

## **Technical Report WLAQ(AM) New 245D**

This technical report is submitted for the Auction 100 long form application for a new fill-in translator at channel 245 to serve as a fill-in facility to rebroadcast WLAQ(AM) 1410 kHz at Rome, GA, FCC facility I.D. no. 14502.

### **New 245D Translator Analysis:**

An overlap study in exhibit E-1 shows the new 245D translator does not produce any interference overlap to other facilities. The 60 dBu F(50-50) contour is contained within a 25 mile/40 km radius from the WLAQ(AM) daytime site (exhibit E-2).

### **Antenna System:**

The new 245D translator is to be located on the existing 46 meter tower at coordinates:

**34 14 08N 85 13 43W NAD 27.**

A TOWAIR determination (exhibit E-3) shows the tower does not require registration. A Nicom BKG77 single bay, nondirectional antenna will be mounted at a COR AGL of 30 meters, 426 meters AMSL and operate at 0.250 kW ERP.

### **RF Exposure Calculation:**

The RF contribution was calculated using FMModel (exhibit E-4). The resulting RF is calculated to be  $5.86 \mu\text{W}/\text{cm}^2$  at a distance of 29 meters from the base of the tower, which is well below 5% of the  $200 \mu\text{W}/\text{cm}^2$  maximum permissible for general public exposure allowing exclusion from consideration.

**Conclusion:**

It is concluded that the application for a new 245D translator facility for WLAQ(AM) complies with all Commission rules and policies.



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# E-1 WLAQ(AM) New 245D Overlap Study

REFERENCE  
34 14 08.0 N.  
85 13 43.0 W.

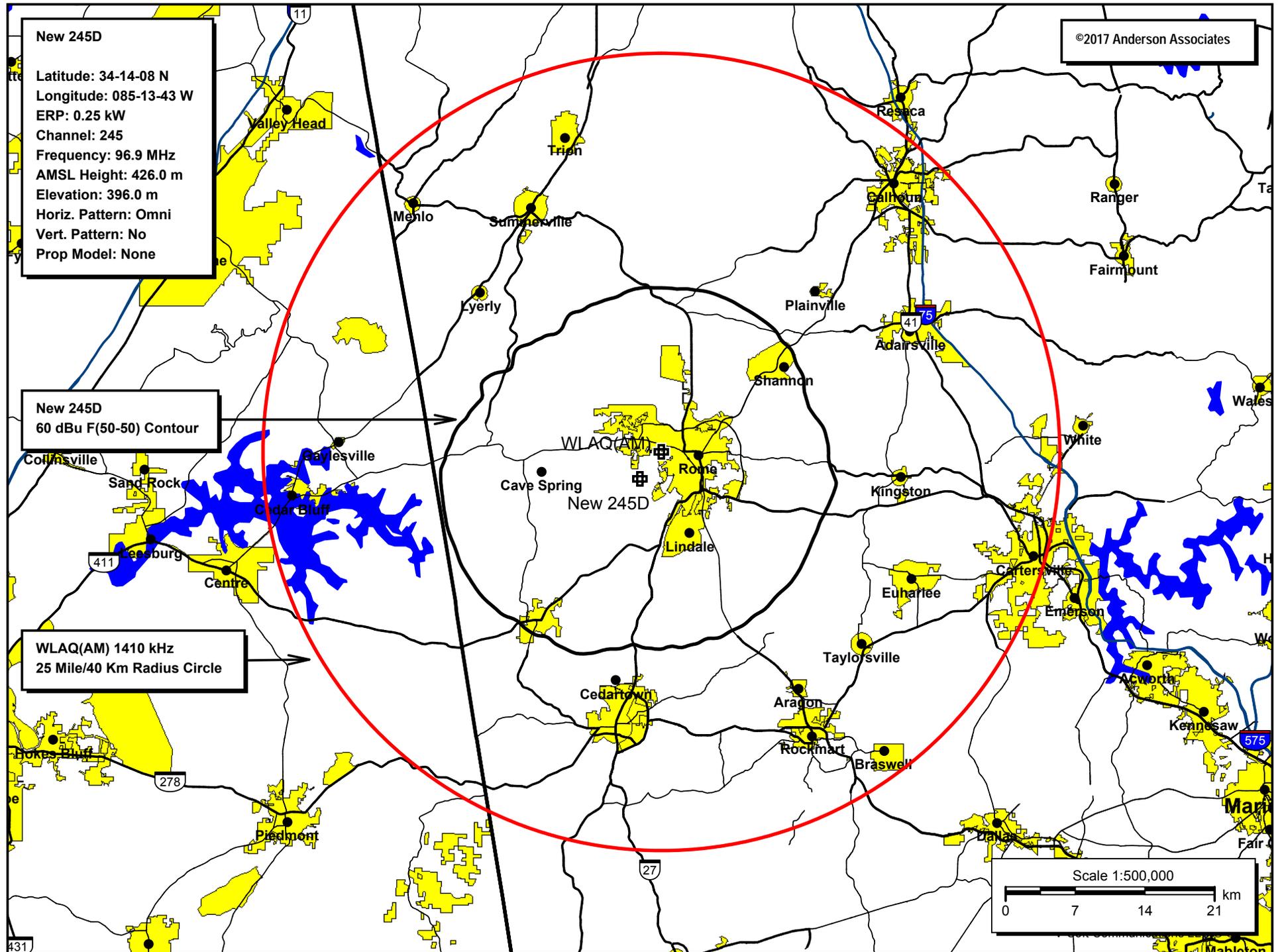
CH# 245D - 96.9 MHz, Pwr= 0.25 kW, HAAT= 205.0 M, COR= 426 M  
Average Protected F(50-50)= 18.76 km  
Omni-directional

DISPLAY DATES  
DATA 03-30-18  
SEARCH 03-30-18

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
245D Rome	1774780	APP _C_ GA		0.0 0.0	0.00 BNPFT20180125AFN	34 14 08.0 85 13 43.0	0.250 426	0.00 426	0.00 Cripple Creek Broadcasting	64.5R	-64.5M
245C0 Holly Pond	WRSA-FM	LIC _CX AL		282.8 102.0	131.43 BMLH20090311AAB	34 29 23.0 86 37 38.0	100.000 308	168.2 533	69.2 Nca, Inc.	-56.3*	2.4
246C Gainesville	WSRV	LIC _CY GA		95.2 275.9	126.57 BLH19980825KB	34 07 32.0 83 51 32.0	100.000 483	123.6 797	83.3 Cox Radio, Inc.	-16.7	14.3
243C0 Chattanooga	WDOD-FM	LIC DE_ TN		355.5 175.4	103.25 BLH20010222AAI	35 09 41.0 85 19 05.0	100.000 336	11.9 720	84.6 Wdod Of Chattanooga, Inc.	72.3	17.5
245D Chattanooga	W277DA	CP _C_ TN		357.4 177.4	90.45 BPFT20170410ACR	35 02 54.0 85 16 26.0	0.175 251	21.6 251	6.5 Grace Media, Inc.	49.6	24.6
246D Anniston	W246DB	LIC _C_ AL		221.5 41.1	82.05 BLFT20141126ADC	33 40 52.0 85 48 57.0	0.210 485	25.8 485	16.8 Alabama 810, Lic	37.0	34.5
245L1 Cleveland	WTNE-LP	LIC _ _ TN		17.4 197.6	108.06 BLL20170208AHQ	35 09 46.0 84 52 26.0	0.030 34	307	World Harvest Outreach Min	74.9	41.7
244A Union City	WRDG	LIC _CX GA		143.5 323.9	102.88 BLH20170106AAM	33 29 23.7 84 34 06.9	2.100 173	42.3 447	28.0 Citicasters Licenses, Inc.	42.6	48.1
243D Marietta	W241BK	CP DV_ GA		114.7 295.0	68.13 BPFT20160707AAP	33 58 40.6 84 33 25.2	0.250 423	1.1 423	14.4 Prieto Broadcasting, Inc.	48.7	52.5

Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM  
In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent.  
All separation margins (if shown) include rounding.  
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 restricted contour.

# E-2 New 245D 60 dBu Contour Plot



## TOWAIR Determination

**\*\*\* NOTICE \*\*\***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

### DETERMINATION Results

**Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.**

#### Your Specifications

##### NAD83 Coordinates

Latitude	34-14-08.3 north
Longitude	085-13-42.8 west

##### Measurements (Meters)

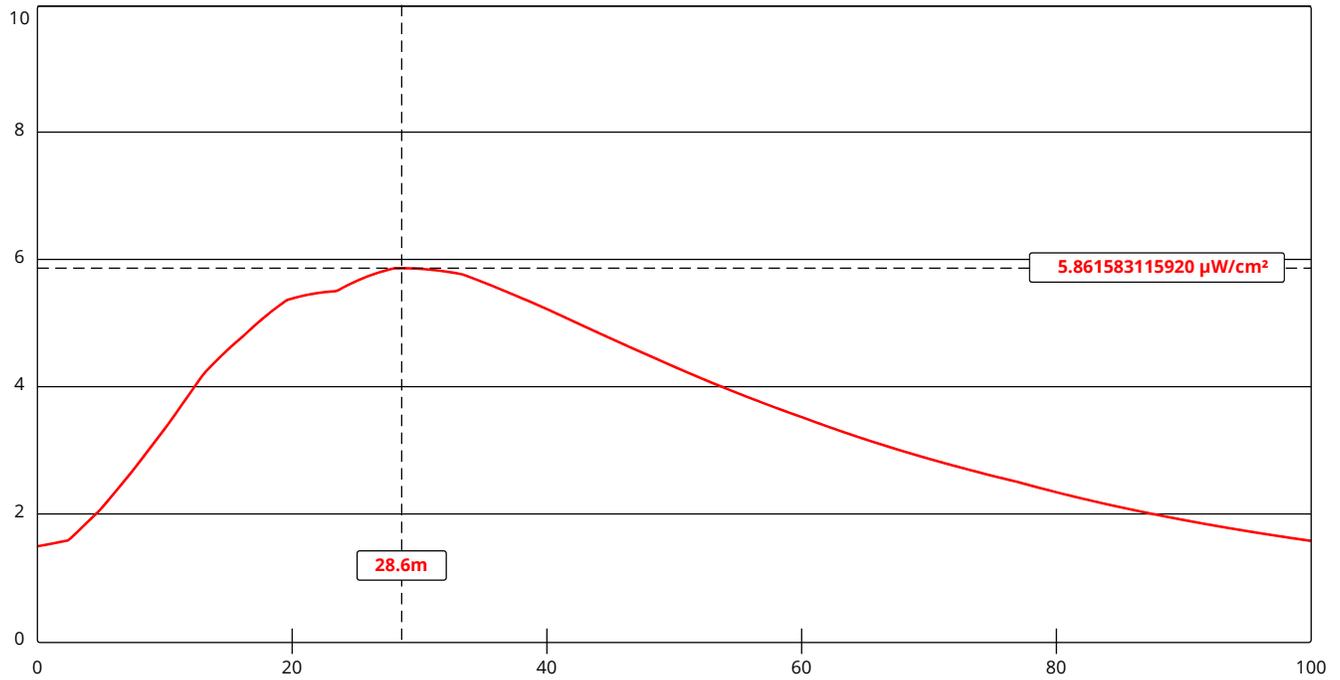
Overall Structure Height (AGL)	46
Support Structure Height (AGL)	0
Site Elevation (AMSL)	396

##### Structure Type

GTOWER - Guyed Structure Used for Communication Purposes

# E-4 New 245D RF Calculation

## FM Model



Channel Selection	Channel 245 (96.9 MHz)		
Antenna Type +	EPA Type 2: Opposed V Dipole		
Height (m)	30	Distance (m)	100
ERP-H (W)	250	ERP-V (W)	250
Num of Elements	1	Element Spacing (λ)	1
Num of Points	500		