

TECHNICAL EXHIBIT
APPLICATION FOR
MODIFICATION OF CONSTRUCTION PERMIT
FCC FILE NO. BPTTL-20021112AAX
CLASS A STATION W28CT
FACILITY ID 2650
HARTFORD, CONNECTICUT
CH 28 5 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an application for modification of construction permit for Class A station W28CT on channel 28 at Hartford, Connecticut (Facility ID: 2650; File No. BPTTL-20021112AAX. W28CT was licensed (BLTVL-19910219JK) as an LPTV station on channel 11 (198-204 MHz) at Hartford, Connecticut, however since then, it has been authorized by construction permit (BPTLL-20021112AAX) to operate as a Class A station on channel 28 (554-560 MHz). This application proposes to modify the channel 28 construction permit.

Specifically, W28CT proposes to change transmitter site location, to decrease its maximum directional effective radiated power (ERP), to decrease its antenna radiation center above mean sea level, and to change its directional antenna system. No other changes are proposed, including no change in channel (28), frequency offset designation (z), or community of license (Hartford).

Freeze Compliance

This application can be accepted for filing as it does not request a change which is considered "frozen" by the FCC's Public Notice (DA 04-2446) released August 3, 2004, *Freeze on the Filing of Certain TV and DTV Requests for Allotment or Service Area Changes*. Specifically, the proposed facilities will not result in an extension of the authorized 74 dBu contour as depicted on Figure 1.

Proposed Operation

It is proposed to operate on channel 28 with a "zero" carrier frequency offset, a directional antenna maximum

ERP of 5 kW and an RCAMSL of 361 meters. It is proposed to side-mount a Dielectric TLP-8E directional antenna (Antenna ID 29283) on an existing 75 foot (23 meter) tower. The Dielectric TLP-8E directional antenna will be oriented with the main lobe at 95 degrees true.

Response to Paragraph 4 - Antenna Registration

FAA notification or tower registration will not be required as the overall height does not exceed 200 feet (61 m), and there are no airports within 8 kilometers of the site.

Response to Paragraph 11(a) - TV Broadcast Analog Protection

A study has been conducted using the provisions of Section 74.705 which indicates that the proposed W28CT operation will not create prohibited interference to other existing, authorized or proposed TV broadcast analog (NTSC) full-power stations, except with respect to the licensed operation of station WUNI on channel 27 at Worcester, Massachusetts. However, based on consideration of terrain shielding and the provisions of the OET-69 Bulletin as permitted by FCC rules [Section 74.707(e)], it is believed that W28CT'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 NTSC Station	Service Population	Proposed Interference Population
WUNI, NTSC Ch. 27 Worcester, MA Licensed (BLCT-19991214ABC)	6,769,211	22,138 (0.33%)

As indicated in the above table, the proposed W28CT operation does not cause prohibited interference to NTSC station WUNI. Therefore, it is believed that the proposal complies with the FCC's interference standards towards these stations.

It is noted that in calculating the interference with respect to NTSC station WUNI, the DTV allotment of station

WTBY-DT on channel 27 at Poughkeepsie, New York was intentionally taken out of the analysis. This forced the processing software to consider the licensed DTV operation of station WTBY-DT in every interference scenario with respect to WUNI. It is believed that only the licensed WTBY-DT facility should be considered as part of the masking analysis, as WTBY-DT has certified on its Form 381 that it will operate post transition with its currently licensed facilities. Thus it is respectfully requested that only the licensed WTBY-DT facility be considered.

Response to Paragraph 11(b) - DTV Station Protection

Calculations based on OET Bulletin No. 69 indicate that the proposed W28CT operation on channel 28 is not predicted to cause interference to any allotted, proposed or actual DTV operating facilities on channels 27, 28 or 29.¹

Response to Paragraph 11(c) - LPTV/TV Translator, Class A Station Protection

A study has been conducted which indicates that the W28CT proposal will not create prohibited interference to other existing, authorized or proposed LPTV, TV Translator and Class A stations.

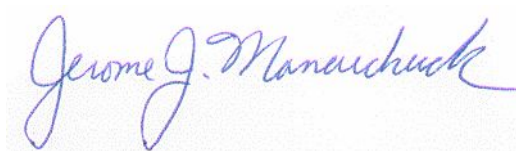
Environmental Considerations

The proposed W28CT television 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". The calculated power density at the base of the tower was calculated using the appropriate equation of the Bulletin.

¹ The du Treil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km was employed. A Sun based processor computer system was employed.

