

TECHNICAL EXHIBIT  
AMENDMENT TO PENDING  
APPLICATION FOR CONSTRUCTION PERMIT  
GEORGE S. FLINN, JR.  
JACKSON, MISSISSIPPI

APRIL 20, 2006

CH 51    5000 KW    384 M

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Table of Contents

	Technical Narrative
Figure 1	Proposed Transmitter Location
Figure 2	Proposed Antenna and Supporting Structure
Figure 3	Map Showing Predicted Coverage Contours
Figure 4	Allocation Study
Appendix A	Transmitting Antenna Pattern

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Technical Narrative

The technical exhibit of which this narrative is part was prepared on behalf of George S. Flinn, Jr. (herein "Flinn"). Flinn was the winning bidder in Auction 64 for a new unbuilt NTSC facility on Channel 51 at Jackson, Mississippi.<sup>1</sup> By this instant application, Flinn proposes to operate from the same structure as that employed by its first adjacent-channel facility. Furthermore, after discussions with FCC staff, it is understood that since application does not implicate the FCC's present DTV/TV Freeze.

The proposal would not be subject to environmental processing in accordance with Section 1.1306. The proposed Jackson facility will be located on a registered tower; therefore, a new Federal Aviation Administration (FAA) *Determination of No Aeronautical Hazard* is not required.

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<sup>1</sup> The Jackson, Mississippi Channel 51 allotment was a only open to those applications who has applications pending for the facility. Therefore, this application can also be considered as an amendment to the pending Flinn application, BPCT-19961001UV.

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Proposed Transmitter Location

The proposed transmitting facility will consist of a non-directional Dielectric antenna mounted on a tower located at Raymond, Mississippi. The location is uniquely described by the following geographic coordinates [NAD-27], which were obtained from the Commission's engineering database:

32° 14' 26" North Latitude  
90° 24' 15" West Longitude

A map showing the transmitter location is included herein as Figure 1. A sketch showing the proposed antenna and supporting structure is shown on Figure 2.

DTV & NTSC Frequency Allocation

Implementation of the proposed Jackson facility will have a *de minimus* impact on the Commission's DTV assignments and stations. Using the procedures outlined in OET Bulletin No. 69, an interference analysis was completed.<sup>1</sup> As shown in Figure 4, the interference to DTV stations and allotments is considered *de minimis*. Furthermore, the proposed facility is fully-spaced to all other NTSC stations and allotments.

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<sup>1</sup> OET Bulletin No. 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, July 2, 1997.

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Transmitting Antenna

A Dielectric TFU-28DSC-R 04 non-directional antenna pattern is proposed for this Jackson facility with 0.75° of electrical beam tilt. The vertical plane relative field pattern and tabulation is provided within Appendix A.

Coverage Contours

The predicted coverage contour for the proposed operation was calculated in accordance with the provisions of Section 73.313. The average terrain elevations from 3 to 16 kilometers along eight radials evenly spaced at 45 degree intervals, and thirty-two additional radials for contour definition, were obtained from the National Geophysical Data Center's (NGDC) 30-second terrain database. The terrain elevations were then used in combination with the effective radiated power for determining the distances to coverage contours.

Figure 3 is a map showing the predicted coverage contours. As the map illustrates, the FCC predicted City Grade (80 dBu) coverage contour entirely encompasses the Jackson city limits.

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Interference Considerations

Several full-service stations are located on and near the supporting structure as the herein proposed. However, no objectionable interference is predicted. Flinn does accept full responsibility for the elimination of any objectionable interference, if any occurs, to facilities in existence or authorized prior to grant of this application pursuant to Sections 73.685(d) and (g) of the Commission's Rules.

Radiofrequency Electromagnetic Field Exposure

The proposed facility has been evaluated in terms of potential radiofrequency electromagnetic fields at ground level in accordance with OST Bulletin No. 65, *Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*.<sup>2</sup> The proposed calculated power density at the base of the tower was calculated using the appropriate equation contained on page 30 in Supplement A, *Additional Information for Radio and Television Broadcast Stations*, of the Bulletin.

For the calculation, a downward relative field value of 0.15 was assumed for the transmitting antenna. As can be seen from the data contained within the Appendix, the relative field value for all depression angles greater than 15° does not exceed 0.15. Therefore, using a maximum visual effective radiated power of 5000 kilowatts, 22 percent aural power and a relative field value of 0.15, the predicted power density at ground level located 366 meters (1200 feet) below the antenna radiation center is 0.017 mW/cm<sup>2</sup>. This is

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<sup>2</sup> OET Bulletin 65, Edition 97-01, August, 1997.

less than five-percent of the Commission's guideline in an uncontrolled environment for a television station.<sup>3</sup>

Pursuant to Section 1.1307(b) of the Commission's Rules, the power density contributions of co-located and nearby broadcast stations are not required to be calculated as the proposed power density contribution is less than five percent of the guideline value.

Access to the transmitting site is restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shutdown of power if necessary, shall be taken to ensure that the human exposure to radiofrequency electromagnetic fields will not exceed the FCC guidelines.

Charles A. Cooper

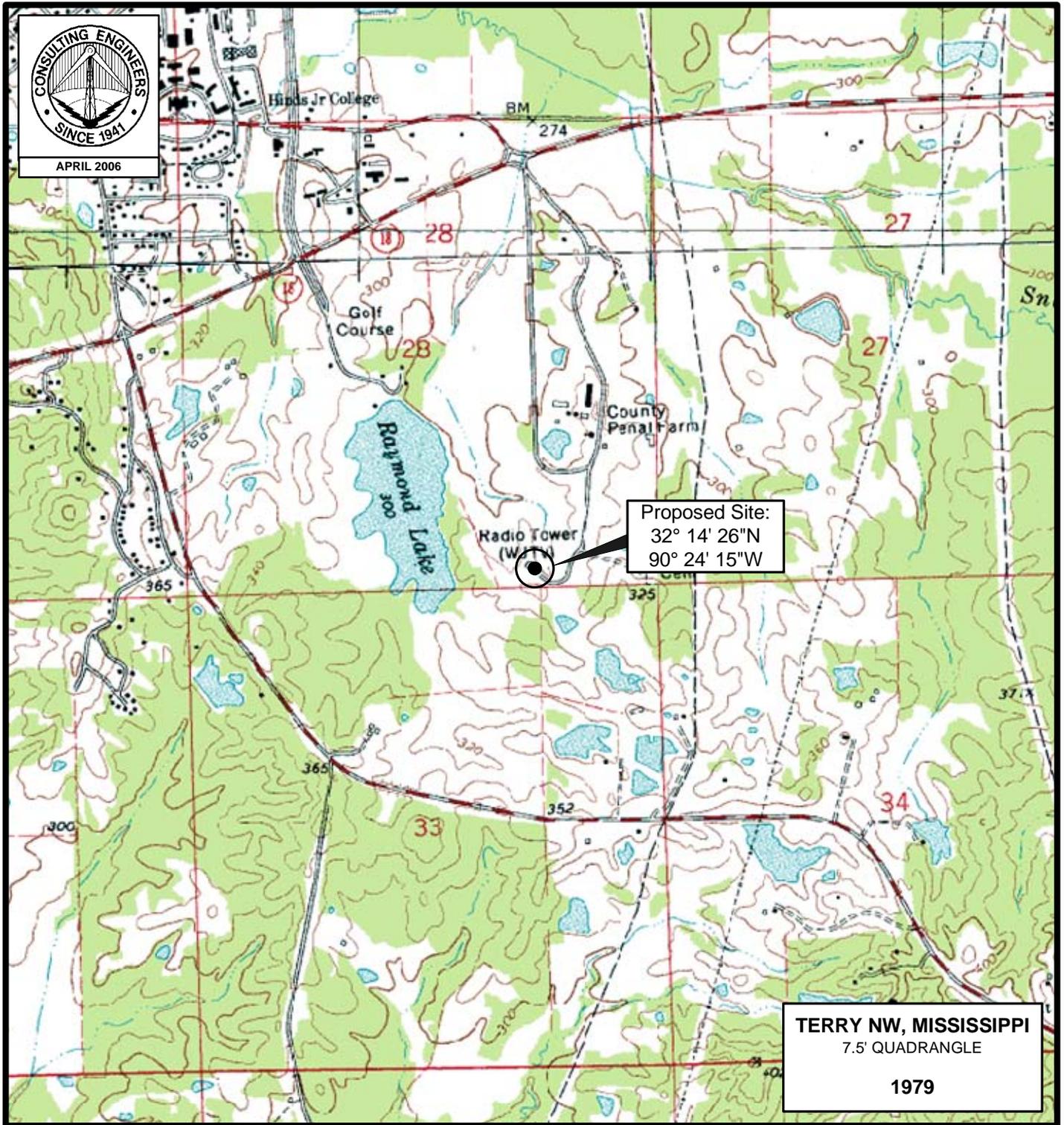
April 20, 2006

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237  
941.329.6000

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<sup>3</sup> The FCC maximum guideline for an UHF broadcast television station on Channel 51 in an uncontrolled environment is 0.46 mW/cm<sup>2</sup>.

