

TECHNICAL EXHIBIT  
DISPLACEMENT RELIEF  
APPLICATION FOR CONSTRUCTION PERMIT  
LOW POWER TV STATION W27CB  
FACILITY ID 49882  
HEMPSTEAD, NEW YORK  
CH 26 12 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of a displacement relief application for construction permit for Low Power TV (LPTV) station W27CB at Hempstead, New York (Facility ID: 49882; FCC File No. BMPTTL-20010130AAW).

Station W27CB is currently licensed (BLTTL-20010409ABA) to operate on NTSC channel 27 with a directional antenna maximum effective radiated power (ERP) of 1.25 kW and an antenna radiation center height above mean sea level (RCAMSL) of 84 meters. However, W27CB is considered displaced by the licensed (BLCDDT-20030930ACY) DTV operation of station WTBY-DT on channel 27 at Poughkeepsie, New York. Co-channel DTV station WTBY-DT is located only 88.2 kilometers from the licensed W27CB site. Thus the W27CB facility is considered displaced. This application is considered a "minor change" in facilities pursuant to Section 73.3572, as it is a displacement relief application and the proposed 74 dBu contour will overlap a portion of the licensed 74 dBu contour (Figure 1).

Station W27CB proposes to operate with facilities that were formerly authorized in BMPTTL-20010130AAW. Specifically, W27CB proposes to operate on channel 26 from its licensed site with a "zero" carrier frequency offset and to employ a PSI PSILP16WCB/27 directional antenna with a maximum directional ERP of 12 kilowatts and an antenna radiation center height above mean sea level (RCAMSL) of 117.6 meters.

Response to Paragraph 13(a) - TV Broadcast Analog Protection

A study has been conducted using the provisions of Section 74.705 which indicates that the proposed W27CB operation will not create prohibited interference to other existing, authorized or proposed NTSC full-power stations except with respect to NTSC station WLIW on channel 21 at Garden City, New

York. However, based on consideration of terrain shielding and the provisions of the OET-69 Bulletin as permitted by FCC rules [Section 74.705(e)], it is believed that W27CB's operation complies with the FCC's interference criteria. Specifically, calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin and a 2 square kilometer grid. The results of the OET Bulletin No. 69 interference analyses are tabulated below.

Protected TV Station	Service Population	Proposed Interference Population
WNYE-TV, NTSC Ch. 25 New York, NY Licensed (BLET-19920220KG)	--	No Interference Caused

Response to Paragraph 13(b) - DTV Station Protection

Calculations based on OET Bulletin No. 69 indicate that the proposed W27CB operation on channel 26 will not cause any (0.0%) interference to any allotted, proposed or actual DTV operating facilities on channels 25, 26 or 27.

Response to Paragraph 13(c)-LPTV/TV Translator/Class A Protection

A study has been conducted using the provisions of Section 74.707 which indicates that the W27CB proposal will not create prohibited interference to other existing, authorized or proposed LPTV, TV translator, or Class A stations.

Response to Paragraph 14 - Environmental Protection Act

The proposed W27CB facilities were evaluated in terms of potential radiofrequency radiation exposure at ground level in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation."<sup>1</sup> The calculated power density at 2 meters above ground level at the base of the tower was calculated using the


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<sup>1</sup> See *Report and Order* in ET Docket 93-62, FCC 96-326, adopted August 1, 1996, 11 FCC Rcd 15123 (1997). See also *First Memorandum Opinion and Order*, ET Docket 93-62, FCC 96-487, adopted December 23, 1996, 11 FCC Rcd 17512 (1997), and *Second Memorandum Opinion and Order and Notice of Proposed Rulemaking*, ET Docket 93-62, FCC 97-303, adopted August 25, 1997.

appropriate equation of the Bulletin. Using a greater than expected vertical relative field value of 0.4, a peak visual effective radiated power of 12 kW, 10 percent aural power, and an antenna center of radiation height above ground level of 45.73. meters, the calculated power density at 2 meters above ground level at the base of the tower is 0.0168 milliwatt per square centimeter ( $\text{mW}/\text{cm}^2$ ), or 4.62 percent of the Commission's recommended limit for an "uncontrolled" environment ( $0.36 \text{ mW}/\text{cm}^2$  for TV channel 26). Therefore, it is believed the proposed facility complies with the FCC's RF emission rules.

