TECHNICAL EXHIBIT
MINOR MODIFICATION OF CONSTRUCTION PERMIT
STATION WBSG-DT (FACILITY ID 71236)
BRUNSWICK, GEORGIA

JUNE 25, 2001

CH 24 650 KW (MAX-DA) 403 M

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Technical Narrative

This Technical Exhibit supports a minor modification of construction permit for digital television (DTV) station WBSG-DT on channel 24 at Brunswick, Georgia. Station WBSG-DT is authorized (CP) to operate with a directional antenna maximum effective radiated power (ERP) of 17 kW and an antenna height above average terrain (HAAT) of 295 meters (BPCDT-19991026ACI).

Proposed Facilities

This minor modification proposes changes to the current authorization that include (1) increase ERP, (2) increase antenna HAAT, (3) change directional antenna pattern and (4) change transmitter site location (coordinates). Operation at a new transmitter site (coordinates: 30-49-17 N, 81-44-13 W) with a directional antenna maximum ERP of 650 kW and antenna HAAT of 403 meters is hereby proposed (*tower registration no. 1027315*).

The proposed transmitter site is more than 1,200 kilometers from the closest point of the Canadian border. The site is more than 1,100 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is at Vero Beach, Florida, approximately 373 kilometers to the south-southeast. The closest point of the National Radio Quiet Zone (VA/WV) is more than 700 kilometers to the north. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 2,300 kilometers to the northwest. The closest radio astronomy site operating on TV channel 37 is at Green Bank, West Virginia, more than

800 kilometers to the north. These separations are sufficient to not be a concern for coordination purposes.

Allocation Study

Interference calculations have been made using the procedures outlined in the FCC's OET-69 bulletin, using a 2 kilometer grid spacing. The proposed WBSG-DT operation does not cause excessive (greater than 2%, up to 10% total) calculated interference to any analog or DTV assignment and therefore complies with the FCC's 2%/10% interference standard. Below is the list of stations considered in the OET-69 analysis.

Stations Potentially Affected by WBSG-DT

Chan	Call	City/State	Bear(°T)	Dist(km)	Status	App. Ref. No.
17	WJWB	JACKSONVILLE FL	165	62.8	LIC	BLCT-19891228KH
21	WBSG-TV	BRUNSWICK GA	332	40.2	LIC	BLCT-19900412KE
21	WBSG-TV	BRUNSWICK GA	332	40.2	CP	BPCT-19960206KG
23	WJCL-DT	SAVANNAH GA	15	142.6	CP	BPCDT-19981120KE
23	WJCL-DT	SAVANNAH GA	15	142.6	PLN	DTVPLN-DTVP0491
24	NEW -DT	TUSKEGEE AL	290	422.6	PLN	DTVPLN-DTVP0521
24	WMFE-TV	ORLANDO FL	166	254.4	LIC	BLET-396
24	WTSP	ST. PETERSBURG FL	199	309.4	CP MOD	BMPCDT-20000501AFO
24	WTSP-DT	ST. PETERSBURG FL	199	309.4	PLN	DTVPLN-DTVP0528
24	960610KG	TALLAHASSEE FL	260	279.8	CP MOD	BMPCT-20000613ABA
24	WGXA	MACON GA	322	274.9	LIC	BLCT-19820430KK
24	WTAT-TV	CHARLESTON SC	39	304.2	LIC	BLCT-19900418KE
25	WJXX	ORANGE PARK FL	185	83.3	LIC	BLCT-19971016KF
28	WTGS	HARDEEVILLE SC	15	141.3	LIC	BLCT-19900212KH

Class A Consideration

The FCC's CDBS and its list of low power television (LPTV) assignments eligible for Class A status has been reviewed for potential impact. Interference calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin. The proposed WBSG-DT operation does not cause any calculated interference to any current or potential Class A station. If necessary, a waiver of the FCC rules is requested based on use of the FCC's OET-69 procedures to demonstrate no interference to LPTV assignments requesting Class A status.

Radiofrequency Electromagnetic Field Exposure

The proposed WBSG-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 403.9 meters above ground level. The maximum DTV ERP is 650 kW. A conservative relative field value of 0.15 was used for the calculation (see Figure 2C). Therefore, the "worst-case" calculated power density at a point 2 meters above ground level is 0.0030 mW/cm^2. This is less than 1% of the FCC's recommended limit of 0.36 mW/cm^2 for channel 24 for an "uncontrolled" environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. As this is a multi-user site an agreement will control access. 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 clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down. The proposed WBSG-DT operation appears to be otherwise categorically excluded from environmental processing.

If there are questions concerning the technical portion of this application, please contact the office of the undersigned.

Jonathan N. Edwards

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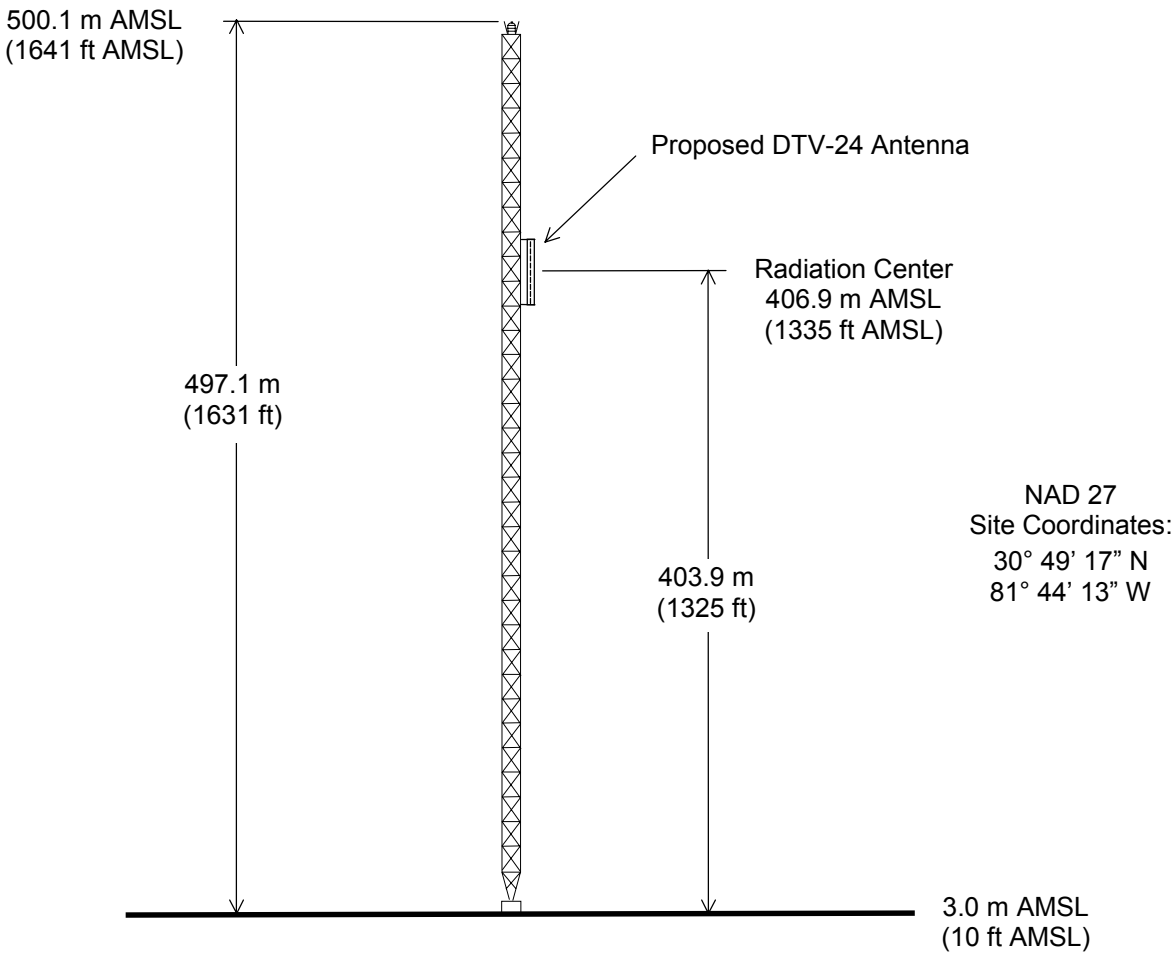
Sarasota, Florida 34237
(941) 329-6000

June 25, 2001

CONSULTING ENGINEERS SINCE 1941
June 2001

Registration No. 1027315



Not to Scale

ANTENNA AND SUPPORTING STRUCTURE

STATION WBSG-DT

BRUNSWICK, GEORGIA

CH 24 650 KW (MAX-DA) 403 M

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

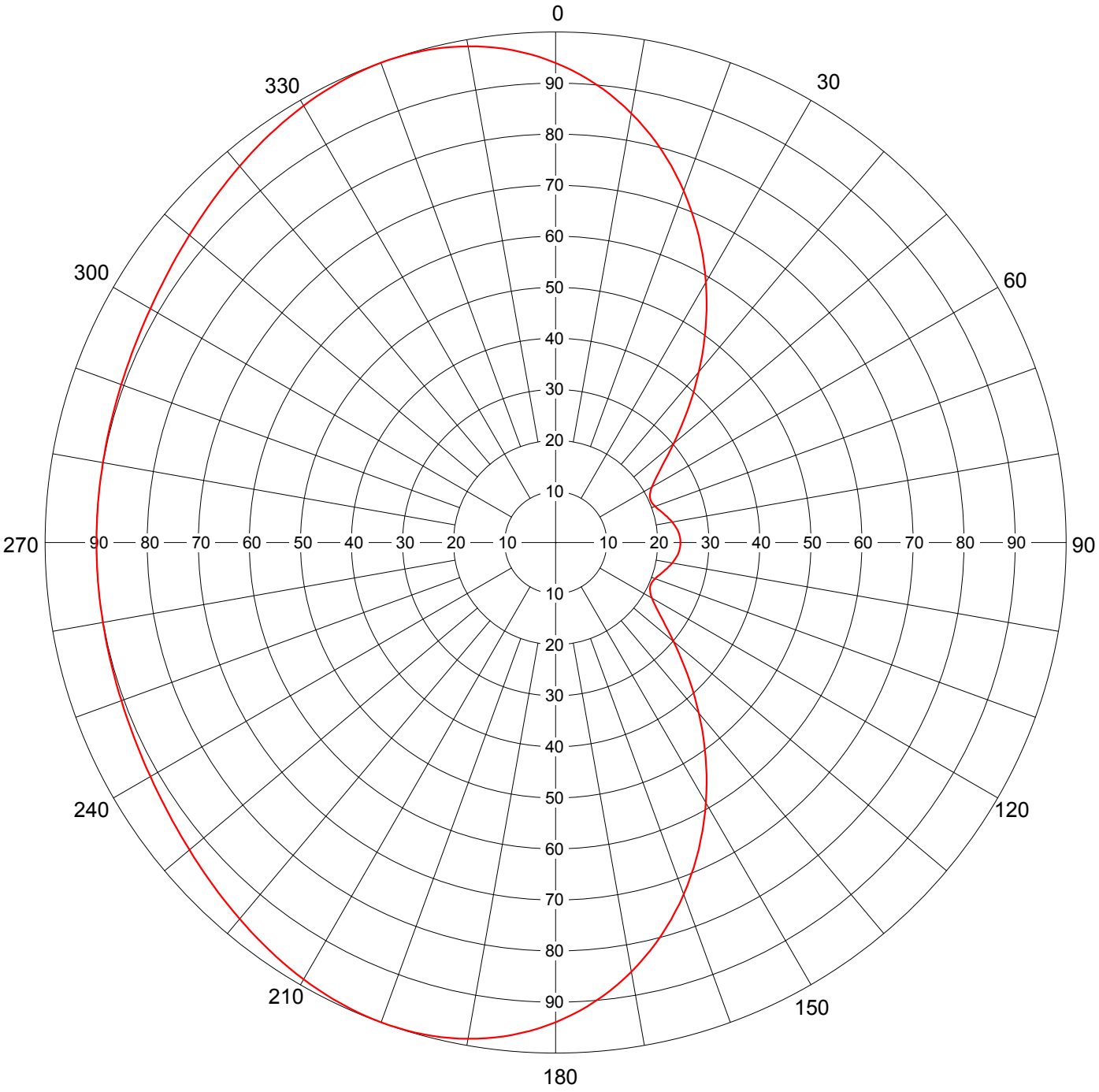
Exhibit No.
Figure 2A

Dielectric

Date	**23 Jun 2001**		
Call Letters	**WBSG-DT**	Channel	**24**
Location	**Brunswick, GA**		
Customer			
Antenna Type	**TFU-24DSC-R C170**		

AZIMUTH PATTERN

RMS Gain at Main Lobe	**1.70 (2.30 dB)**	Frequency	**533 MHz**
Calculated / Measured	**Calculated**	Drawing #	**TFU-C170**



Remarks:

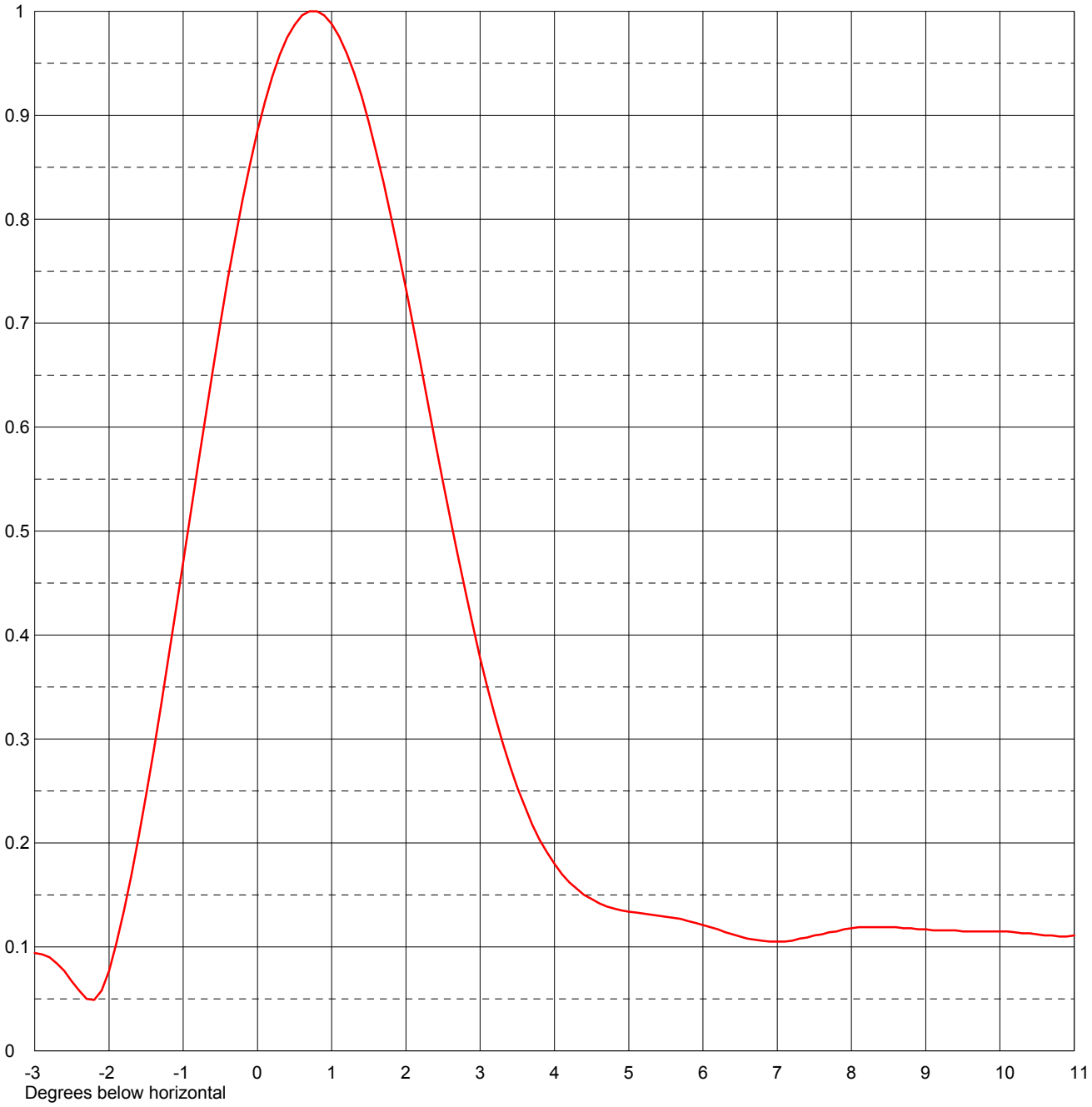
Exhibit No.
Figure 2B

Dielectric

Date	**23 Jun 2001**		
Call Letters	**WBSG-DT**	Channel	**24**
Location	**Brunswick, GA**		
Customer			
Antenna Type	**TFU-24DSC-R C170**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**19.0 (12.79 dB)**	Beam Tilt	**0.75 Degrees**
RMS Gain at Horizontal	**14.9 (11.73 dB)**	Frequency	**533.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**24Q190075**



Remarks:

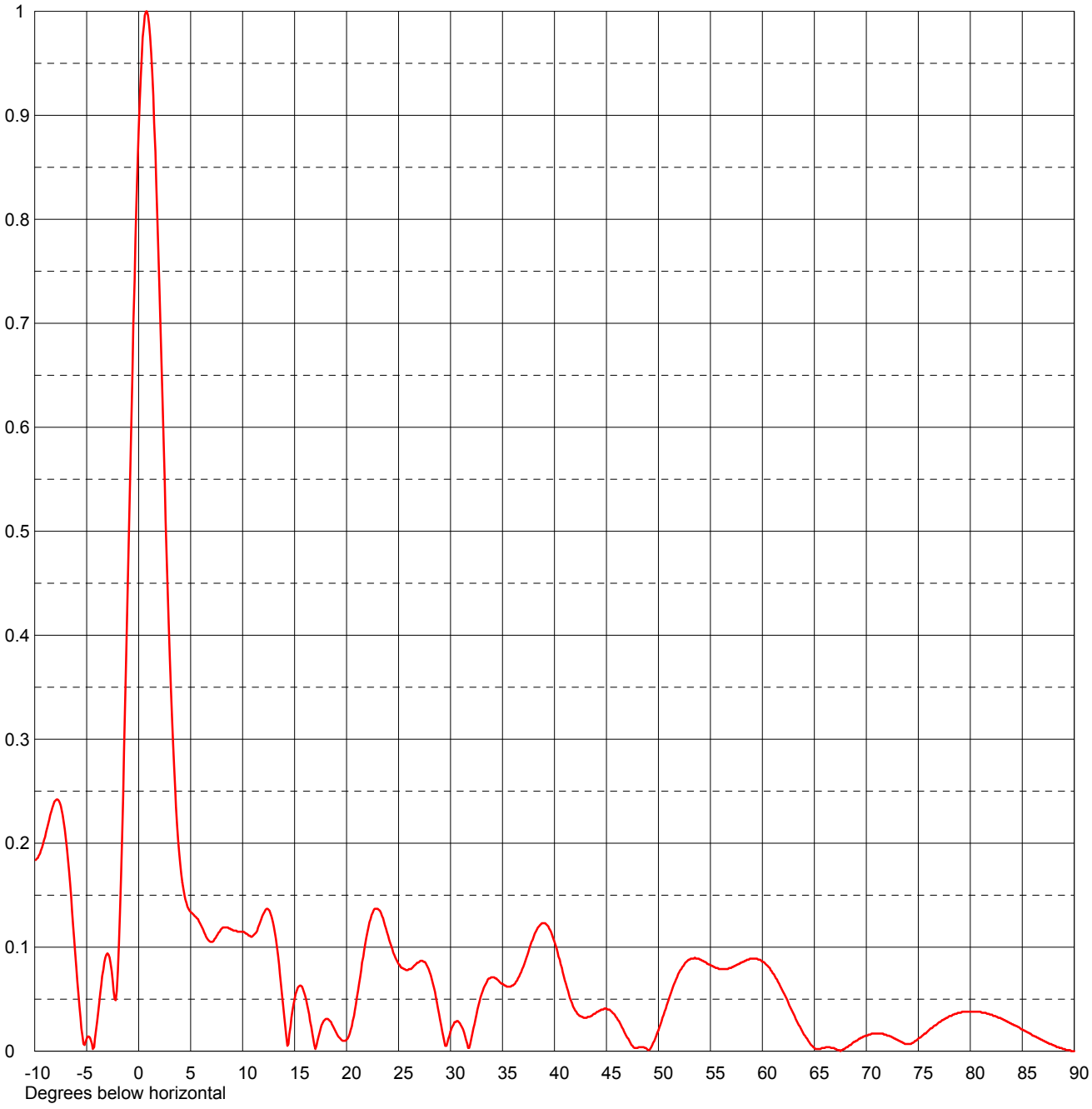
Exhibit No.
Figure 2C

Dielectric

Date	**23 Jun 2001**		
Call Letters	**WBSG-DT**	Channel	**24**
Location	**Brunswick, GA**		
Customer			
Antenna Type	**TFU-24DSC-R C170**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**19.0 (12.79 dB)**	Beam Tilt	**0.75 Degrees**
RMS Gain at Horizontal	**14.9 (11.73 dB)**	Frequency	**533.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**24Q190075-90**



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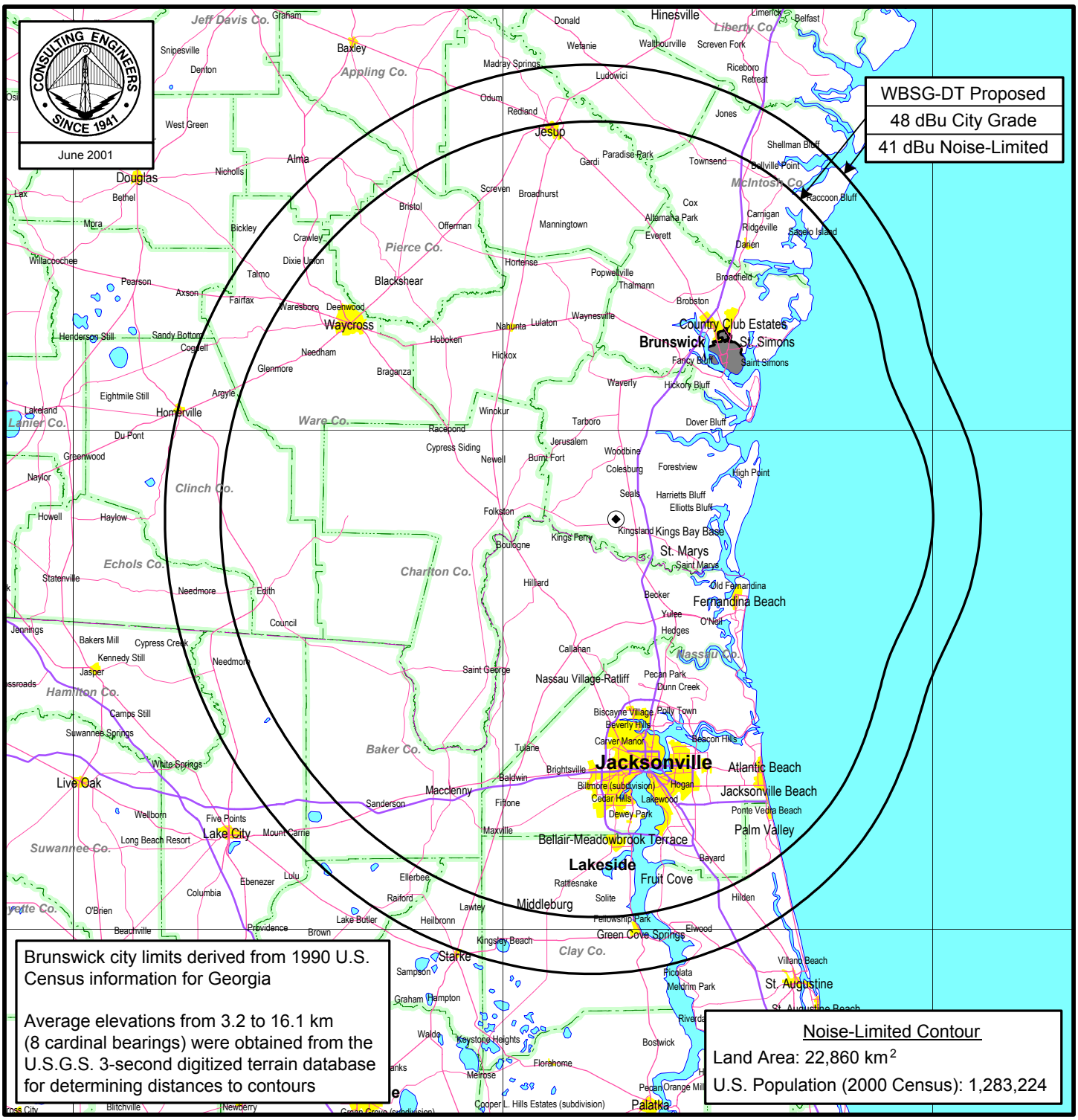

PREDICTED F(50,90) COVERAGE CONTOURS

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Technical Specifications

Channel	24
Frequency	530-536 MHz
Proposed Site Coordinates (NAD 27)	30° 49' 17" North Latitude 81° 44' 13" West Longitude
Site Elevation above mean sea level	3.0 m
Average elevation above mean sea level of 8 equally spaced radials, 3-16 kilometers	3.9 m
Overall height of antenna structure	
Above ground	497.1 m
Above mean sea level	500.1 m
Height of antenna radiation center	
Above ground	403.9 m
Above mean sea level	406.9 m
Above average terrain	403 m
Transmitter rated power output (average)	30 kW
Transmission line	EIA Style Rigid TL
Length	(1375 ft) 419 m
Efficiency (1.54 dB loss)	70.1%
Antenna	Dielectric TFU-24DSC-R C170
Polarization	Horizontal
Peak Power Gain	32.3
Beam Tilt (electrical)	0.75±
Main Lobes	200° & 340° T

Proposed Operation

Transmitter output power (average)	28.7 kW
Transmission line loss	8.6 kW
Antenna input power	20.1 kW
Maximum Effective Radiated Power (MAX-DA)	650 kW