

TECHNICAL EXHIBIT
MINOR MODIFICATION APPLICATION
STATION WMBF-DT (FACILITY ID 83969)
MYRTLE BEACH, SOUTH CAROLINA

AUGUST 22, 2006

CH 32 165 KW (MAX-DA) 186 M

TECHNICAL EXHIBIT
MINOR MODIFICATION APPLICATION
STATION WMBF-DT (FACILITY ID 83969)
MYRTLE BEACH, SOUTH CAROLINA
CH 32 165 KW (MAX-DA) 186 M

Table of Contents

Technical Narrative

Figure 1	Proposed Transmitter Site
Figure 2	Antenna and Supporting Structure
Figure 3	Predicted Coverage Contours
Figure 4	Antenna Patterns

TECHNICAL EXHIBIT
MINOR MODIFICATION APPLICATION
STATION WMBF-DT (FACILITY ID 83969)
MYRTLE BEACH, SOUTH CAROLINA
CH 32 165 KW (MAX-DA) 186 M

Technical Narrative

This Technical Exhibit supports a minor modification application for television station WMBF-TV on channel 32 at Myrtle Beach, South Carolina. Station WMBF-TV is authorized (CP) to operate on analog channel 32 with a directional antenna maximum effective radiated power (ERP) of 50000 kilowatts (kW) and an antenna height above average terrain (HAAT) of 299 meters (BPCT-19960920WV).

Proposed Facilities

This application proposes digital operation on the current channel (32), at a different transmitter site. The proposed site coordinates are (NAD27): 33-43-50 N, 79-04-32 W. It is proposed to operate with a directional antenna maximum ERP of 165 kW at an antenna HAAT of 186 meters. It is proposed to use a Dielectric TFU-22GTH 6T 170 antenna, to be top mounted and a proposed 192 meter (630 foot) tower structure (see Figure 2). The Federal Aviation Administration (FAA) has been notified of the proposed tower and has issued study number 2006-ASO-3593-OE. Once a determination of no hazard is issued by the FAA, the tower will be registered with the FCC.

The proposed facility will not result in any extension of the authorized noise-limited contour as shown in Figure 3. Therefore, the proposal meets the terms of the FCC

Filing Freeze for digital television stations.¹ The proposal complies with Section 73.622(f)(8) concerning maximum power and antenna heights.

It is also noted in Figure 3 that the proposed City-Grade contour will encompass all of the city limits of Myrtle Beach (derived from 2000 U.S. Census information for South Carolina).

Allocation Considerations

The proposed WMBF-DT operation meets the FCC's interference standards to pertinent analog (NTSC) and DTV assignments using the procedures outlined in the FCC's OET-69 Bulletin and a 2 kilometers grid. The proposed WMBF-DT operation complies with the FCC's "de minimis" interference policy with respect to pertinent Class A TV assignments. If necessary, a waiver of the FCC rules is requested with respect to use of the OET-69 interference procedures.

Radiofrequency Electromagnetic Field Exposure

The proposed WMBF-DT facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 185 meters above ground level with a maximum ERP of 165 kW. A conservative relative field value of 0.2 was assumed for the antenna calculation (see Figure 4). The calculated power density at a point 2 meters above ground level will be 0.0066 mW/cm². This is less than 5% of the FCC's recommended limit of 0.39 mW/cm² for channel 32 for an "uncontrolled" 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 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

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

clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down. It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner as part of the tower registration process.

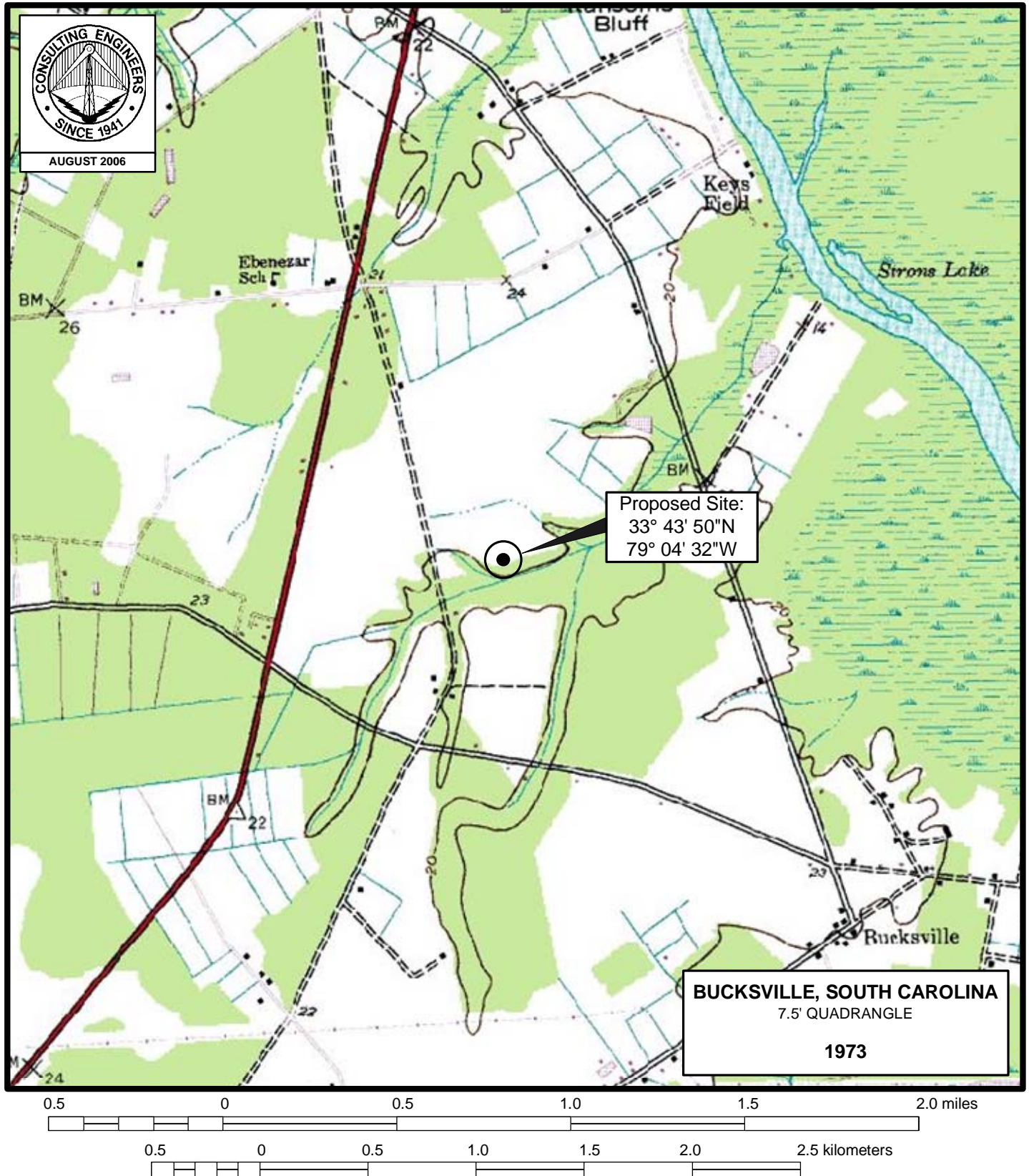


Jonathan N. Edwards

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329-6000

August 22, 2006

Figure 1



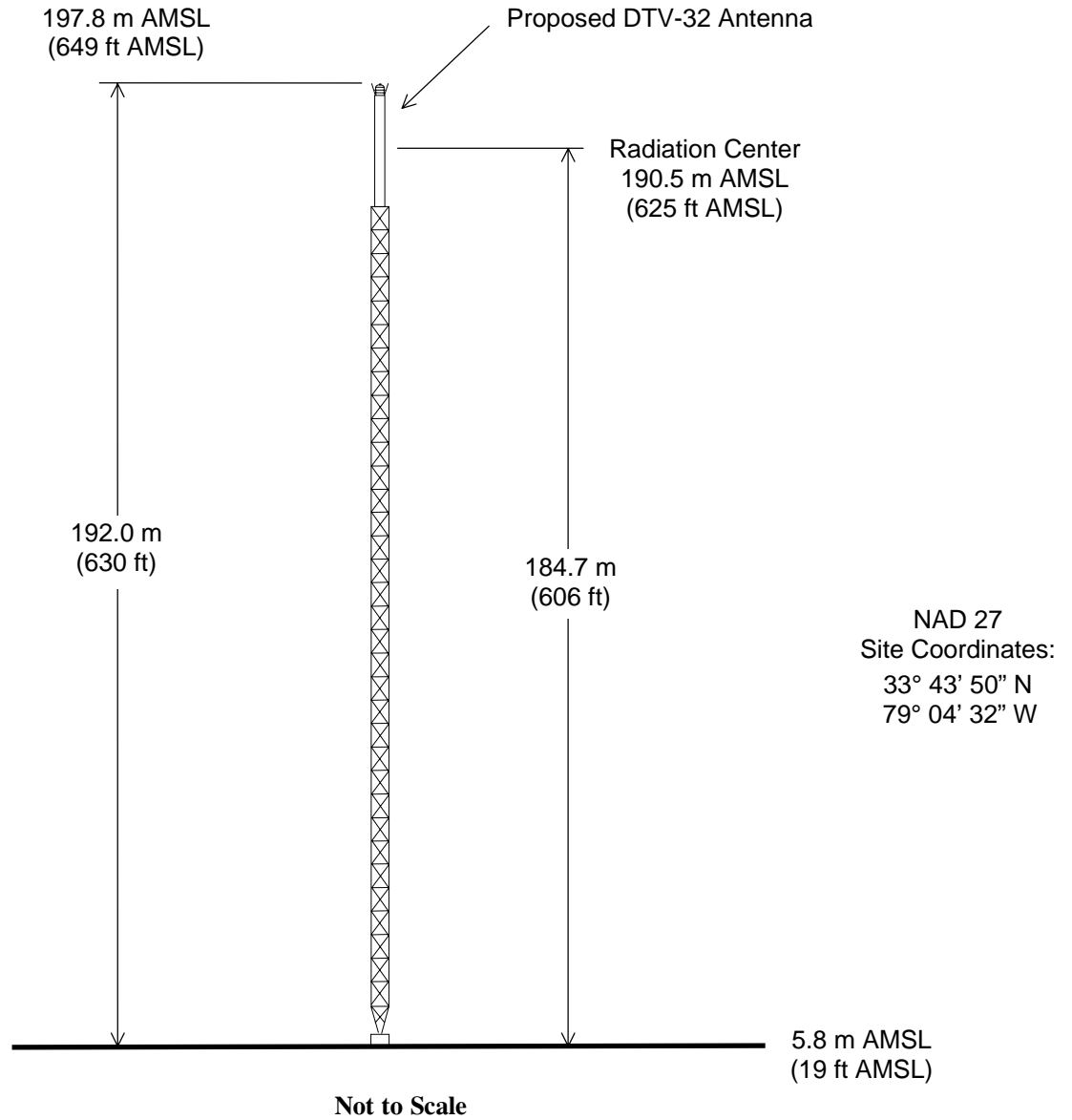
PROPOSED TRANSMITTER SITE

STATION WMBF-DT
MYRTLE BEACH, SOUTH CAROLINA
CH 32 165 KW (MAX-DA) 186 M

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

Figure 2

FAA Study No. 2006-ASO-3593-OE



ANTENNA AND SUPPORTING STRUCTURE

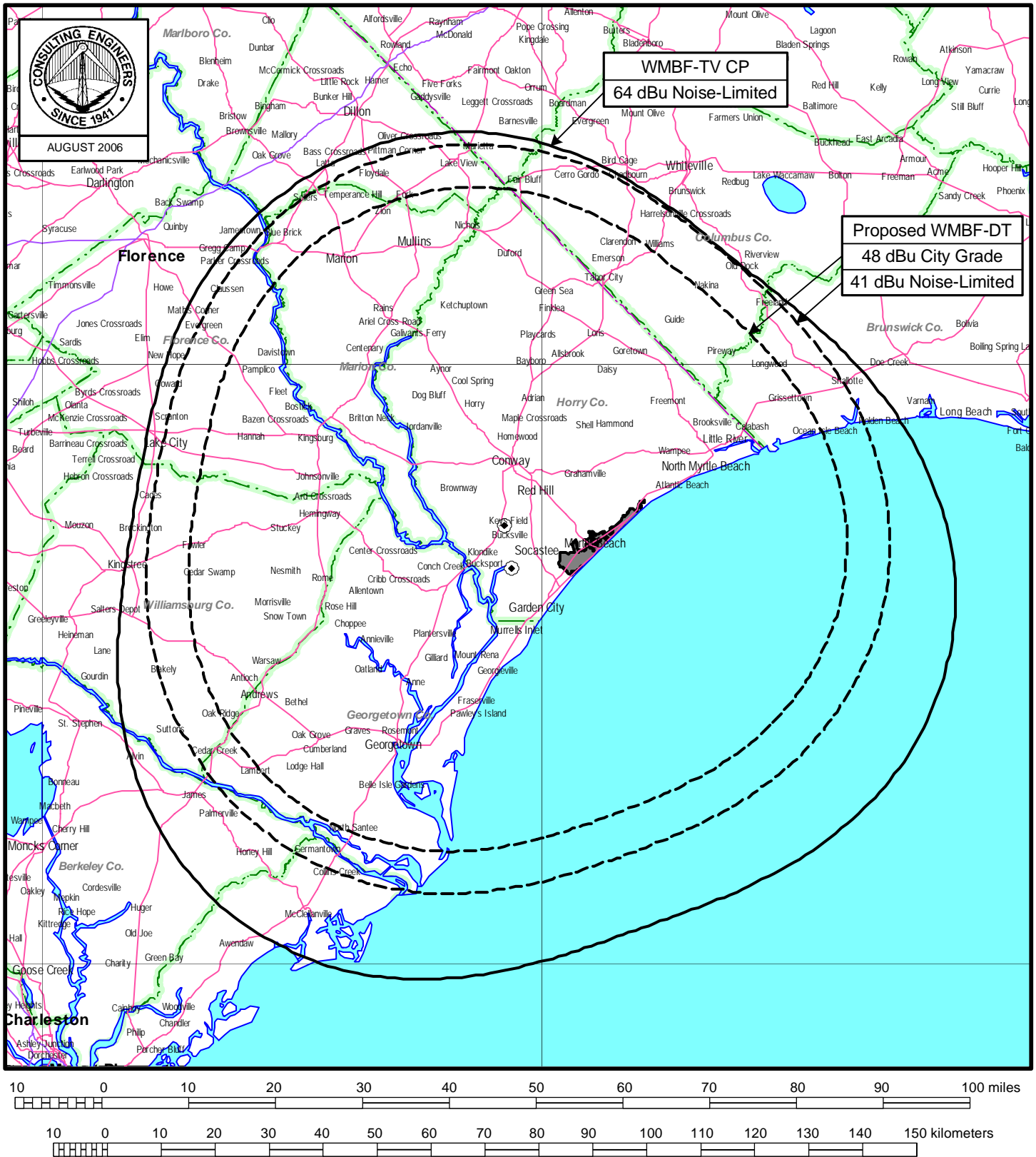
STATION WMBF-DT

MYRTLE BEACH, SOUTH CAROLINA

CH 32 165 KW (MAX-DA) 186 M

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

Figure 3



PREDICTED COVERAGE CONTOURS

STATION WMBF-DT

MYRTLE BEACH, SOUTH CAROLINA

CH 32 165 KW (MAX-DA) 186 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida



Date	22 Aug 2006		
Call Letters	WMBF-DT	Channel	32
Location	Myrtle Beach, SC		
Customer			
Antenna Type	TFU-22GTH 6T170		

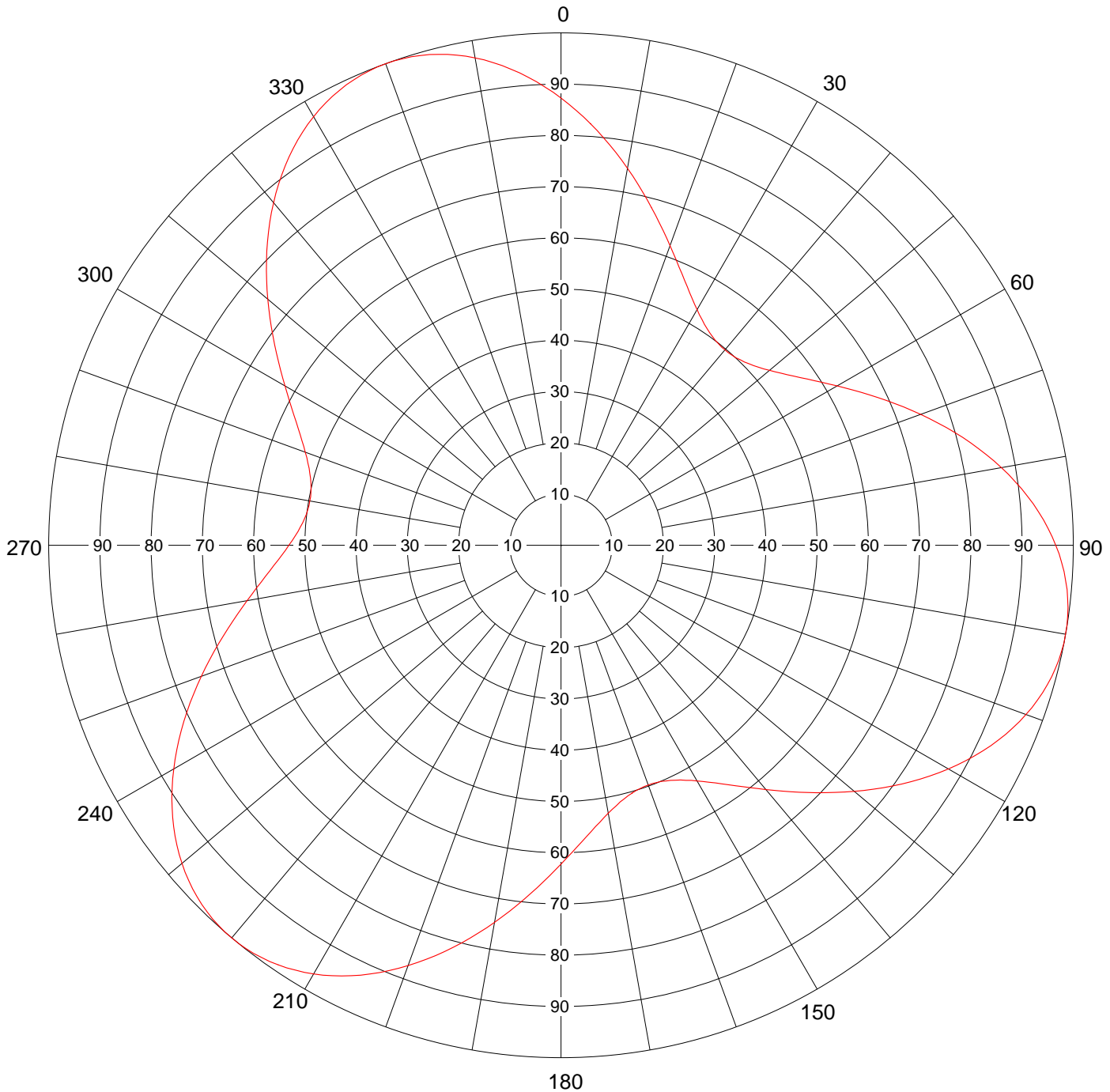
AZIMUTH PATTERN

Gain
Calculated / Measured

1.70 (2.30 dB)
Calculated

Frequency
Drawing #

581 MHz
TFU-6T170



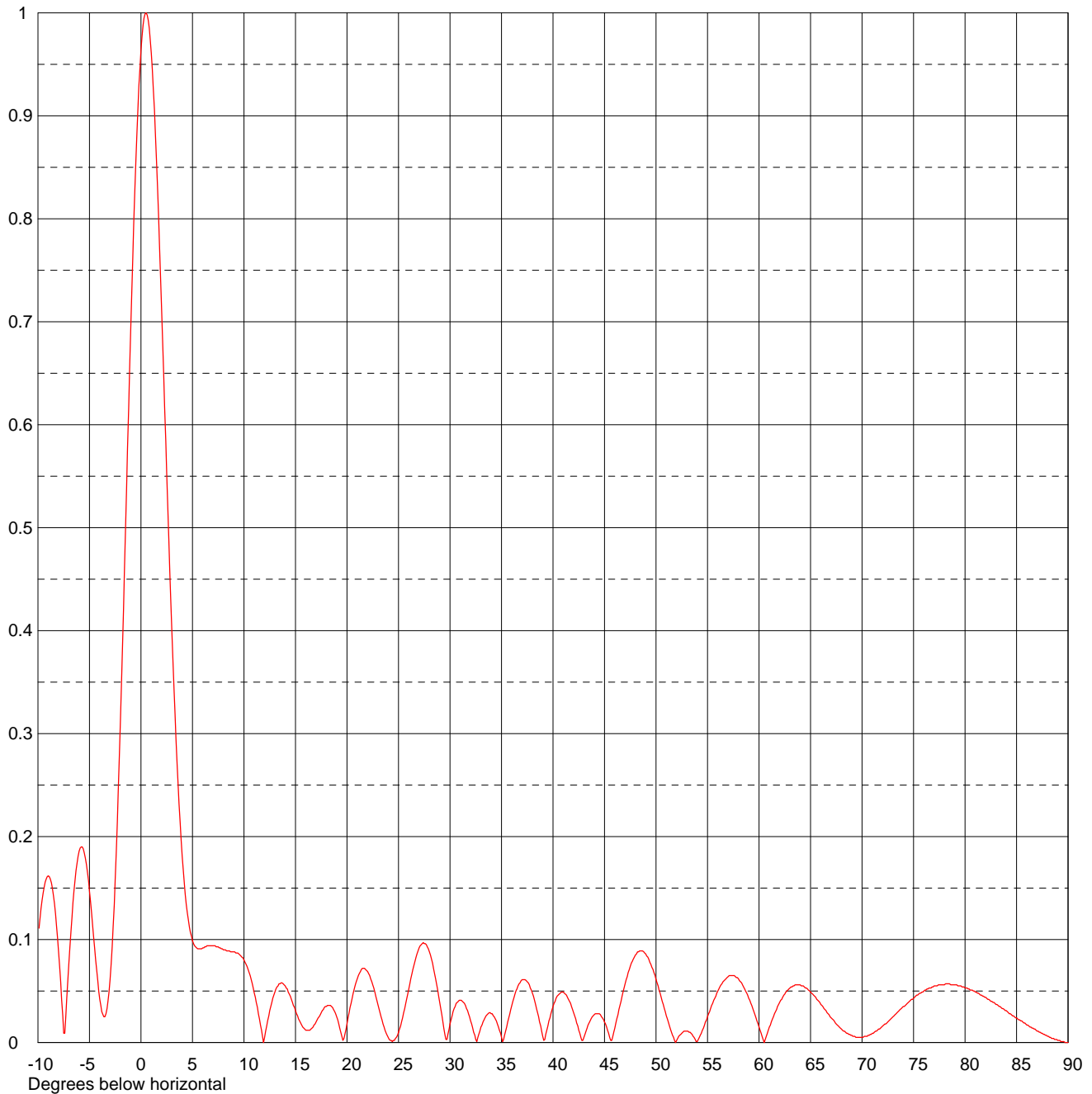
Remarks:



Date	22 Aug 2006		
Call Letters	WMBF-DT	Channel	32
Location	Myrtle Beach, SC		
Customer			
Antenna Type	TFU-22GTH 6T170		

ELEVATION PATTERN

RMS Gain at Main Lobe	19.0 (12.79 dB)	Beam Tilt	0.50 Degrees
RMS Gain at Horizontal	17.7 (12.48 dB)	Frequency	581.00 MHz
Calculated / Measured	Calculated	Drawing #	22G190050-90



Remarks: