

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of WMOR-TV COMPANY, permittee of WMOR-DT, Lakeland, Florida, in support of its Application for Modification of Construction Permit BPCDT-19991101AEU to revise the antenna height.

Exhibit B is a vertical sketch of the antenna and supporting structure. Antenna pattern data appears as Exhibit C, and a tabulation of terrain and contour data comprises Exhibit D. Exhibit E is a map of the digital service contour, and Exhibit F is an allocation study.

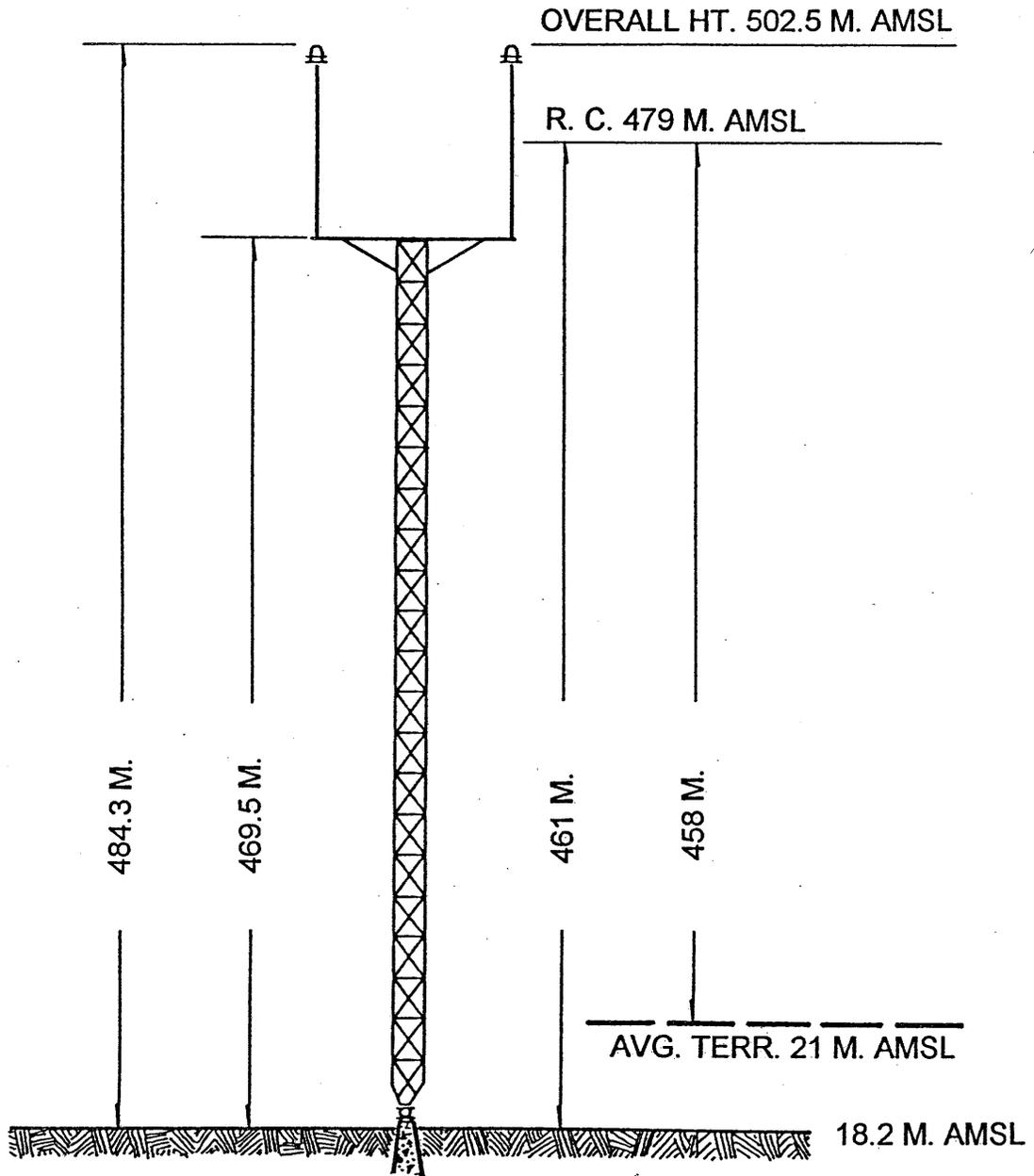
We have studied the RF transmissions of this facility with regard to their environmental effect. Employing the methods set forth in *OET Bulletin No. 65* and considering the vertical pattern of the proposed Dielectric antenna, we calculate maximum power density two meters above ground from the proposed facility to be 0.00031 mw/cm^2 , at locations 321 meters from the tower base, which is but 0.091 percent of the 0.34 mw/cm^2 reference at this frequency for uncontrolled areas. Further, WMOR-DT will take whatever preventive steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive RF energy. On this basis, and since the maximum environmental contribution from this source is to be much less than five percent of the reference, a grant of this application would clearly remain a minor environmental action.

