TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
TELEVISION STATION WJJA-DT
RACINE, WISCONSIN

July 20, 2007

CHANNEL 48 58 KW (MAX-DA) 210 M

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Technical Statement

This Technical Exhibit was prepared on behalf of digital television broadcast station WJJA-DT, Racine, Wisconsin, in support of an application for construction permit to relocate its digital transmitter. WJJA-DT is paired with analog NTSC TV station WJJA(TV), Channel 49. The instant application proposes operation of the WJJA-DT facility using an existing tower structure located within 5 km of the WJJA-DT allotment reference point. The proposal complies with the DTV application "checklist" filing requirements.[*]

The proposed facility will not result in any extension of the predicted 41 dBu noise-limited contour relative to the WJJA-DT allotment facility.[†] Therefore, the proposal meets the terms of the FCC Filing Freeze for television stations.[‡]

Proposed Facilities

The proposed transmitting antenna will be a Dielectric model TFU-24DSB-M (C), which will be side-mounted on the existing WDJT-TV/DT tower located in Milwaukee, Wisconsin. The transmitter site elevation is 190 m AMSL. The antenna

[*] See FCC *Public Notice*, "Commission Details Application Filing Procedures Digital Television (DTV)", Released: October 16, 1997; and, FCC *Public Notice*, "Additional Application Processing Guidelines for Digital Television (DTV)", Released: August 10, 1998.
[†] See Figure 1.
[‡] *See August 2004 Filing Freeze PN*, DA 04-2446 (MB rel. Aug. 3, 2004).

center of radiation will be located at 224 m above ground level and 414 m AMSL. The proposed WJJA-DT facility will operate on Channel 48 with a maximum directional average ERP of 17.6 dBk (58 kW) and antenna radiation center HAAT of 210 m.[§]

The proposed facility is not located in the border area. The closest FCC Monitoring station is located at Allegan, Michigan, at distance of 171 km at a bearing of 109°True. The closest Radio Astronomy site conducting research on Channel 37 is located at North Liberty, Iowa, at distance of 335 km at a bearing of 245°True. There are no AM broadcast stations located within 3.2 km of the proposed transmitter site.

The proposed facility provides minimum 48 dBu, f(50,90), coverage of Racine in compliance with Section 73.625(a)(1) of the FCC Rules. Figure 1 herein is a map depicting the predicted coverage contours of the proposed facility.

Tower Registration

The existing tower structure has an FCC antenna structure registration number of 1047092. There will be no change in the overall height of the existing antenna structure.

Allocation Considerations

The proposed WJJA-DT facility meets the criteria of Section 73.622(f)(2) of the FCC Rules. Therefore, pursuant to that section, the application shall not be

[§] The WJJA-DT digital allotment facility is for operation on Channel 48 with a maximum ERP of 176.4 kW and an antenna HAAT of 303 m. The allotment reference coordinates are: 43-05-15 N.L. / 087-54-01 W.L. (NAD27). See Appendix B, *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders* in MM Docket No. 87-268, FCC 98-315, 14 FCC Rcd 1348 (1998).

subject to further consideration of electromagnetic interference to other DTV or analog TV broadcast stations.[**]

Environmental Considerations

An evaluation was conducted for the proposed facility concerning compliance with Section 1.1307(b) of the FCC Rules regarding human exposure to radio frequency (RF) energy.[††] Calculations prepared in accordance with FCC Bulletin OET-65 (Edition 97-01) indicate that the proposal will not result in human exposure to RF radiation at ground level in excess of FCC standards. Power density calculations were conducted at 2-m above ground based on the following conservative assumptions, with the following results:

Call Sign	**Channel**	**Average ERP (kW)**	**Radiation Center Height Above Ground (m)**	**Relative Field Factor[‡‡]**	**FCC Limit[§§] (mW/cm^2)**	**Percentage of Limit**
WJJA-DT	48	58	224	0.15	0.451	0.2%

As indicated above, the total exposure to RF radiation at 2-m above ground level will not 0.2% of the FCC limit for general population / uncontrolled exposure. Therefore, the proposal complies with the FCC limits for human exposure to RF energy and it is

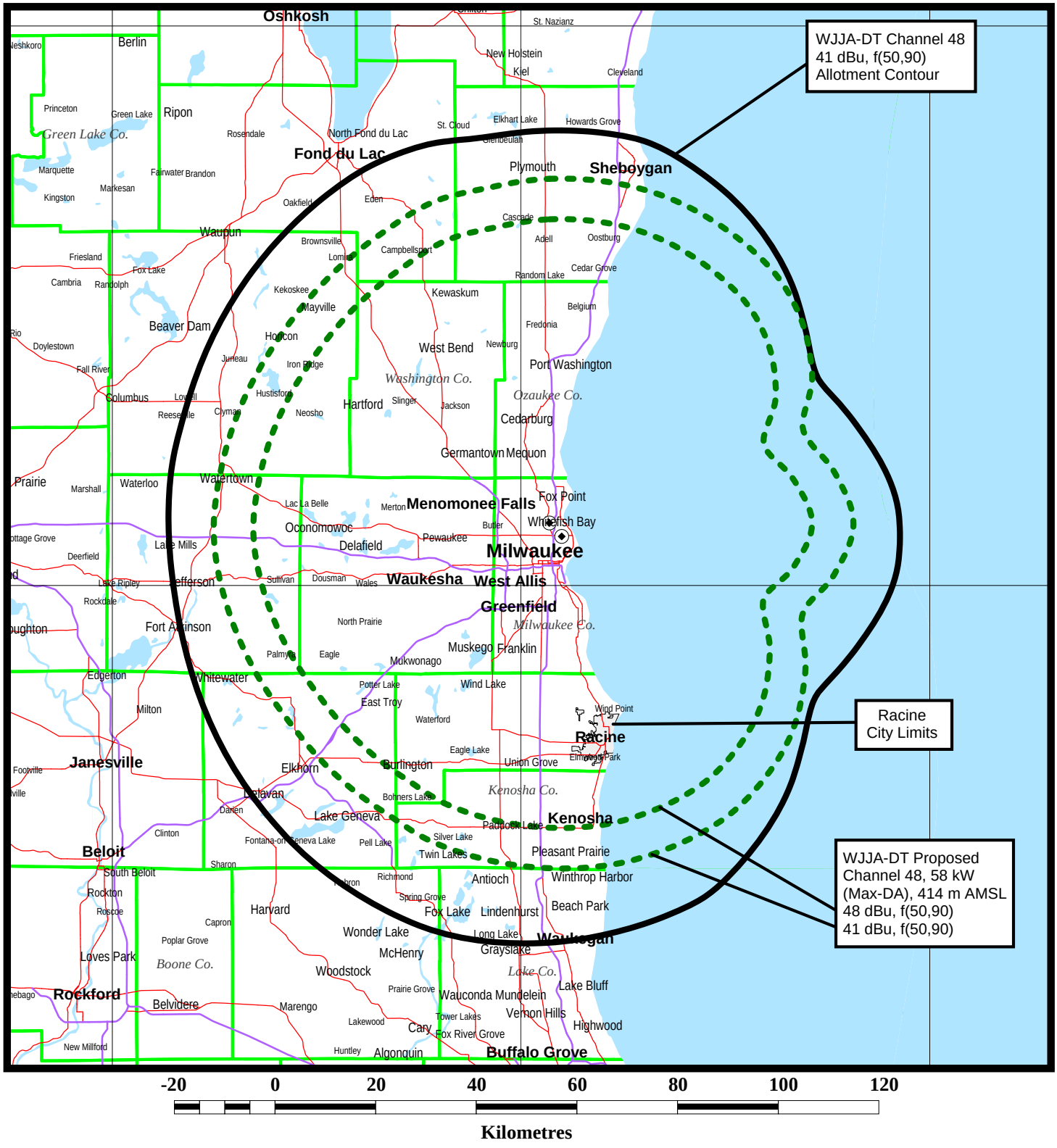
[**] This is presumed to include consideration of electromagnetic interference with respect to Class A television stations.
[††] See FCC Office of Engineering and Technology Bulletin No. 56 for background information on non-ionizing RF energy of the type discussed here. Internet web reference: http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf
‡‡ This is a conservative estimate of the relative field factor in the downward direction. See Appendix.
§§ for general population/uncontrolled environments

