

**EXHIBIT 21**  
**Calvary Chapel of Twin Falls, Inc.**  
WYJC Greenville BLED-20050804ADB  
**TV 6 Channel Study**  
June 2011

The proposed site is 92.2 km from WABW-TV, a LPTV Channel 6 station in Pelham, GA. This is well within the guidelines of 195 km shown in Table A, §73.525 of the Commission's rules. This exhibit demonstrates that the proposed station will not cause interference in an area containing more than the 3,000 persons as specified in **§73.525(c)**. This is possible because the proposed site is in a rural location with low population and employs a vertically polarized antenna.

The affected population in the area of interference was determined as follows:

- 1) A chart was prepared tabulating the data from §73.599 Figure 1 for channel 212. It shows each protected contour of the TV station, the associated undesired/desired ratio, and the resultant interfering contour (=TV6 protected contour + U/D ratio) for the proposed FM station to create "just perceptible" interference.
- 2) Since the proposed FM antenna is vertically polarized only and the predicted area of interference lies entirely outside the limits of a city of 50,000 persons as 47 CFR **§73.525(e)(4)(i) states**, then a calculated power correction can be made with the vertical polarization. **The equivalent power is  $V/40=12/40=0.3$  kW**. This value is used in all subsequent calculations in this exhibit relating to the proposed station contours.
- 3) A map (TV 6 Map) has been prepared showing the predicted TV 6 protected contour in the area of interest and the associated predicted FM interfering contour over the same area. The interfering 68.8 dBu F(50,10) of the proposed does not cross the 47 dBu F(50,50) of WABW-TV making this application compliant.

# WABW-TV-info

## Channel -Six TV Protection Study

WABW-TV LI 06 3E Dom 10.500 kW 379 M HAAT THY  
Pelham GA 462.4 M COR AMSL  
Lat= 31 08 05.0, Lng= 84 06 16.0  
Georgia Public Telecommunica  
Fac ID# 23917 BLEDT20090612ACC  
Dist.=92.15 km, Azi=332.5°, Rev Azi=152.3°

Direct line HAAT Grade B, 47 dBu= 85.69 km & Grade A= 39.24 km

Distance from reference to Grade B = 6.47 km

Cutoff Dist from Full Service or Class CA= 195

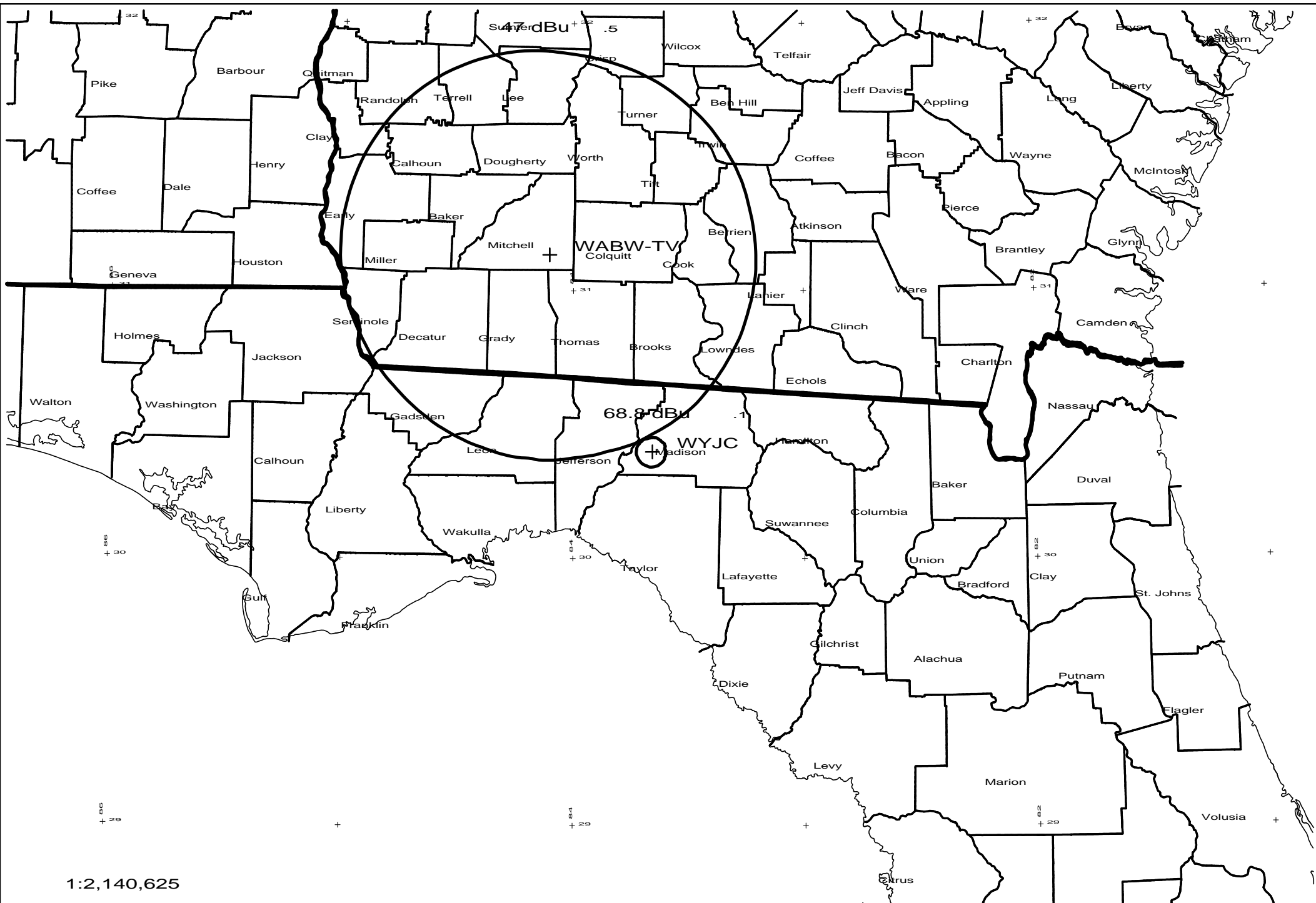
Maximum Co-located power= 31.6 kW

WABW-TV Signal Contour at Reference location = 44.1 dBu

CH. 212, U/D ratio = 21.8 dB, Maximum FM signal = 68.8 dBu , add 6 dB if within angle.

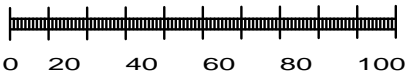
## TV/FM D to U values

47.0	68.8		55.0	67.6		63.0	69.2		71.0	73.9		79.0	80.1		87.0
86.8															
48.0	68.5		56.0	67.6		64.0	69.7		72.0	74.7		80.0	81.0		88.0
87.6															
49.0	68.1		57.0	67.7		65.0	70.1		73.0	75.4		81.0	81.8		89.0
88.5															
50.0	67.8		58.0	67.8		66.0	70.7		74.0	76.2		82.0	82.6		90.0
89.4															
51.0	67.7		59.0	67.9		67.0	71.2		75.0	76.9		83.0	83.4		91.0
89.4															
52.0	67.6		60.0	68.2		68.0	71.8		76.0	77.7		84.0	84.2		92.0
89.4															
53.0	67.5		61.0	68.5		69.0	72.5		77.0	78.5		85.0	85.1		93.0
89.4															
54.0	67.5		62.0	68.8		70.0	73.2		78.0	79.3		86.0	85.9		94.0
89.4															



1:2,140,625

Scale in km



WYJC 212A .3kW 82M AMSL  
N. Lat. 30 23 56 W. Lng. 83 39 24

TV 6 Map  
CCTF - 06/11

68.8 dBu

WYJC

Madison

son