

TECHNICAL EXHIBIT
MINOR AMENDMENT TO PENDING APPLICATION
STATION WTNZ-DT (FACILITY ID 19200)
KNOXVILLE, TENNESSEE

DECEMBER 5, 2001

CH 34 460 KW 531 M

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Table of Contents

Technical Narrative

Figure 1	Proposed Antenna and Supporting Structure
Figure 2	Vertical Antenna Pattern
Figure 3	Predicted F(50,90) Coverage Contours

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FOR CONSTRUCTION PERMIT
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Technical Narrative

This Technical Exhibit supports a minor amendment to the pending application for construction permit for digital television (DTV) station WTNZ-DT on channel 34 at Knoxville, Tennessee. Station WTNZ-DT has an application pending to operate with a directional antenna maximum effective radiated power (ERP) of 460 kW and an antenna height above average terrain (HAAT) of 529 meters (BPCDT-19991029AFI).

Proposed Facilities

This minor amendment updates the WTNZ-DT proposal to reflect the latest tower registration information. As a result of the adjusted heights, the proposed antenna HAAT will increase by 2 meters. The proposed transmitter site remains (NAD27): 36-00-13 N, 83-56-35 W. A non-directional antenna ERP of 460 kW and antenna HAAT of 531 meters is hereby proposed (*FCC tower registration no. 1052156*).

The proposed WTNZ-DT operating facilities (460 kW, 531 meters HAAT) are less than the facilities allotted to another station in the market. Station WBIR-DT on channel 31 at Knoxville was allotted an ERP of 767.9 kW and an HAAT of 546 meters. The predicted service area associated with this allotment is 41,330 square kilometers. The proposed WTNZ-DT predicted service area is 37,520 square kilometers, or less than that of station WBIR-DT. Therefore, the proposed WTNZ-DT facilities (ERP & HAAT) comply with Section 73.622(f)(5) of the FCC's rules concerning maximum ERP and HAAT.

The proposed transmitter site is more than 600 kilometers from the closest point of the Canadian border. The site is more than 1,600 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is at Powder Springs, Georgia, approximately 249 kilometers to the west. The closest point of the National Radio Quiet Zone (VA/WV) is more than 349 kilometers to the east-northeast. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 1,900 kilometers to the west-northwest. The closest radio astronomy site operating on TV channel 37 is at Green Bank, West Virginia, more than 453 kilometers to the northeast. 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 WTNZ-DT operation does not cause excessive calculated interference to any analog or DTV assignment. Below is the list of stations considered in the OET-69 analysis.

Stations Potentially Affected by WTNZ-DT						
Chan	Call	City/State	Bear (°T)	Dist (km)	Status	App. Ref. No.
20	WBXX-TV	CROSSVILLE TN	288	37.4	LIC	BLCT-19971028KE
26	960920LJ	KNOXVILLE TN	54	1.2	APP	BPCT-19960920LJ
27	960919KW	CANTON NC	117	105.2	APP	BPET-19960919KW
33	WCLP-DT	CHATSWORTH GA	207	155.7	CP	BPEDT-20000425AAP
33	WCLP-DT	CHATSWORTH GA	207	155.7	PLN	DTVPLN-DTVP0847
33	WUNF-TV	ASHEVILLE NC	121	124.8	LIC	BLET-19980316KE
34	WCFT-DT	TUSCALOOSA AL	230	424.4	CP	BPCDT-19991026ACL
34	WCFT-DT	TUSCALOOSA AL	230	424.4	PLN	DTVPLN-DTVP0871
34	WNGM-TV	ATHENS GA	178	208.9	LIC	BLCT-19960614KH
34	WBKI-TV	CAMPBELLSVILLE KY	322	216.1	LIC	BLCT-20001109ABF
34	WBKI-TV	CAMPBELLSVILLE KY	322	216.1	CP MOD	BMPCT-20000308AAV
34	WSOC-DT	CHARLOTTE NC	105	302.0	PLN	DTVPLN-DTVP0890
34	WSOC-DT	CHARLOTTE NC	105	302.0	CP	BPCDT-20000427ABI
34	WCET-DT	CINCINNATI OH	352	350.6	CP	BPEDT-20000420ABE
34	WCET-DT	CINCINNATI OH	352	350.7	PLN	DTVPLN-DTVP0897
34	WSET-TV	LYNCHBURG VA	68	410.8	APP	BPRM-20010525ADB
34	WPBY-DT	HUNTINGTON WV	29	316.9	PLN	DTVPLN-DTVP0907
35	WKHA	HAZARD KY	27	148.4	LIC	BLET-19810303KE
35	WGGs-DT	GREENVILLE SC	130	182.2	CP	BPCDT-19991027ABK
35	WGGs-DT	GREENVILLE SC	130	182.2	PLN	DTVPLN-DTVP0936
35	WTVC-DT	CHATTANOOGA TN	233	155.6	PLN	DTVPLN-DTVP0937

