

TECHNICAL EXHIBIT  
MINOR MODIFICATION APPLICATION  
TELEVISION STATION WLCB-DT (FAC.ID 9881)  
LEESBURG, FLORIDA

OCTOBER 28, 2004

CH 46      660 KW (MAX-DA)      514 M

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Technical Narrative

This technical exhibit supports an application to modify the construction permit for WLCB-DT's digital operation. WLCB-DT is presently authorized for facilities located at its paired NTSC facility transmitter site (BMPEDT-20030429AAU). By this application, WLCB-DT proposes simply to increase the antenna height, decrease the ERP and change the antenna manufacturer.

The proposed maximum average effective radiated power is 660 kilowatts with an antenna height above terrain of 514 meters. WLCB-DT will employ the master antenna also to be used by the proposed WLCB-TV analog channel 45 operation. The new antenna pattern is nearly identical to the authorized for WLCB-DT. The proposed DTV ERP will be reduced to avoid any extension of the authorized noise-limited contour, as required by the terms of the FCC Filing Freeze for digital television stations.<sup>1</sup>

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<sup>1</sup> See August 2004 Filing Freeze PN, DA 04-2446 (MB released Aug. 3, 2004).

Transmitter Location

The transmitter site is located at the Bithlo Tower farm on an existing tower. The tower location is uniquely described by the following geographic coordinates (NAD 27):

28° 35' 12" North Latitude

81° 04' 58" West Longitude

A sketch of the proposed antenna and existing supporting structure is included as Figure 1.

Interference Considerations

There are no AM stations within three kilometers (two miles) of the proposed site. Within ten kilometers of the proposed site several FM and TV full-service stations are located. No electromagnetic interference is expected; however, the applicant recognizes and accepts its responsibility to correct problems which may arise due to its proposed operation.

Directional Transmitting Antenna

A Dielectric pylon antenna is proposed for WLCB-TV. The horizontal and vertical plane information is provided in Figure 3.

Coverage Contours

Figure 2 is a map showing the DTV predicted coverage contours. The map provides the predicted F(50,90) Noise-Limited contour and the city coverage contour. The extent of the contour has been calculated using the normal FCC prediction method. As can be seen, both the predicted

Noise-Limited and City Grade coverage contours entirely encompass the principal community of Leesburg. The Leesburg city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

#### Allocation Considerations

The proposed WLCB-DT Channel 46 facility was studied pursuant to the requirements of Section 73.623 of the FCC Rules concerning predicted interference to other existing NTSC facilities and DTV allotments and assignments. Longley-Rice interference analyses were conducted pursuant to the requirements of the FCC Rules; OET Bulletin No. 69; and published FCC guidelines for preparation of such interference analyses.

The Longley-Rice interference analyses were conducted using the software developed by du Treil, Lundin & Rackley, Inc. based on the FCC published software routines.<sup>2</sup> Stations selected for analysis were determined pursuant to the distance requirements outlined in the FCC DTV Processing Guidelines Public Notice. The results of the interference analyses for the proposed WLCB-DT facility are summarized herein at Figure 4. As indicated therein, the proposed facility will meet the 2%/10% criterion outlined in the FCC Rules and published guidelines with respect to all considered stations except to its paired NTSC facility operating from its licensed transmitter site.<sup>3</sup>

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2 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 2 km was employed.

3 Interference analysis results reflect the net change in interference to a given station considering the interference predicted to occur from all other stations (i.e., "masking") including the allotment

In order to eliminate the prohibited interference to WLCB-DT's paired NTSC facility on Channel 45, WLCB-TV has relocated its NTSC facility to co-locate with this DTV operation. WLCB-TV is now authorized to be located on the proposed WLCB-DT tower. There is no predicted interference between the proposed WLCB-DT facility and proposed WLCB-TV facility. Hence, with respect to the proposed WLCB-TV operation, WLCB-DT is in compliance with Section 73.623 of the FCC Rules.

