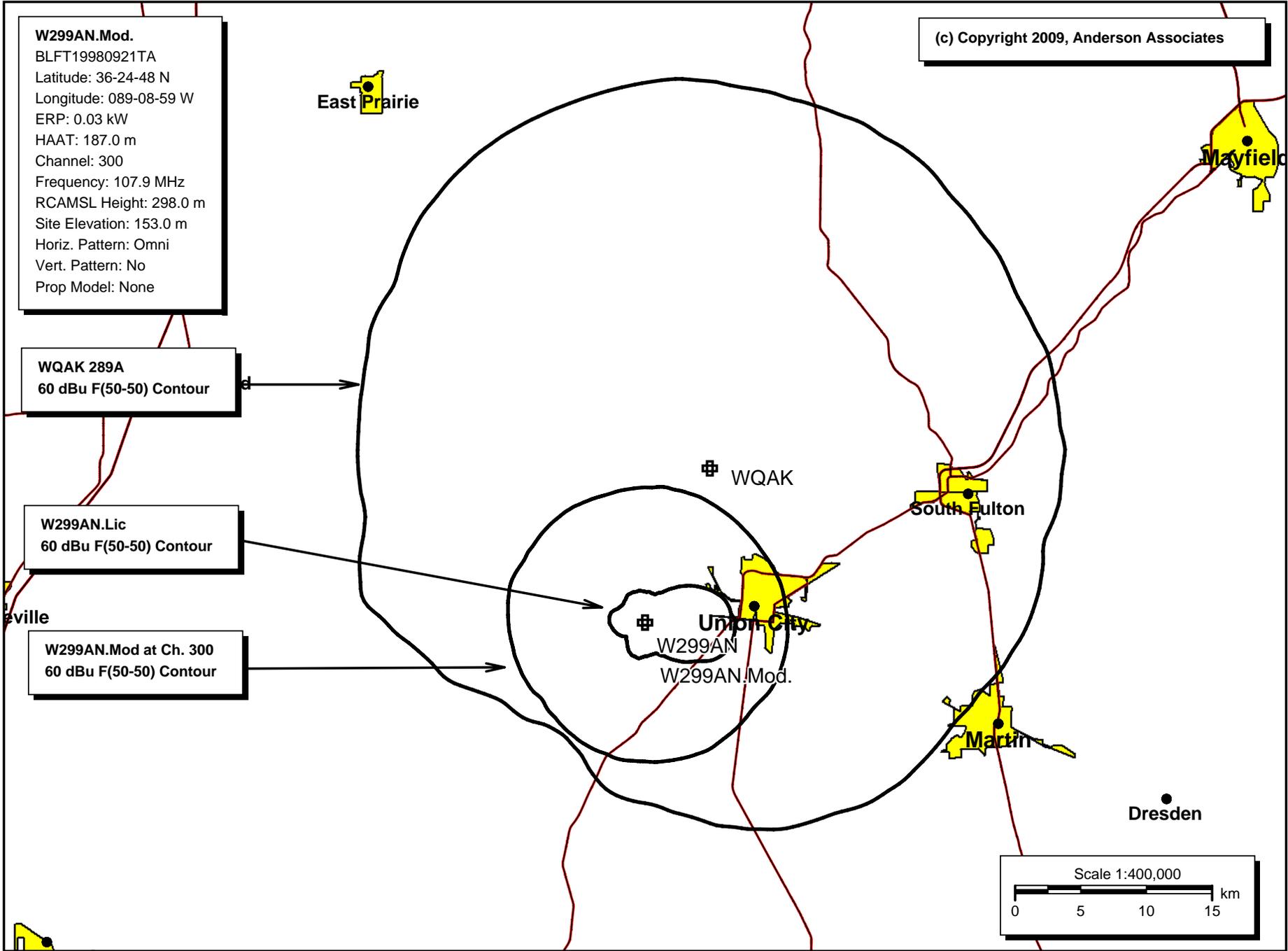
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W299AN.Mod.
BLFT19980921TA
Latitude: 36-24-48 N
Longitude: 089-08-59 W
ERP: 0.03 kW
HAAT: 187.0 m
Channel: 300
Frequency: 107.9 MHz
RCAMSL Height: 298.0 m
Site Elevation: 153.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

WQAK 289A
60 dBu F(50-50) Contour

W299AN.Lic
60 dBu F(50-50) Contour

W299AN.Mod at Ch. 300
60 dBu F(50-50) Contour



E-3 ASR 1239795

ASR Registration Search

Registration 1239795

 [Map Registration](#)

Registration Detail

| | | | |
|----------------|------------------|-------------|---------|
| Reg Number | 1239795 | Status | Granted |
| File Number | A0336494 | Constructed | |
| FAA Study | 2002-ASO-5002-OE | EMI | Yes |
| FAA Issue Date | 12/10/2002 | NEPA | No |

Antenna Structure

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

Location (in NAD83 Coordinates)

Lat/Long 36-24-47.8 N 089-08-59.0 W 2567 Dallas Hill Road
City, State Union City , TN
Center of AM Array

Heights (meters)

| | |
|--|---|
| Elevation of Site Above Mean Sea Level | Overall Height Above Ground (AGL) |
| 152.7 | 211.2 |
| Overall Height Above Mean Sea Level | Overall Height Above Ground w/o Appurtenances |
| 363.9 | 207.2 |

Painting and Lighting Specifications

FAA Chapters 4, 9, 12
Paint and Light in Accordance with FAA Circular Number 70/7460-1K

Owner & Contact Information

FRN 0004245569 Licensee ID L00132269

Owner

Wood's Performance Center, Inc. dba Wood Communications
Attention To: Robin W. Wood, Jr.
417 W. Reelfoot Ave.
P.O. Box 716
Union City , TN 38281
P: (731)885-4792
E: robin@woodcommunications.com

Contact

P:
E:

Last Action Status

| | | | |
|---------|-------------|----------|------------|
| Status | Granted | Received | 08/01/2003 |
| Purpose | New | Entered | 08/01/2003 |
| Mode | Interactive | | |

Related Applications

08/01/2003 A0336494 - New (NE)

Comments

Comments

None

Automated Letters

08/09/2004 Construction Reminder, Reference 349252
08/04/2003 Authorization, Reference 295663