From the above list of stations considered, the table below shows the calculated interference caused to each station. Only stations that are predicted to receive interference from the proposed WTNZ-DT operation are shown in the interference table.

Study Station	Baseline	Net Population Change/Interference
20 WBXX-TV CROSSVILLE TN (LIC)	1,390,888	22 (0.00%)
33 WCLP-DT CHATSWORTH GA (CP)	1,510,013	612 (0.04%)
33 WUNF-TV ASHEVILLE NC (LIC)	1,811,044	1,954 (0.11%)
32 WETK-DT BURLINGTON VT (PLN)	447,428	43 (0.0%)
34 WNGM-TV ATHENS GA (LIC)	3,089,759	964 (0.03%)
34 WBKI-TV CAMPBELLSVILLE KY (LIC)	1,434,547	12,028 (0.84%)
34 WBKI-TV CAMPBELLSVILLE KY (CPM)	1,437,576	11,185 (0.78%)
35 WTVC-DT CHATTANOOGA TN (PLN)	991,940	5,981 (0.60%)

The proposed WTNZ-DT operation does not cause prohibitive interference to any other analog or DTV assignments and therefore complies with the FCC's 2%/10% interference standard. If necessary, waiver of the FCC rules is requested with respect to the DTV allotments and assignments based on the OET-69 interference calculations.

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. Two stations that receive prohibited overlap from the proposed WTNZ-DT operation are WEEE-LP on channel 32 (BLTT-19980717JA) and WFNA-LP on channel 34 (BLTTL-19890512IE).

Station WEEE is licensed as a Class A on channel 18 (BLTTA-20010710AAH) and, therefore, its channel 32 operation has been superceded and no longer requires protection. Therefore, the WEEE-LP channel 32 operation has been ignored.

Station WFNA has a Class A license application pending for operation on channel 32 (BLTTA-20010705AAS). WFNA does not have a Class A application for channel 34. Therefore, it is believed that the channel 34 operation does not require protection (only the channel 32 operation). Furthermore, even though neither require protection on their mentioned channel, OET-69 interference calculations indicate that the proposed WTNZ-DT operation does not cause any new calculated interference to either station mentioned above. 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 WTNZ-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 413.3 meters above ground level. The DTV ERP is 460 kW. A conservative relative field of 0.2 was used for the calculation (see Figure 2). Therefore, the "worst-case" calculated power density at a point 2 meters (6.6 feet) above ground level is 0.0036 mW/cm^2 . This is less than 1 % of the FCC's recommended limit of 0.40 mW/cm^2 for channel 34 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 WTNZ-DT operation appears to be otherwise categorically excluded from environmental processing.

