



**Kessler and Gehman Associates**  
Consultants • Broadcast • Wireless

# DIGITAL CLASS A LPTV MINOR MODIFICATION APPLICATION

CALL SIGN: WJGV-CD  
FACILITY ID: 52240  
LOCATION: Palatka, FL

## ***Prepared For:***

Pentecostal Revival Association, Inc.  
1100 S. State Road 19  
Palatka, FL 32177

## ***Prepared By:***

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July 12, 2023

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## **1.0 INTRODUCTION AND SCOPE OF WORK**

Pentecostal Revival Association, Inc. is the licensee of a digital Class A low power television broadcast station having call sign WJGV-CD, and facility ID 52240. WJGV-CD has a license<sup>1</sup> to operate on channel 25 using an omni directional antenna with an ERP of 9.5kW at a height of 100.0m AMSL on antenna structure number 1054337. It is proposed to modify the license increase the ERP from 9.5kW to 15kW. No other changes are proposed.

The proposed modification is considered “minor” pursuant to 74.787(b) since

- there is no change in frequency (output channel),
- there is no change in transmitting antenna location where the protected contour resulting from the change does not overlap some portion of the protected contour of the authorized facilities of the existing station as demonstrated in Appendix B,
- there is no change in transmitting antenna location of greater than 30 miles (48 kilometers) from the reference coordinates of the existing station's antenna location as demonstrated in Appendix B.

## **2.0 STATION TRANSMITTER LOCATION AND TOWER ELEVATION**

It is proposed to keep WJGV-CD at its licensed location on an existing tower which has an FCC Antenna Structure Registration Number (“ASRN”) of 1054337. The instant application does not propose to increase or modify the existing support structure or ASRN.

## **3.0 ALLOCATION ANALYSIS**

Appendix A are the summarized results from TVStudy V2.2.5 which illustrate that there are no interference failures to other facilities.

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<sup>1</sup> FCC File No.: BLDTA-20110519ACL

## 4.0 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

### 4.1 General Environmental Requirements

The existing support structure and the existing antenna will not modify any of the following environmental considerations that trigger an environmental assessment:

- Require high intensity white lighting.
- Is not located in an official designated wilderness area or wildlife preserve.
- Does not threaten the existence or habitat of endangered species.
- Does not affect districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture that are listed in the National Register of Historic Places or are eligible for listing.
- Does not affect Indian religious sites.
- Is not located in a floodplain
- Does not require construction that involves significant changes in surface features (e.g., wetland fill, deforestation, or water diversion).

### 4.2 Radio Frequency Radiation (RFR) Compliance.

A theoretical analysis has been conducted of the human exposure to radio frequency radiation (“RFR”) using the calculation methodology described in OET Bulletin 65, Edition 97-01, pursuant to the following methodology:

Terrain<sup>2</sup> extraction is compiled from the proposed tower site to radial lengths of 0.25 miles in 0.001 mile increments for 360 radials.

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<sup>2</sup> Terrain extraction is based upon a 3 arc second point spacing terrain database.

In this case flat terrain was used to simulate standing on the top floor of the building. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

Starting from the origin the maximum calculated RFR value is determined among the 360 degree radials for each 0.001 mile increment, the value is then converted into a percentage of the maximum allowable general population or uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

Appendix C is the resulting RFR study demonstrating that the peak exposure is 0.01%. The instant application is compliant with the FCC limits for human exposure to RF radiation and thus is excluded from further environmental processing.

## **5.0 CERTIFICATION**

The foregoing statement and the report regarding the engineering work are true and correct to the best of my knowledge. Executed July 12, 2023.

Kessler and Gehman Associates, Inc.



Ryan Wilhour  
Consulting Engineer

# WJGV-CD – Minor Modification Application

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## APPENDIX A – TVStudy V2.2.5 Allocation Analysis

Study created: 2023.07.11 10:16:56

Study build station data: LMS TV 2023-07-11

Proposal: WJGV-CD D25 DC LIC PALATKA, FL  
File number: BLDTA20110519ACL  
Facility ID: 52240  
Station data: User record  
Record ID: 1313  
Country: U.S.

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WYKE-CD	D24	DC	LIC	INGLIS/YANKEETOWN, FL	BLANK0000099919	111.2 km
Yes	WDSC-TV	D24	DT	LIC	NEW SMYRNA BEACH, FL	BLANK0000090505	124.5
No	WWSB	D24	DT	CP	SARASOTA, FL	BLANK0000216670	234.0
No	WWSB	D24	DT	LIC	SARASOTA, FL	BLCDT20090612AAG	234.1
No	WTLF	D24	DT	LIC	TALLAHASSEE, FL	BLANK0000210947	250.4
No	WPXC-TV	D24	DT	LIC	BRUNSWICK, GA	BLCDT20110426AAQ	138.7
No	WBEC-TV	D25	DT	LIC	BOCA RATON, FL	BLANK0000064037	426.0
Yes	WFTT-TV	D25	DT	LIC	VENICE, FL	BLANK0000001148	203.2
No	WCIV	D25	DT	LIC	CHARLESTON, SC	BLANK0000184940	419.2
No	WXAX-CD	D26	DC	LIC	CLEARWATER, FL	BLANK0000202372	203.2
Yes	WKMG-TV	D26	DT	LIC	ORLANDO, FL	BLANK0000149963	124.5
No	WTGS	D26	DT	LIC	HARDEEVILLE, SC	BLANK0000112289	276.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D25  
Mask: Stringent  
Latitude: 29 34 48.90 N (NAD83)  
Longitude: 81 41 56.40 W  
Height AMSL: 100.0 m  
HAAT: 91.8 m  
Peak ERP: 15.0 kW  
Antenna: Omnidirectional  
Elev Pattnr: Generic

49.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	15.0 kW	90.5 m	42.9 km
45.0	15.0	95.3	43.5
90.0	15.0	97.4	43.7
135.0	15.0	80.2	41.4
180.0	15.0	99.7	44.0
225.0	15.0	92.6	43.1
270.0	15.0	90.4	42.8
315.0	15.0	88.7	42.6

Distance to Canadian border: 1346.0 km

Distance to Mexican border: 1548.6 km

Conditions at FCC monitoring station: Vero Beach FL  
Bearing: 154.4 degrees Distance: 242.8 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 305.1 degrees Distance: 2433.9 km

## WJGV-CD – Minor Modification Application

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Palatka, FL

Study cell size: 2.00 km  
Profile point spacing: 1.00 km

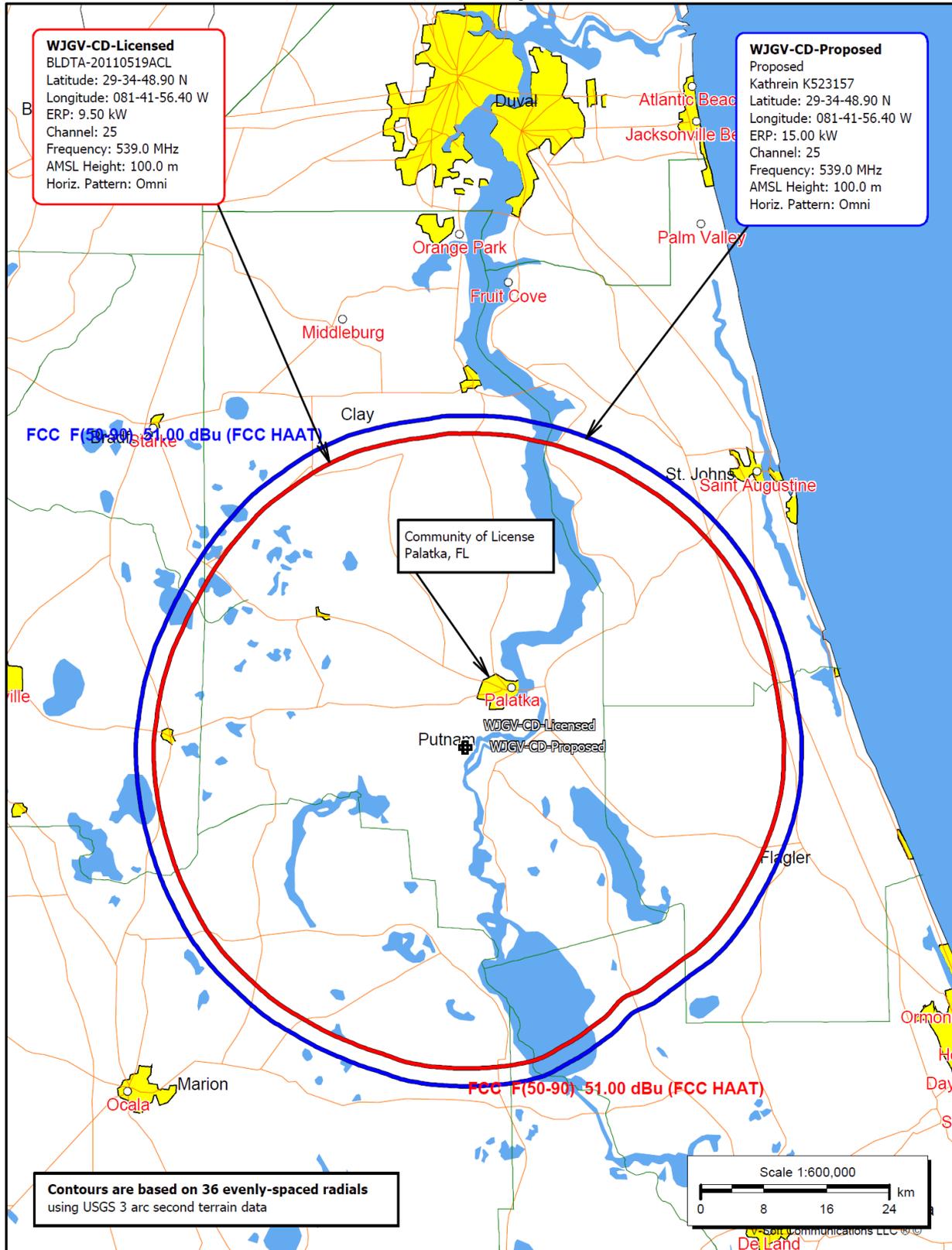
Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

Proposal causes 0.02% interference to BLANK0000090505 LIC scenario 1  
Proposal causes no interference to BLANK0000001148 LIC  
Proposal causes 0.02% interference to BLANK0000149963 LIC scenario 1

---- Below is IX received by proposal BLDTA20110519ACL ----

Proposal receives 0.37% interference from scenario 1  
No IX check failures found.

APPENDIX B – Licensed, Permitted, and Proposed Contour



APPENDIX C – Far Field Exposure to RF Emissions