As indicated on Figure 2, the vertical plane relative field does not exceed 0.25 at angles toward the tower base (-60° to -90° elevation). Therefore, using a greater than expected vertical relative field value of 0.25 towards the tower base, a maximum visual effective radiated power of 5 kilowatts and 10 percent aural power, and an antenna center of radiation height above ground level of 14 meters, the calculated power density at 2 meters above ground level is 0.0381 milliwatt per square centimeter (mW/cm^2), or 10.3% percent of the Commission's recommended limit applicable to general population/uncontrolled exposure areas ($0.37 \text{ mW}/\text{cm}^2$ for TV channel 28). Since this is not a multi-user site and the calculated power density is less than 100% of Commission's recommended limit, it is believed the proposal complies with the RF emission limits.

Access to the transmitting site will be restricted and appropriately marked with warning signs. Furthermore, in the event that workers or other authorized personnel need access to 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.

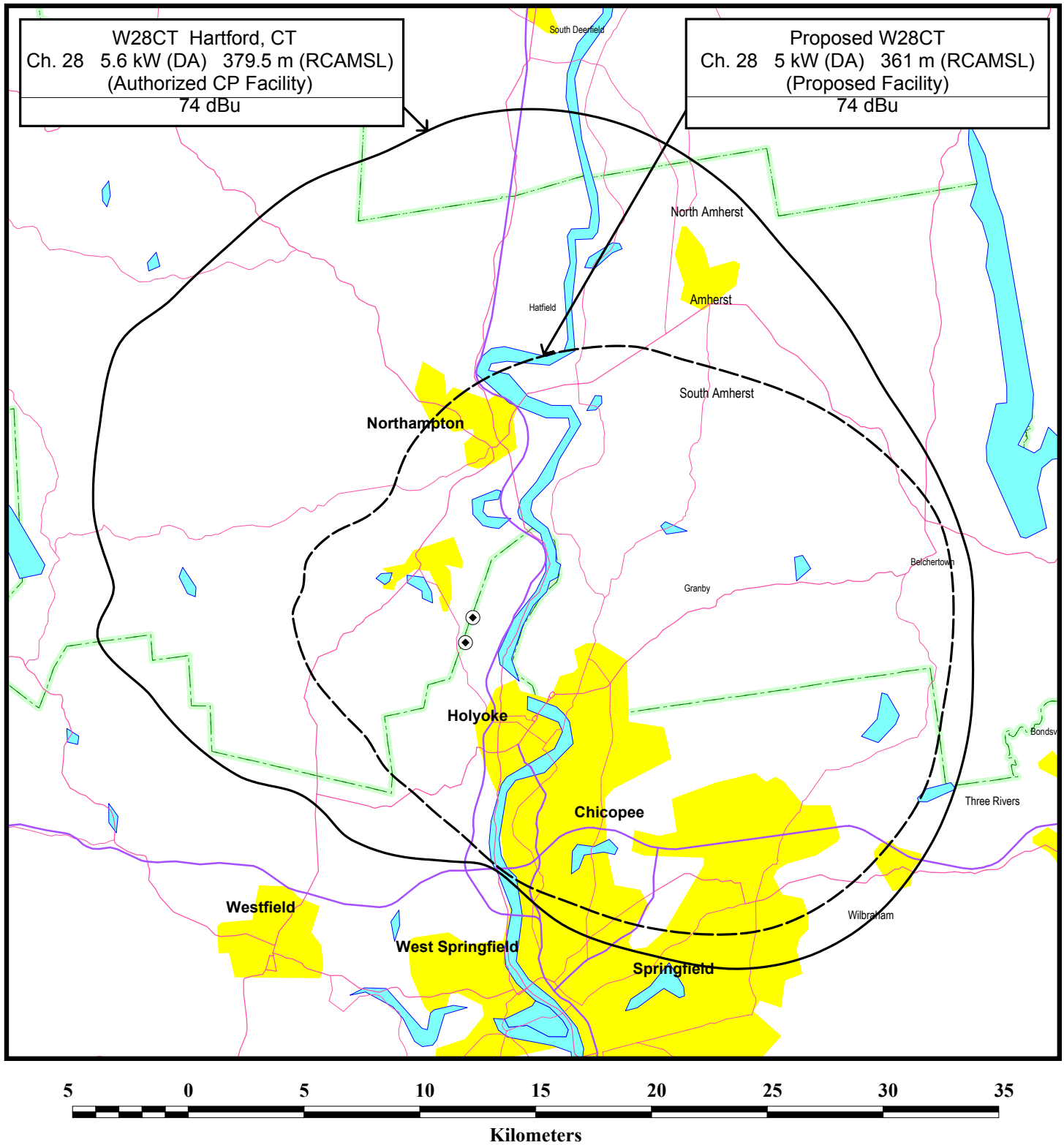


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June 8, 2005

Figure 1



FCC PREDICTED 74 dBu CONTOURS

CLASS A STATION W28CT
HARTFORD, CT
CH 28 5 KW (DA) 361 m (RCAMSL)