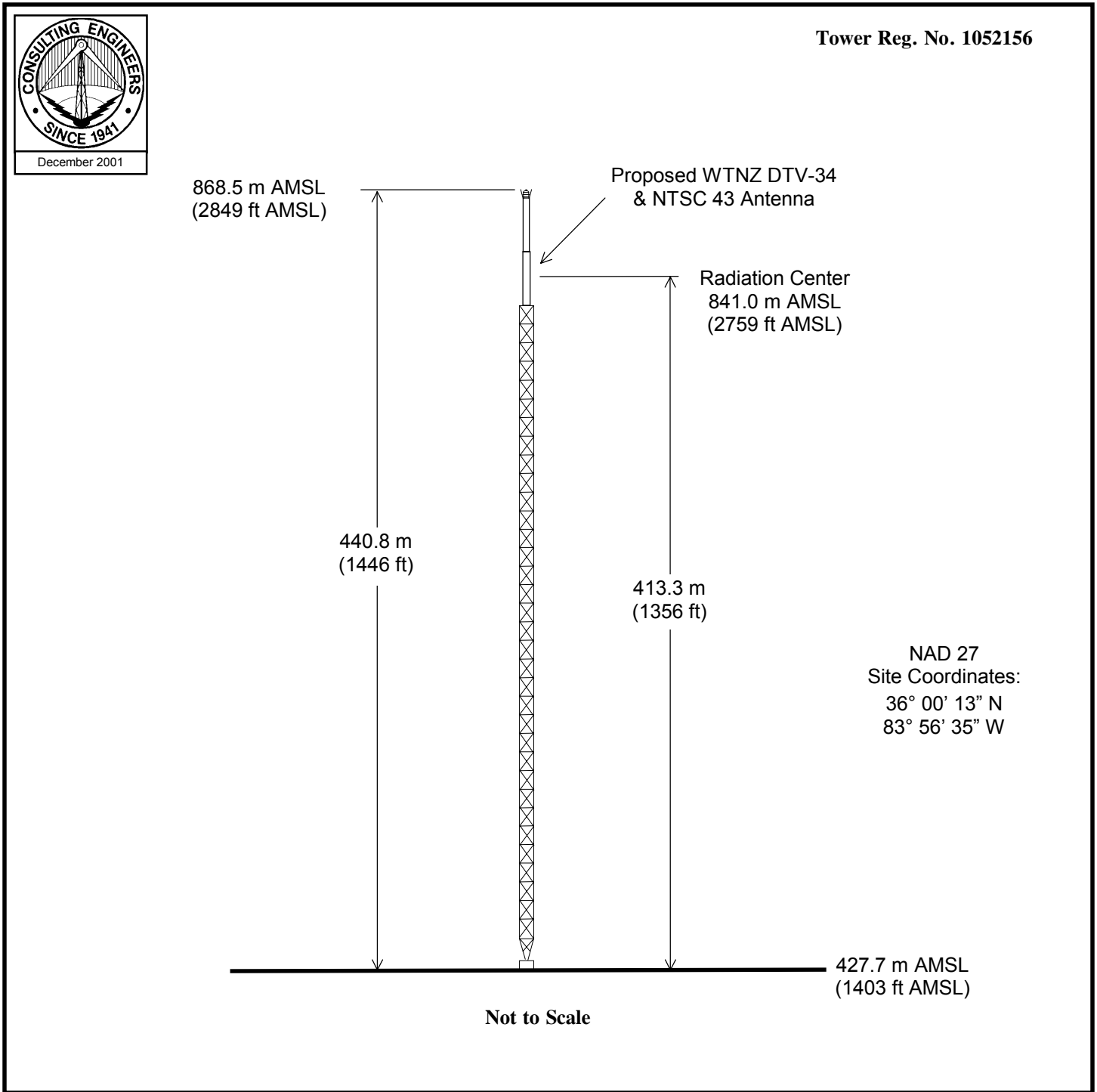
If there are questions concerning the technical portion of this application,
please contact the office of the undersigned.

Jonathan N. Edwards

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201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329-6000

December 5, 2001

Figure 1



PROPOSED ANTENNA AND SUPPORTING STRUCTURE

STATION WTNZ-DT

KNOXVILLE, TENNESSEE

CH 34 460 KW 531 M

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

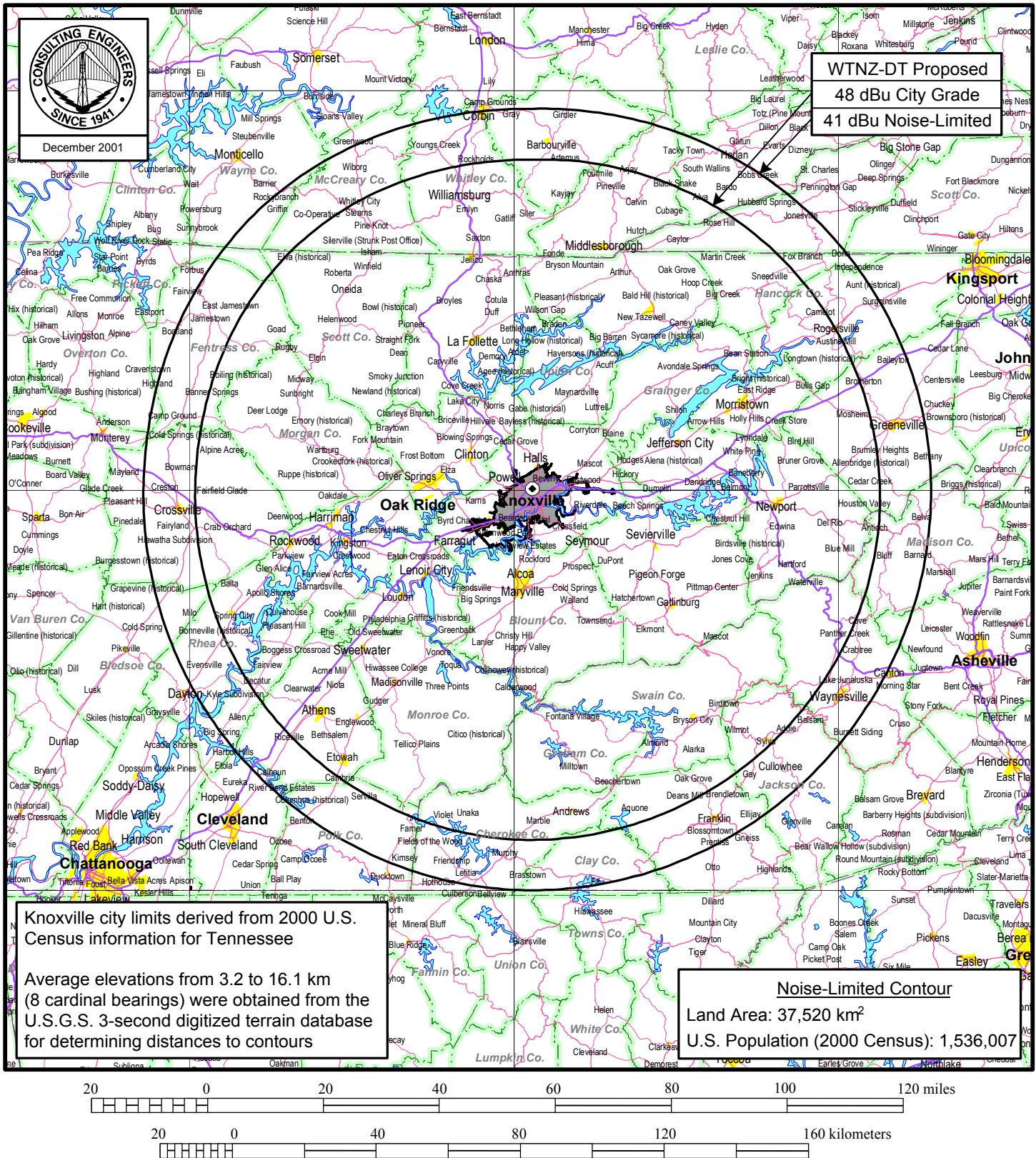
Proposal Number **DCA-9330**Date **31-Mar-01**

Call Letters

Channel **34**Location **Knoxville, TN**Customer **Spectrasite**Antenna Type **TUD-O5-16/80H-2-B****TABULATION OF ELEVATION PATTERN**Elevation Pattern Drawing #: **16U318075-B34-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.027	2.4	0.224	10.6	0.061	30.5	0.013	51.0	0.015	71.5	0.019
-9.5	0.046	2.6	0.231	10.8	0.070	31.0	0.020	51.5	0.029	72.0	0.019
-9.0	0.027	2.8	0.236	11.0	0.072	31.5	0.018	52.0	0.039	72.5	0.018
-8.5	0.060	3.0	0.222	11.5	0.047	32.0	0.009	52.5	0.038	73.0	0.016
-8.0	0.096	3.2	0.186	12.0	0.024	32.5	0.011	53.0	0.029	73.5	0.013
-7.5	0.075	3.4	0.138	12.5	0.041	33.0	0.015	53.5	0.015	74.0	0.010
-7.0	0.029	3.6	0.098	13.0	0.027	33.5	0.011	54.0	0.014	74.5	0.008
-6.5	0.058	3.8	0.097	13.5	0.031	34.0	0.008	54.5	0.023	75.0	0.006
-6.0	0.046	4.0	0.128	14.0	0.057	34.5	0.018	55.0	0.024	75.5	0.005
-5.5	0.060	4.2	0.160	14.5	0.050	35.0	0.022	55.5	0.017	76.0	0.005
-5.0	0.130	4.4	0.176	15.0	0.018	35.5	0.016	56.0	0.023	76.5	0.006
-4.5	0.128	4.6	0.173	15.5	0.026	36.0	0.008	56.5	0.048	77.0	0.007
-4.0	0.052	4.8	0.152	16.0	0.029	36.5	0.012	57.0	0.075	77.5	0.007
-3.5	0.081	5.0	0.118	16.5	0.017	37.0	0.013	57.5	0.094	78.0	0.007
-3.0	0.083	5.2	0.080	17.0	0.043	37.5	0.007	58.0	0.100	78.5	0.007
-2.8	0.063	5.4	0.055	17.5	0.054	38.0	0.013	58.5	0.090	79.0	0.006
-2.6	0.086	5.6	0.060	18.0	0.035	38.5	0.022	59.0	0.065	79.5	0.006
-2.4	0.156	5.8	0.079	18.5	0.014	39.0	0.023	59.5	0.036	80.0	0.005
-2.2	0.243	6.0	0.090	19.0	0.026	39.5	0.015	60.0	0.045	80.5	0.004
-2.0	0.329	6.2	0.089	19.5	0.019	40.0	0.009	60.5	0.087	81.0	0.004
-1.8	0.398	6.4	0.075	20.0	0.023	40.5	0.014	61.0	0.129	81.5	0.003
-1.6	0.440	6.6	0.053	20.5	0.046	41.0	0.015	61.5	0.161	82.0	0.002
-1.4	0.444	6.8	0.035	21.0	0.045	41.5	0.009	62.0	0.179	82.5	0.002
-1.2	0.405	7.0	0.045	21.5	0.021	42.0	0.012	62.5	0.183	83.0	0.002
-1.0	0.324	7.2	0.068	22.0	0.018	42.5	0.023	63.0	0.174	83.5	0.002
-0.8	0.216	7.4	0.088	22.5	0.025	43.0	0.026	63.5	0.153	84.0	0.002
-0.6	0.154	7.6	0.099	23.0	0.015	43.5	0.020	64.0	0.126	84.5	0.003
-0.4	0.258	7.8	0.098	23.5	0.045	44.0	0.009	64.5	0.091	85.0	0.003
-0.2	0.435	8.0	0.087	24.0	0.074	44.5	0.010	65.0	0.064	85.5	0.003
0.0	0.617	8.2	0.068	24.5	0.072	45.0	0.016	65.5	0.044	86.0	0.003
0.2	0.778	8.4	0.046	25.0	0.038	45.5	0.014	66.0	0.035	86.5	0.003
0.4	0.902	8.6	0.031	25.5	0.029	46.0	0.009	66.5	0.034	87.0	0.003
0.6	0.978	8.8	0.033	26.0	0.068	46.5	0.018	67.0	0.034	87.5	0.003
0.8	1.000	9.0	0.043	26.5	0.086	47.0	0.029	67.5	0.033	88.0	0.003
1.0	0.967	9.2	0.050	27.0	0.076	47.5	0.032	68.0	0.028	88.5	0.003
1.2	0.885	9.4	0.048	27.5	0.056	48.0	0.025	68.5	0.022	89.0	0.003
1.4	0.765	9.6	0.039	28.0	0.032	48.5	0.013	69.0	0.016	89.5	0.003
1.6	0.621	9.8	0.033	28.5	0.017	49.0	0.010	69.5	0.012	90.0	0.003
1.8	0.472	10.0	0.023	29.0	0.018	49.5	0.018	70.0	0.012		
2.0	0.342	10.2	0.030	29.5	0.017	50.0	0.018	70.5	0.015		
2.2	0.254	10.4	0.046	30.0	0.009	50.5	0.011	71.0	0.018		

Figure 3



PREDICTED F(50,90) COVERAGE CONTOURS

STATION WTNZ-DT

KNOXVILLE, TENNESSEE

CH 34 460 KW 531 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida