

TECHNICAL EXHIBIT
APPLICATION FOR DTV CONSTRUCTION PERMIT
IN SUPPORT OF ITS POST-TRANSITION FACILITY
STATION WLBT-DT (FACILITY ID 68542)
JACKSON, MISSISSIPPI

MAY 13, 2008

CH 7 10.3 KW 389 M

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Technical Narrative {Up To 5-Mile Waiver Request}

This Technical Exhibit supports an application for digital television (DTV) station WLBT-DT for its post-transition DTV operation at Jackson, Mississippi. This application requests a construction permit (CP) for a digital television operation on channel 7 using its existing, licensed, non-directional antenna.

Proposed Facilities

Station WLBT-DT proposes to operate DTV channel 7, with a non-directional antenna effective radiated power (ERP) of 10.3 kilowatt and antenna height above average terrain (HAAT) of 389 meters (former HAAT has been updated per OET-69 software). The transmitter site coordinates are:

32° 12' 49" North Latitude
90° 22' 56" West Longitude

A sketch of antenna and pertinent elevations are included as Figure 1. The antenna structure registration number is 1210491. Figure 2 depicts a typical antenna elevation pattern.

Figure 3 is a map showing the DTV predicted coverage contours as well as the associated analog Grade B and Appendix B allotment coverage contours. For each noise-limited contour, 360-radials and a 3-second digitized terrain database were employed. A 5-mile buffer has been added to the Appendix B allotment coverage contour. The predicted 10.3 kW, 36 dBu contour will not extend more than 2 miles beyond the Appendix B contour at any location.

The proposed 43 dBu contour will encompass all of Jackson. The Jackson city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

Population Served

The herein proposed WLBT-DT facility is predicted to serve 745,106 persons, post-transition, based upon the 2000 Census. WLBT-DT's associated Appendix B facility is predicted to serve 725,431 persons. Therefore, the herein proposed WLBT-DT facility would serve more than 100% of WLBT-DT's Appendix B population.

Allocation Considerations

Since the proposed WLBT-DT ERP exceeds the Commission's *Appendix B* allocated maximum effective radiated power in some azimuthal directions¹, a waiver of the current freeze on filing DTV maximization applications is hereby requested. The proposed facilities would (1) create a contour that does not extend more than 5 miles in any direction beyond the Appendix B contour and (2) not create more than 0.5% new interference to any other station.

In support of this waiver request, an allocation study was completed to ensure no prohibited interference would occur. The proposed WLBT-DT operation meets the FCC's post-transition interference standards to pertinent Class A and DTV allotments using the procedures outlined in the FCC's OET-69 Bulletin and a 2 kilometer grid cell size. The results of the interference analyses are summarized in Figure 4.

Absent the waiver, WLBT-DT would need to reduce power to 7 kW ERP in order to use the non-directional antenna and avoid a contour expansion. At 7 kW ERP, the resulting DTV contour would not cover 109,873 people that are presently served by the station's analog Grade B contour -- a significant loss. Therefore, a waiver is warranted.


¹ See Seventh Report And Order And Eighth Further Notice Of Proposed Rule Making in the Matter of Advanced Television Systems and their Impact Upon the Existing Television Broadcast Service, MB Docket 87-268, Released August 6, 2007; Adopted August 1, 2007.

Radiofrequency Electromagnetic Field Exposure

The proposed WLBT-DT facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 358 meters above ground level with an ERP of 10.3 kW. A conservative downward relative field value of 0.3 was assumed for the existing antenna (see Figure 2). The calculated power density at a point 2 meters above ground level will not exceed 0.0003 mW/cm^2 . This is less than 5% of the FCC's recommended limit of 0.2 mW/cm^2 for channel 7 for an "uncontrolled" environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. As this is a multi-user site an agreement between the stations will control site access. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down. The proposed WLBT-DT operation appears to be otherwise categorically excluded from environmental processing.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner.



Jonathan N. Edwards

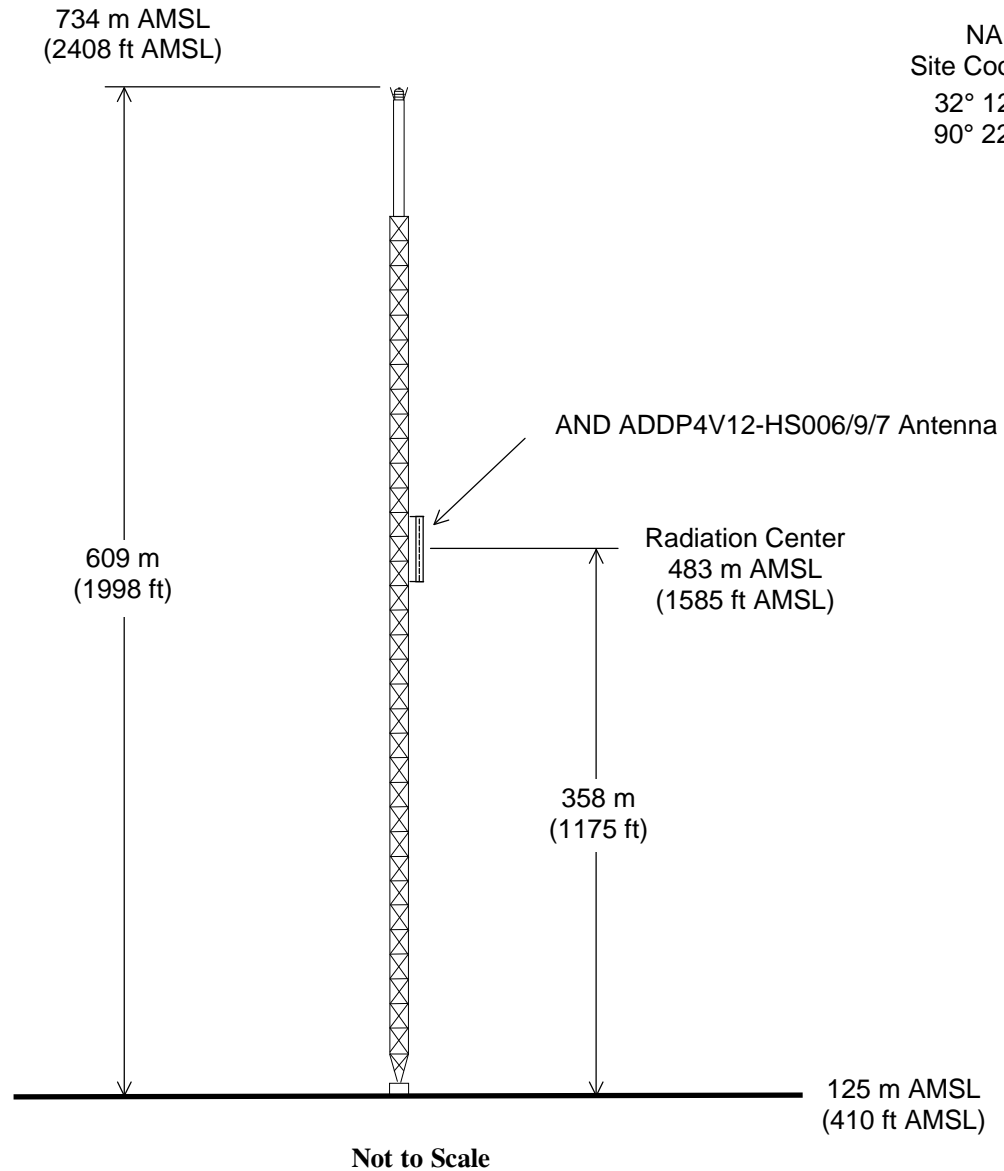
du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329-6000
JON@DLR.COM

May 13, 2008

Figure 1



Registration No. 1210491



ANTENNA AND SUPPORTING STRUCTURE

STATION WLBT-DT
JACKSON, MISSISSIPPI
CH 7 10.3 KW 389 M

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

**ANDREW**

Fig. 2

ELEVATION PATTERN

Type: ADDP4V3-CH9

Directivity:	Numeric	dBd
Main Lobe:	<u>4.90</u>	<u>(6.90)</u>
Horizontal:	<u>4.86</u>	<u>(6.87)</u>

Beam Tilt: 0.75

Polarization: Horizontal

Channel: _____

Location: Jackson, MS

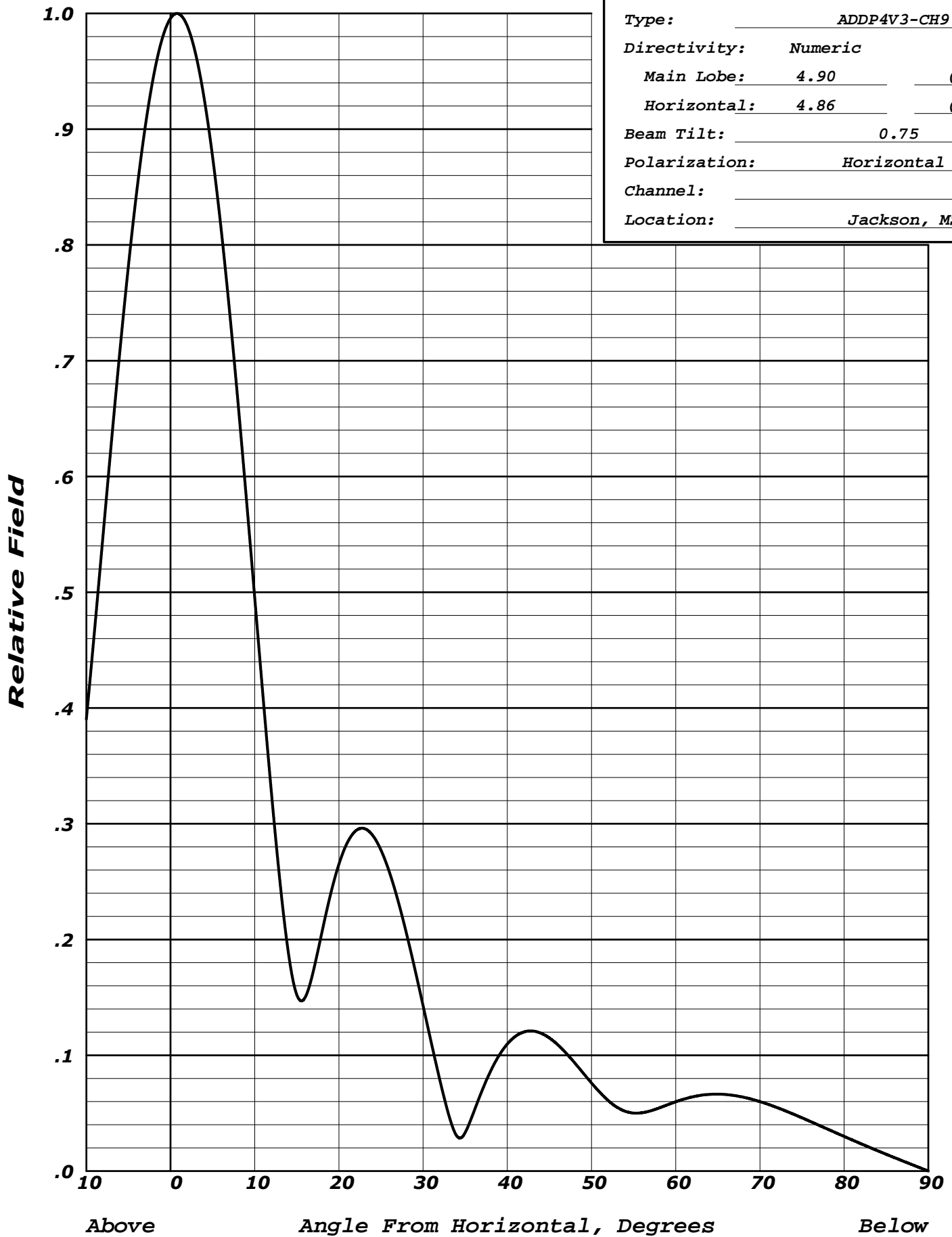
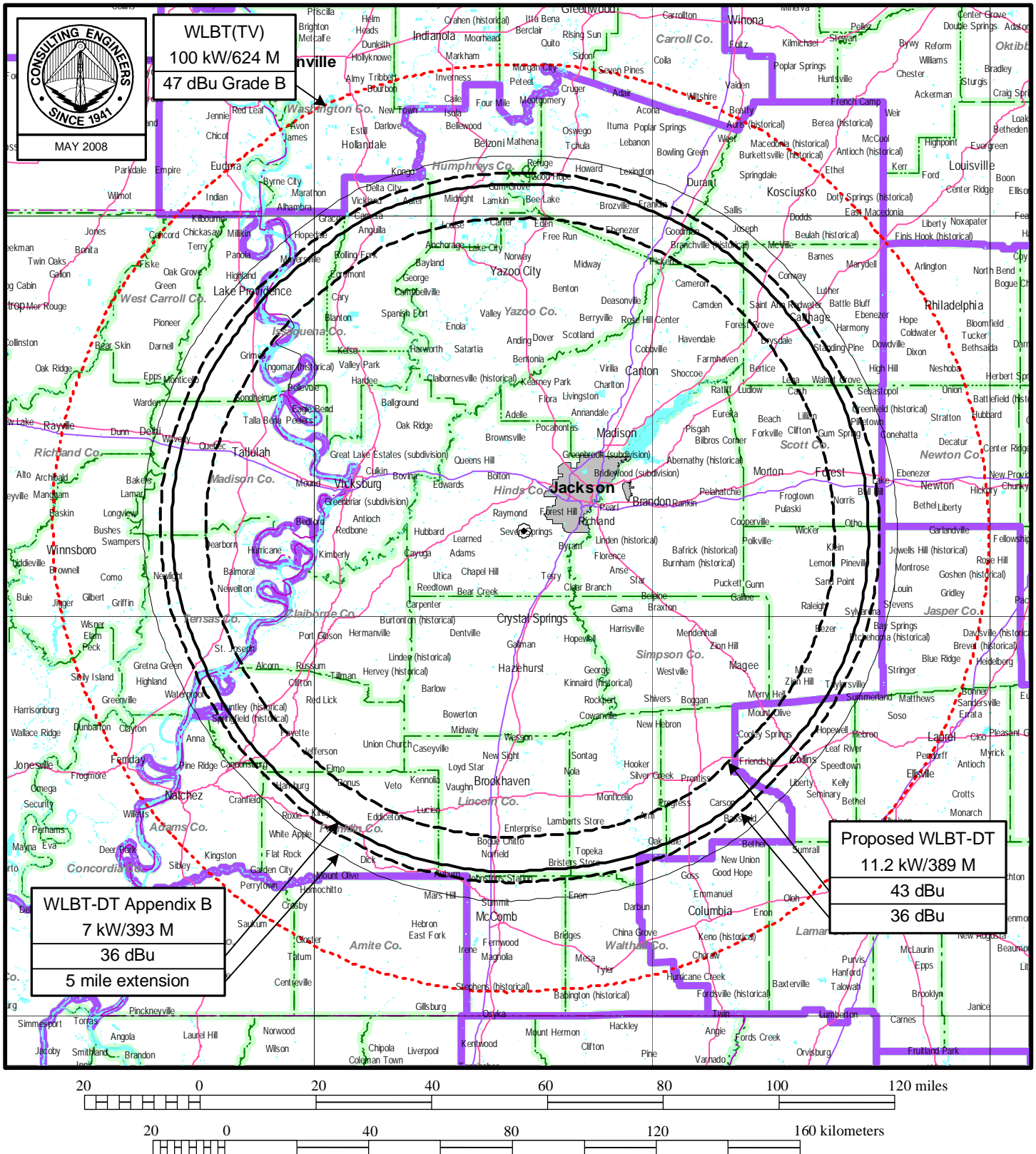


Figure 3



PREDICTED COVERAGE CONTOURS

STATION WLBT-DT

JACKSON, MISSISSIPPI

CH 7 10.3 kW 389 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida

Census data selected 2000

Post Transition Data Base Selected
/export/home/cdbb/tvdb.sff_B
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 05-15-2008 Time: 11:00:00
Record Selected for Analysis

WLBT USERRECORD-01 JACKSON MS US
Channel 07 ERP 10.3 kW HAAT 389. m RCAMSL 00483 m
Latitude 032-12-49 Longitude 0090-22-56
Status APP Zone 2 Border
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 2.0 km/side
Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)
0.0	10.300	395.6	99.6
45.0	10.300	375.9	98.3
90.0	10.300	387.4	99.0
135.0	10.300	378.7	98.5
180.0	10.300	369.0	97.8
225.0	10.300	390.6	99.2
270.0	10.300	415.6	100.9
315.0	10.300	398.4	99.8

Evaluation toward Class A Stations
No Spacing violations or contour overlap to Class A stations
Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations
Proposed facility OK toward West Virginia quite zone
Proposed facility OK toward Table Mountain
Proposed facility is beyond the Canadian coordination distance
Proposed facility is beyond the Mexican coordination distance
Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
07	WLBT	JACKSON MS	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
07	KETS	LITTLE ROCK AR	302.7	LIC	BDTV	-0079
07	KPLC	LAKE CHARLES LA	320.4	LIC	BDTV	-0684
08	KNOE-TV	MONROE LA	158.8	LIC	BDTV	-0688
08	WTVA	TUPELO MS	213.1	LIC	BDTV	-0912

%%%

Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
07	KETS	LITTLE ROCK AR	BDTV	-0079

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
07	KOAMTV	PITTSBURG KS	379.7	LIC	BDTV -0619
07	KLTV	TYLER TX	352.6	LIC	BDTV -1611
08	KAIT	JONESBORO AR	195.0	LIC	BDTV -0076
07	WLBT	JACKSON MS	302.7	APP	USERRECORD-01

Total scenarios = 1

Result key: 1

Scenario 1 Affected station 1

Before Analysis

Results for: 7A AR LITTLE ROCK BDTV 0079 LIC
 HAAT 543.0 m, ATV ERP 49.8 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1155930	48123.4
not affected by terrain losses	1110497	45884.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	359	68.6
lost to ATV IX only	359	68.6
lost to all IX	359	68.6

Potential Interfering Stations Included in above Scenario 1

7A KS PITTSBURG	BDTV	0619	LIC
7A MS JACKSON	BDTV	0897	LIC
7A TX TYLER	BDTV	1611	LIC

After Analysis

Results for: 7A AR LITTLE ROCK BDTV 0079 LIC
 HAAT 543.0 m, ATV ERP 49.8 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1155930	48123.4
not affected by terrain losses	1110497	45884.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	528	100.9
lost to ATV IX only	528	100.9
lost to all IX	528	100.9

Potential Interfering Stations Included in above Scenario 1

7A KS PITTSBURG	BDTV	0619	LIC
7A TX TYLER	BDTV	1611	LIC
7A MS JACKSON	USERRECORD01		APP

Percent new IX = 0.0153%

Worst case new IX 0.0153% Scenario 1

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application Ref. No.
07	KPLC	LAKE CHARLES LA	BDTV -0684

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
07	KLTV	TYLER TX	317.8	LIC	BDTV -1611
08	KNOE-TV	MONROE LA	218.8	LIC	BDTV -0688
07	WLBT	JACKSON MS	320.4	APP	USERRECORD-01

Total scenarios = 1

Result key: 2
Scenario 1 Affected station 2
Before Analysis

Results for: 7A LA LAKE CHARLES BDTV 0684 LIC
HAAT 451.0 m, ATV ERP 17.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1019656	36693.5
not affected by terrain losses	1018162	36569.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	363	28.1
lost to ATV IX only	363	28.1
lost to all IX	363	28.1

Potential Interfering Stations Included in above Scenario 1

7A MS JACKSON	BDTV	0897	LIC
7A TX TYLER	BDTV	1611	LIC

After Analysis

Results for: 7A LA LAKE CHARLES BDTV 0684 LIC
HAAT 451.0 m, ATV ERP 17.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1019656	36693.5
not affected by terrain losses	1018162	36569.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1146	44.1
lost to ATV IX only	1146	44.1
lost to all IX	1146	44.1

Potential Interfering Stations Included in above Scenario 1

7A TX TYLER	BDTV	1611	LIC
7A MS JACKSON	USERRECORD01		APP

Percent new IX = 0.0769%
Worst case new IX 0.0769% Scenario 1

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
08	KNOE-TV	MONROE LA	BDTV	-0688

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
07	KPLC	LAKE CHARLES LA	218.8	LIC	BDTV	-0684
08	KAIT	JONESBORO AR	423.5	LIC	BDTV	-0076
08	WVUE	NEW ORLEANS LA	320.8	LIC	BDTV	-0691
08	WTVA	TUPELO MS	329.9	LIC	BDTV	-0912
09	WAFB	BATON ROUGE LA	219.2	LIC	BDTV	-0673
07	WLBT	JACKSON MS	158.8	APP	USERRECORD-01	

Total scenarios = 1

Result key: 3
Scenario 1 Affected station 3
Before Analysis

Results for: 8A LA MONROE BDTV 0688 LIC
HAAT 518.0 m, ATV ERP 17.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	669222	39613.9
not affected by terrain losses	666019	39250.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	2088	60.6
lost to ATV IX only	2088	60.6
lost to all IX	2088	60.6

Potential Interfering Stations Included in above Scenario 1

7A MS JACKSON	BDTV	0897	LIC
8A LA NEW ORLEANS	BDTV	0691	LIC
8A MS TUPELO	BDTV	0912	LIC

After Analysis

Results for: 8A LA MONROE BDTV 0688 LIC

HAAT 518.0 m, ATV ERP 17.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	669222	39613.9
not affected by terrain losses	666019	39250.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	2088	60.6
lost to ATV IX only	2088	60.6
lost to all IX	2088	60.6

Potential Interfering Stations Included in above Scenario 1

8A LA NEW ORLEANS	BDTV	0691	LIC
8A MS TUPELO	BDTV	0912	LIC
7A MS JACKSON	USERRECORD01		APP

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
08	WTVA	TUPELO MS	BDTV -0912

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
08	KAIT	JONESBORO AR	287.5	LIC	BDTV -0076
08	KNOE-TV	MONROE LA	329.9	LIC	BDTV -0688
08	WNPT	NASHVILLE TN	324.1	LIC	BDTV -1478
07	WLBT	JACKSON MS	213.1	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application Ref. No.
07	WLBT	JACKSON MS	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
07	KETS	LITTLE ROCK AR	302.7	LIC	BDTV -0079
07	KPLC	LAKE CHARLES LA	320.4	LIC	BDTV -0684
08	KNOE-TV	MONROE LA	158.8	LIC	BDTV -0688
08	WTVA	TUPELO MS	213.1	LIC	BDTV -0912

Total scenarios = 1

Result key: 4
Scenario 1 Affected station 5
Before Analysis

Results for: 7A MS JACKSON USERRECORD01 APP
HAAT 389.0 m, ATV ERP 10.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	752827	30857.6
not affected by terrain losses	746571	30183.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1465	314.8
lost to ATV IX only	1465	314.8
lost to all IX	1465	314.8

Potential Interfering Stations Included in above Scenario 1

7A AR LITTLE ROCK	BDTV	0079	LIC
7A LA LAKE CHARLES	BDTV	0684	LIC
8A LA MONROE	BDTV	0688	LIC

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