categorically excluded from environmental processing. The applicant, in coordination with other users of the transmission facility, shall reduce power or cease operation as necessary to protect persons having access to the tower or antenna from radio frequency radiation in excess of the FCC guidelines.

Louis Robert du Treil, Jr.

du Treil, Lundin & Rackley, Inc.
201 Fletcher Ave.
Sarasota, FL 34237-6019

July 20, 2007



PREDICTED COVERAGE CONTOURS

duTreil, Lundin & Rackley, Inc. Sarasota, Florida

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Transmitting Antenna Manufacturer's Pattern Data

(*three pages follow*)

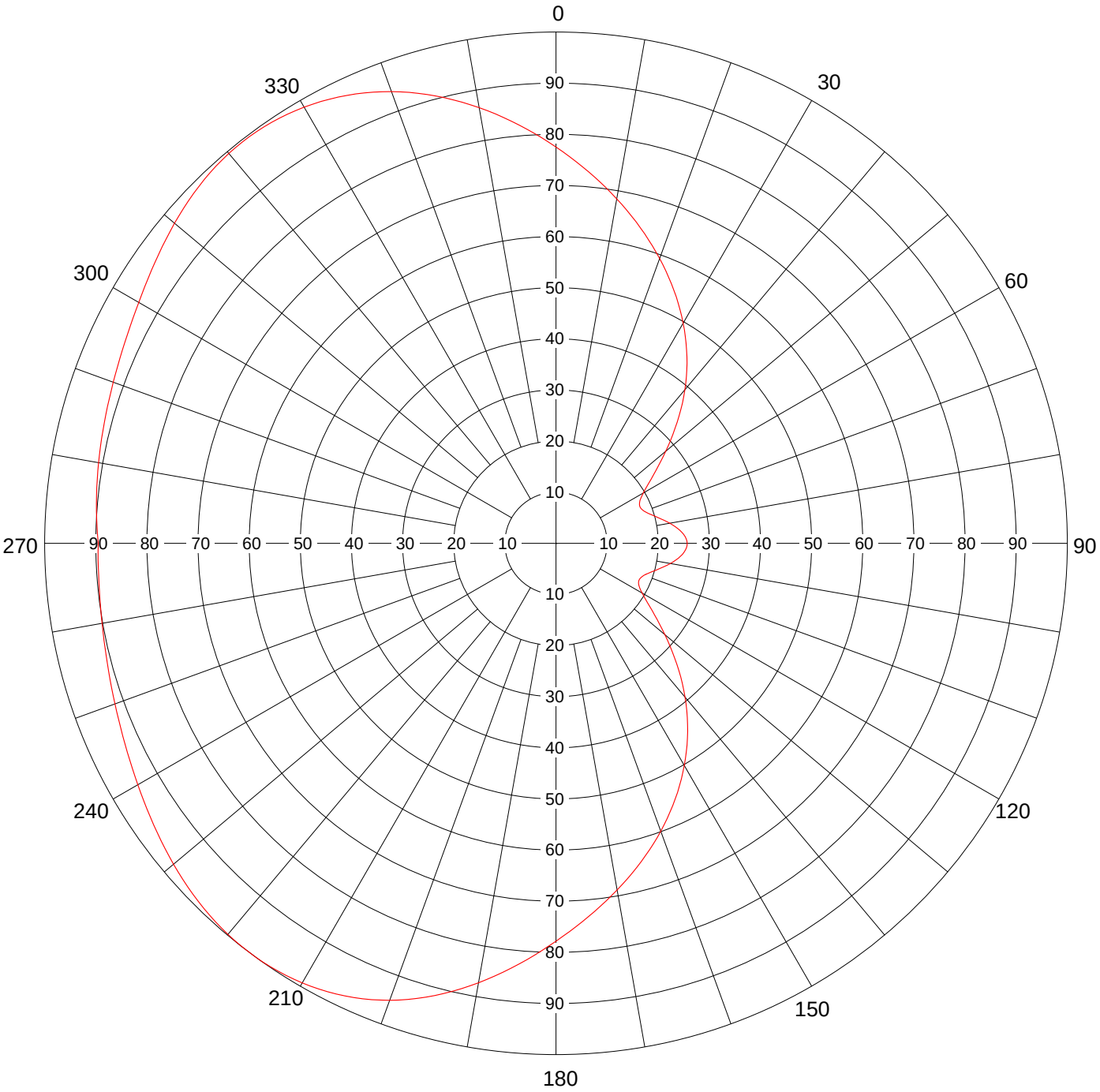
Exhibit No.

Dielectric

Date	**20 Jul 2007**		
Call Letters		Channel	**48**
Location	**Racine, WI**		
Customer			
Antenna Type	**TFU-24DSB-M (C)**		

AZIMUTH PATTERN

Gain	**1.90 (2.79 dB)**	Frequency	**677 MHz**
Calculated / Measured	**Calculated**	Drawing #	**DSB-M**



Remarks:

Exhibit No.

Dielectric

Date **20 Jul 2007**
Call Letters Channel **48**
Location **Racine, WI**
Customer
Antenna Type **TFU-24DSB-M (C)**

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing # **DSB-M**

Angle	Field	ERP (kW)	ERP (dBk)
0	0.775	34.8	15.42
10	0.684	27.1	14.34
20	0.593	20.4	13.10
30	0.497	14.3	11.56
40	0.392	8.9	9.50
50	0.280	4.5	6.58
60	0.197	2.3	3.52
70	0.184	2.0	2.93
80	0.226	3.0	4.72
90	0.257	3.8	5.83
100	0.227	3.0	4.75
110	0.183	1.9	2.88
120	0.194	2.2	3.39
130	0.278	4.5	6.52
140	0.393	9.0	9.52
150	0.502	14.6	11.65
160	0.599	20.8	13.18
170	0.688	27.5	14.39
180	0.778	35.1	15.45
190	0.873	44.2	16.45
200	0.951	52.5	17.20
210	0.993	57.2	17.57
220	0.998	57.8	17.62
230	0.976	55.2	17.42
240	0.944	51.7	17.13
250	0.918	48.9	16.89
260	0.901	47.1	16.73
270	0.895	46.5	16.67
280	0.908	47.8	16.80
290	0.921	49.2	16.92
300	0.942	51.5	17.12
310	0.974	55.0	17.41
320	0.995	57.4	17.59
330	0.985	56.3	17.50
340	0.940	51.2	17.10
350	0.865	43.4	16.37

Maxima

Angle	Field	ERP (kW)	ERP (dBk)
0	0.775	34.8	15.42
90	0.257	3.8	5.83
217	1.000	58.0	17.63
322	0.996	57.5	17.60

Minima

Angle	Field	ERP (kW)	ERP (dBk)
66	0.179	1.9	2.69
114	0.178	1.8	2.64
270	0.895	46.5	16.67

Remarks:

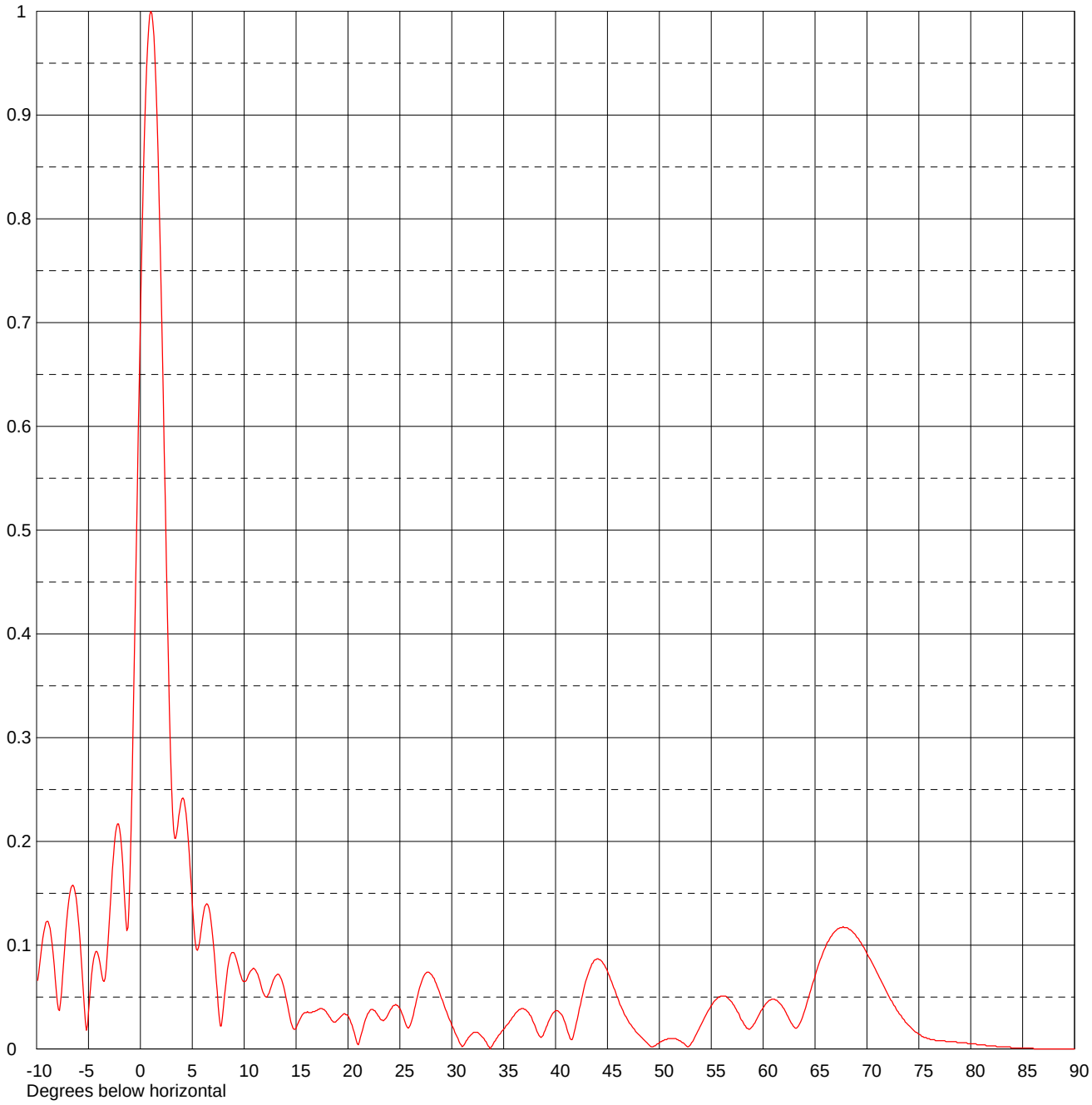
Exhibit No.

Dielectric

Date	**20 Jul 2007**		
Call Letters		Channel	**48**
Location	**Racine, WI**		
Customer			
Antenna Type	**TFU-24DSB-M (C)**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**24.0 (13.80 dB)**	Beam Tilt	**1.00 Degrees**
RMS Gain at Horizontal	**11.9 (10.76 dB)**	Frequency	**677.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**24B240100-90**



Remarks: