

TECHNICAL EXHIBIT  
DISPLACEMENT APPLICATION FOR  
LPTV STATION WLFT-LP (FACILITY ID 8653)  
BATON ROUGE, LOUISIANA  
CH 30(-) 50 KW

Technical Narrative

This technical exhibit supports a displacement 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.

Proposed Facilities

Because the currently authorized operation is on a channel outside the FCC's "core" band (channels 2-51) this application to change frequency to channel 30 (minus offset) is considered a displacement application. There is no proposed change in transmitter site from the current authorization (30-23-04 N, 91-03-27 W). Station WLFT-LP proposes to side-mount an Antenna Concepts 24-bay antenna at the 145.1 meter (476 feet) level on a 152.4 meter (500 feet) tower. The proposed visual ERP is 50 kW and the antenna RCAMSL remains 154.8 meters. There will be no change in community of license. The FCC tower registration number is 1227819.

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. The study revealed that there will be contour overlap with stations KADN (CH 15, Lafayette, LA) and KFOL-CA (Ch 30, Houma, LA). Studies using OET-69 procedures indicate that no

prohibited interference will be caused to either of the above stations from the proposed WLFT-LP operation (see Figure 2).

#### DTV Allocation Considerations

Pertinent digital television (DTV) allotments and assignments on channels 29, 30 and 31 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.

Protected DTV Station	FCC Service Population	Proposed Interference Population
WVUE-DT(CP) DTV-29, New Orleans, LA	1,679,000	0 (0.0%)
WVUE-DT, DTV-29 Allotment	1,679,000	0 (0.0%)
KVHP-DT(CP), DTV-30, Lake Charles, LA	610,000	0 (0.0%)
KVHP-DT, DTV-30 allotment	610,000	0 (0.0%)
WLAE-DT(CP), DTV-31, New Orleans, LA	1,381,000	0 (0.0%)
WLAE-DT, DTV-31 allotment	1,381,000	0 (0.0%)

The OET-69 study revealed that the proposed WLFT-LP operation will not cause calculated interference to any DTV assignment or allotment (see Figure 2).

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.

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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.

Radiofrequency Electromagnetic Field Exposure

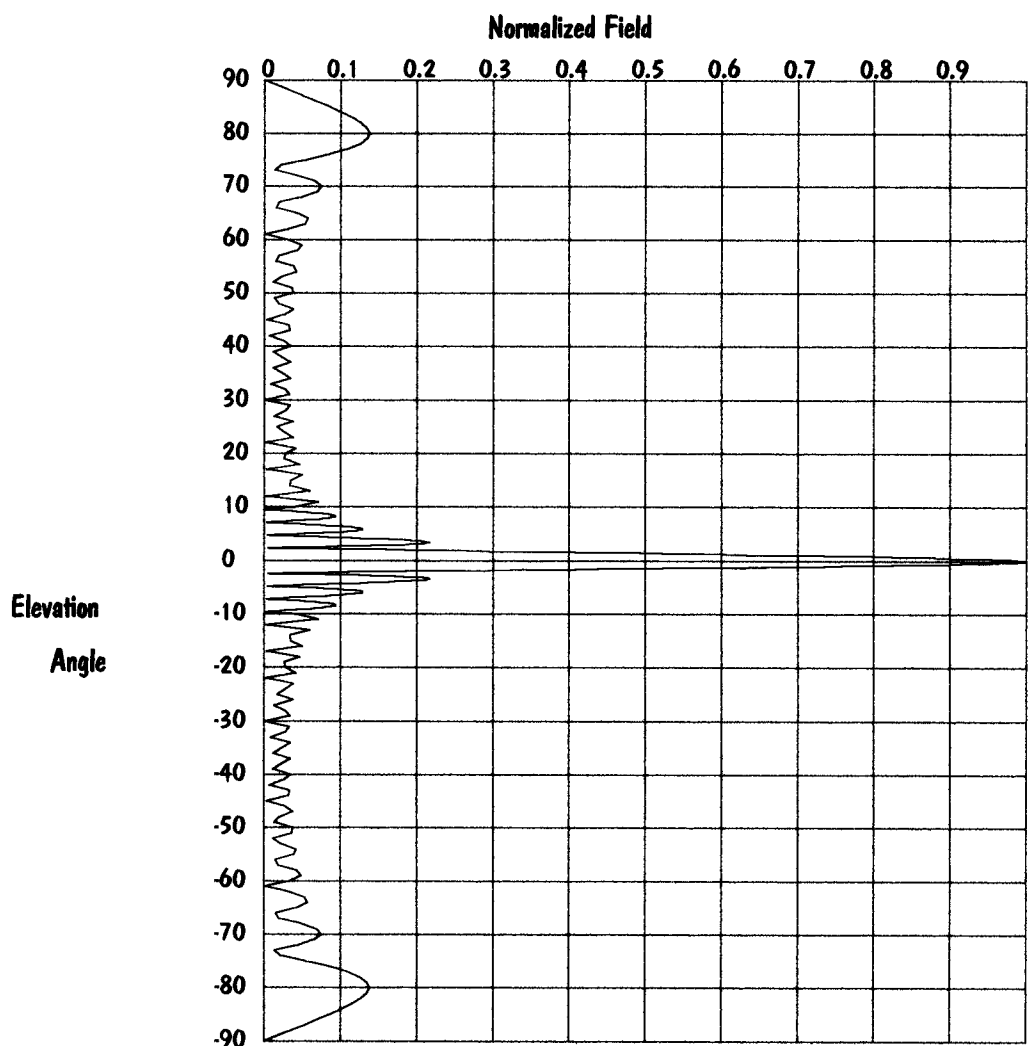
The proposed WLFT-LP facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. A maximum visual ERP of 50 kW with 10% aural power was assumed. A conservative relative field value of 0.2 was assumed for the Antenna Concepts ACS240 directional antenna's downward radiation (see Figure 1). The calculated power density at a point 2 meters (6.6 feet) above ground level is  $0.002 \text{ mW/cm}^2$ . This is less than 1% of the FCC's recommended limit of  $0.38 \text{ mW/cm}^2$  for channel 30 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 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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November 21, 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 ( % ) : *, ,*Software Design by: *Micro-Tek Engineering*

OET-69 INTERFERENCE CAUSED BY PROPOSED WLFT-LP ON CHANNEL 30

CELL SIZE : 1.00

Using offset in determining thresholds

Per 6th Report & Order and FCC OET-69 Bulletin

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KADN 30-21-44 92-12-53 15(Z) 2510.0 kw-DA 371 m AMSL 50.0 % 61.8 dBu  
LAFAYETTE LA 19890 586 FCC NTSC BL: 585965 FCC IX POP%: 0.0  
LIC BLCT19890313KI  
0.40 0.55 0.71 0.83 0.91 0.97 0.99 0.98 0.95 0.93 0.92 0.94  
0.97 1.00 1.00 0.97 0.94 0.92 0.93 0.95 0.98 0.99 0.97 0.91  
0.83 0.71 0.55 0.40 0.25 0.20 0.21 0.22 0.22 0.21 0.20 0.25  
(135.0 1.00) (315.0 0.23)

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	20045.29	586811
not affected by terrain losses	20045.29	586811

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WLFT30 30-23-04 91-03-27 30(-) 50.0 kW 154.9 m AMSL 10.0 % 73.3 dBu  
BATON ROUGE LA  
Using DEFAULT vertical antenna pattern

D/U Baseline: -9.00

	Area	Pop
<b>Interference</b>	<b>5.00</b>	<b>0 (0.0%)</b>

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DWVUE 29-57-14 89-56-58 29(0) 699.9 kw-DA 302 m AMSL 90.0 % 40.2 dBu  
NEW ORLEANS LA 28503 1679 DTVSERVICE: 1679000 NTSCSERVICE: 1603000  
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	28583.14	1681408
not affected by terrain losses	28580.20	1681372

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WLFT30 30-23-04 91-03-27 30(-) 50.0 kW 154.9 m AMSL 10.0 % 73.3 dBu  
BATON ROUGE LA  
Using DEFAULT vertical antenna pattern

D/U Baseline: -49.00

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

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WVUE-DT 29-57-14 89-56-58 29(N) 1000.0 kw 275 m AMSL 90.0 % 40.2 dBu  
NEW ORLEANS LA 28503 1679 DTVSERVICE: 1679000 NTSCSERVICE: 1603000  
CP BPCDT19991028AEP

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	28481.33	1680763
not affected by terrain losses	28478.39	1680732

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WLFT30 30-23-04 91-03-27 30(-) 50.0 kW 154.9 m AMSL 10.0 % 73.3 dBu  
BATON ROUGE LA  
Using DEFAULT vertical antenna pattern

D/U Baseline: -49.00

Interference	Area 0	Pop 0 (0.0%)
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KFOL-CA 29-38-52 90-41-34 30(+) 40.0 kw-DA 115 m AMSL 50.0 % 73.3 dBu

HOUMA LA

LIC BLTTL19950329IC

1.00	0.98	0.96	0.93	0.93	0.94	0.97	0.99	0.98	0.95	0.87	0.77
0.63	0.47	0.35	0.23	0.21	0.22	0.23	0.22	0.21	0.23	0.35	0.47
0.63	0.77	0.87	0.95	0.98	0.99	0.97	0.94	0.93	0.93	0.96	0.98

Ref Az: 210.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	1256.917	114553
not affected by terrain losses	1256.917	114553

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WLFT30 30-23-04 91-03-27 30(-) 50.0 kW 154.9 m AMSL 10.0 % 73.3 dBu

BATON ROUGE LA

Using DEFAULT vertical antenna pattern

D/U Baseline: 28.00

Interference	Area 0	Pop 0 (0.0%)
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KVHP-DT 30-17-26 93-34-35 30(N) 1000.0 kw-DA 323 m AMSL 90.0 % 40.3 dBu

LAKE CHARLES LA 19653 610 DTVSERVICE: 610000 NTSCSERVICE: 610000

CP BPCDT19990714LD

1.00	0.95	0.81	0.62	0.43	0.31	0.27	0.31	0.43	0.62	0.81	0.95
1.00	0.95	0.81	0.62	0.43	0.31	0.27	0.31	0.43	0.62	0.81	0.95
1.00	0.95	0.81	0.62	0.43	0.31	0.27	0.31	0.43	0.62	0.81	0.95

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	25798.98	686455
not affected by terrain losses	25751.98	686127

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WLFT30 30-23-04 91-03-27 30(-) 50.0 kW 154.9 m AMSL 10.0 % 73.3 dBu

BATON ROUGE LA

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

Interference	Area 1.00	Pop 0 (0.0%)
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DKVHP 30-17-26 93-34-35 30(0) 84.6 kw-DA 402 m AMSL 90.0 % 40.3 dBu

LAKE CHARLES LA 19653 610 DTVSERVICE: 610000 NTSCSERVICE: 610000

DTVALT DTV ALLOTMENT

1.00	0.93	0.77	0.56	0.41	0.31	0.29	0.23	0.43	0.59	0.79	0.95
1.00	0.95	0.77	0.58	0.41	0.31	0.30	0.32	0.44	0.60	0.80	0.95
0.97	0.92	0.75	0.56	0.39	0.31	0.28	0.31	0.40	0.57	0.77	0.93

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	19687.82	610149
not affected by terrain losses	19682.82	610147

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WLFT30 30-23-04 91-03-27 30(-) 50.0 kW 154.9 m AMSL 10.0 % 73.3 dBu  
BATON ROUGE LA  
Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
Interference	0	0 (0.0%)

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DWLAET 29-58-57 89-57-09 31(0) 66.7 kw-DA 310 m AMSL 90.0 % 40.4 dBu  
NEW ORLEANS LA 12114 1354 DTVSERVICE: 1354000 NTSCSERVICE: 1381000  
DTVALT DTV ALLOTMENT

0.97	0.89	0.78	0.67	0.54	0.43	0.31	0.22	0.12	0.10	0.12	0.13
0.15	0.13	0.11	0.10	0.11	0.20	0.31	0.43	0.54	0.65	0.78	0.89
0.97	1.00	1.00	0.97	0.94	0.89	0.88	0.89	0.92	0.97	1.00	1.00

(346.0 1.00)

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	15032.78	1382878
not affected by terrain losses	15032.78	1382878

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WLFT30 30-23-04 91-03-27 30(-) 50.0 kW 154.9 m AMSL 10.0 % 73.3 dBu  
BATON ROUGE LA  
Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
Interference	0	0 (0.0%)

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WLAE-DT 29-58-57 89-57-09 31(N) 200.0 kw-DA 274 m AMSL 90.0 % 40.4 dBu  
NEW ORLEANS LA 12114 1354 DTVSERVICE: 1354000 NTSCSERVICE: 1381000  
CP BPEDT20000210AAF

0.99	0.94	0.87	0.77	0.68	0.59	0.50	0.39	0.28	0.20	0.18	0.23
0.26	0.23	0.18	0.19	0.28	0.39	0.50	0.60	0.69	0.78	0.87	0.95
0.99	1.00	0.98	0.94	0.92	0.90	0.89	0.91	0.92	0.94	0.97	1.00

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	17651.50	1434347
not affected by terrain losses	17651.50	1434347

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WLFT30 30-23-04 91-03-27 30(-) 50.0 kW 154.9 m AMSL 10.0 % 73.3 dBu  
BATON ROUGE LA  
Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
Interference	0	0 (0.0%)