TECHNICAL EXHIBIT
APPLICATION FOR DTV CONSTRUCTION PERMIT
DTV STATION WFGC
FACILITY ID: 11123
PALM BEACH, FLORIDA
CH 49 1000 KW (MAX-DA) 123 M

Technical Narrative

This technical exhibit was prepared in support of an application for construction permit for DTV station WFGC(TV), at Palm Beach, Florida. Station WFGC is currently licensed for digital operation on channel 49 (680-686 MHz) with a maximum directional visual effective radiated power (ERP) of 800 kilowatts (kW) and an antenna radiation center height above average terrain (HAAT) of 125 meters. By means of this application, WFGC(TV) proposes to increase its maximum directional ERP to 1000 kilowatts and correct the antenna radiation center height above mean sea level (RCAML) and site elevation. No other changes are proposed.

Station WFGC(TV) proposes to operate from its licensed site location with a maximum directional ERP of 1000 kilowatts, employing its currently licensed MCI UV-01/36 directional antenna. The transmitter site is located at 10500 60th St. Royal Palm Beach, Florida. The site location is uniquely described by the following coordinates, N26° 45′ 47″ W80° 12′ 19″.

The MCI UTV-01/36 horizontally polarized panel antenna is side-mounted on an existing 134.7 meter (442 foot tower/antenna structure). The antenna is oriented such that the major lobes are at 0° and 180° true.

Figure 1 is a tower sketch showing the location of the proposed WFGC-DT antenna system. The FCC Tower Registration number for the existing structure is 1018586.

Figure 2 provides the vertical pattern for the MCI UTV-01/36 directional antenna system.

AM station WJNO(AM) on 1290 at West Palm Beach, Florida, is the only AM station within 5 kilometers (3 miles) of the proposed transmitter site. The following is a tabulation of authorized FM stations and full service DTV stations within 16 kilometers (10 miles) of the proposed DTV site.

Call Sign	**City**	**State**	**Channel**	**Distance (km)**
WIRK-FM	West Palm Beach	FL	300C1	0
WEAT-FM	West Palm Beach	FL	282C	6.1
WAFC-FM	Palm Beach Gardens	FL	258A	12.6
WOLL	Hobe Sound	FL	288C2	12.6
WZZR	Riviera Beach	FL	232C2	12.6
WRLX	West Palm Beach	FL	221C3	13.5
WNEW	Jupiter	FL	292C3	13.5
Call Sign	**City**	**State**	**Channel**	**Distance (km)**
WHDT-DR	Stuart	FL	42	13.1

Although no prohibitive electromagnetic interference is expected, the applicant recognizes its responsibility to correct problems, which may arise due to its proposed operation.

The proposed transmitter site is approximately 1667 kilometers from the closest point of the Canadian

border. The proposed site is 897 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is at Vero Beach, Florida, approximately 103 kilometers to the northwest. The proposed site is outside the National Radio Quiet Zone (VA/WVA), the closest point being 1191 kilometers to the north. The closest point of the Table Mountain Radio Quiet Zone (CO) is approximately 2758 kilometers to the northwest. The closest radio astronomy site operating on TV channel 37 is at Green Bank, West Virginia, approximately 1295 kilometers to the north. These separations are sufficient to not be a concern for coordination purposes.

Coverage Contours

Figure 3 is a map showing the FCC Predicted 41 dBu f(50,90) and 48 dBu f(50,90) contours for the proposed WFGC-DT operation. The extent of the contours has been calculated using the normal FCC prediction method and employing the USGS 3-second terrain database. The Palm Beach city limits were derived from information contained in the 2000 U.S. Census for Florida.

City Grade Contour encompasses 100% of Palm Beach. The limits of Palm Beach are identified and are based on information contained in the 2000 Census for Florida.

Domestic Allocation Considerations

The proposed WFGC-DT operation meets the FCC’s 0.5% post-transition interference standards to pertinent Class A and DTV facilities using the procedures outlined in

the FCC's OET-69 Bulletin and a standard 1 kilometer cell size and 1 kilometer terrain distance increment.

Environmental Consideration

The proposed 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 122 meters above ground level. The maximum DTV ERP is 1000 kW (horizontal polarization). A vertical plane relative field value of 0.19 (for angles below 50 degrees downward) was presumed for the antenna's downward radiation (see Figure 2). The calculated power density at a point 2 meters above ground level is 0.0837 mW/cm^2. This is 3.68% of the FCC's recommended limit of 0.455 mW/cm^2 for channel 49 for a "controlled" environment. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

Based on information from an agent of the applicant, the site is considered a controlled site as it is enclosed by a barbed wire fence. The nearest point of he fence is approximately 200 yards from the WFGC tower. In addition, there is a 8 foot high chain-linked fence around the WFGC tower, the closest point of the fence is approximately 20 feet from the tower.

As mentioned above, access to the transmitting site is restricted. The site is also appropriately marked with RFR warning signs. As this is a multi-user site, an agreement will be in effect with the other stations in the event that workers or other authorized personnel enter the restricted area 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.

Finally, it is noted that this technical exhibit only addresses the potential for radio frequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already has been provided to the FCC by the tower owner as part of the tower registration process.

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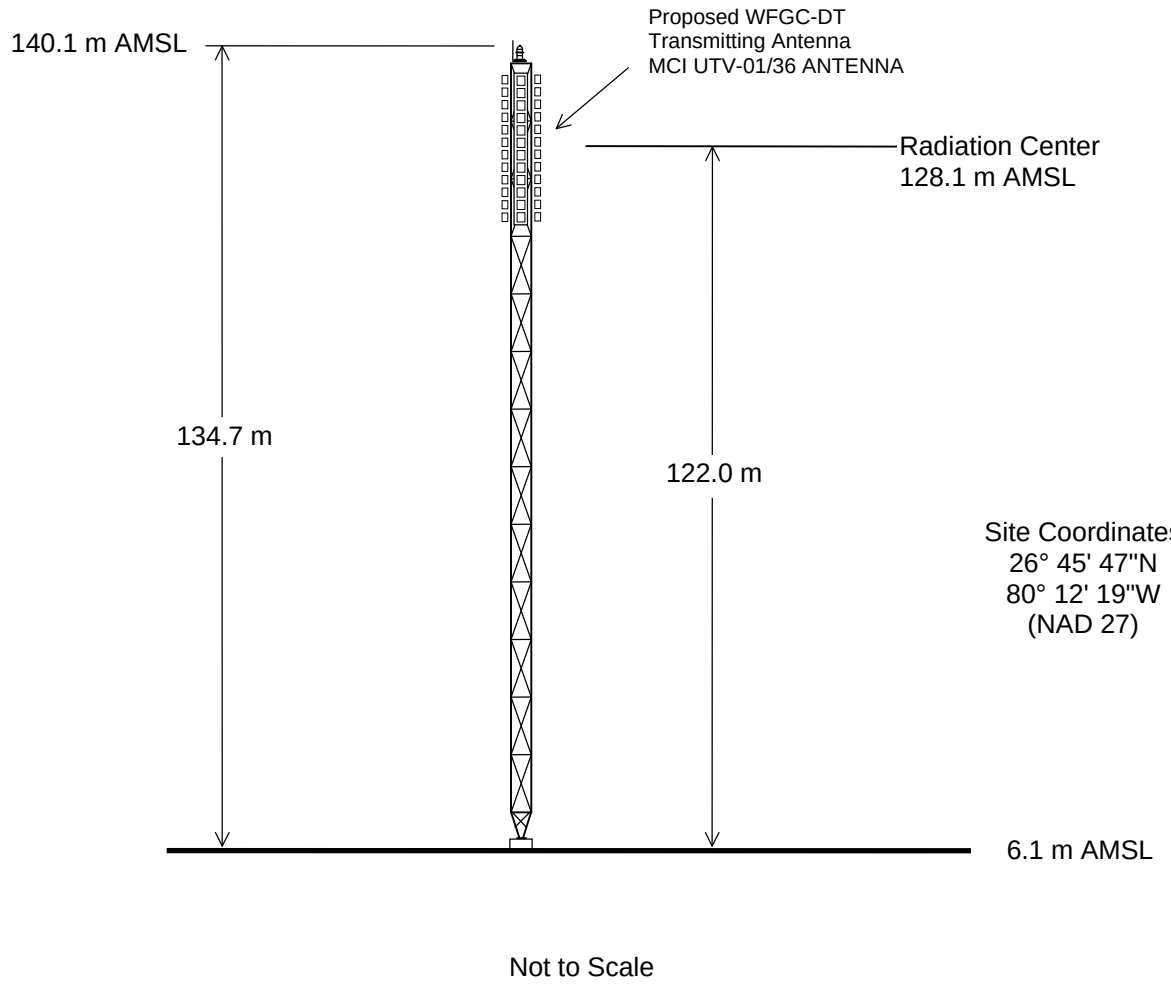
Figure 1

FCC Tower ID: 1018586



Not to Scale

PROPOSED ANTENNA AND SUPPORTING STRUCTURE

STATION WFGC-DT

PALM BEACH, FLORIDA

CHANNEL 49 1000 KW (MAX-DA) 123 M

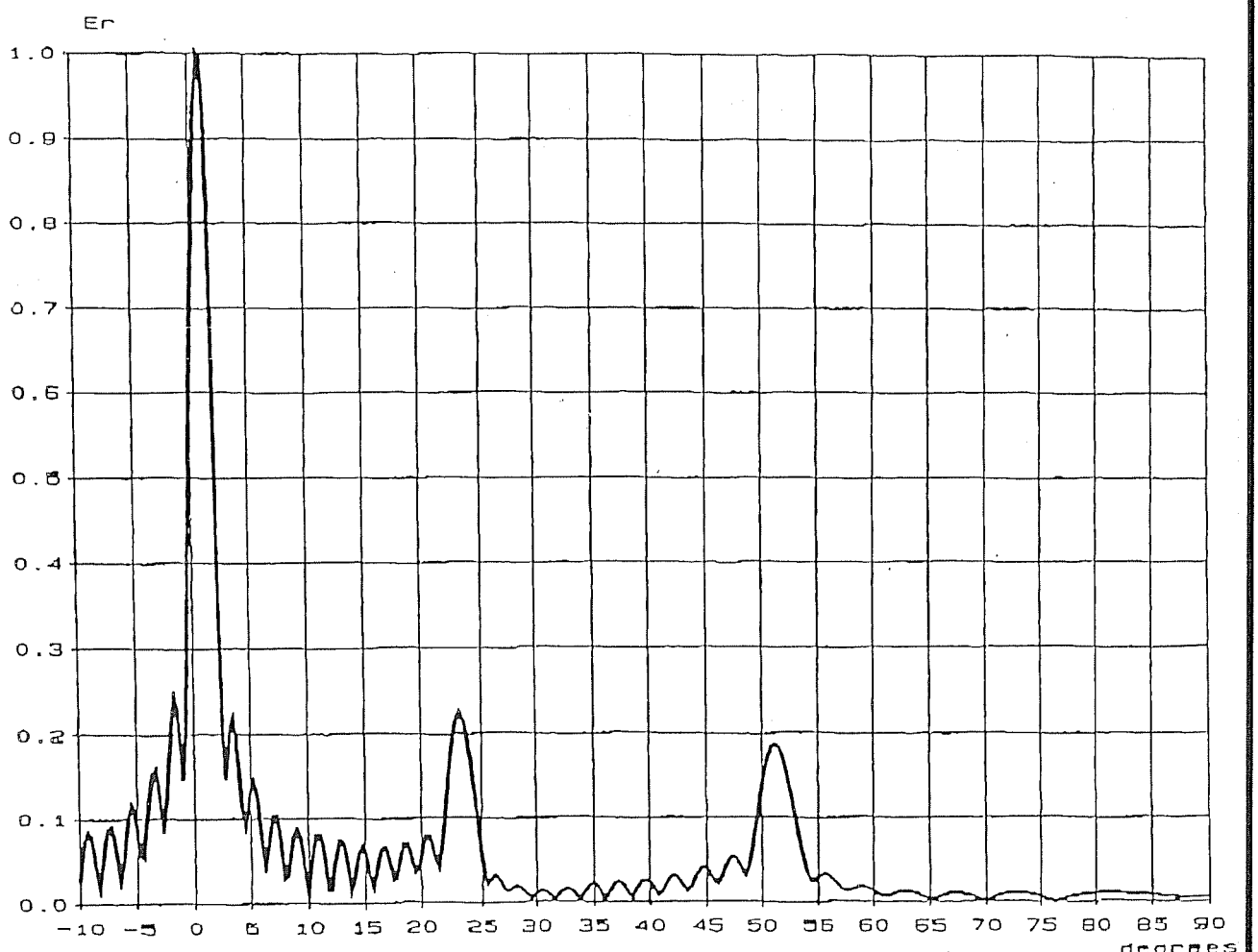
du Treil, Lundin & Rackley, Inc. Sarasota, Florida

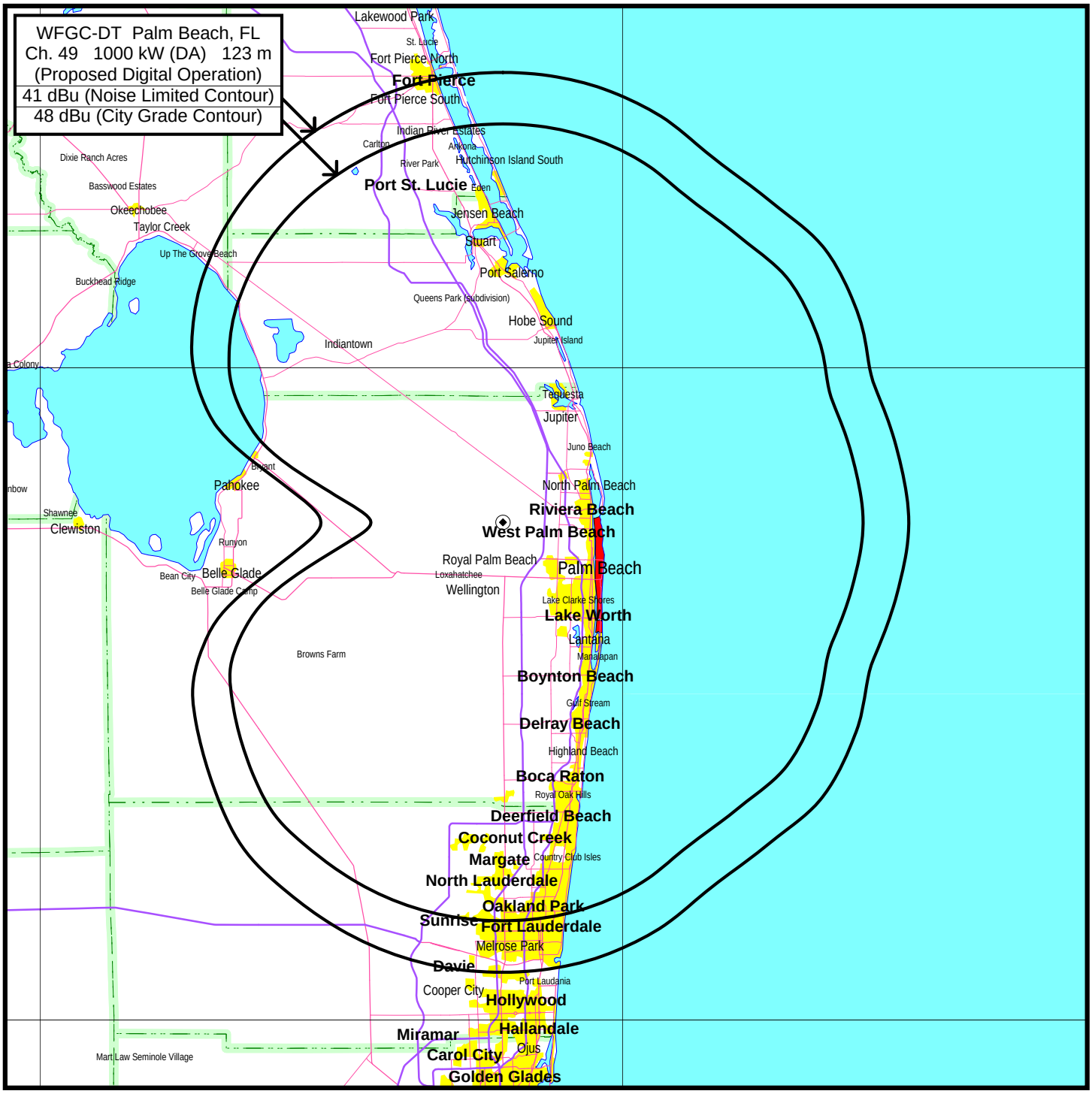
ANTENNA TYPE UTV-01/36 (12x3)
PALM BEACH - FLORIDA -
HORIZONTAL POLARIZATION

THEORETICAL VERTICAL PATTERN

(Linear scale)

FCC Channel 49 Total antenna





FCC PREDICTED COVERAGE CONTOURS

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