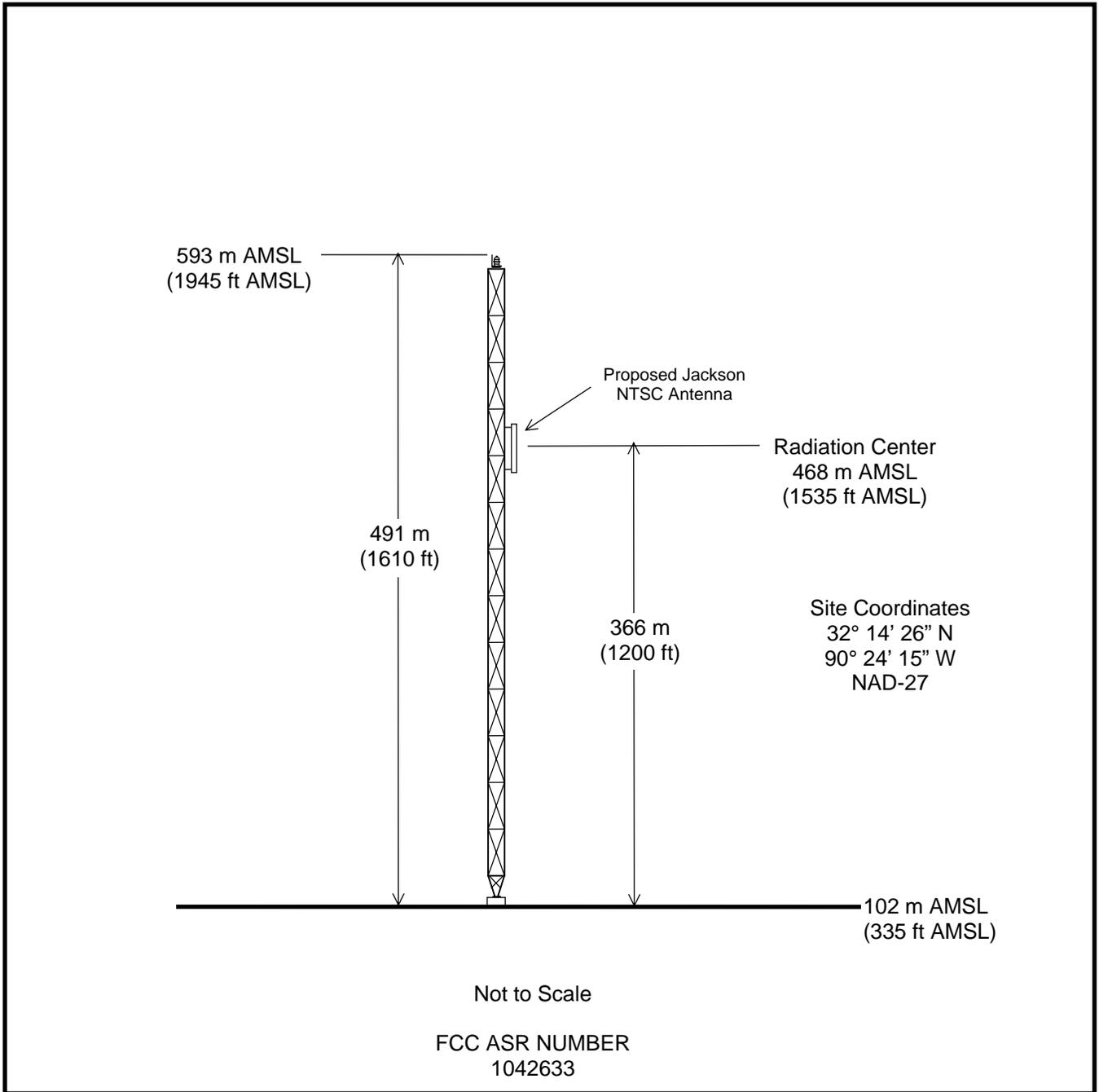
Figure 1



## PROPOSED TRANSMITTER SITE

GEORGE S FLINN JR.  
JACKSON, MISSISSIPPI  
CH 51 5000 KW 384 M

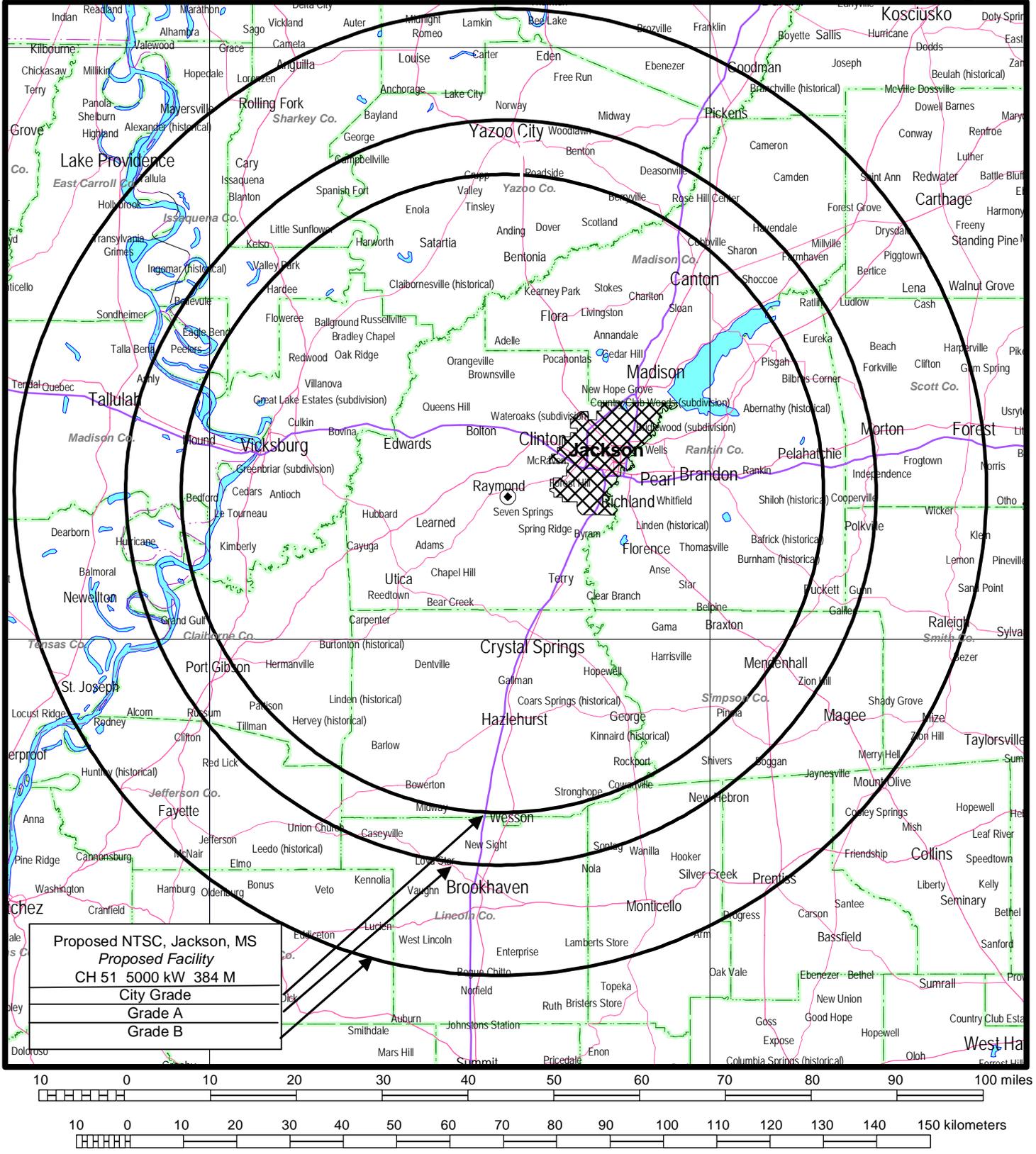
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



**PROPOSED ANTENNA AND SUPPORTING STRUCTURE**

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**Figure 3**



**FCC PREDICTED COVERAGE CONTOURS**

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Summary of Allocation Analysis

Facility	Channel	NTSC or DTV?	Baseline Service Population (1990)	Permissible IX(%)	Net New IX Caused by Proposed (1990)	Percent of Baseline (%)
WNCF-DT Montgomery, AL DTV Allotment	51	DTV	538,276	0.5%	40	<0.1
WNCF-DT Montgomery, AL BPCDT-19991004ABQ	51	DTV	<i>No Interference Predicted</i>			
WPXX-DT Memphis, TN BLCDT-20020430ACC	51	DTV	<i>No Interference Predicted</i>			
WPXX-DT Memphis, TN DTV Allotment	51	DTV	<i>No Interference Predicted</i>			
WJTV-DT Jackson, MS DTV Allotment	51	DTV	<i>No Interference Predicted</i>			

# APPENDIX A

MANUFACTURER PROVIDED  
ANTENNA ELEVATION PATTERN DATA

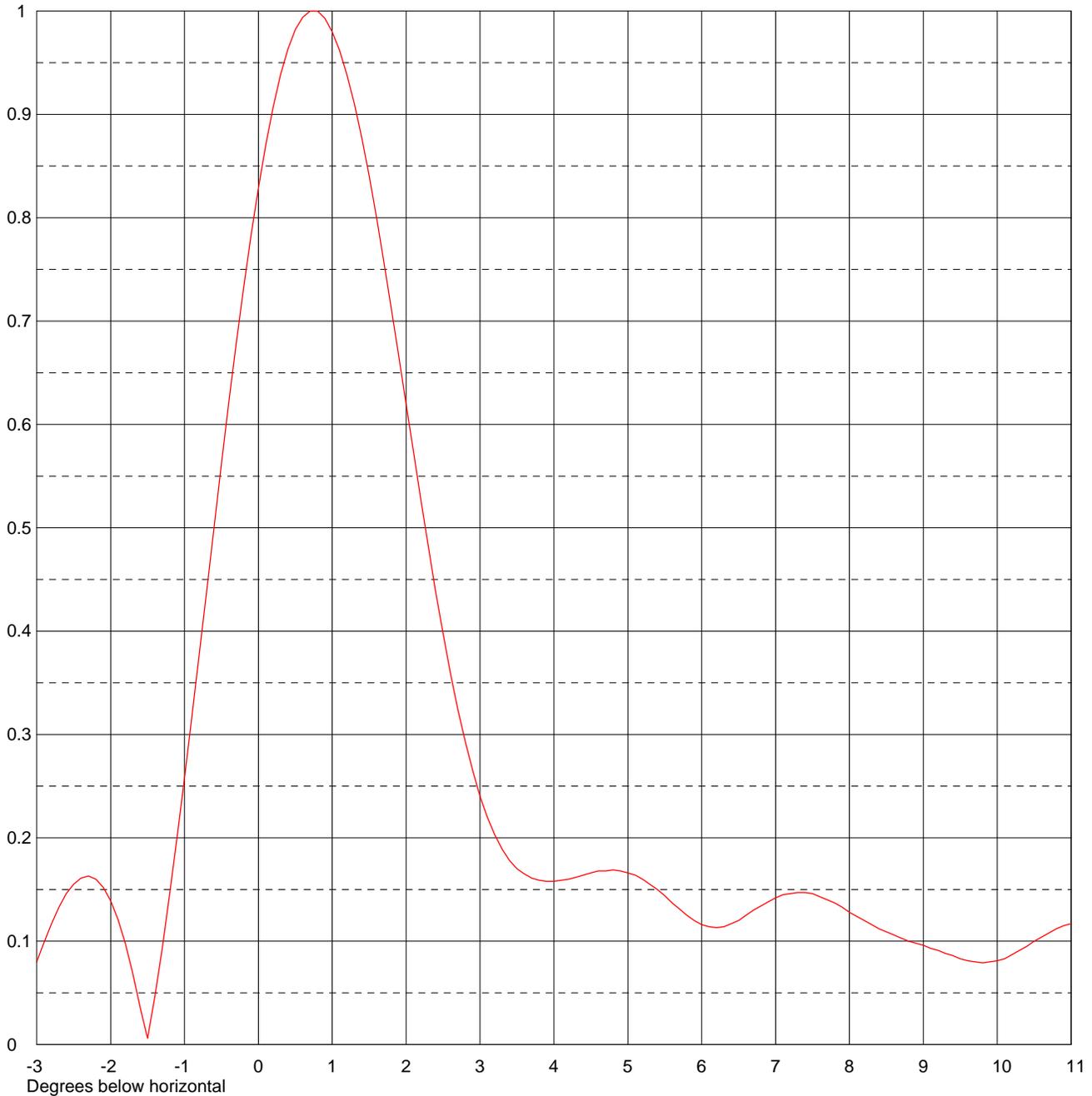


Proposal Number  
Date **18 Apr 2006**  
Call Letters  
Location **Jackson, MS**  
Customer  
Antenna Type **TFU-28DSC-R 04**

Revision  
Channel **51**

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>24.0 (13.80 dB)</b>	Beam Tilt	<b>0.75 Degrees</b>
RMS Gain at Horizontal	<b>16.5 (12.17 dB)</b>	Frequency	<b>695.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>28Q240075</b>



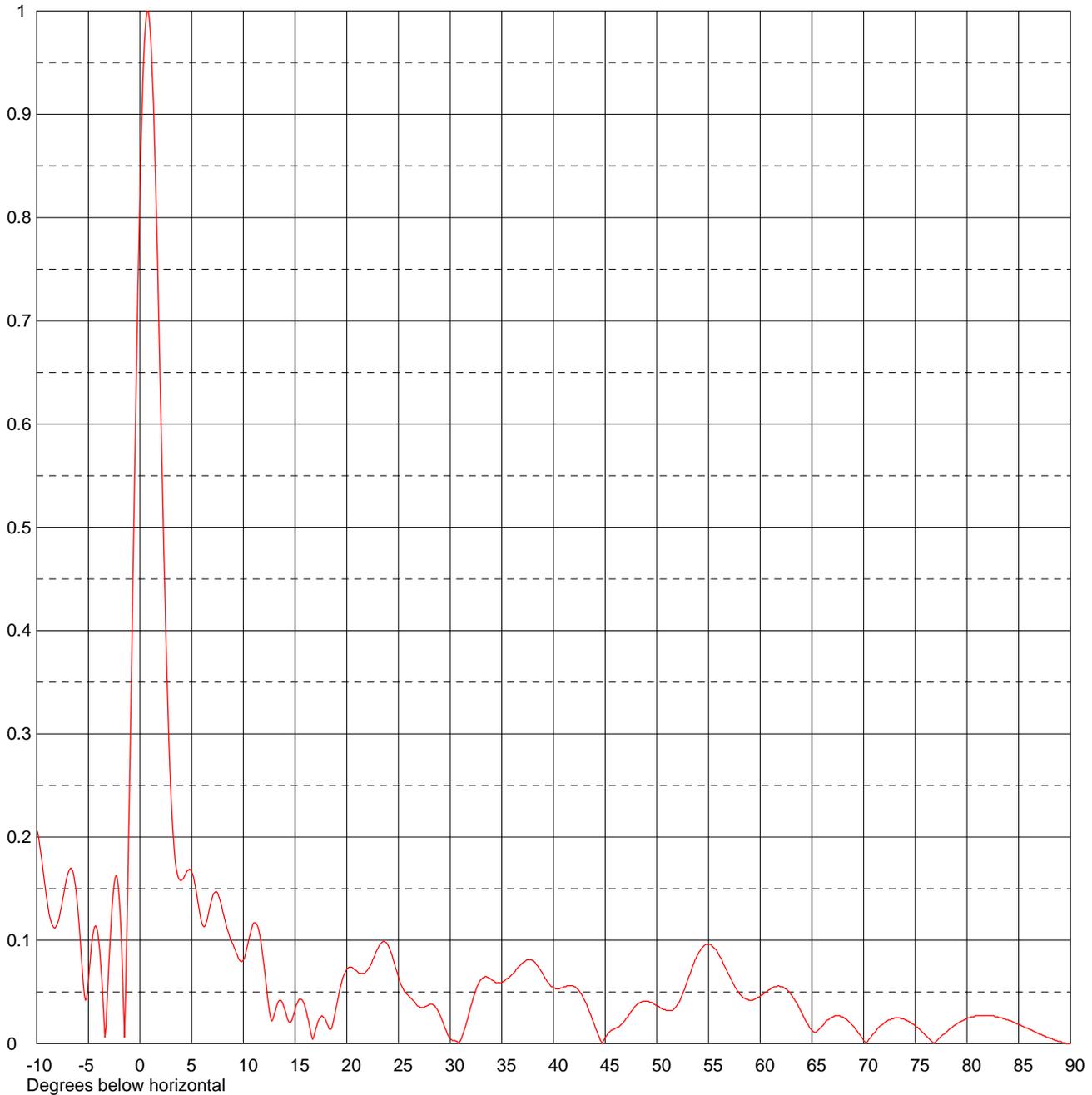
Remarks:



Proposal Number                      Revision  
Date                                      **18 Apr 2006**  
Call Letters                              Channel    **51**  
Location                                 **Jackson, MS**  
Customer  
Antenna Type                              **TFU-28DSC-R 04**

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>24.0 (13.80 dB)</b>	Beam Tilt	<b>0.75 Degrees</b>
RMS Gain at Horizontal	<b>16.5 (12.17 dB)</b>	Frequency	<b>695.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>28Q240075-90</b>



Remarks:



Proposal Number \_\_\_\_\_ Revision \_\_\_\_\_  
 Date **18 Apr 2006**  
 Call Letters \_\_\_\_\_ Channel **51**  
 Location **Jackson, MS**  
 Customer \_\_\_\_\_  
 Antenna Type **TFU-28DSC-R O4**

**TABULATION OF ELEVATION PATTERN**

Elevation Pattern Drawing # **28Q240075-90**

Angle	Field										
-10.0	0.210	2.4	0.438	10.6	0.104	30.5	0.003	51.0	0.032	71.5	0.016
-9.5	0.178	2.6	0.359	10.8	0.112	31.0	0.003	51.5	0.032	72.0	0.020
-9.0	0.139	2.8	0.293	11.0	0.117	31.5	0.017	52.0	0.038	72.5	0.023
-8.5	0.115	3.0	0.240	11.5	0.109	32.0	0.036	52.5	0.048	73.0	0.025
-8.0	0.116	3.2	0.203	12.0	0.075	32.5	0.052	53.0	0.062	73.5	0.025
-7.5	0.139	3.4	0.178	12.5	0.032	33.0	0.062	53.5	0.076	74.0	0.023
-7.0	0.164	3.6	0.165	13.0	0.029	33.5	0.065	54.0	0.087	74.5	0.021
-6.5	0.167	3.8	0.159	13.5	0.042	34.0	0.062	54.5	0.094	75.0	0.017
-6.0	0.128	4.0	0.158	14.0	0.033	34.5	0.059	55.0	0.096	75.5	0.013
-5.5	0.059	4.2	0.160	14.5	0.020	35.0	0.059	55.5	0.093	76.0	0.008
-5.0	0.061	4.4	0.164	15.0	0.033	35.5	0.063	56.0	0.086	76.5	0.003
-4.5	0.109	4.6	0.168	15.5	0.043	36.0	0.067	56.5	0.076	77.0	0.002
-4.0	0.100	4.8	0.169	16.0	0.034	36.5	0.073	57.0	0.066	77.5	0.007
-3.5	0.026	5.0	0.166	16.5	0.012	37.0	0.078	57.5	0.056	78.0	0.011
-3.0	0.080	5.2	0.160	17.0	0.014	37.5	0.081	58.0	0.048	78.5	0.015
-2.8	0.117	5.4	0.150	17.5	0.026	38.0	0.080	58.5	0.044	79.0	0.019
-2.6	0.146	5.6	0.137	18.0	0.022	38.5	0.075	59.0	0.042	79.5	0.022
-2.4	0.161	5.8	0.125	18.5	0.014	39.0	0.067	59.5	0.043	80.0	0.024
-2.2	0.160	6.0	0.116	19.0	0.036	39.5	0.059	60.0	0.046	80.5	0.026
-2.0	0.139	6.2	0.113	19.5	0.059	40.0	0.054	60.5	0.049	81.0	0.027
-1.8	0.098	6.4	0.117	20.0	0.072	40.5	0.053	61.0	0.053	81.5	0.027
-1.6	0.036	6.6	0.125	20.5	0.074	41.0	0.055	61.5	0.055	82.0	0.027
-1.4	0.047	6.8	0.134	21.0	0.070	41.5	0.056	62.0	0.055	82.5	0.027
-1.2	0.146	7.0	0.142	21.5	0.068	42.0	0.055	62.5	0.053	83.0	0.026
-1.0	0.257	7.2	0.146	22.0	0.071	42.5	0.051	63.0	0.047	83.5	0.024
-0.8	0.378	7.4	0.147	22.5	0.081	43.0	0.042	63.5	0.040	84.0	0.023
-0.6	0.501	7.6	0.143	23.0	0.092	43.5	0.030	64.0	0.030	84.5	0.021
-0.4	0.621	7.8	0.137	23.5	0.099	44.0	0.017	64.5	0.020	85.0	0.019
-0.2	0.732	8.0	0.128	24.0	0.095	44.5	0.004	65.0	0.013	85.5	0.016
0.0	0.829	8.2	0.120	24.5	0.081	45.0	0.006	65.5	0.012	86.0	0.014
0.2	0.907	8.4	0.112	25.0	0.064	45.5	0.012	66.0	0.017	86.5	0.012
0.4	0.963	8.6	0.106	25.5	0.052	46.0	0.015	66.5	0.023	87.0	0.009
0.6	0.994	8.8	0.100	26.0	0.046	46.5	0.018	67.0	0.026	87.5	0.007
0.8	1.000	9.0	0.096	26.5	0.041	47.0	0.024	67.5	0.027	88.0	0.005
1.0	0.980	9.2	0.091	27.0	0.036	47.5	0.031	68.0	0.026	88.5	0.003
1.2	0.938	9.4	0.086	27.5	0.035	48.0	0.037	68.5	0.022	89.0	0.002
1.4	0.877	9.6	0.081	28.0	0.038	48.5	0.040	69.0	0.017	89.5	0.001
1.6	0.800	9.8	0.079	28.5	0.037	49.0	0.041	69.5	0.010	90.0	0.000
1.8	0.712	10.0	0.081	29.0	0.028	49.5	0.040	70.0	0.003		
2.0	0.619	10.2	0.087	29.5	0.015	50.0	0.037	70.5	0.004		
2.2	0.526	10.4	0.095	30.0	0.005	50.5	0.034	71.0	0.010		

Remarks: