

TECHNICAL SUMMARY  
APPLICATION FOR CONSTRUCTION PERMIT  
LPTV STATION WJMF-LP  
JACKSON, MISSISSIPPI  
CHANNEL 6 3 KW (ND)

1. The instant minor change application is to relocate LPTV station WJMF-LP on analog channel 6 at Jackson, Mississippi and modify its facilities. Specifically, operation is proposed from an existing tower located 8.5 km southwest of the licensed WJMF-LP site (File No. 0000074801) with a nondirectional antenna maximum effective radiated power (ERP) of 3 kW using WJMF-LP's currently licensed Scala TVO-4 horizontally polarized antenna. The antenna radiation center height will be 193.4 m AMSL. There will be no change in the overall height of the existing structure (ASRN 1060683).

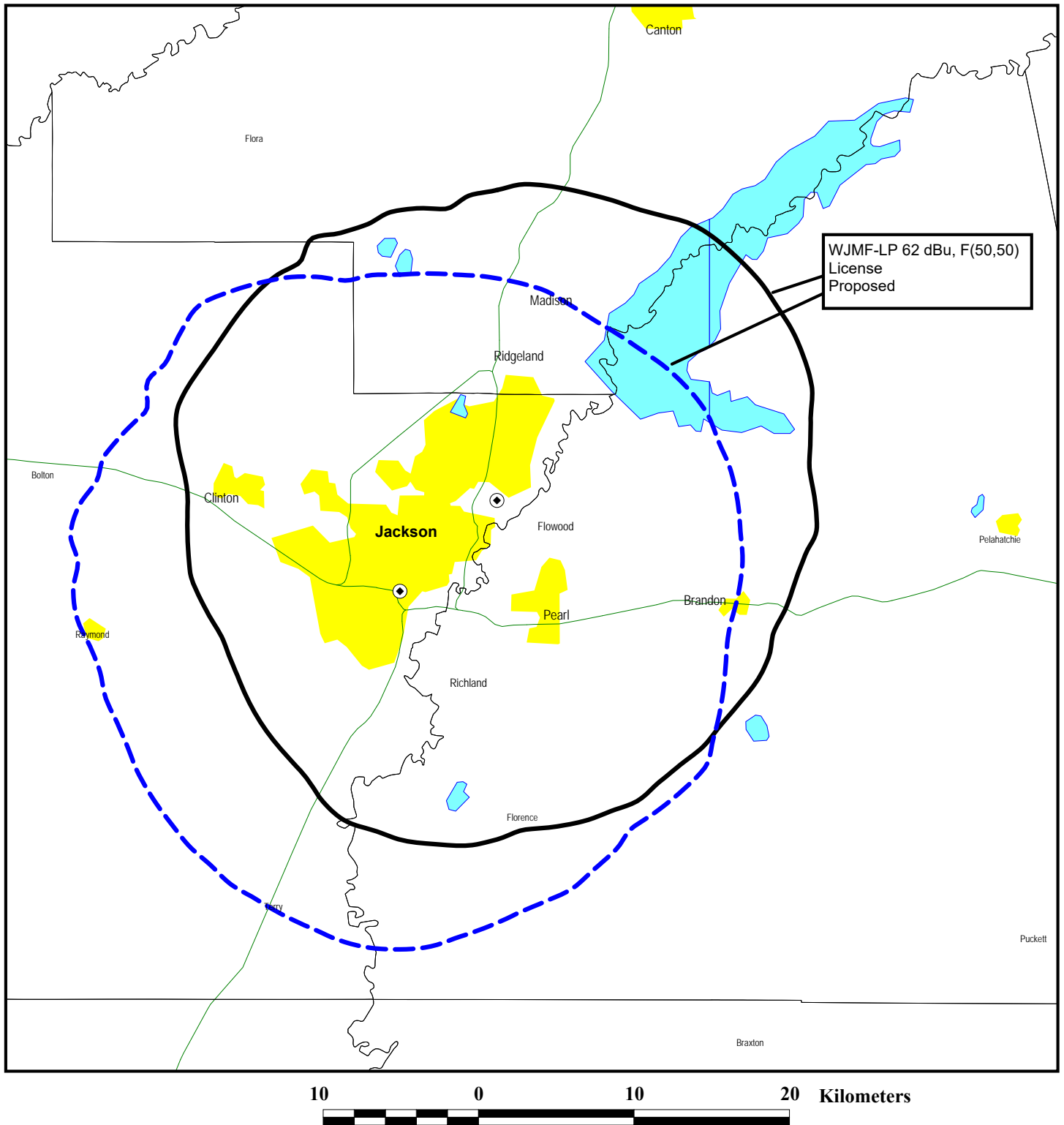
2. Figure 1 demonstrates that there is overlap of the licensed and proposed 62 dBu, f(50,50) protected contours as required by Section 73.3572(a)(2)(ii) for minor change applications.

3. Interference Compliance: As indicated in the attached *TVStudy* analysis summary, WJMF-LP's proposed channel 6 operation meets the FCC's interference protection requirements with respect to all protected facilities based on a post-transition allocation environment. A cell size of 1.0 km and a profile resolution of 1.0 km points/km were utilized for the *TVStudy* analysis.

4. RFR Compliance: The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna will be located 106 meters above ground level. The total analog ERP is 3 kW (horizontal polarization). A greater than expected vertical plane relative field value of 1.0 is presumed for the antenna's downward radiation (-60° to -90° elevation). The calculated power density at a point 2 meters above ground level is 9.26 uW/cm<sup>2</sup> which is only 4.6% of the FCC's recommended limit of 200 uW/cm<sup>2</sup> for channel 6 for an uncontrolled environment. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

Access to the transmitting site is restricted and appropriately marked with RFR warning signs. Also, as this is a multi-user site, a formal RFR protection protocol is in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measure will be taken to assure worker safety with respect to RFR exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.

Figure 1



## FCC PREDICTED 62 DBU COVERAGE CONTOURS

PROPOSED OPERATION  
LPTV STATION WJMF-LP  
JACKSON, MISSISSIPPI  
CH 6 3 KW (ND)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

tvstudy v2.2.5 (4uoc83)  
Database: localhost, Study: Proposed WJMF-LP, Model: Longley-Rice  
Start: 2021.02.02 11:18:06

Study created: 2021.02.02 11:18:06

Study build station data: LMS TV 2021-01-31

Proposal: WJMF-LP N6 TX APP JACKSON, MS  
File number: Proposed WJMF-LP  
Facility ID: 26253  
Station data: User record  
Record ID: 3518  
Country: U.S.

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WVUA	D6	DT	LIC	TUSCALOOSA, AL	BLCDT20090612AHT	344.7 km
No	KXKW-LP	N6+	TX	LIC	LAFAYETTE, LA	BLTVA20090728AEU	272.6
Yes	W06DD	N6z	TX	CP	NATCHEZ, MS	BDISTVL20090824AAQ	135.6
No	WPGF-LP	N6+	TX	CP	MEMPHIS, TN	BLANK0000091450	327.0
No	WPGF-LP	N6+	TX	LIC	MEMPHIS, TN	BLANK0000093309	327.0
No	WPGF-LP	N6+	TX	LIC	MEMPHIS, TN	BLTVL20100512AGJ	327.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: N6  
Latitude: 32 17 9.00 N (NAD83)  
Longitude: 90 12 43.00 W  
Height AMSL: 193.4 m  
HAAT: 0.0 m  
Peak ERP: 3.00 kW  
Antenna: Omnidirectional  
Elev Pattnr: Generic

62.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	3.00 kW	87.7 m	20.4 km
45.0	3.00	101.7	22.0
90.0	3.00	100.2	21.8
135.0	3.00	96.0	21.3
180.0	3.00	112.4	23.0
225.0	3.00	92.8	21.0
270.0	3.00	94.1	21.1
315.0	3.00	94.0	21.1

Database HAAT does not agree with computed HAAT  
Database HAAT: 0 m Computed HAAT: 97 m

Distance to Canadian border: 1237.7 km

Distance to Mexican border: 957.0 km

Conditions at FCC monitoring station: Powder Springs GA  
Bearing: 69.6 degrees Distance: 540.3 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 307.2 degrees Distance: 1600.0 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%

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Interference to BDISTVL20090824AAQ CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W06DD	N6z	TX	CP	NATCHEZ, MS	BDISTVL20090824AAQ	

Undesireds:	WJMF-LP	N6	TX	APP	JACKSON, MS	Proposed WJMF-LP	135.6 km
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	888.7	43,331	888.7	43,331	888.7	43,331	1.94 0.00
Undesired				Total IX	Unique IX, before	Unique IX, after	
WJMF-LP N6 TX APP		17.2		0		17.2	0

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Interference to proposal scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WJMF-LP	N6	TX	APP	JACKSON, MS	Proposed WJMF-LP	
Undesireds:	W06DD	N6z	TX	CP	NATCHEZ, MS	BDISTVL20090824AAQ	135.6 km
	Service area		Terrain-limited		IX-free	Percent IX	
	1460.5	361,037	1460.5	361,037	1449.4	358,876	0.76 0.60
Undesired				Total IX	Unique IX	Prcnt Unique IX	
W06DD N6z TX CP		11.1		2,161	11.1	2,161	0.76 0.60