I declare under penalty of perjury that the foregoing statements and the attached Engineering Report, which was prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.


NEIL M. SMITH

June 25, 2001

NOT TO SCALE



SITE COORDINATES:

27° 49' 10"

82° 15' 39"

EXHIBIT B

ELEVATION OF ANTENNA STRUCTURE

PROPOSED WMOR-DT
CHANNEL 19 - LAKELAND, FLORIDA
[MODIFICATION OF BPCDT-19991101AEU]

SMITH AND FISHER



Proposal Number **DCA-9028** Revision: **2**
Date **19-Jun-01**
Call Letters **WMOR-DT** Channel **19**
Location **Lakeland, FL**
Customer
Antenna Type **TFU-30GBH 08**

ELEVATION PATTERN

RMS Gain at Main Lobe **27.00 (14.31 dB)** Beam Tilt **0.75 deg**
RMS Gain at Horizontal **18.70 (12.72 dB)** Frequency **503.00 MHz**
Calculated / Measured **Calculated** Drawing # **30G270075**

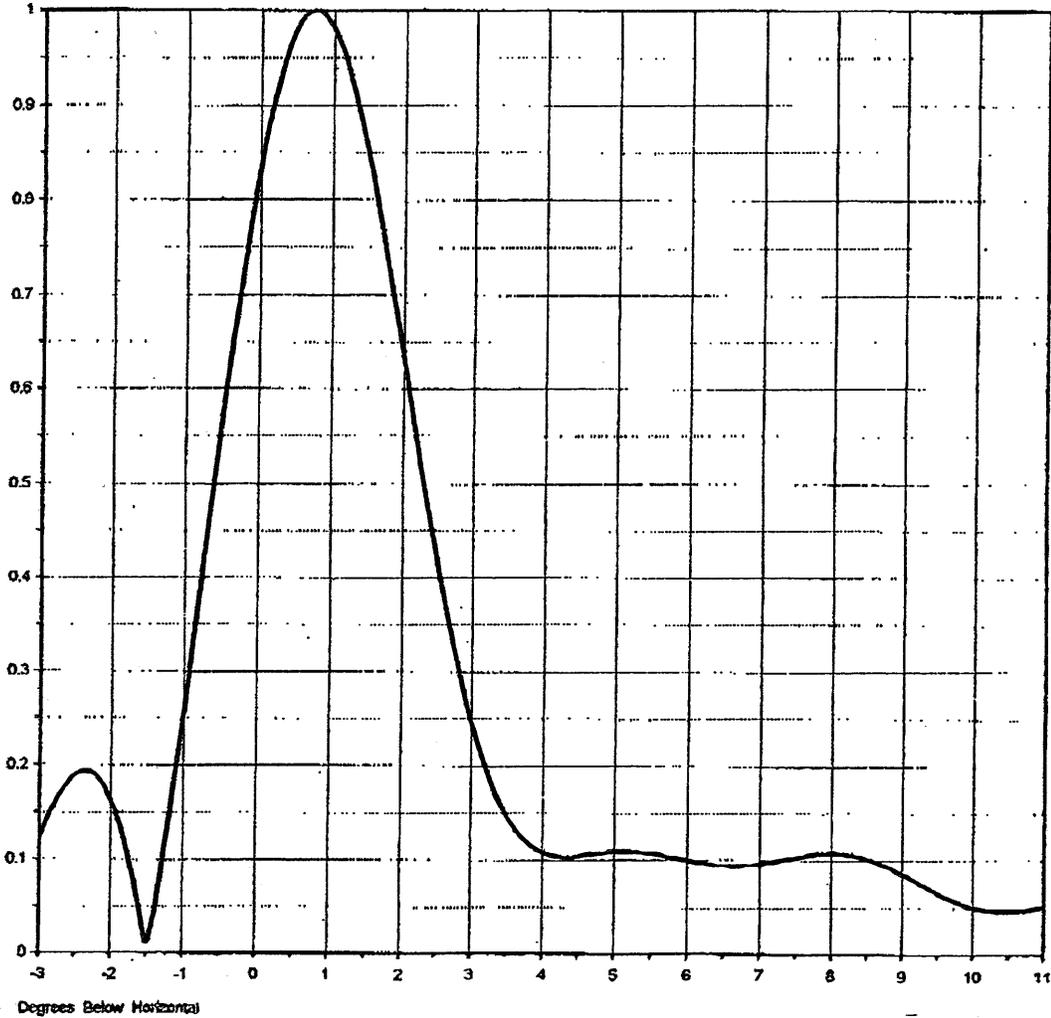


EXHIBIT C-1
VERTICAL RELATIVE FIELD PATTERN
PROPOSED WMOR-DT
CHANNEL 19 - LAKELAND, FLORIDA
[MODIFICATION OF BPCDT-19991101AEU]
SMITH AND FISHER



Proposal Number **DCA-9028** Revision: **1**
Date **22-May-01**
Call Letters **WMOR-DT** Channel **19**
Location **Lakeland, FL**
Customer
Antenna Type **TFU-30GBH 08**

ELEVATION PATTERN

RMS Gain at Main Lobe	27.00 (14.31 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	18.70 (12.72 dB)	Frequency	503.00 MHz
Calculated / Measured	Calculated	Drawing #	30G270075-90

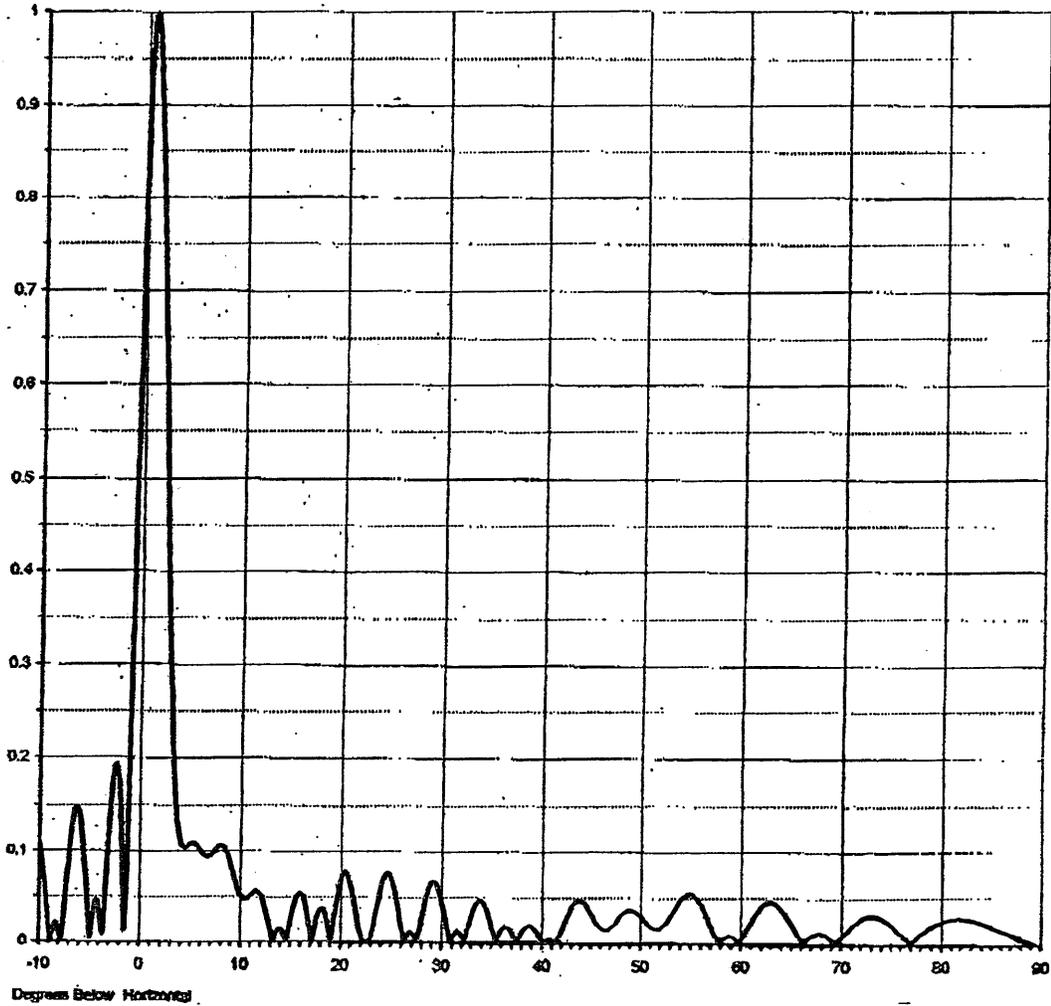


EXHIBIT C-2

VERTICAL RELATIVE FIELD PATTERN

PROPOSED WMOR-DT
CHANNEL 19 - LAKELAND, FLORIDA
[MODIFICATION OF BPCDT-19991101AEU]

SMITH AND FISHER

ELEVATION AND CONTOUR DATA

PROPOSED WMOR-DT
CHANNEL 19
LAKELAND, FLORIDA

<u>Az.</u> <u>(° T)</u>	<u>Avg. Elev. AMSL</u> <u>2 to 10 Miles</u> <u>(meters)</u>	<u>Effective</u> <u>Antenna Ht. AAT</u> <u>(meters)</u>	<u>Distance to Predicted</u> <u>Digital Contour (41 dbμ)</u> <u>(km.)</u>
0	20	459	111
45	22	457	111
90	27	452	111
135	35	444	110
180	28	451	111
225	19	460	111
270	9	470	112
315	10	469	112
50*	27	452	111

* Radial through Lakeland; not included in average

NOTE: Due to rounding, metric figures may not add precisely.

Height of radiation center above mean sea level	479 meters
Height of average terrain above mean sea level	21 meters
Height of radiation center above average terrain	458 meters
Effective radiated power (visual, main lobe)	1000 kw, 30.0 dbk

Geographic Coordinates

N 27° 49' 10", W 82° 15' 39"

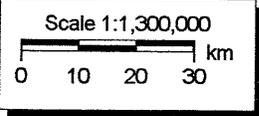
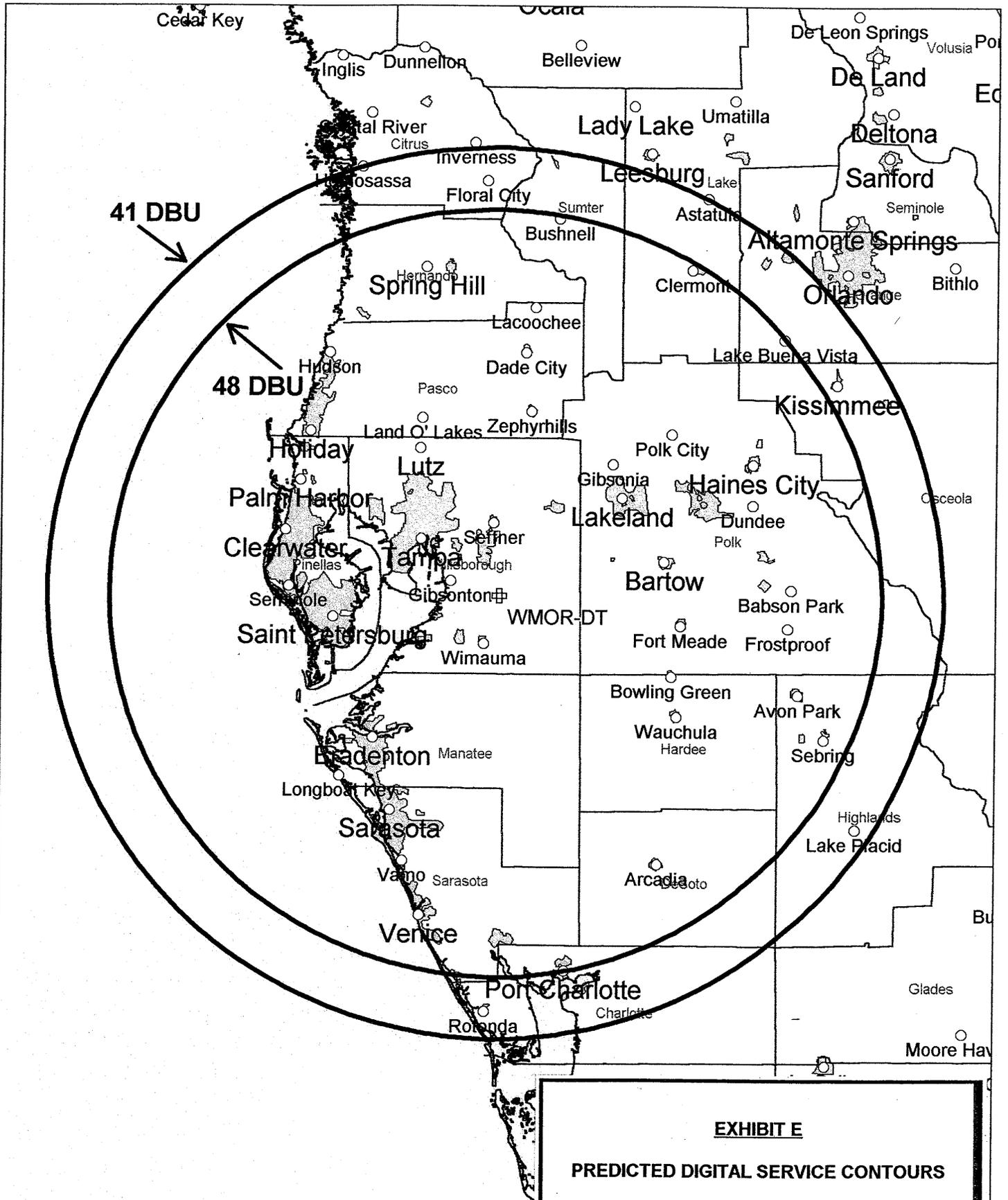


EXHIBIT E
PREDICTED DIGITAL SERVICE CONTOURS
PROPOSED WMOR-DT
CHANNEL 19 - LAKELAND, FLORIDA
[MODIFICATION OF BPCDT-19991101AEU]
 SMITH AND FISHER

ALLOCATION AND INTERFERENCE STUDY

PROPOSED WMOR-DT
CHANNEL 19 - LAKELAND, FLORIDA

The Commission allotted Channel 19 to WMOR-DT with a nominal ERP of 145.7 kw at 331 meters above average terrain. The instant application specifies an ERP of 1000 kw nondirectional at 458 meters at a different site. This is allowable under the FCC's *de minimis* standards with respect to various NTSC and DTV facilities.

In evaluating the interference effect of this proposal, we have relied upon the V-Soft Communications "Probe" computer program, which has been found generally to mimic the FCC's program. Changes in interference caused by WMOR-DT to other pertinent stations are tabulated in Exhibit F-2.

As indicated, the proposed WMOR-DT facility would not contribute more than two percent DTV interference to the service population of any affected NTSC or DTV station. In addition, this proposal does not result in any NTSC or DTV station receiving more than ten percent total DTV interference to viewers living within its present service area.

Therefore, this proposal meets the FCC's *de minimis* interference standards for DTV operations.

It should be noted that this interference study employs a signal resolution (cell size) of 1 kilometer, instead of 2 kilometers, and a profile spacing increment of 0.1 kilometer instead of 1 kilometer. In doing so, we rely on the Commission's August 10, 1998, Public Notice "Additional Applications Processing Guidelines for DTV."

EXHIBIT F-2

DE MINIMIS INTERFERENCE ANALYSIS

PROPOSED WMOR-DT
CHANNEL 19 - LAKELAND, FLORIDA

NTSC FACILITIES

Call	City of License	Ch.	Grade B Population F(50,50)	Interference Losses (Population)								
				NTSC Only	NTSC & DTV Without WMOR-DT	Unmasked DTV	% ¹	NTSC & DTV With WMOR-DT	Unmasked DTV	% ¹	WMOR-DT Contribution % ²	
WKCF (LIC)	Clermont, FL	18	2,772,187	32,353	32,812	459	< 0.1	38,374	6,021	0.2	5,562	0.2
WKCF (CP)	Clermont, FL	18	2,897,548	74,548	75,130	582	< 0.1	97,513	22,965	0.8	22,383	0.8
WBBH-TV (CP)	Fort Myers, FL	20	1,153,201	15	8,337	8,322	0.7	19,713	19,698	1.7	11,376	1.0
WRDQ (CP)	Orlando, FL	27	3,122,445	512,361	553,449	41,088	1.3	553,449	41,088	1.3	0	0

DTV FACILITIES

Call	City of License	Ch.	NTSC/DTV ³ Grade B Pop. Longley-Rice	Interference Losses (Population)								
				NTSC Only	NTSC & DTV Without WMOR-DT	Unmasked DTV	% ¹	NTSC & DTV With WMOR-DT	Unmasked DTV	% ¹	WMOR-DT Contribution % ²	
WBSF-DT (CP)	Melbourne, FL	20	2,482,247	5,034	5,034	0	0	22,713	17,679	0.7	17,679	0.7
WTEV-DT (CP)	Jacksonville, FL	19	1,330,203	0	0	0	0	5,365	5,365	0.4	5,365	0.4
WTEV-DT (Allot.)	Jacksonville, FL	19	1,236,475	0	0	0	0	1,203	1,203	0.1	1,203	0.1

¹ Cannot exceed 10%, under FCC de minimis interference standards.

² Cannot exceed 2%, under FCC de minimis interference standards.

³ Larger of either NTSC Grade B population (with no DTV losses) or DTV Grade B population with all losses.