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DIGITAL LPTV FACILITY MINOR CHANGE APPLICATION - CP MODIFICATION WFGZ-LD TELEVISION CHANNEL 22

APPLICATION ENGINEERING STATEMENT

FCC FACILITY ID: 189670
LAKE CITY, FLORIDA

ENGINEERING NARRATIVE

Minor Change Application

WFGZ-LD, seeks to MODIFY its current construction permit and station license to specify a new antenna type, antenna height, effective radiated power (ERP) and site location. All of the changes proposed herein are classified as “minor changes” in accordance with the Commission’s application processing rules.

The maximum effective radiated power (ERP) will be 15.0 kilowatts using horizontal polarization only.

The proposed antenna is a PSI “PSILP8OI”, a directional UHF slot antenna, employing 0-degrees of electrical beam tilt. A full-service filter mask is to be employed. The facility requested is not contingent upon a grant or channel move of any other known facility at the time of filing.

A graphical plot and tabulation of the relative field values from the proposed directional antenna have been provided in the application.

Modification Compliance:

Pursuant to 47 CFR §74.787(b) the instant application is considered a “minor” change because;

- There is no change in transmitting antenna location such that the protected service contour resulting from the change does not overlap some portion of the protected service contour of the authorized facilities of the existing station as illustrated in Figure 1, Present & Proposed Service Contours.
- There is no change in transmitting antenna location greater than 30 miles (48 km) from the reference coordinates of the existing station’s licensed location, as noted below:

CALCULATED DISTANCE BETWEEN EXISTING LICENSED AND PROPOSED SITES

SITE	LAT (NAD83)	LON (NAD83)	(KM)	(MI)
CURRENT/EXISTING LIC	29-51-34.0 N	82-34-28.0 W	34.51	21.45
PROPOSED (CP MOD)	29-38-08.5N	82-19-34.8 W		

FCC Tower Registration (ASR) - FAA Notification

The proposed site is the existing communications tower site. This is a leased tower site in which an FCC tower/structure antenna structure registration (ASR#1031093) has been issued to the tower owner.

The overall height of the guyed communications tower is 82.2 meters (~270') above ground level. No changes in the supporting structure are required that would require notification to the FAA. The antenna is side-mounted upon the structure.

Proposed Antenna Elevations:

The center of radiation of the proposed antenna is 78.0 meters AGL, 111.8 meters AMSL. The ground elevation at the site is 33.8 meters.

Antenna/Structure Elevations	
Site Elevation (m)	33.8
Overall Height of Structure (m)	82.2
Antenna Radiation Center AGL (m)	78.0
Antenna Radiation Center AMSL (m)	111.8

FCC TVStudy Results - FCC TVStudy Cell Size 1.0 km, Profile Spacing 1.0 km:

The results of an interference study of the proposal using the FCC TVStudy program (Version 2.2.5), shows that no prohibitive interference will occur from the proposal. A copy of the summary report has been included in this application.

Nearby AM Radio Station of Concern	None
Land Mobile Stations of Concern	None
International Border Considerations	None
FCC Monitoring Stations of Concern	None
National Radio or Observatory Quiet Zones of Concern	None

Incoming Interference:

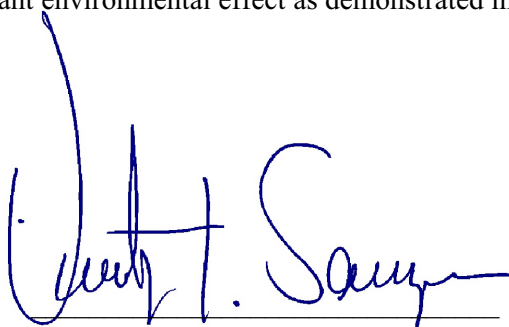
The applicant accepts any incoming interference that is predicted to occur to the proposed facility by any authorized or pending, primary or secondary TV station at the time this application is submitted.

Environmental Evaluation Statement:

The environmental evaluation statement concerning this proposal has been included in this application and can be found as a separate file upload within the application. A grant of this proposal would NOT be an action which would have a significant environmental effect as demonstrated in the environmental evaluation statement.