#### Class A Station Impact Study

The only Class A eligible low power television station (LPTV) that is an allocation concern is WPXG-CA on Channel 31 assigned to Orlando. Section 73.623(c)(5) of the Commission's Rules require that a DTV facility satisfy a specified desired-to-undesired ratio when proposing a facility that is 15 channels above a Class A facility. The proposed WLCB-DT fails this requirement toward WPXG-CA using the FCC propagation curves.

However, using the OET-69 interference analysis procedure, no interference is predicted to occur to WPXG-CA (see Sheet 2 of Figure 4). Therefore, WLCB-DT requests a waiver of Section 73.623(c)(5) to WPXG-CA, based on use of OET-69 procedures.

#### Radiofrequency Electromagnetic Field Exposure

The proposed facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OET Bulletin No. 65, Evaluating Compliance with FCC Specified Guidelines

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facility for WLCB-DT. This properly reflects the net interference change for determining compliance with the FCC DTV 2%/10% *de minimis* standard.

for Human Exposure to Radiofrequency Electromagnetic Fields. The power density at the base of the tower was calculated using the appropriate procedure contained in Section 2, Supplement A, *Additional Information for Radio and Television Broadcast Stations*, of the Bulletin.

For the calculation, a maximum average effective radiated power of 660 kilowatts with a radiation center of 503.8 meters (1653 feet) above ground level was employed. A "conservative" vertical downward radiation value of 0.1 was assumed. It can be calculated that the power density at ground level resulting from this facility would not exceed 0.0009 mW/cm<sup>2</sup>. This is less than five percent of the maximum Commission guideline value in an uncontrolled environment for a Channel 46 television station.

When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency electromagnetic fields will not exceed the FCC guidelines. The permittee will also coordinate with other co-located facilities to reduce or shut down of power when workers ascend the tower.

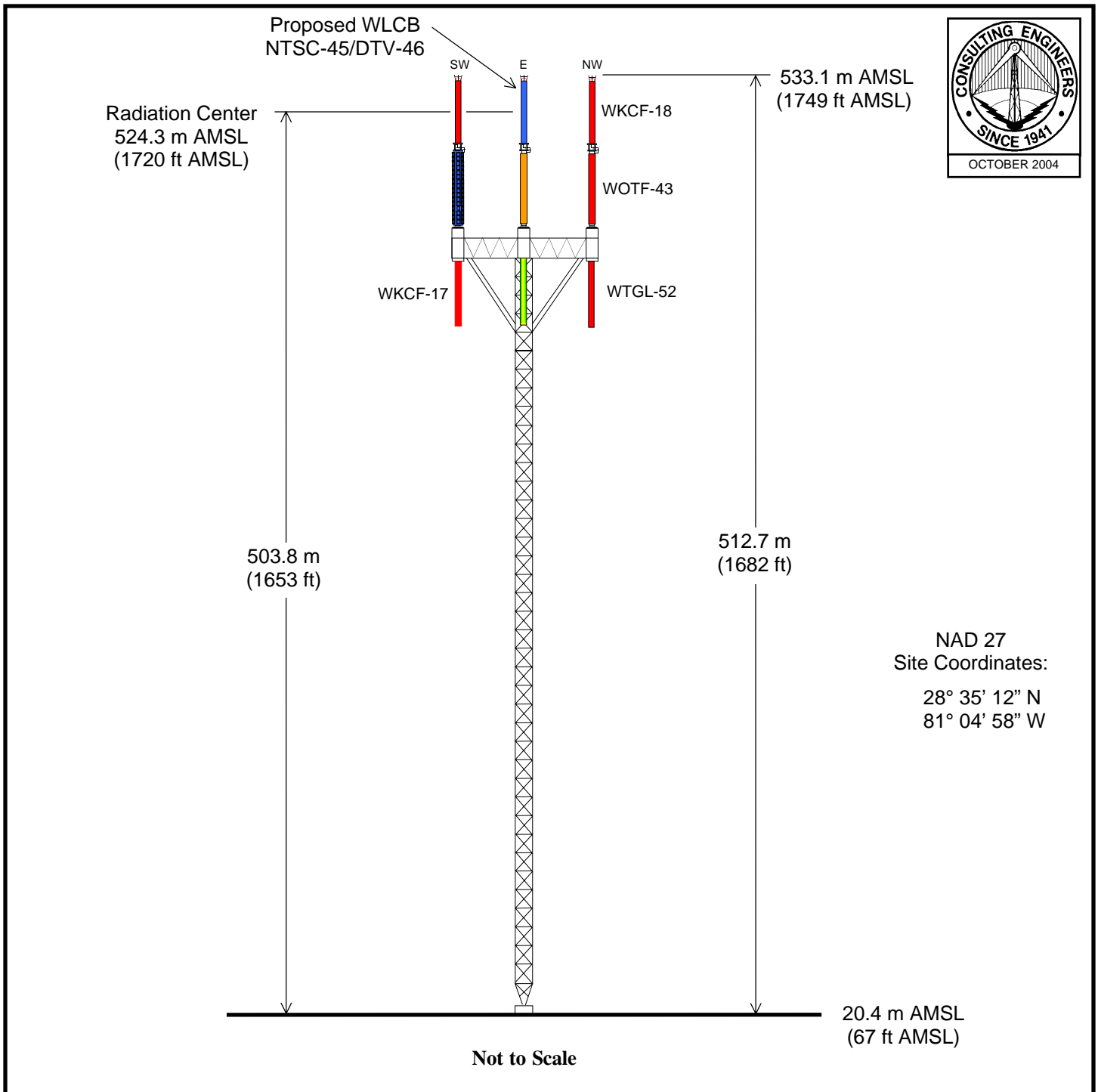


Jonathan N. Edwards

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201 Fletcher Avenue  
Sarasota, Florida 34237  
941.329.6000

October 28, 2004

Figure 1



Tower Reg. No. 1212124

## ANTENNA AND SUPPORTING STRUCTURE

TELEVISION STATION WLCB-DT

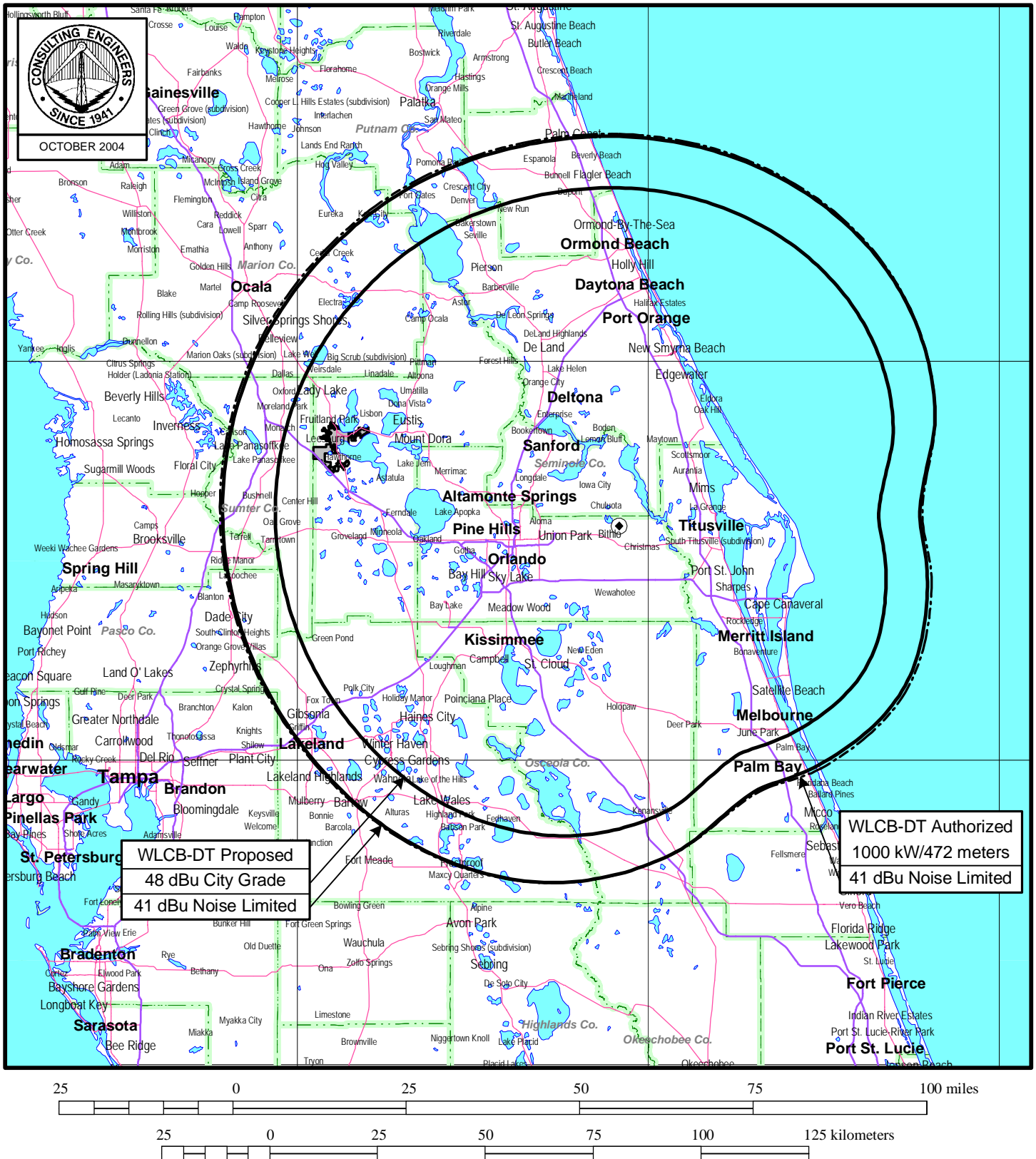
LEESBURG, FLORIDA

CH 46 660 KW (MAX-DA) 514 M

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



Figure 2



## PREDICTED FCC COVERAGE CONTOURS

TELEVISION STATION WLCB-DT

LEESBURG, FLORIDA

CH 46 660 KW (MAX-DA) 514 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida



Proposal Number	<b>DCA-10539</b>	Revision:	<b>4</b>
Date	<b>5-Oct-04</b>		
Call Letters	<b>WLCB-DT</b>	Channel	<b>46</b>
Location	<b>Leesburg, FL</b>		
Customer			
Antenna Type	<b>TFU-27ETT-R 4C220 DC</b>		

### AZIMUTH PATTERN

Gain **2.20** (**3.42 dB**)  
Calculated / Measured **Calculated**

Frequency **665.00 MHz**  
Drawing # **TFU-4C220-46**

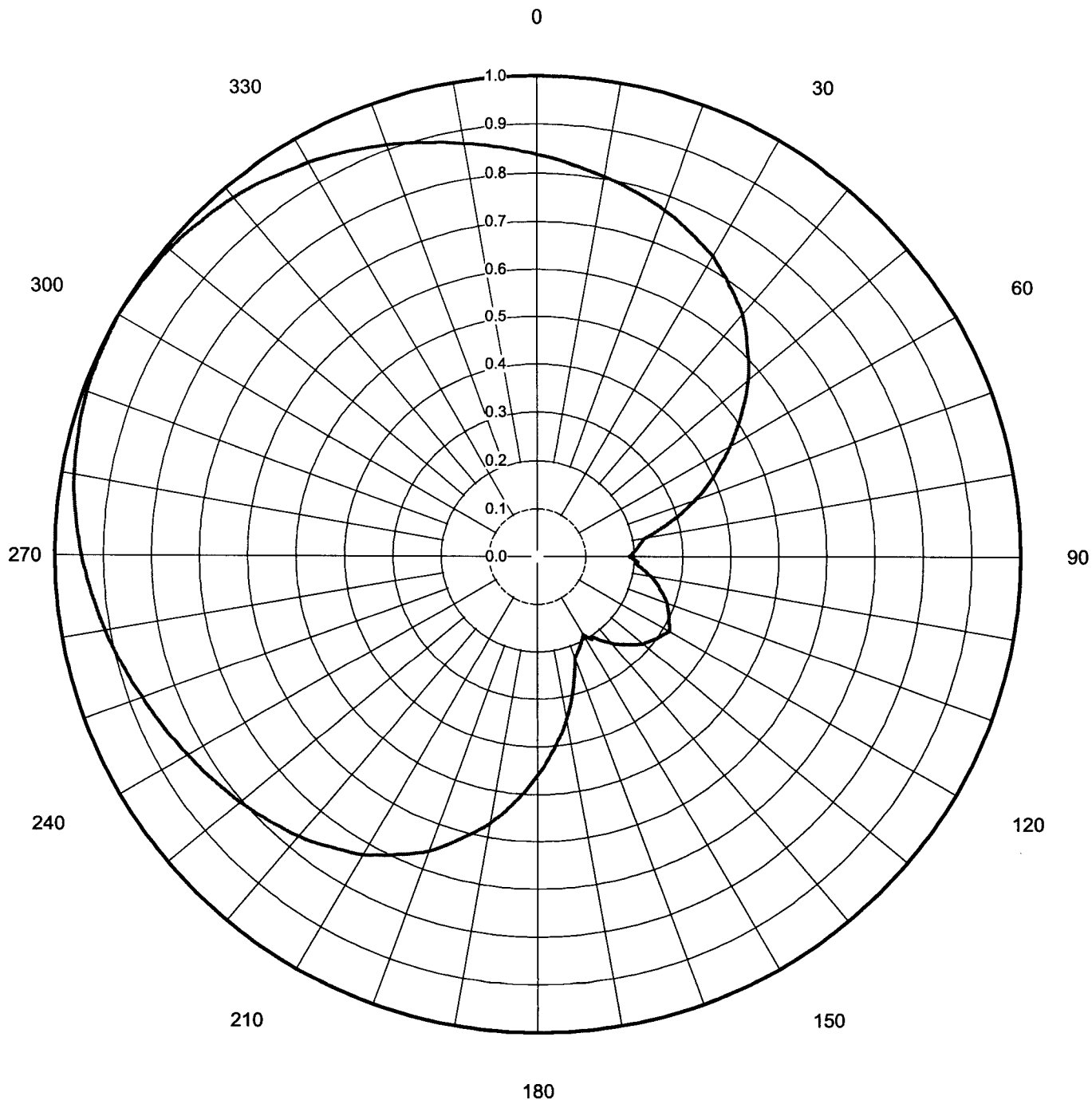




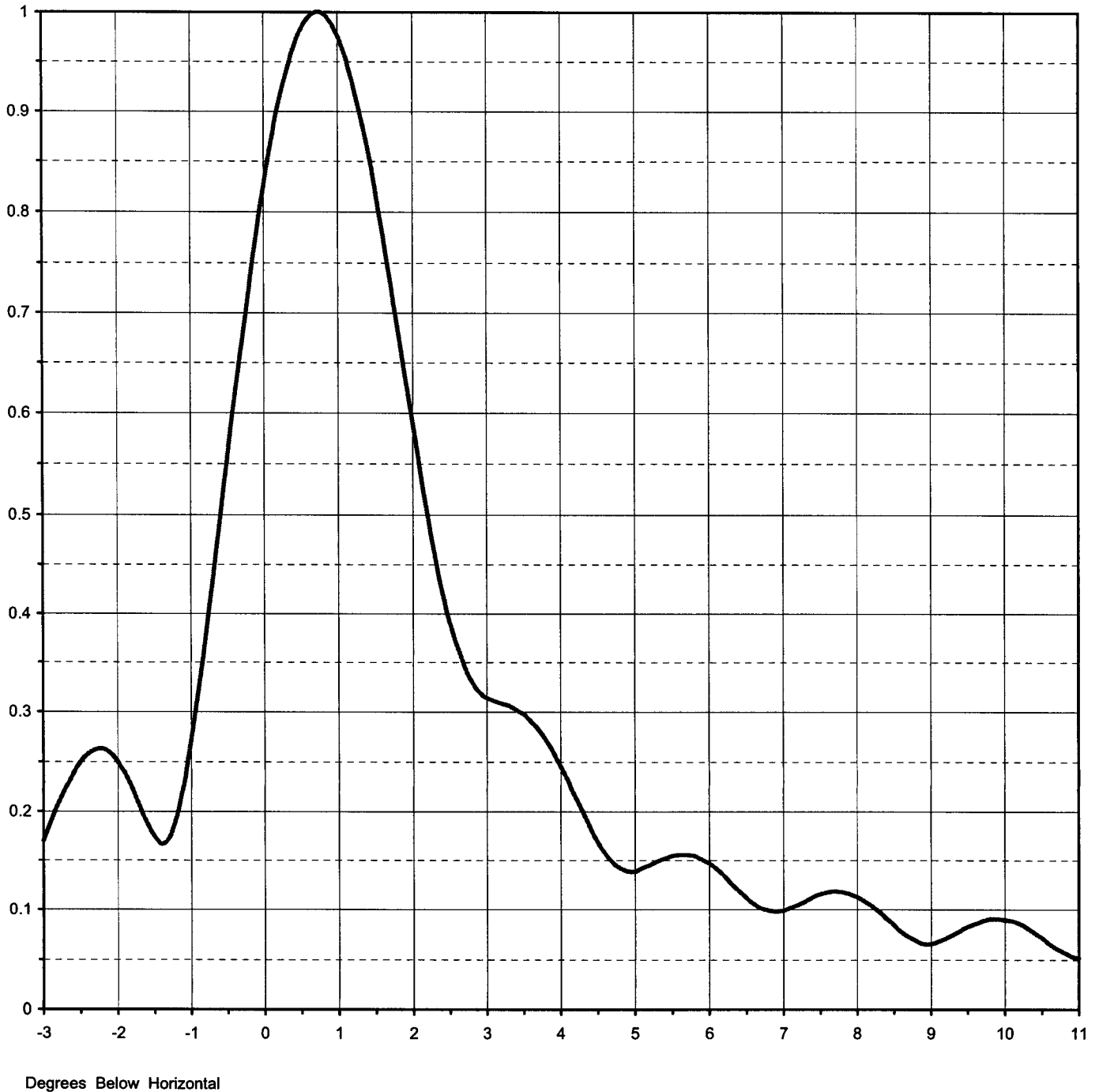
Figure 3  
Sheet 2 of 3

Proposal Number	DCA-10539	Revision:	4
Date	5-Oct-04		
Call Letters	WLCB-DT	Channel	46
Location	Leesburg, FL		
Customer			
Antenna Type	TFU-27ETT-R 4C220 DC		

## ELEVATION PATTERN

RMS Gain at Main Lobe    **24.00 ( 13.80 dB )**  
RMS Gain at Horizontal    **16.30 ( 12.12 dB )**  
Calculated / Measured    **Calculated**

Beam Tilt                **0.75 deg**  
Frequency               **665.00 MHz**  
Drawing #                **27E240075**

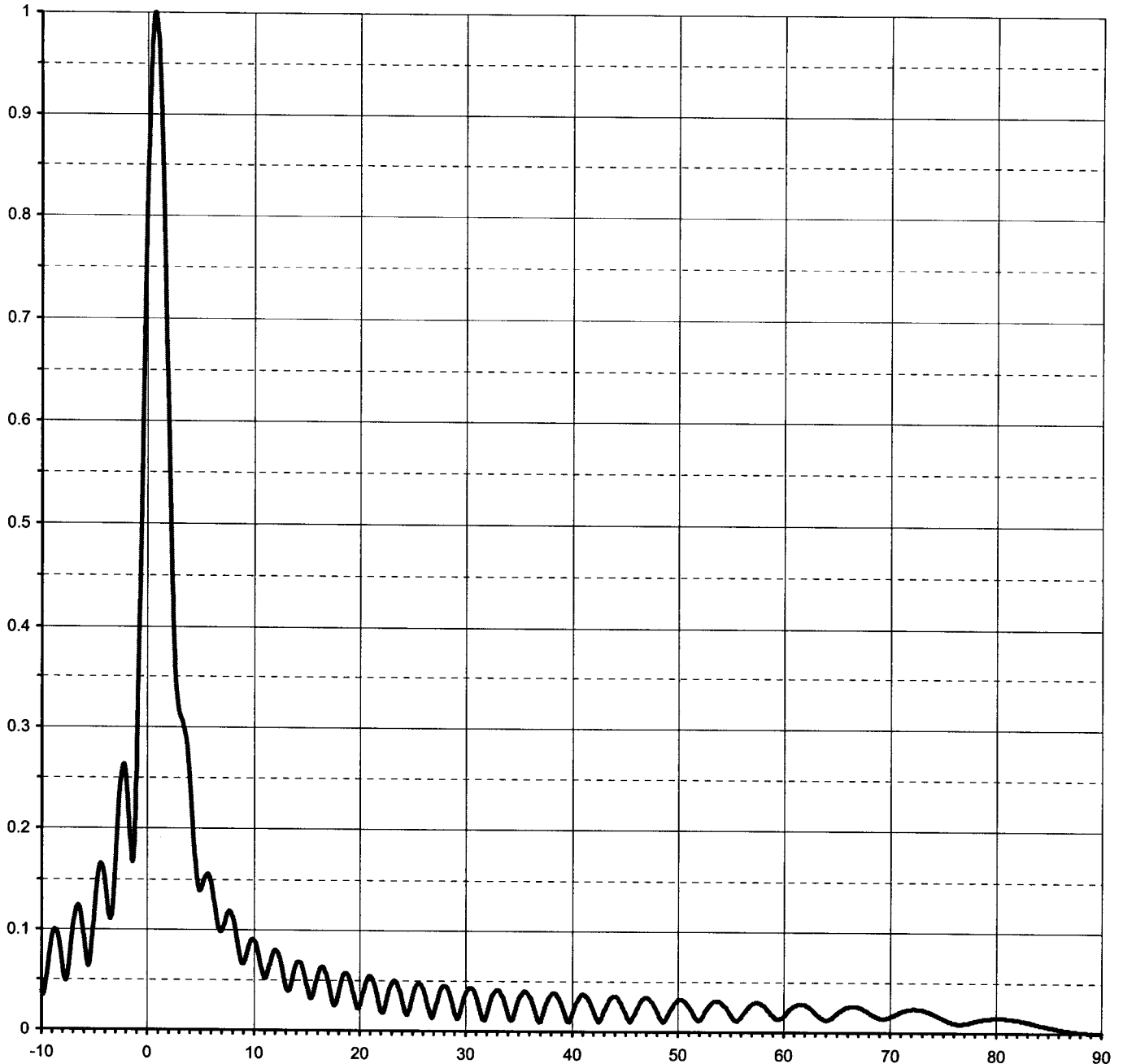




Proposal Number	<b>DCA-10539</b>	Revision:	<b>4</b>
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Customer			
Antenna Type	<b>TFU-27ETT-R 4C220 DC</b>		

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>24.00 ( 13.80 dB )</b>	Beam Tilt	<b>0.75 deg</b>
RMS Gain at Horizontal	<b>16.30 ( 12.12 dB )</b>	Frequency	<b>665.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>27E240075-90</b>



Degrees Below Horizontal

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Summary of DTV Allocation Analysis

Facility	Ch	Baseline Service Population (1990)	Permissible IX(%)	Net New IX Caused by Proposed (1990)	Percent of Baseline (%)
WMOR-TV Lakeland, FL <i>BLCT-19961018KF</i>	32	No Interference Predicted			
WOTF(TV) Melbourne, FL <i>BLCT-19980422KG</i>	43	No Interference Predicted			
WOTF(TV) Melbourne, FL <i>BPCT-20040525ADW</i>	43	No Interference Predicted			
WTVK-DT Naples, FL <i>BLCDT-20021030ACB</i>	45	No Interference Predicted			
WHFT-DT Miami, FL <i>BPCDT-19990706KG</i>	46	No Interference Predicted			
WHFT-DT Miami, FL <i>DTV Allotment</i>	46	No Interference Predicted			
WTVK(TV) Naples, FL <i>BLCT-20020418AAA</i>	46	857,456	2.0	1,201	0.1%
WVAN-DT Savannah, GA <i>DTV Allotment</i>	46	No Interference Predicted			
WCTV Rule Making Thomasville, GA <i>BPRM-20000328AAL</i>	46	No Interference Predicted			
WCTV-DT Thomasville, GA <i>BPCDT-20030804AAZ</i>	46	No Interference Predicted			
WTEV-TV Jacksonville, FL <i>BLCT-19881116KG</i>	47	No Interference Predicted			
WFTT-DT Tampa, FL <i>BMPCDT-20020603ABD</i>	47	3,034,024	2.0	254	0.0%
WFTT-DT Tampa, FL <i>DTV Allotment</i>	47	3,034,024	2.0	369	0.0%

Note: Two-square kilometer resolution is employed for the  
analysis

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Class A Allocation OET-69 Analysis

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
31	WPXG-LP	ORLANDO FL	BLTT	-19980529JK

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
23	WMFE-DT	ORLANDO FL	35.5	PLN	DTVPLN	-DTVP0517
23	WMFE-TV	ORLANDO FL	35.5	CP MOD	BMPEDT	-20010615BEG
24	WMFE-TV	ORLANDO FL	35.5	LIC	BLET	-20040721AAK
24	WTSP-DT	ST. PETERSBURG FL	135.8	PLN	DTVPLN	-DTVP0561
29	WFTS-TV	TAMPA FL	115.9	APP	BPCDT	-20040330ABZ
29	WFTS-DT	TAMPA FL	115.9	PLN	DTVPLN	-DTVP0740
29	WFTS-TV	TAMPA FL	115.9	LIC	BLCDT	-20020319AAG
30	WBCC	COCOA FL	38.8	LIC	BLEDT	-20030429ABH
30	WBCC-DT	COCOA FL	62.7	PLN	DTVPLN	-DTVP0779
31	WGCU-DT	FORT MYERS FL	201.3	PLN	DTVPLN	-DTVP0816
31	WLWA-LP	LAKELAND FL	68.0	CP	BPTTL	-20021230AAA
31	WTVJ	MIAMI FL	317.5	LIC	BLCDT	-20030707ABG
31	WPXM	MIAMI FL	318.2	APP	BPRM	-20000328AAY
31	WTVJ	MIAMI FL	317.5	LIC	BPRM	-20000418AAA
31	WOGX	OCALA FL	119.1	LIC	BLCDT	-20020730ABS
31	WOGX-DT	OCALA FL	119.3	PLN	DTVPLN	-DTVP0817
31	WFXL	ALBANY GA	381.2	LIC	BLCT	-19820212KH
32	WMOR-TV	LAKELAND FL	98.0	LIC	BLCT	-19961018KF
33	WCEU	NEW SMYRNA BEACH FL	38.8	CP	BPEDT	-20000412AAQ
33	WCEU-DT	NEW SMYRNA BEACH FL	69.5	PLN	DTVPLN	-DTVP0896
34	WUSF-TV	TAMPA FL	115.5	CP	BPEDT	-19991217ACB
34	WUSF-DT	TAMPA FL	115.4	PLN	DTVPLN	-DTVP0933
39	960919LB	CRYSTAL RIVER FL	91.0	APP	BPEDT	-19960919LB
39	WFTV	ORLANDO FL	39.5	LIC	BLCDT	-20010430ABF
39	WFTV-DT	ORLANDO FL	35.5	PLN	DTVPLN	-DTVP1083
39	WFTV	ORLANDO FL	39.5	CP MOD	BMPCDT	-19991018ABA
46	WLCB-TV	LEESBURG FL	36.6	CP MOD	BMPEDT	-20030429AAU
46	WLCB-DT	LEESBURG FL	41.8	PLN	DTVPLN	-DTVP1322
45	WLCB-TV	LEESBURG FL	36.6	APP	USERRECORD-01	
46	WLCB-DT	LEESBURG FL	36.6	APP	USERRECORD-03	

Proposal causes no interference

Analysis based upon a two-square kilometer resolution.