

TECHNICAL EXHIBIT  
AMENDMENT TO THE APPLICATION FOR  
LPTV STATION WLFT-LP (FACILITY ID. 8653)  
BATON ROUGE, LOUISIANA  
CH 39(-) 150 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part supports an amendment to the application for low power television (LPTV) station WLFT-LP at Baton Rouge, Louisiana. Station WLFT-LP is licensed to operate on channel 52 and authorized to operate on channel 53. The currently pending application is for operation on channel 53 with a directional antenna (DA) maximum visual effective radiated power (ERP) of 119 kilowatts (kW) and an antenna radiation center height above mean sea level (RCAMSL) of 155 meters (BMPTTL-20010116AGU).

Proposed Facilities

Because the current operation is on a channel outside the FCC's "core" band (channels 2-51) this application to change frequency to channel 39 (minus offset) is considered a displacement application. There is no proposed change in transmitter site (30-23-04 N, 91-03-27 W). Station WLFT-LP proposes to side-mount an Antenna Concepts 24-bay "cardioid" DA at the 145.1 meter (476 feet) level on a 152.4 meter (500 feet) tower. The proposed maximum visual ERP is 150 kW and the antenna RCAMSL remains 154.8 meters. There will be no change in community of license. The FAA has determined that the proposed structure will not be a hazard (01-ASW-0150-OE). Once the tower owner has registered the tower with the FCC, the registration number will be provided.

NTSC Allocation Considerations

A study has been conducted using the provisions of Sections 74.705, 74.707 and 74.709 to assure that the proposal will not create prohibited interference with other

licensed or authorized analog (NTSC) full-power TV, LPTV and Class A TV stations. With the exception of station KWBJ-LP, no prohibited interference to any NTSC stations will be created by the proposed operation.

Station KWBJ-LP on channel 39, at Morgan City, Louisiana is located 74.9 kilometers south of the proposed WLFT-LP operation. It currently operates with no carrier offset. Station KWBJ-LP is a Class A facility (BLTTA-20001129ACE). As such the FCC rules require that KWBJ-LP specify a carrier offset. Conversation with KWBJ-LP staff indicates their intent to specify a zero (0) offset for KWBJ-LP. Out of an abundance of caution and in order to alleviate any uncertainty, WLFT-LP requests that the FCC direct KWBJ-LP to specify a zero (0) offset, pursuant to paragraph 74 of the Memorandum Opinion and Order in MM Docket No. 00-10, Establishment of a Class A Television Service (released April 13, 2001). WLFT-LP expresses its willingness to provide KWBJ-LP with the equipment necessary to implement a zero (0) carrier offset at no cost to KWBJ-LP. It is understood that KWBJ-LP employs an Acrodyne TLU-1KE 1 kW transmitter. Acrodyne has confirmed that the conversion of the KWBJ-LP transmitter to zero (0) offset can be made and will cost less than \$2000. Therefore, with KWBJ-LP employing a zero (0) offset, no prohibited interference will be caused by the proposed WLFT-LP operation with a minus (-) offset.

#### DTV Allocation Considerations

Pertinent digital television (DTV) allotments and assignments on channels 38, 39 and 40 have been examined using the procedures outlined in the FCC's OET-69 Bulletin.<sup>1</sup> Interference calculations for the proposed WLFT-LP operation are summarized below.

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<sup>1</sup> The duTreil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 1 km was employed. An Alpha based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin No. 69.

Protected DTV Station	FCC Service Population	Proposed Interference Population
WLOX-DT, DTV allotment	1,095,000	1,955 (0.2%)
WLOX-DT(CP), DTV-39, Biloxi, MS	1,095,000	2,298 (0.2%)
WNOL-DT(CP), DTV-40, New Orleans, LA	1,432,000	0 (0.0%)
WNOL-DT, DTV allotment	1,432,000	0 (0.0%)

The above calculated interference percentages are all less than 0.5 % and, therefore, can be considered “de minimis”. The proposed WLFT-LP operation does not cause calculated interference to any other DTV assignment or allotment.

The applicant recognizes the proposal is secondary to authorized full-service analog and DTV operations. The applicant understands that it must correct and/or eliminate prohibited interference that may result from its proposed operation. If necessary, a waiver of the FCC rules is respectfully requested based on no interference being caused to pertinent DTV assignments using the procedures outlined in the FCC’s OET-69 Bulletin.

#### Radiofrequency Electromagnetic Field Exposure

The proposed WLFT-LP facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. A maximum visual ERP of 150 kW with 10% aural power was assumed. A conservative relative field value of 0.2 was assumed for the Antenna Concepts ACS24A directional antenna’s downward radiation (see Figure 1). The calculated power density at a point 2 meters (6.6 feet) above ground level is 0.0049 mW/cm<sup>2</sup>. This is 1.2% of the FCC's recommended limit of 0.42 mW/cm<sup>2</sup> for channel 39 for an “uncontrolled” environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. 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

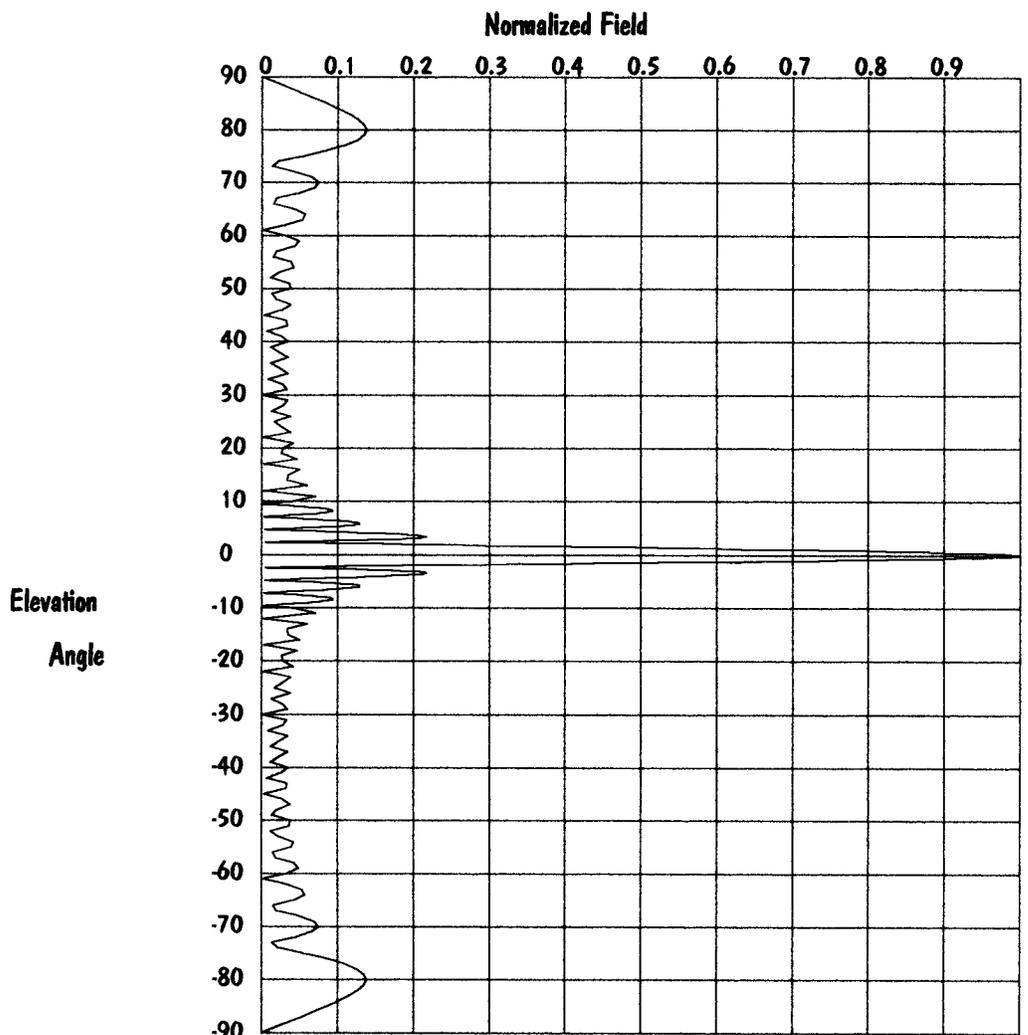
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spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down. The proposed WLFT-LP operation appears to be otherwise categorically excluded from environmental processing as it complies with all the criteria for such an exclusion in Section 1.1306.

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July 12, 2001



### Elevation Pattern

Scale: Linear

Units: Absolute

### Antenna Concepts Inc.

CLIENT: *du Treil, Lundin & Rackley, Inc.*

Date: 4/13/1998

ANTENNA TYPE: *ACS 24 bay Low Power slot*

FREQUENCY: *UHF*

PATTERN POL.: *Horizontal*

Beam Tilt (Deg.): *0*

Elev. DIRECTIVITY: *28.221/ 14.505dBd*

Null Fill ( % ): *, ,*

**INTERFERENCE CAUSED BY WLFT-LP**  
**ASSUMED WORST-CASE 150 KW NON-DIRECTIONAL ANTENNA FOR PROPOSED OPERATION**  
 CELL SIZE : 1.00 km  
 Using offset in determining thresholds  
 Per 6th Report & Order and FCC OET-69 Bulletin

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 DWLOXT 30-43-25 089-05-29 39(0) 822.1 kW-DA 454 m AMSL 90.0 % 41.1 dBu  
 BILOXI MS 34271 1095 DTVSERVICE: 1095000 NTSCSERVICE: 738000  
 DTVALT DTV ALLOTMENT  
 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Ref Az: 0.0  
 Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	34437.43	1101300
not affected by terrain losses	34329.80	1093937

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 WLFT39 30-23-04 091-03-27 39(-) 150.0 kW 155 m AMSL 10.0 % 74.1 dBu  
 BATON ROUGE LA  
 APP BMPPTTL20010116AGU  
 Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
<b>Interference</b>	<b>37.87</b>	<b>1955 (0.2%)</b>

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 WLOX-D 30-43-23 089-05-28 39(N) 1000.0 kW 424 m AMSL 90.0 % 41.1 dBu  
 BILOXI MS 34271 1095 DTVSERVICE: 1095000 NTSCSERVICE: 738000  
 CP BPCDT19991101ACA  
 Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	33961.24	1093110
not affected by terrain losses	33837.66	1085793

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 WLFT39 30-23-04 091-03-27 39(-) 150.0 kW 155 m AMSL 10.0 % 74.1 dBu  
 BATON ROUGE LA  
 APP BMPPTTL20010116AGU  
 Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
<b>Interference</b>	<b>38.87</b>	<b>2298 (0.2%)</b>

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WNOL-D 29-58-57 089-56-58 40(N) 500.0 kW 312 m AMSL 90.0 % 41.2 dBu  
 NEW ORLEANS LA 17993 1432 DTVSERVICE: 1432000 NTSCSERVICE: 1432000  
 CP BPCDT19991015ABK

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	26332.16	1658008
not affected by terrain losses	26327.28	1657989

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WLFT39 30-23-04 091-03-27 39(-) 150.0 kW 155 m AMSL 10.0 % 74.1 dBu  
 BATON ROUGE LA  
 APP BMPTTL20010116AGU

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
<b>Interference</b>	<b>0</b>	<b>0 (0.0%)</b>

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DWNOLT 29-58-41 089-56-26 40(0) 202.0 kW-DA 311 m AMSL 90.0 % 41.2 dBu  
 NEW ORLEANS LA 17993 1432 DTVSERVICE: 1432000 NTSCSERVICE: 1432000  
 DTVALT DTV ALLOTMENT

0.75	0.69	0.61	0.51	0.41	0.29	0.22	0.18	0.19	0.24	0.29	0.31
0.29	0.24	0.19	0.18	0.22	0.29	0.41	0.53	0.61	0.69	0.75	0.80
0.85	0.89	0.93	0.97	0.99	1.00	0.99	0.97	0.93	0.89	0.84	0.80

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	17969.98	1431698
not affected by terrain losses	17969.98	1431698

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WLFT39 30-23-04 091-03-27 39(-) 150.0 kW 155 m AMSL 10.0 % 74.1 dBu  
 BATON ROUGE LA  
 APP BMPTTL20010116AGU

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
<b>Interference</b>	<b>0</b>	<b>0 (0.0%)</b>