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

Date
Call Letters
Location
Customer
Antenna Type

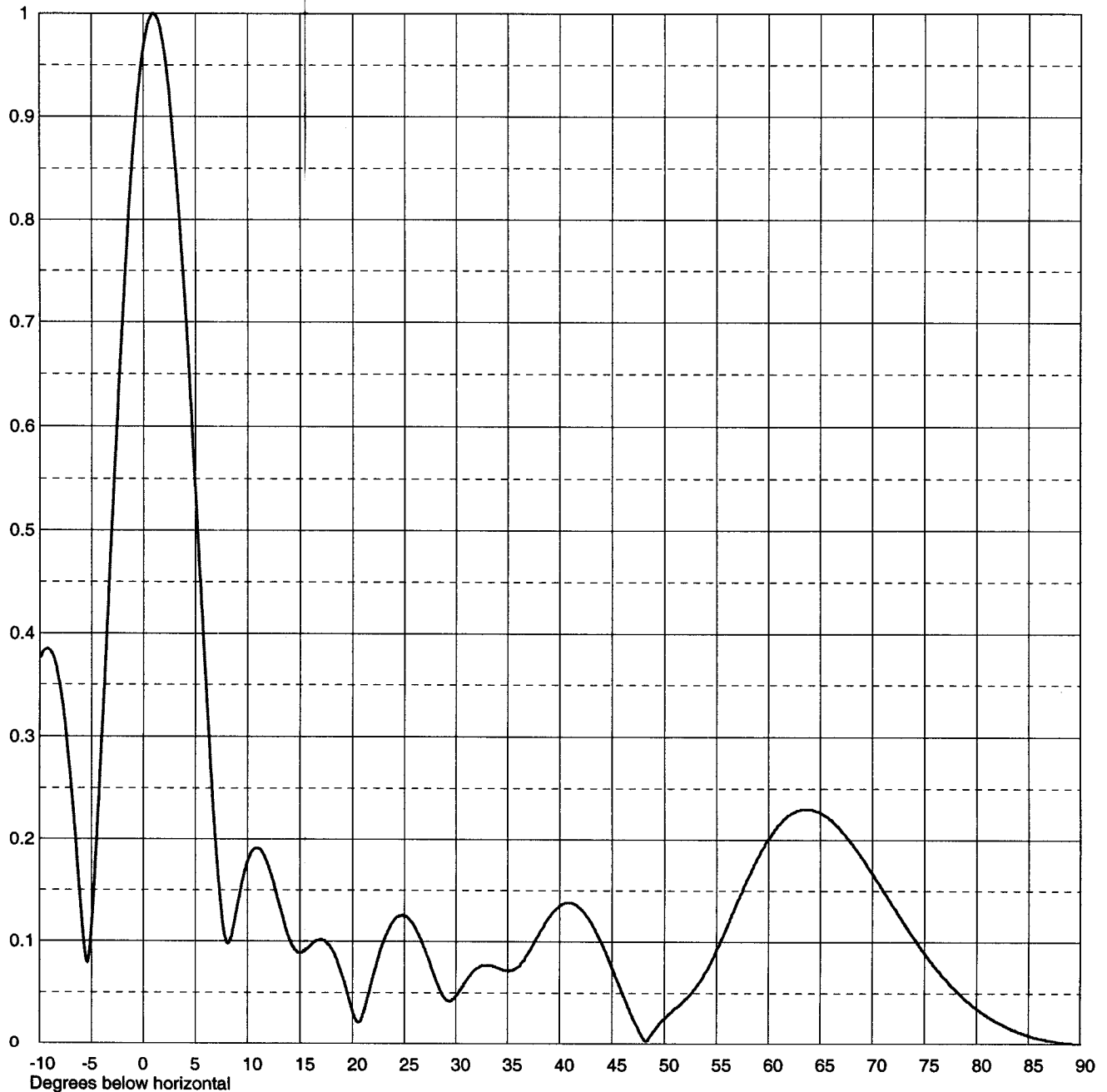
01 Jun 2005
W28CT Channel **28**
HARTFORD, CT
LIN
TLP-8E

ELEVATION PATTERN

RMS Gain at Main Lobe
RMS Gain at Horizontal
Calculated / Measured

8.0 (9.03 dB)
7.5 (8.75 dB)
Calculated

Beam Tilt **1.00 Degrees**
Frequency **557.00 MHz**
Drawing # **08L080100-90**



Remarks:



