

TECHNICAL EXHIBIT
CLASS A TV MINOR CHANGE APPLICATION
FOR CONSTRUCTION PERMIT
STATION WLFT-CA (FACILITY ID 8653)
BATON ROUGE, LOUISIANA

JANUARY 24, 2003

CH 30(-) 50 KW-ND

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Technical Narrative

This technical exhibit supports a minor change application to modify Class A television (TV) station WLFT-CA on channel 30 at Baton Rouge, Louisiana (Facility ID 8653). According to the Federal Communications Commission (FCC) database, station WLFT-CA is currently authorized to operate on channel 30 with a minus (-) carrier offset (BLTTA-20010713ABG). A non-directional (ND) antenna system is employed. The visual effective radiated power (ERP) is 50 kilowatts (kW). The antenna center of radiation is 145.1 meters above ground level (AGL), and 154.9 meters above mean sea level (AMSL). The transmitter site coordinates are 30-23-04, 91-03-27 (NAD-27).

Proposed Facilities

Station WLFT-CA proposes to modify its operation by changing transmitter site and slightly reducing the antenna height. There is no proposed change in channel (30), offset (minus, -), antenna system (ND), visual ERP (50 kW), or city of assignment (Baton Rouge, LA). The FCC registration number for the proposed supporting structure is 1227819 and the site coordinates are 30-22-50, 91-03-16 (NAD-27). The proposed WLFT-CA site is approximately 0.5 kilometer southeast of the present site. It is proposed to use the currently authorized Antenna Concepts ACS240 non-directional antenna system. The antenna system will be installed with the center of radiation 145.1 meters AGL, and 152.1 meters AMSL (see Figure 1). The proposed visual ERP will remain 50 kW.

NTSC Allocation Considerations

A study has been conducted using the pertinent provisions of the FCC rules to assure that the proposal will not create prohibited interference with other authorized or pending analog (NTSC) full service TV, Class A TV, low power TV (LPTV), and land mobile radio service (LMRS) stations. There are no LMRS reservations on pertinent channels in the area for protection from the proposed WLFT-CA channel 30 operation. The proposed WLFT-CA operation complies with the FCC's allocation standards with respect to all known analog assignments, except for full service TV station KADN(TV) on channel 15 at Lafayette, Louisiana (BLCT-19890313KI, Facility ID 33261), and Class A TV station KFOL-CA on channel 30(+) at Houma, Louisiana (BLTTA-20010712AAZ, Facility ID 24978).

Interference calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin and a 1 kilometer grid. Sheet 1 of Figure 3 includes a printout showing no interference being caused by the proposed WLFT-CA operation to KADN and KFOL-CA analog service. If necessary, a waiver of the FCC rules is requested based on use of the OET-69 procedures.

The proposed WLFT-CA site is more than 1400 kilometers from the nearest point of the US/Canada border, and more than 700 kilometers from the closest point of the Mexican border. The proposed WLFT-CA site is 710 kilometers southwest from the FCC's closest monitoring station at Powder Springs, Georgia. The proposed WLFT-CA site is more than 1200 kilometers southwest of the National Radio Quiet Zone in Virginia/West Virginia. It is more than 1600 kilometers southeast of the Table Mountain Radio Quiet Zone in Colorado. The closest radio astronomy site operating on channel 37 is at Fort Davis, Texas, approximately 1234 kilometers west of the proposed WLFT-CA site. These distances are sufficient to not be a coordination concern.

DTV Allocation Considerations

Pertinent DTV allotments and assignments on channels 29, 30 and 31 have been examined using the procedures outlined in the FCC's OET-69 Bulletin.¹ Sheets 2 through 4 of Figure 3 show that the proposed WLFT-CA operation causes no interference (ie, 0 people) to pertinent DTV assignments and allotments. The proposed WLFT-CA operation complies with the FCC's 0.5% acceptable interference threshold. If necessary, a waiver of the FCC rules is respectfully requested based on use of the procedures outlined in the FCC's OET-69 Bulletin with respect to DTV assignments and allotments.

Radiofrequency Electromagnetic Field Exposure

The proposed WLFT-CA facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. A visual ERP of 50 kW with 20% aural power was assumed. A conservative relative field value of 0.2 (-14 dB) was assumed for the antenna's downward radiation (see Figure 2). The proposed antenna center of radiation is located 145.1 meters above ground level. The calculated power density at a point 2 meters (6.6 feet) above ground level is 0.002 mW/cm². This is less than 1% of the FCC's recommended limit of 0.38 mW/cm² for channel 30 for an "uncontrolled" environment. It is less than 1% of the FCC's recommended limit for a "controlled" 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

¹ 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. A Sun 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.

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-CA 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.

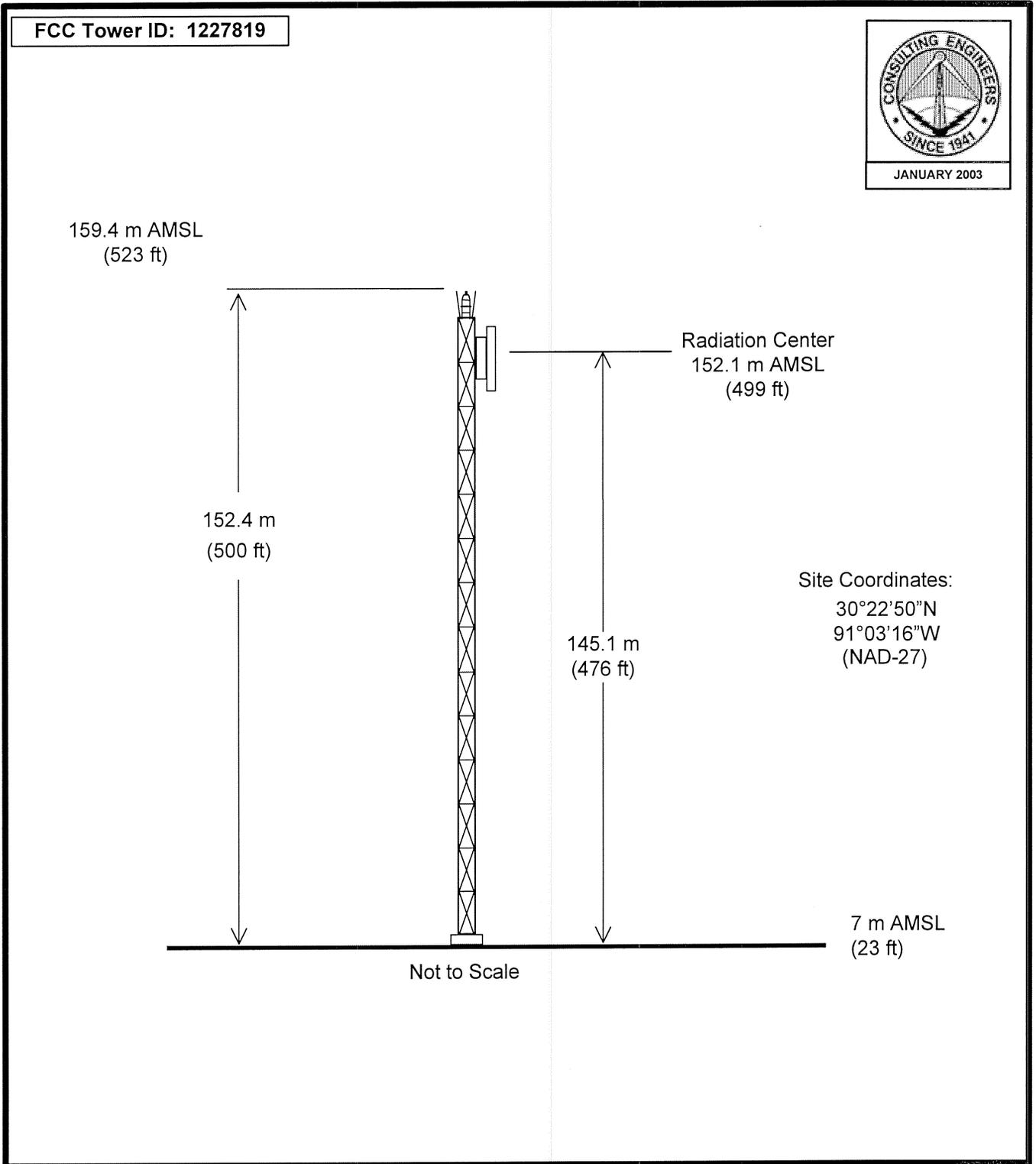
If there are questions concerning this technical exhibit, please communicate with the office of the undersigned.

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January 24, 2003

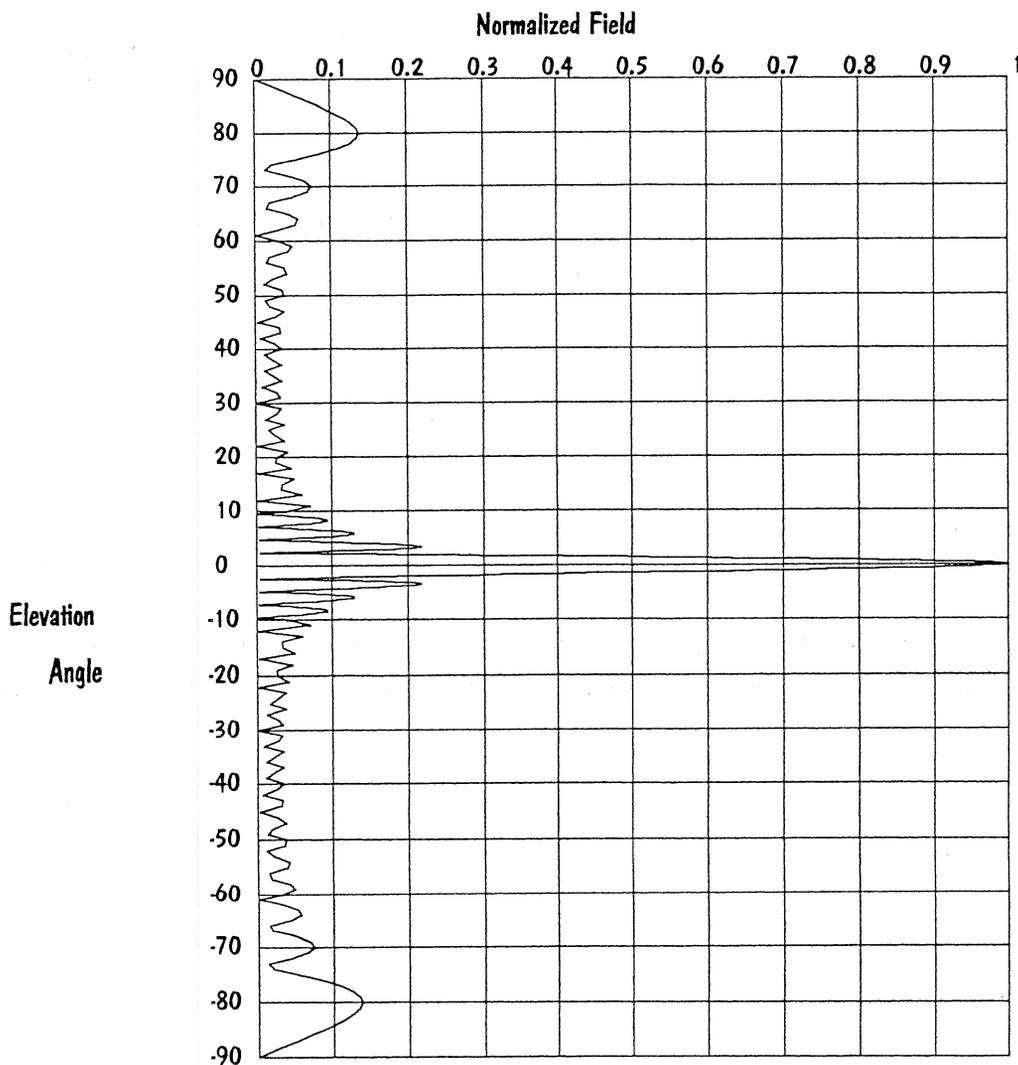
Figure 1



PROPOSED ANTENNA AND SUPPORTING STRUCTURE

STATION WLFT-CA
BATON ROUGE, LOUISIANA
CH 30(-) 50 KW-ND

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



Elevation Pattern

Scale: Linear

Units: Absolute

Antenna Concepts Inc.

Date: 4/13/1998

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

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 (%): *, ,*

Study Date: 20030123
Study Start: 11:45:41

INTERFERENCE CAUSED TO KADN & KFOL-CA FROM PROPOSED WLFT-CA

CELL SIZE : 1.0 km

Using offset in determining thresholds

KADN 30-21-44 092-12-53 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 BLCT-19890313KI

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	20045.3 sq km	586811
not affected by terrain losses	20045.3	586811

WLFT-P 30-22-50 091-03-16 30(-) 50.0 kW 152.1 m AMSL 10.0 % 74.0 dBu

BATON ROUGE LA

PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: -9.0 dB

	Area	Pop
Interference	3.0 sq km	0 (0.0%)

KFOL-CA 29-38-52 090-41-34 30(+) 40.0 kW-DA 115 m AMSL 50.0 % 74.0 dBu
HOUMA LA

LIC BLTTA-20010712AAZ

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	1152.9 sq km	104861
not affected by terrain losses	1152.9	104861

WLFT-P 30-22-50 091-03-16 30(-) 50.0 kW 152.1 m AMSL 10.0 % 74.0 dBu

BATON ROUGE LA

PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: 28.0 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

Study end time: 11:50:00

Study Date: 20030123
Study Start: 11:45:41

INTERFERENCE CAUSED TO DTV ASSIGNMENTS & ALLOTMENTS FROM PROPOSED WLFT-CA

CELL SIZE : 1.0 km

Using offset in determining thresholds

DWVUE 29-57-14 089-56-58 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	28583.1 sq km	1681408
not affected by terrain losses	28580.2	1681372

WLFT-P 30-22-50 091-03-16 30(-) 50.0 kW 152.1 m AMSL 10.0 % 74.0 dBu
BATON ROUGE LA
PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: -49.0 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

WVUE-DT 29-57-14 089-56-58 29(N) 1000.0 kW 272.2 m AMSL 90.0 % 40.2 dBu
NEW ORLEANS LA 28503 1679 DTVSERVICE: 1679000 NTSCSERVICE: 1603000
CP BPCDT-19991028AEP

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	28252.5 sq km	1676892
not affected by terrain losses	28249.6	1676861

WLFT-P 30-22-50 091-03-16 30(-) 50.0 kW 152.1 m AMSL 10.0 % 74.0 dBu
BATON ROUGE LA
PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: -49.0 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

KVHP-DT 30-17-26 093-34-35 30(N) 1000.0 kW-DA 323 m AMSL 90.0 % 40.3 dBu
LAKE CHARLES LA 19653 610 DTVSERVICE: 610000 NTSCSERVICE: 610000
CP BPCDT-19990714LD

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	25799.0 sq km	686455
not affected by terrain losses	25752.0	686127

WLFT-P 30-22-50 091-03-16 30(-) 50.0 kW 152.1 m AMSL 10.0 % 74.0 dBu
BATON ROUGE LA
PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.0 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

DKVHP 30-17-26 093-34-35 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	19687.8 sq km	610149
not affected by terrain losses	19682.8	610147

WLFT-P 30-22-50 091-03-16 30(-) 50.0 kW 152.1 m AMSL 10.0 % 74.0 dBu
BATON ROUGE LA
PROPOSAL

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.0 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

DWLAET 29-58-57 089-57-09 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	15032.8 sq km	1382878
not affected by terrain losses	15032.8	1382878

WLFT-P 30-22-50 091-03-16 30(-) 50.0 kW 152.1 m AMSL 10.0 % 74.0 dBu
 BATON ROUGE LA
 PROPOSAL
 Using DEFAULT vertical antenna pattern

D/U Baseline: -48.0 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

WLAE-DT 29-58-57 089-57-09 31(N) 200.0 kW-DA 274 m AMSL 90.0 % 40.4 dBu
 NEW ORLEANS LA 12114 1354 DTVSERVICE: 1354000 NTSCSERVICE: 1381000
 CP BPEDT-20000210AAF
 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	17651.5 sq km	1434347
not affected by terrain losses	17651.5	1434347

WLFT-P 30-22-50 091-03-16 30(-) 50.0 kW 152.1 m AMSL 10.0 % 74.0 dBu
 BATON ROUGE LA
 PROPOSAL
 Using DEFAULT vertical antenna pattern

D/U Baseline: -48.0 dB

	Area	Pop
Interference	0 sq km	0 (0.0%)

Study end time: 11:50:00