Access to the transmitting site will be restricted and appropriately marked with warning signs. Furthermore, as this is a multi-user site, an agreement will be in place to ensure that 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.

In addition, it appears that the proposal is otherwise excluded from environmental processing as it complies with all the criteria for such an exclusion in Section 1.1306.

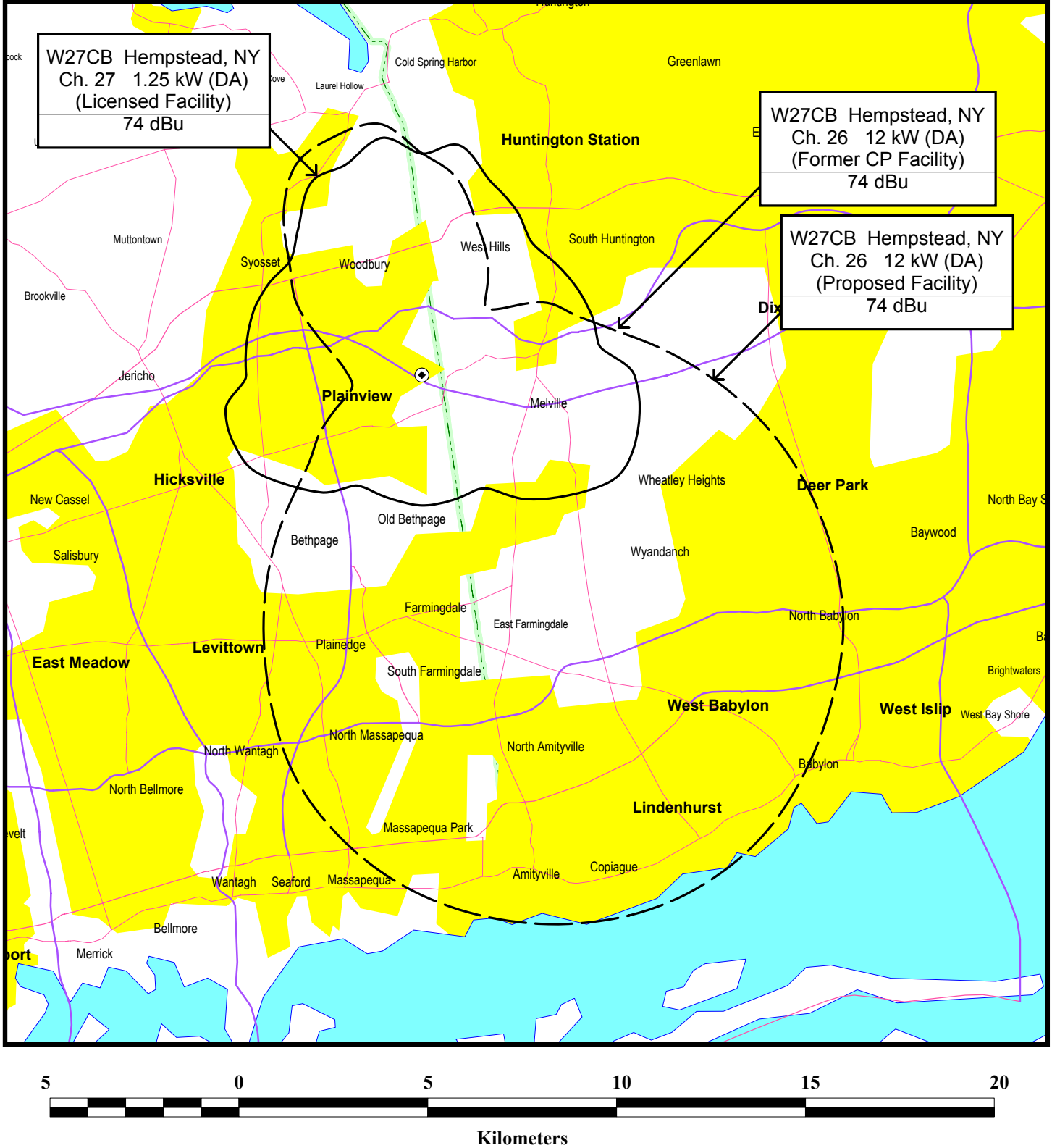


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Figure 1



## FCC PREDICTED 74 dBu CONTOURS

LPTV STATION W27CB  
HEMPSTEAD, NEW YORK  
CH 26 12 KW (MAX-DA)

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