Date **01 Jun 2005**
 Call Letters **W28CT** Channel **28**
 Location **HARTFORD, CT**
 Customer **LIN**
 Antenna Type **TLP-8E**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # **08L080100-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.374	2.4	0.931	10.6	0.190	30.5	0.054	51.0	0.035	71.5	0.143
-9.5	0.384	2.6	0.911	10.8	0.191	31.0	0.062	51.5	0.039	72.0	0.135
-9.0	0.383	2.8	0.889	11.0	0.191	31.5	0.069	52.0	0.044	72.5	0.127
-8.5	0.371	3.0	0.865	11.5	0.186	32.0	0.074	52.5	0.049	73.0	0.119
-8.0	0.346	3.2	0.839	12.0	0.174	32.5	0.077	53.0	0.055	73.5	0.111
-7.5	0.308	3.4	0.811	12.5	0.157	33.0	0.077	53.5	0.063	74.0	0.104
-7.0	0.258	3.6	0.781	13.0	0.137	33.5	0.077	54.0	0.071	74.5	0.096
-6.5	0.197	3.8	0.750	13.5	0.118	34.0	0.075	54.5	0.081	75.0	0.089
-6.0	0.130	4.0	0.717	14.0	0.102	34.5	0.073	55.0	0.092	75.5	0.082
-5.5	0.081	4.2	0.683	14.5	0.092	35.0	0.072	55.5	0.103	76.0	0.076
-5.0	0.114	4.4	0.648	15.0	0.089	35.5	0.072	56.0	0.115	76.5	0.070
-4.5	0.201	4.6	0.613	15.5	0.091	36.0	0.075	56.5	0.127	77.0	0.064
-4.0	0.303	4.8	0.576	16.0	0.096	36.5	0.081	57.0	0.139	77.5	0.058
-3.5	0.408	5.0	0.539	16.5	0.100	37.0	0.089	57.5	0.150	78.0	0.053
-3.0	0.513	5.2	0.502	17.0	0.102	37.5	0.098	58.0	0.162	78.5	0.048
-2.8	0.555	5.4	0.465	17.5	0.099	38.0	0.107	58.5	0.173	79.0	0.043
-2.6	0.595	5.6	0.428	18.0	0.093	38.5	0.116	59.0	0.183	79.5	0.039
-2.4	0.634	5.8	0.392	18.5	0.082	39.0	0.124	59.5	0.192	80.0	0.035
-2.2	0.672	6.0	0.355	19.0	0.067	39.5	0.130	60.0	0.201	80.5	0.031
-2.0	0.709	6.2	0.320	19.5	0.050	40.0	0.135	60.5	0.208	81.0	0.028
-1.8	0.744	6.4	0.286	20.0	0.032	40.5	0.138	61.0	0.215	81.5	0.025
-1.6	0.778	6.6	0.253	20.5	0.021	41.0	0.138	61.5	0.220	82.0	0.022
-1.4	0.809	6.8	0.221	21.0	0.029	41.5	0.136	62.0	0.224	82.5	0.019
-1.2	0.839	7.0	0.192	21.5	0.047	42.0	0.132	62.5	0.227	83.0	0.017
-1.0	0.866	7.2	0.165	22.0	0.067	42.5	0.126	63.0	0.229	83.5	0.014
-0.8	0.891	7.4	0.141	22.5	0.085	43.0	0.119	63.5	0.230	84.0	0.012
-0.6	0.914	7.6	0.122	23.0	0.100	43.5	0.109	64.0	0.230	84.5	0.011
-0.4	0.934	7.8	0.107	23.5	0.112	44.0	0.099	64.5	0.229	85.0	0.009
-0.2	0.952	8.0	0.099	24.0	0.121	44.5	0.087	65.0	0.227	85.5	0.007
0.0	0.967	8.2	0.098	24.5	0.125	45.0	0.075	65.5	0.223	86.0	0.006
0.2	0.979	8.4	0.103	25.0	0.125	45.5	0.062	66.0	0.220	86.5	0.005
0.4	0.988	8.6	0.111	25.5	0.121	46.0	0.050	66.5	0.215	87.0	0.004
0.6	0.995	8.8	0.121	26.0	0.114	46.5	0.037	67.0	0.209	87.5	0.003
0.8	0.999	9.0	0.132	26.5	0.104	47.0	0.025	67.5	0.203	88.0	0.002
1.0	1.000	9.2	0.143	27.0	0.092	47.5	0.015	68.0	0.197	88.5	0.001
1.2	0.998	9.4	0.154	27.5	0.078	48.0	0.005	68.5	0.190	89.0	0.001
1.4	0.994	9.6	0.163	28.0	0.064	48.5	0.006	69.0	0.183	89.5	0.000
1.6	0.987	9.8	0.171	28.5	0.052	49.0	0.013	69.5	0.175	90.0	0.000
1.8	0.977	10.0	0.178	29.0	0.044	49.5	0.020	70.0	0.167		
2.0	0.964	10.2	0.183	29.5	0.042	50.0	0.025	70.5	0.159		
2.2	0.949	10.4	0.188	30.0	0.047	50.5	0.030	71.0	0.151		

Remarks: