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DIGITAL LPTV FACILITY MINOR CHANGE APPLICATION

WRUG-LD

FCC FACILITY ID: 190207
BATON ROUGE, LOUISIANA

FEBRUARY 2023

ENGINEERING NARRATIVE

Minor Change Application:

WRUG-LD, seeks to modify its existing LICENSE permit (LMS: 0000162879) to specific a new transmission site and antenna system parameters. The proposed antenna is a PSI PSILP12AER horizontally polarized directional slot UHF antenna. 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.

Maximum Effective Radiated Power (ERP) is 15-kilowatts, horizontal polarization only.

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 facility of the station license as illustrated in Figure 1, Present & Proposed Service Contours.
- There is no change in transmitting antenna location greater than 30 miles (48km) from the reference coordinates of the existing station construction permit antenna location, as noted below:

CALCULATED DISTANCE BETWEEN EXISTING LICENSE AND PROPOSED SITES

SITE	LAT (NAD83)	LON (NAD83)	(KM)	(MI)
CURRENT/EXISTING	30-37-44.20 N	091-00-09.90 W	29.650	18.423
PROPOSED LIC MOD	30-22-25.90 N	091-05-44.20 W		

FCC Tower Registration (ASR) #1001108 - FAA Notification:

The proposed antenna mounting structure is 152.7 meter in overall height above ground level (AGL) and has been issued a Antenna Structure Registration (ASR) number 1001108 by the Commission's Wireless Bureau. This is an existing communication tower that does not require further FAA notification as no changes in the supporting structure is required. The antenna is to be side-mounted on the structure at the 60-meter AGL level.

Antenna Elevations:

The ground elevation at the site is 13.7 meters above mean sea level (AMSL). The center of radiation of the proposed antenna is 60.0 meters above ground level (AGL). Thus, the center of radiation is 73.7 meters above mean sea level (AMSL), as tabulated below:

ALL ELEVATIONS IN METERS

GROUND ELEVATION	13.7
SUPPORTING STRUCTURE OVERALL HEIGHT AGL	152.1
ANTENNA HEIGHT AGL	60.0
ANTENNA RCAMSL	73.7

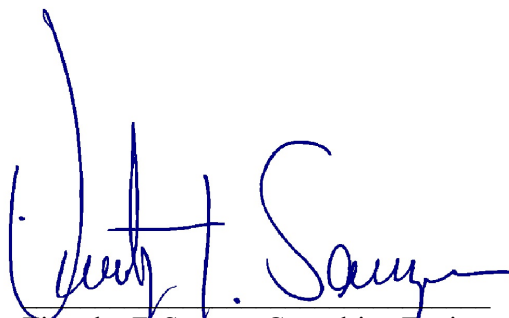
FCC TVStudy Results:

The results of a 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. The applicant accepts any incoming interference that is predicted to exist 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.

February 22, 2023



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WRUG-LD APP

PROPOSED

FCC Facility ID: 190207
NAD 83 Latitude: 30-22-25.90 N
NAD 83 Longitude: 091-05-44.20 W
ERP: 15.00 kW
Channel: 26
Frequency: 545.0 MHz
Ant. RCAMSL Height: 73.7 m
Horiz. Pattern: Directional

FCC 51 DBU F(50,90) PREDICTED
SERVICE CONTOURS

WRUG - LD BATON ROUGE, LA
PRESENT AND PROPOSED SERVICE CONTOURS
CH 26 LPTV UHF FCC 51 DBU F(50,90)

PROPOSAL IS IN COMPLIANCE WITH LPTV MINOR CHANGE
RULES

FIGURE 1

WRUG-LD EXISTING

FCC LMS File: 0000162879
FCC Facility ID: 190207
NAD 83 Latitude: 30-37-44.20 N
NAD 83 Longitude: 091-00-09.90 W
ERP: 1.70 kW
Channel: 26
Frequency: 545.0 MHz
Ant. RCAMSL Height: 53.2 m
Horiz. Pattern: Directional

FCC 30-MILE SITE MOVE
MINOR CHANGE RULE

Map created on: 02/22/2023
NED 3 Second US Terrain

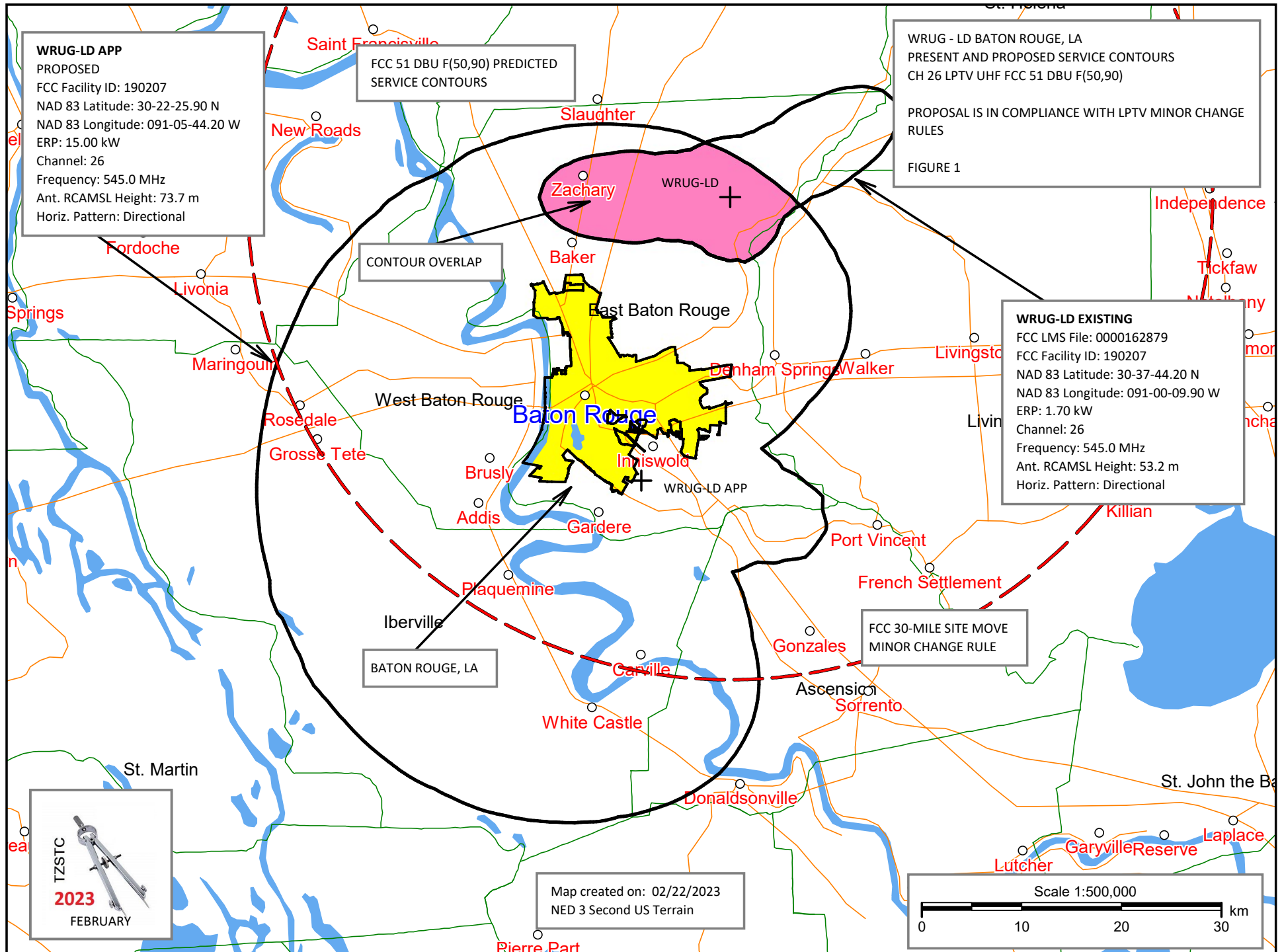
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2023

FEBRUARY



WRUG-LD PSI PSILP12AER DIRECTIONAL PATTERN
Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
10.0	1.0
20.0	1.0
30.0	1.0
40.0	1.0
50.0	0.988
60.0	0.946
70.0	0.886
80.0	0.815
90.0	0.725
100.0	0.624
110.0	0.529
120.0	0.428
130.0	0.293
140.0	0.146
150.0	0.067
160.0	0.085
170.0	0.136
180.0	0.147
190.0	0.136
200.0	0.085
210.0	0.067
220.0	0.146
230.0	0.293
240.0	0.428
250.0	0.529
260.0	0.624
270.0	0.725
280.0	0.815
290.0	0.886
300.0	0.946
310.0	0.988
320.0	1.0
330.0	1.0
340.0	1.0
350.0	1.0

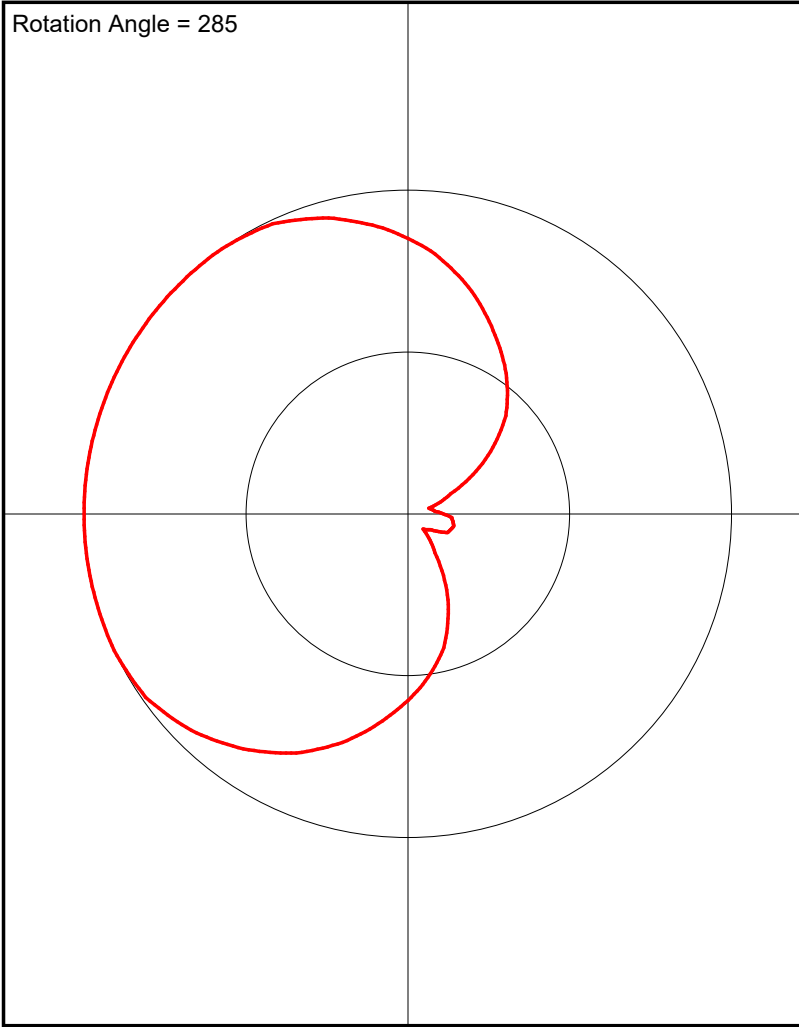


FIGURE 3 - FCC TVSTUDY SUMMARY REPORT
CELL SIZE 1 KM
PROFILE SPACING 0.1

Study build station data: LMS TV 2023-02-20

Proposal: WRUG-LD D26 LD APP Baton Rouge, LA
File number: WRUG APP FINAL PSI
Facility ID: 190207
Station data: User record
Record ID: 685
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	K25PZ-D	D25	LD	LIC	ALEXANDRIA, LA	BLANK0000149500	152.8 km
No	WLPB-TV	D25	DT	CP	BATON ROUGE, LA	BLANK0000035855	10.4
No	WLPB-TV	D25	DT	LIC	BATON ROUGE, LA	BLEDT20101201ALR	10.4
No	WXXV-TV	D25	DT	LIC	GULFPORT, MS	BLANK0000090276	199.3
No	WEDS-LD	D26	LD	LIC	MOBILE, AL	BLANK0000193624	313.1
Yes	KBCA	D26	DT	LIC	ALEXANDRIA, LA	BLANK0000078715	157.7
Yes	WGNO	D26	DT	LIC	NEW ORLEANS, LA	BLANK0000204141	119.1
No	W26BB-D	D26	LD	LIC	VICKSBURG, MS	BLANK0000194567	222.1
No	W26BB-D	N26+	TX	LIC	VICKSBURG, MS	BLTTL19940527JF	222.1
No	KRIV	D26	DT	LIC	HOUSTON, TX	BLANK0000210740	432.7
No	KULC-LD	D26	LD	CP	PORT ARTHUR, TX	BLANK0000199498	276.3
No	KULC-LD	D26	LD	LIC	PORT ARTHUR, TX	BLANK0000198508	276.3
No	KTAL-TV	D26	DT	LIC	TEXARKANA, TX	BLANK0000192877	393.5
No	DKWCE-LP	N27-	TX	APP	ALEXANDRIA, LA	BLTTL20060714ACI	162.3
Yes	K27NB-D	D27	LD	LIC	BATON ROUGE, LA	BLANK0000103489	18.2
No	WWL-TV	D27	DT	LIC	NEW ORLEANS, LA	BLANK0000203662	114.0

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

Record parameters as studied:

Channel: D26
Mask: Full Service
Latitude: 30 22 25.90 N (NAD83)
Longitude: 91 5 44.20 W
Height AMSL: 74.0 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: PSI-PSILP12AER (ID 20349) 285.0 deg
Elev Pattn: Generic
Elec Tilt: 1.00

50.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	10.9 kW	59.8 m	36.6 km
45.0	2.75	63.2	30.4
90.0	0.183	67.5	17.4
135.0	0.067	70.6	13.7
180.0	4.99	69.8	34.4
225.0	13.4	67.6	38.8
270.0	15.0	67.6	39.4
315.0	15.0	63.3	38.7

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 66 m

Distance to Canadian border: 1464.7 km
Distance to Mexican border: 751.5 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 55.5 degrees Distance: 714.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 314.1 degrees Distance: 1674.9 km

Study cell size: 1.00 km

Profile point spacing: 0.10 km

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

Maximum new IX to LPTV: 2.00%

Proposal causes no interference to BLANK0000078715 LIC

Proposal causes 0.46% interference to BLANK0000204141 LIC scenario 2

Proposal causes 1.82% interference to BLANK0000103489 LIC scenario 1

---- Below is IX received by proposal WRUG APP FINAL PSI ----

Proposal receives 18.69% interference from scenario 1

Proposal receives 11.41% interference from scenario 2

No IX check failures found.

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WRUG-LD
LPTV CHANNEL 26 OPERATION
FACILITY ID: 190207
BATON ROUGE, LOUISIANA
FEBRUARY 2023

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.)

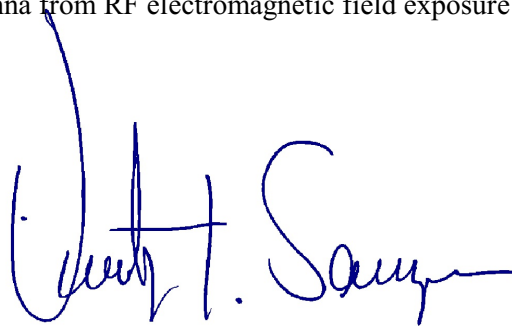
CALCULATED POWER DENSITY AT 2 METERS AGL (0.5 ANTENNA RELATIVE FIELD VALUE) ERP MAX (H ONLY)

CR AGL 60.0 M ERP MAX 15.0 KW	MPE ($\mu\text{W}/\text{CM}^2$)	CALCULATED VALUE ($\mu\text{W}/\text{CM}^2$)	% OF MPE	PASS/FAIL
CONTROLLED AREA	1806.7	37.2325	2.06%	PASS
PUBLIC AREA	361.3		10.31%	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.

February 22, 2023

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