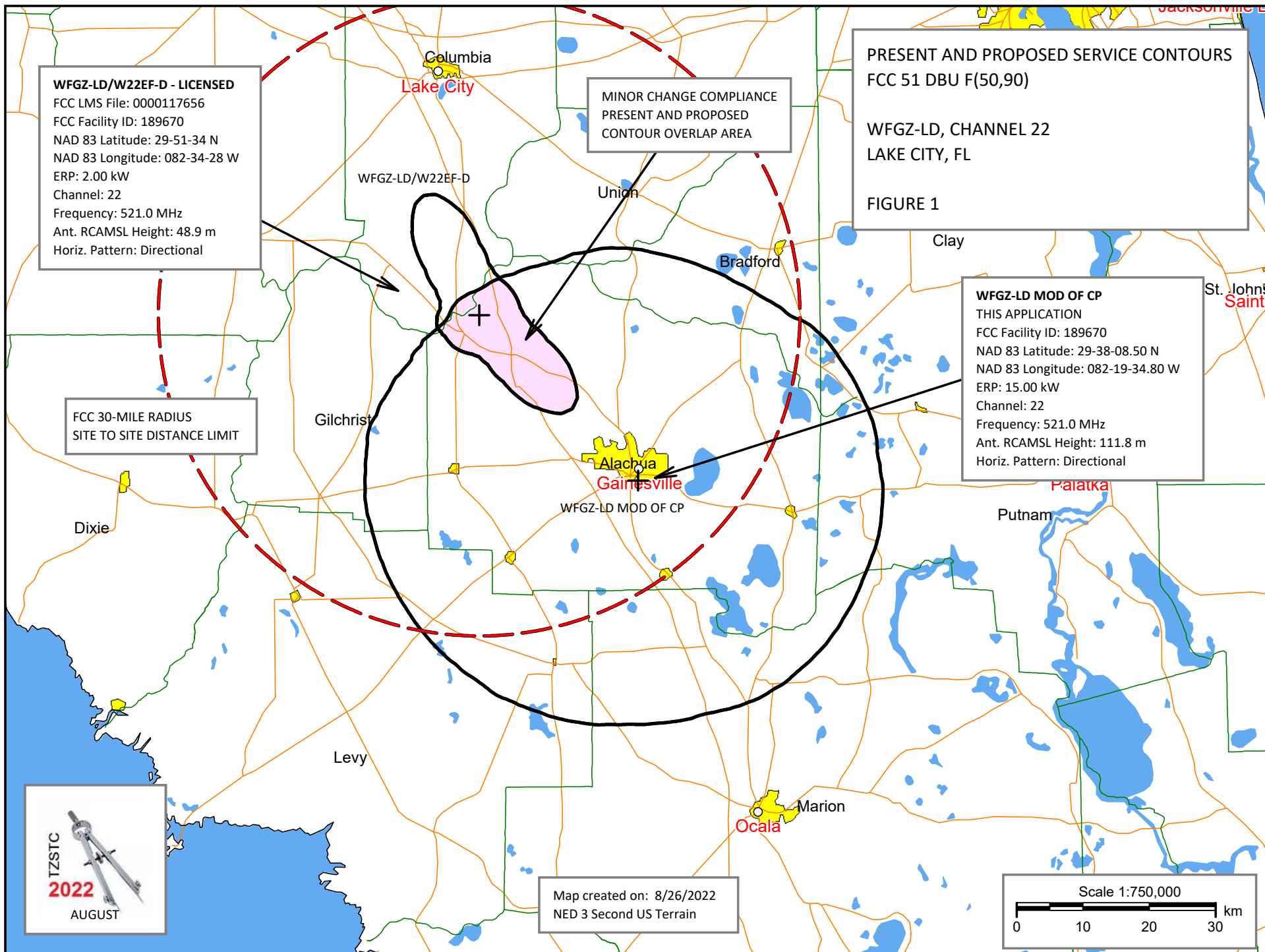
Respectfully submitted,

August 29, 2022

A handwritten signature in blue ink, reading "Timothy Z. Sawyer". The signature is written in a cursive style with a large initial "T" and "S".

Timothy Z. Sawyer, Consulting Engineer

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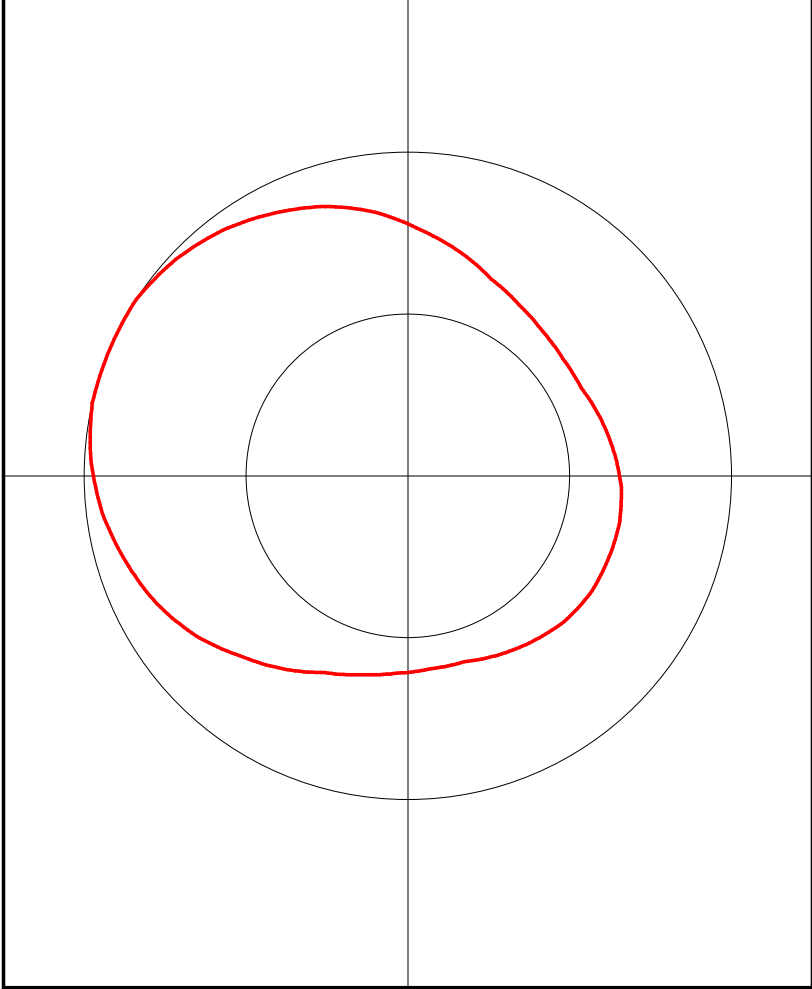


WFGZ DA ANTENNA PSI PSILP8OI

Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
10.0	1.0
20.0	0.98
30.0	0.95
40.0	0.91
50.0	0.87
60.0	0.82
70.0	0.76
80.0	0.71
90.0	0.66
100.0	0.63
110.0	0.61
120.0	0.6
130.0	0.6
140.0	0.62
150.0	0.64
160.0	0.66
170.0	0.67
180.0	0.67
190.0	0.67
200.0	0.66
210.0	0.64
220.0	0.62
230.0	0.6
240.0	0.6
250.0	0.61
260.0	0.63
270.0	0.66
280.0	0.71
290.0	0.76
300.0	0.82
310.0	0.87
320.0	0.91
330.0	0.95
340.0	0.98
350.0	1.0

Rotation Angle = 293



PATTERN PLOTTED ABOVE IS ROTATED PATTERN

HORIZONTAL RELATIVE FIELD PATTERN

MINOR CHANGE STUDY - WFGZ-LD - FCC TVSTUDY SUMMARY REPORT
NO PROHIBITIVE INTERFERENCE OCCURS

Proposal: WFGZ-LD D22 LD APP LAKE CITY, FL
File number: WFGZ-LD MOD OF CP
Facility ID: 189670
Station data: User record
Record ID: 629
Country: U.S.

Build options:
Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WCLF	D21	DT	CP	CLEARWATER, FL	BLANK0000169571	202.0 km
No	WCLF	D21	DT	LIC	CLEARWATER, FL	BLCDT20060627AAQ	202.0
No	WDYB-CD	D21	DC	LIC	DAYTONA BEACH, FL	BLANK0000106571	126.0
Yes	WJEB-TV	D21	DT	LIC	JACKSONVILLE, FL	BLANK0000105949	102.3
No	WKME-CD	D21	DC	LIC	KISSIMMEE, FL	BLANK0000090448	162.4
No	WKMG-LD	D21	LD	LIC	OCALA, FL	BLANK0000087100	47.3
No	W21AU-D	D21	LD	LIC	ORLANDO, FL	BLANK0000025170	167.9
No	W21EL-D	D21	LD	LIC	VALDOSTA, GA	BLANK0000177717	140.7
No	WCOV-TV	D22	DT	LIC	MONTGOMERY, AL	BLANK0000115937	449.1
No	WGPU	D22	DT	LIC	FORT MYERS, FL	BLANK0000107706	318.3
No	WGPS-LD	N22-	TX	CP	FORT MYERS, FL	BPTTL20140501ACL	357.8
No	WUBF-LD	D22	LD	LIC	JACKSONVILLE, FL	BLANK0000068178	97.4
Yes	WVEN-TV	D22	DT	LIC	MELBOURNE, FL	BLANK0000100080	167.9
No	WFOR-TV	D22	DT	LIC	MIAMI, FL	BLCDT20130909AAV	457.0
No	WPFN-CD	D22	DC	LIC	PANAMA CITY, FL	BLANK0000062893	338.2
Yes	WTWC-TV	D22	DT	LIC	TALLAHASSEE, FL	BLANK0000118579	196.2
No	WARP-CD	D22	DC	LIC	TAMPA-ST. PETERSBURG, FL	BLANK0000132166	198.7
No	WJCL	D22	DT	LIC	SAVANNAH, GA	BLANK0000029019	285.3
No	WKCF	D23	DT	LIC	CLERMONT, FL	BLANK0000143772	167.9
No	WKBJ-LD	D23	LD	LIC	Jacksonville, FL	BLANK0000108066	102.3
No	W23FJ-D	D23	LD	LIC	JENNINGS, FL	BLANK0000194407	106.9
No	DW23AQ	N23-	TX	APP	LAKE CITY, FL	BLTT19931215JE	71.5
No	W23FF-D	D23	LD	CP	MADISON, FL	BNPDTL20090825AHQ	147.0
No	W23FI-D	D23	LD	LIC	VALDOSTA, GA	BLANK0000158118	159.6
No	WTBZ-LD	N29z	TX	LIC	GAINESVILLE, FL	BLTTL20050907ABX	32.4

No non-directional AM stations found within 0.8 km
No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D22
Mask: Full Service
Latitude: 29 38 8.50 N (NAD83)
Longitude: 82 19 34.80 W
Height AMSL: 111.8 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: PSI-PSILP80I (ID 20499) 293.0 deg
Elev Pattn: Generic

49.6 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	9.08 kW	60.4 m	36.2 km
45.0	5.54	72.6	35.8
90.0	6.42	84.6	38.2
135.0	6.46	89.7	38.9
180.0	5.53	89.4	38.1
225.0	8.94	88.4	40.4
270.0	14.1	87.4	42.5
315.0	14.2	68.4	39.7

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 80 m

Distance to Canadian border: 1338.4 km
Distance to Mexican border: 1490.5 km

Conditions at FCC monitoring station: Vero Beach FL
Bearing: 143.4 degrees Distance: 279.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 305.4 degrees Distance: 2380.8 km

Study cell size: 1.00 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 0.04% interference to BLANK0000105949 LIC scenario 2

Proposal causes 0.18% interference to BLANK0000100080 LIC scenario 1

Proposal causes 0.01% interference to BLANK0000118579 LIC scenario 1

---- Below is IX received by proposal WFGZ-LD MOD OF CP ----

Proposal receives 0.74% interference from scenario 1

No IX check failures found.

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ENVIRONMENTAL EVALUATION STATEMENT

A grant of this proposal would NOT be an action which would have a significant environmental effect as demonstrated in this environmental evaluation statement. Any changes in equipment, or construction, if necessary will not trigger any event with regards to Section 106 of the National Historical Preservation Act (NHPA).

The proposal does not meet any of the criteria specified in Section 1.1307 of the FCC Rules. More specifically, the proposed facilities are not known to fall within any of the categories enumerated in Sections 1.1307(a)(1)-(7) and will not involve the use of high intensity white lights. Furthermore, operation of the proposed facility will not involve the exposure of workers or the general public to levels of radio frequency electromagnetic fields exceeding guidelines adopted by the Federal Communications Commission. (The current FCC guidelines are based upon criteria contained in the National Council of Radiation Protection and Measurements (NCRP) Report No.86 (1986) and ANSI/IEEE C95.1-1992.)

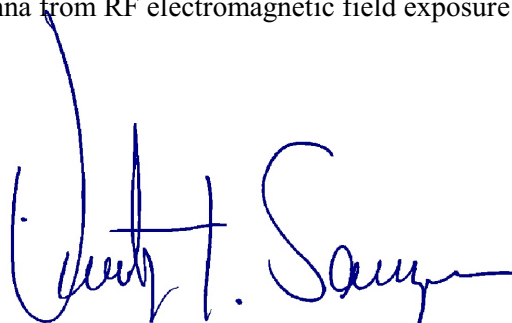
CALCULATED POWER DENSITY AT 2 METERS AGL (0.3 ANTENNA RELATIVE FIELD VALUE) ERP MAX (H)

CR AGL 78.0 M ERP MAX 15.0 KW (H)	MPE ($\mu\text{W}/\text{CM}^2$)	CALCULATED VALUE ($\mu\text{W}/\text{CM}^2$)	% OF MPE	PASS/FAIL
CONTROLLED AREA	1736.7	7.8064	0.45%	PASS
PUBLIC AREA	347.3		2.25%	PASS

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs are posted at the site. The applicant will coordinate exposure procedures with any co-located facilities and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

August 29, 2022

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