

TECHNICAL EXHIBIT  
APPLICATION FOR MODIFICATION OF  
DTV CONSTRUCTION PERMIT  
STATION WFUT-DT  
NEWARK, NEW JERSEY

June 26, 2003

CH 53      310 KW (MAX-DA)      321 M

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NEWARK, NEW JERSEY  
CH 53     310 KW (MAX-DA)     321 M

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STATION WFUT-DT  
NEWARK, NEW JERSEY  
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Technical Narrative

This Technical Exhibit supports an application for modification of DTV construction permit for station WFUT-DT on digital channel 53 at Newark, New Jersey. Station WFUT-DT is presently authorized (BPCDT-19991029ADO) for operation on channel 53 (704-710 MHz) with a maximum directional effective radiated power (ERP) of 200 kilowatts and an antenna radiation center height above average terrain (HAAT) of 439 meters.

By means of this application, WFUT-DT proposes to relocate to an alternate transmitter site, operate with a different directional antenna system, increase its ERP and decrease its HAAT. No other changes are proposed. As detailed below, a waiver of Section 73.623(c)(2) is requested With respect to WEDW-DT on channel 52 at Bridgeport, Connecticut.

Specifically, WFUT-DT will operate with a Dielectric TUA-C8SP-8/64U-2-R directional antenna from the 4 Times Square Building (North Latitude 40°45'22" West Longitude 73°59'10"). It is proposed to operate with an antenna maximum directional ERP of 310 kilowatts and an HAAT of 321 meters. The FCC Tower Registration Number for the 4 Times Square Building is 1238745.

Figure 1 provides the horizontal and vertical plane radiation patterns for the proposed Dielectric TUA-C8SP-8/64U-2-R directional antenna system. The antenna will incorporate 1.2° of electrical beam tilt.

There are no known authorized full service AM stations within 5 kilometers (3 miles) of the authorized transmitter site. Figure 6 is a list of known authorized full service FM and TV stations within 16 kilometers (10 miles) of the WFUT-DT site. Although no adverse electromagnetic impact is expected, the applicant recognizes its responsibility to correct problems, which are a result of the WFUT-DT operation.

The proposed transmitter site is located within the Canadian border area, therefore if necessary coordination with Canada is respectfully requested.

The proposed site is 2455 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is located at Laurel Maryland more than 299 kilometers to the southwest. The closest point of the National Radio Quiet Zone (VA/WV) is more than 419 kilometers to the west-southwest. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 2629 kilometers to the west. The closest radio astronomy site operating on TV channel 37 is at Hancock, New Hampshire, located more than 293 kilometers to the north-northeast. It is believed that these separations are sufficient to not be a concern for coordination purposes.

The distances to the predicted 41 and 48 dBu, F(50,90) coverage contours were determined in accordance with the provisions of Section 73.625. The average elevations from 3.2 to 16.1 kilometers from the transmitter site, were obtained from the NGDC 30-second terrain database and were used for determining the distances to coverage contours.

Figure 2 is a map showing the predicted 41 and 48 dBu, F(50,90), coverage contours. The Newark city limits were derived from information contained in the 2000 U.S. Census for New Jersey.

Figure 3 is the separation study for DTV channel 53 from the proposed WFUT-DT site. The study has been used to

determine the assignments requiring interference studies using the procedures outlined in the FCC's OET-69 bulletin. Interference calculations for the proposed WFUT-DT DTV operation are summarized in Figure 4.

An interference analysis has been conducted using the procedures outlined in the FCC's OET-69 bulletin which demonstrates that the proposal complies with the interference protection provisions of Section 73.623(c)(2) with respect to all stations except with respect to the authorized construction permit (BPCDT-200004AAT) of station WEDW-DT on channel 52 at Bridgeport, Connecticut.<sup>1</sup> However, a waiver is requested with respect to WEDW-DT and support for the waiver request is presented below. Interference calculations for the proposed WFUT-DT DTV operation are shown in Figure 4.

A waiver of interference criteria of Section 73.623(c)(2) is requested with respect to the authorized operation of WEDW-DT based on the fact that the proposed WFUT-DT facility will cause less interference to station WEDW-DT than its currently authorized facility (BPCDT-19991029ADO). Specifically, based on OET-69 interference calculations, the proposed facility will cause less interference to station WEDW-DT than the currently authorized WFUT-DT facility. Figure 5 is a tabulation of each of the interference scenarios with respect to WEDW-DT. It is noted that in every scenario, the proposed WFUT-DT facility will cause less interference to WEDW-DT than the authorized WFUT-DT facility. In other words, the authorized WFUT-DT operation "masks" the proposed interference. Therefore, waiver of Section 73.623(c)(2) appears justified.

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<sup>1</sup> 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 1 km was employed.** A Sun based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin No. 69.

From the above and Figure 5, it is believed that the proposed WFUT-DT DTV operation on channel 53 complies with the FCC's 2%/10% interference standard toward all authorized analog and DTV assignments.

Environmental Protection Act

The 4 Times Square building rooftop is a multi-user TV and FM transmitter site. Access to the 4 Times Square building rooftop is restricted. Furthermore, the applicant certifies that the established RF radiation exposure procedures will be coordinated with all other nearby stations such that no human exposure to RF radiation above the recommended levels shall occur. In addition, survey measurements will be taken to ensure worker safety and the building owner is installing an automatic warning system to alert workers to borderline and unsafe conditions resulting from excess power operation by the resident auxiliary FM and TV stations.

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

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



Jerome J. Manarchuck

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237-6019  
(941) 329-6000

June 26, 2003



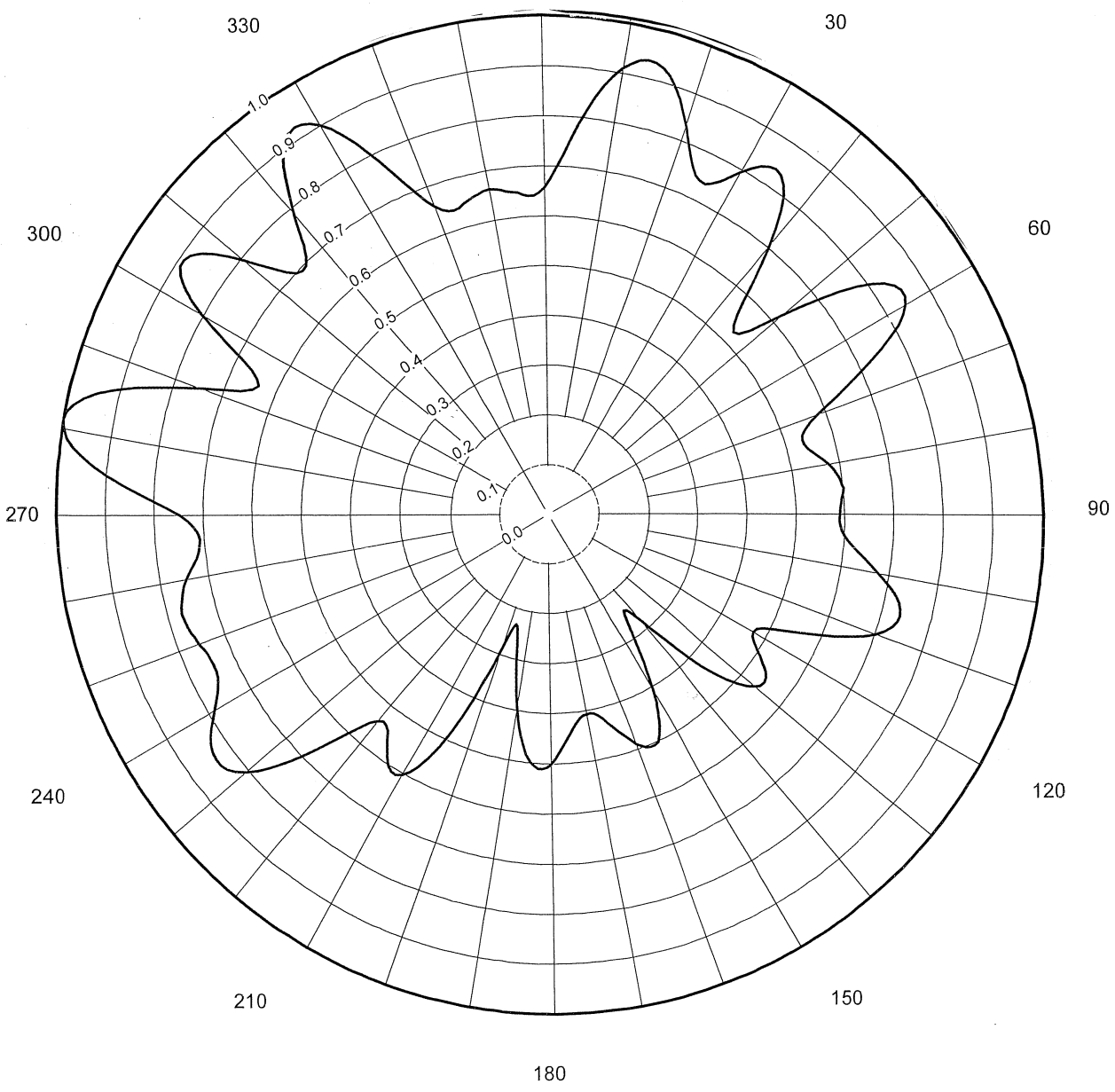
Antenna Type      **TUA-C8SP-8/64U-2-R**

**AZIMUTH PATTERN**

Gain      **2.18**      **( 3.38 dB)**  
Calculated / Measured      **Calculated**

Frequency      **707.00 MHz**  
Drawing #      **TUA-C8SP-7070**

(°T)  
0



TECHNICAL EXHIBIT  
APPLICATION FOR MODIFICATION OF  
DTV CONSTRUCTION PERMIT  
DTV STATION WFUT-DT  
FACILITY ID: 60555  
NEWARK, NEW JERSEY  
CH 53 310 KW (MAX-DA) 321 M

Tabulation of Horizontal Relative Fields

Azimuth (deg. True)	Relative Field	Azimuth (deg. True)	Relative Field
0	0.656	180	0.502
10	0.908	190	0.395
20	0.830	200	0.289
30	0.795	210	0.604
40	0.704	220	0.542
50	0.621	230	0.807
60	0.841	240	0.785
70	0.583	250	0.757
80	0.577	260	0.746
90	0.590	270	0.746
100	0.676	280	0.996
110	0.701	290	0.744
120	0.473	300	0.802
130	0.536	310	0.793
140	0.279	320	0.788
150	0.407	330	0.900
160	0.489	340	0.658
170	0.408	350	0.663
Minimum		Maximum	
227	0.231	311	1.000

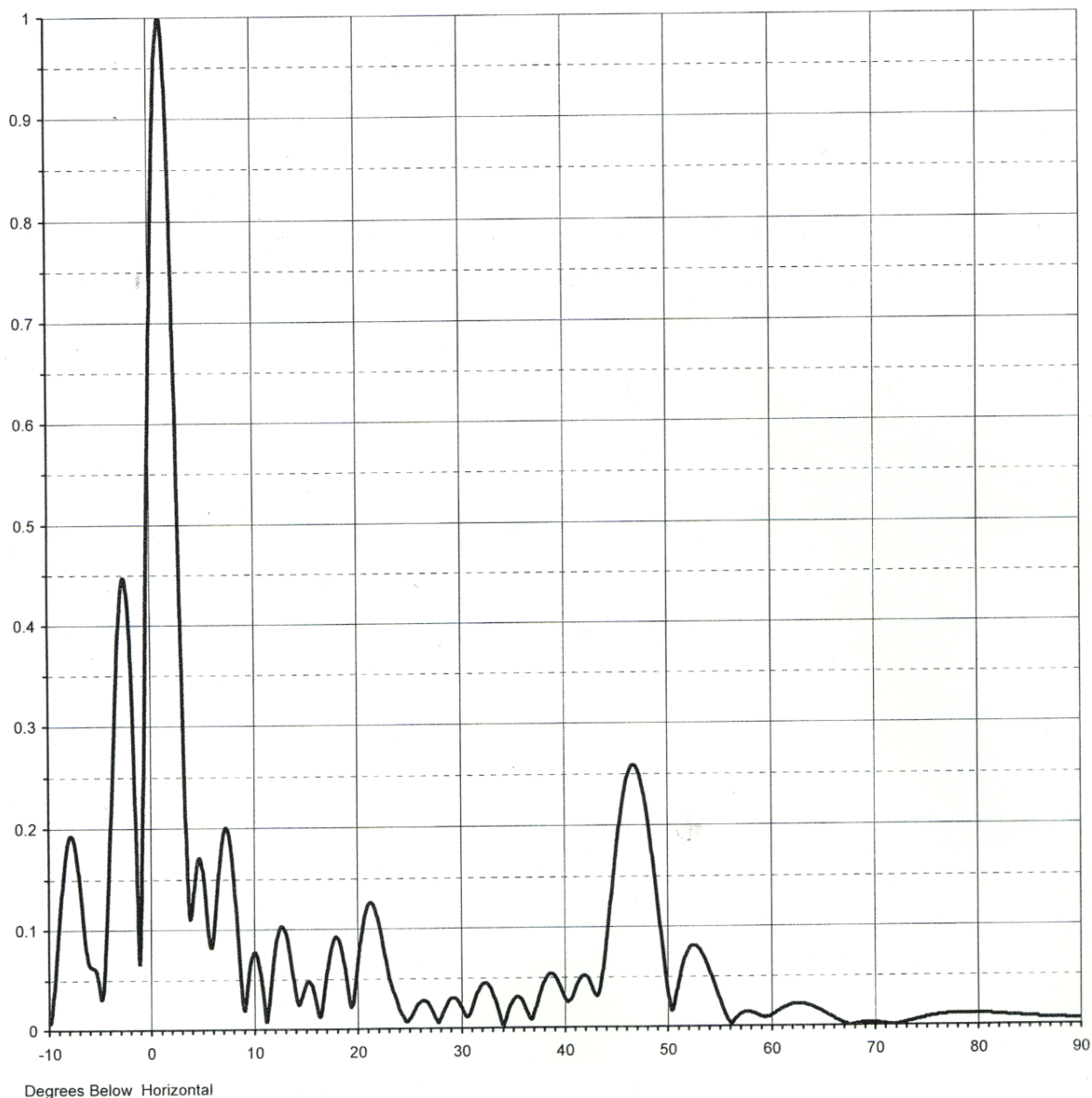




Antenna Type **TUA-C8SP-8/64U-2-R**

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>18.91 ( 12.77 dB )</b>	Beam Tilt	<b>1.20 deg</b>
RMS Gain at Horizontal	<b>8.30 ( 9.19 dB )</b>	Frequency	<b>707.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>08U189120-90</b>



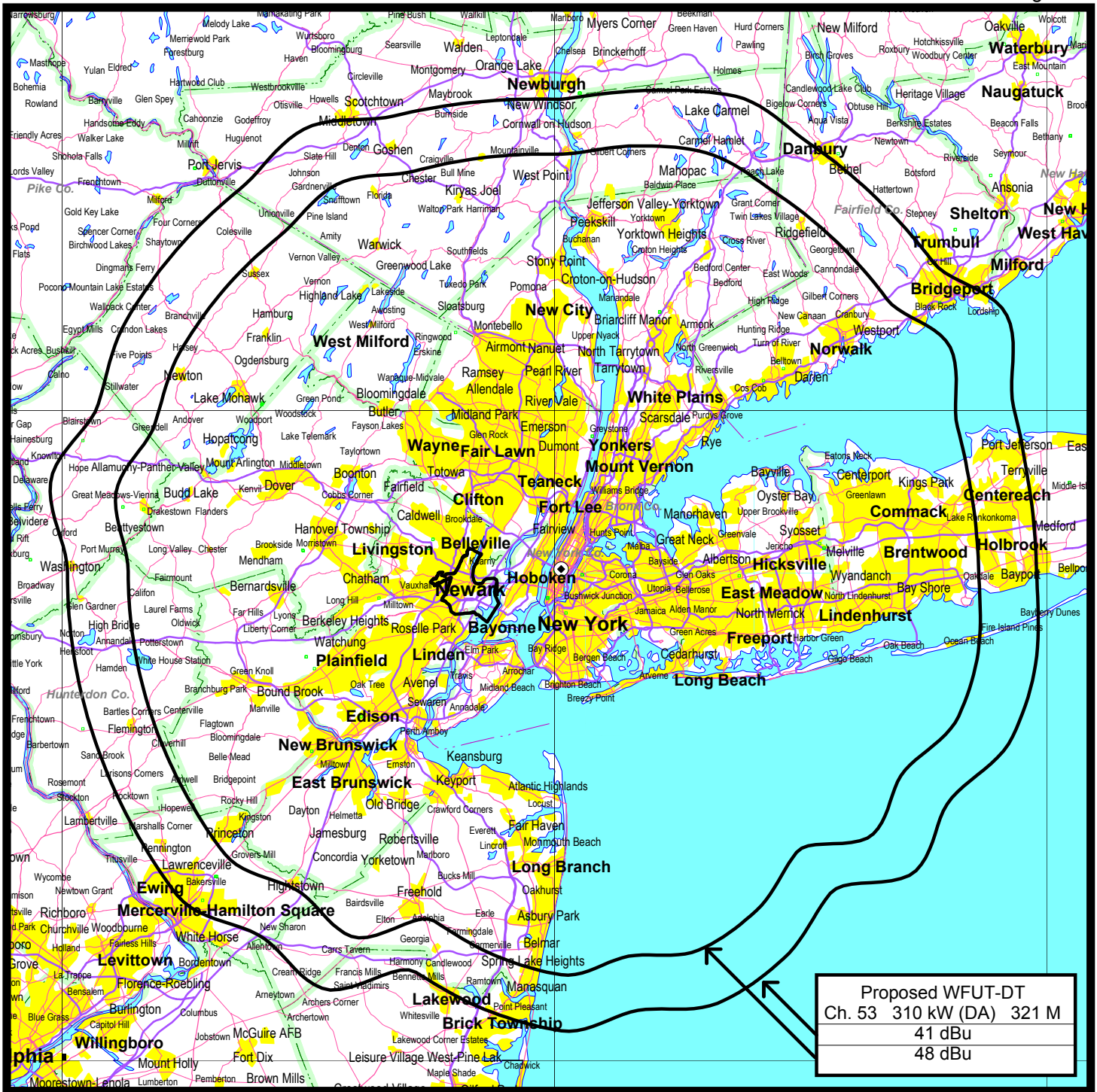


Antenna Type **TUA-C8SP-8/64U-2-R****TABULATION OF ELEVATION PATTERN**Elevation Pattern Drawing #: **08U189120-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.013	2.4	0.661	10.6	0.062	30.5	0.012	51.0	0.038	71.5	0.001
-9.5	0.039	2.6	0.564	10.8	0.047	31.0	0.017	51.5	0.061	72.0	0.001
-9.0	0.103	2.8	0.465	11.0	0.030	31.5	0.032	52.0	0.075	72.5	0.002
-8.5	0.160	3.0	0.367	11.5	0.024	32.0	0.042	52.5	0.081	73.0	0.003
-8.0	0.191	3.2	0.274	12.0	0.071	32.5	0.045	53.0	0.079	73.5	0.004
-7.5	0.185	3.4	0.194	12.5	0.099	33.0	0.038	53.5	0.071	74.0	0.006
-7.0	0.146	3.6	0.135	13.0	0.100	33.5	0.023	54.0	0.059	74.5	0.007
-6.5	0.093	3.8	0.110	13.5	0.077	34.0	0.005	54.5	0.045	75.0	0.008
-6.0	0.064	4.0	0.120	14.0	0.041	34.5	0.014	55.0	0.030	75.5	0.009
-5.5	0.061	4.2	0.142	14.5	0.025	35.0	0.026	55.5	0.016	76.0	0.009
-5.0	0.037	4.4	0.161	15.0	0.042	35.5	0.031	56.0	0.005	76.5	0.010
-4.5	0.068	4.6	0.170	15.5	0.047	36.0	0.026	56.5	0.006	77.0	0.011
-4.0	0.186	4.8	0.169	16.0	0.030	36.5	0.014	57.0	0.011	77.5	0.011
-3.5	0.317	5.0	0.158	16.5	0.013	37.0	0.010	57.5	0.014	78.0	0.011
-3.0	0.418	5.2	0.139	17.0	0.047	37.5	0.028	58.0	0.014	78.5	0.011
-2.8	0.439	5.4	0.115	17.5	0.079	38.0	0.044	58.5	0.012	79.0	0.011
-2.6	0.447	5.6	0.093	18.0	0.092	38.5	0.053	59.0	0.010	79.5	0.011
-2.4	0.440	5.8	0.082	18.5	0.081	39.0	0.053	59.5	0.008	80.0	0.011
-2.2	0.416	6.0	0.089	19.0	0.050	39.5	0.044	60.0	0.010	80.5	0.011
-2.0	0.376	6.2	0.110	19.5	0.022	40.0	0.031	60.5	0.013	81.0	0.011
-1.8	0.318	6.4	0.136	20.0	0.056	40.5	0.026	61.0	0.017	81.5	0.010
-1.6	0.245	6.6	0.161	20.5	0.096	41.0	0.036	61.5	0.019	82.0	0.010
-1.4	0.160	6.8	0.181	21.0	0.120	41.5	0.048	62.0	0.021	82.5	0.010
-1.2	0.078	7.0	0.194	21.5	0.125	42.0	0.052	62.5	0.022	83.0	0.009
-1.0	0.094	7.2	0.200	22.0	0.111	42.5	0.046	63.0	0.022	83.5	0.009
-0.8	0.199	7.4	0.198	22.5	0.086	43.0	0.033	63.5	0.021	84.0	0.009
-0.6	0.317	7.6	0.188	23.0	0.057	43.5	0.039	64.0	0.019	84.5	0.008
-0.4	0.437	7.8	0.172	23.5	0.038	44.0	0.074	64.5	0.016	85.0	0.008
-0.2	0.554	8.0	0.150	24.0	0.022	44.5	0.120	65.0	0.013	85.5	0.008
0.0	0.664	8.2	0.123	24.5	0.011	45.0	0.167	65.5	0.010	86.0	0.007
0.2	0.763	8.4	0.094	25.0	0.008	45.5	0.208	66.0	0.008	86.5	0.007
0.4	0.847	8.6	0.064	25.5	0.017	46.0	0.239	66.5	0.005	87.0	0.007
0.6	0.915	8.8	0.036	26.0	0.025	46.5	0.256	67.0	0.002	87.5	0.007
0.8	0.964	9.0	0.019	26.5	0.028	47.0	0.258	67.5	0.000	88.0	0.007
1.0	0.993	9.2	0.030	27.0	0.023	47.5	0.244	68.0	0.001	88.5	0.007
1.2	1.000	9.4	0.049	27.5	0.012	48.0	0.217	68.5	0.002	89.0	0.006
1.4	0.986	9.6	0.064	28.0	0.008	48.5	0.178	69.0	0.003	89.5	0.006
1.6	0.953	9.8	0.069	28.5	0.020	49.0	0.134	69.5	0.003	90.0	0.006
1.8	0.901	10.0	0.076	29.0	0.029	49.5	0.087	70.0	0.003		
2.0	0.834	10.2	0.077	29.5	0.030	50.0	0.043	70.5	0.002		
2.2	0.752	10.4	0.072	30.0	0.023	50.5	0.016	71.0	0.002		



Figure 2



## PREDICTED COVERAGE CONTOURS

STATION WFUT-DT  
NEWARK, NEW JERSEY  
CH 53 310 KW (MAX-DA) 321 M

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

**Figure 3**  
**Sheet 1 of 3**

CDBS TV/DTV SEPARATION STUDY

Job Title:  
Channel: 53  
Class: VU  
Type: DT

Separation Buffer: 161km  
Coordinates: 40-45-22 73-59-12  
Zone: I

Call Id	City St	Status	File Num	Channel Zone	ERP HAAT	DA Id	Latitude Longitude	Bear	Dist. (km)	Req. min	max
WSWB 73374	SCRANTON PA	LIC C	BLCT 19870831KF	38(+) I	1290.000 385		41-26-09 075-43-45	297.9	164.7 84.21	24.1 Clear	80.5
WLVT-T 36989	ALLENTOWN PA	LIC C	BLET 429	39(Z) I	722.000 302	N 59011	40-33-58 075-26-06	260.7	124.3 43.79	24.1 Clear	80.5
WEWB-T 73264	SCHENECTADY NY	CP C	BPCT 20020213AA	45(Z) I	2950.000 413	D 42525	42-37-31 074-00-38	359.5	207.6 127.11	24.1 Clear	80.5
WEWB-T 73264	SCHENECTADY NY	LIC C	BLCT 19850114KJ	45(Z) I	2950.000 338	D 20514	42-37-37 074-00-38	359.5	207.8 127.29	24.1 Clear	80.5
96808	ALBANY-SCHE NY	C		45(Z) I		N	42-39-01 073-45-01	5.2	211.3 130.80	24.1 Clear	80.5
WSKG-T 74034	BINGHAMTON NY	LIC C	BLET 19830315KJ	46(+) I	603.000 375		42-03-22 075-56-39	312.2	218.3 137.76	24.1 Clear	80.5
WSKG-T 74034	BINGHAMTON NY	APP C	BPET 20030110AC	46(+) I	490.000 408	N 46069	42-03-40 075-56-46	312.3	218.7 138.24	24.1 Clear	80.5
WEDW 13594	BRIDGEPORT CT	LIC C	BLET 19870908KE	49(-) I	1950.000 222	D 20548	41-16-43 073-11-08	48.9	88.9 8.43	24.1 Close	80.5
WGCB-T 55350	RED LION PA	LIC C	BLCT 19790419KG	49(+) I	617.000 177		39-54-18 076-35-00	247.6	240.1 159.56	24.1 Clear	80.5
WGCB-T 55350	RED LION PA	CP C	BPCT 20000105AA	49(+) I	617.000 186	N 30775	39-54-18 076-35-00	247.6	240.1 159.56	24.1 Clear	80.5
WNJN 48477	MONTCLAIR NJ	CP C	BPET 19891219KE	50(+) I	5000.000 242.3		40-51-53 074-12-03	303.9	21.7 2.37	24.1 Close	80.5
WNJN 48477	MONTCLAIR NJ	LIC C	BLET 19860805KG	50(+) I	2090.000 243		40-51-53 074-12-03	303.9	21.7 2.37	24.1 Close	80.5
WTVE 55305	READING PA	CP C	BMPCT 19940811KL	51(Z) I	5000.000 395	D 18763	40-19-35 075-42-15	252.3	153.1 72.63	24.1 Clear	80.5
WTVE 55305	READING PA	LIC C	BLCT 19800521KW	51(Z) I	1450.000 229		40-21-15 075-53-56	255.2	168.0 87.50	24.1 Clear	80.5
WTVE 55305	READING PA	APP C	BMPCT 20010430AA	51(Z) I	4950.000 257	D 41369	40-21-15 075-53-56	255.2	168.0 87.50	24.1 Clear	80.5
940630 447	READING PA	APP C	BPCT 19940630KG	51(Z) I	5000.000 153	N	40-17-15 075-53-45	252.7	170.0 89.45	24.1 Clear	80.5
DWVUW 51442	PITTSFIELD MA	C		51(+) I		N	42-26-48 073-15-12	17.7	197.5 116.96	24.1 Clear	80.5

**Figure 3**  
**Sheet 2 of 3**

CDBS TV/DTV SEPARATION STUDY

Job Title:  
Channel: 53  
Class: VU  
Type: DT

Separation Buffer: 161km  
Coordinates: 40-45-22 73-59-12  
Zone: I

Call Id	City St	Status	File Num	Channel Zone	ERP HAAT	DA Id	Latitude Longitude	Bear	Dist. (km)	Req. min	max
WNYA 136751	PITTSFIELD MA CP	C	BNPCT 20020320AB	51(+) I	1580.000 305	D 42928	42-30-09 073-18-58	15.8	201.9 121.35	24.1 Clear	80.5
960724 83166	PITTSFIELD MA APP	C	BPCT 19960724LI	51(+) I	5000.000 345	D 33841	42-32-42 073-17-09	16.1	207.1 126.58	24.1 Clear	80.5
WNJT 48465	TRENTON NJ CP	C	BPET 20030224AA	52(-) I	1950.000 266	N 46279	40-16-58 074-41-11	228.6	79.2 26.76	12.0 Short	106.0
WNJT 48465	TRENTON NJ LIC	C	BLET 19850913KE	52(-) I	1950.000 271		40-17-00 074-41-20	228.7	79.4 26.64	12.0 Short	106.0
DWEDW	BRIDGEPORT CT DTV			52( ) I	50.000 222	D	41-16-43 073-11-08	48.9	88.9 21.07	24.0 Short	110.0
WEDW 13594	BRIDGEPORT CT CP	C	BPEDT 20000419AA	52( ) I	50.000 189	D 32601	41-16-44 073-11-08	48.9	88.9 21.05	24.0 Short	110.0
WFUT 60555	NEWARK NJ STA	C	BDSTA 20021126AD	53( ) I	3.450 265.4	N	40-45-22 073-59-12	90.0	0.0		
DWHSET	NEWARK NJ DTV			53( ) I	55.900 439	D	40-44-54 073-59-10	176.9	0.9		
WFUT 60555	NEWARK NJ CP	C	BPCDT 19991029AD	53( ) I	200.000 439	D 40159	40-44-54 073-59-10	177.0	0.9		
WWAC-T 9739	ATLANTIC NJ LIC	C	CI BLCT 19880315KI	53(+) I	12.300 85	D 18273	39-22-51 074-27-03	194.6	157.8 59.55	217.3 Short	217.3
WEDN 13607	NORWICH CT LIC	C	BLET 19860124KI	53(Z) I	794.000 207		41-31-11 072-10-04	60.3	174.7 42.62	217.3 Short	217.3
WEDN 13607	NORWICH CT CP	C	BPET 20011003AB	53(Z) I	630.000 204	N 41345	41-31-14 072-10-03	60.2	174.7 42.55	217.3 Short	217.3
WILF 52075	WILLIAMSPOR PA LIC	C	BLCT 19990203KE	53(-) I	1320.000 244	D 17389	41-11-57 077-07-38	281.6	268.9 51.57	217.3 Clear	217.3
WMDT 16455	SALISBURY MD CP	C	BMPCD 20000501AB	53( ) I	250.000 292	D 39660	38-30-06 075-44-00	211.4	291.8 95.49	196.3 Clear	196.3
DWMDT	SALISBURY MD DTV			53( ) I	62.500 304	D	38-30-06 075-44-09	211.4	291.9 95.60	196.3 Clear	196.3
WTBY 67993	POUGHKEEPSI NY LIC	C	BLCT 19921016KF	54(+) I	5000.000 490	D 17291	41-43-09 073-59-47	359.6	107.0 0.96	12.0 Close	106.0
WPHL-T 73879	PHILADELPHI PA CP	C	BPCDT 19991025AD	54( ) I	500.000 354	D 40515	40-02-30 075-14-11	233.5	132.5 22.48	24.0 Clear	110.0

**Figure 3**  
**Sheet 3 of 3**

CDBS TV/DTV SEPARATION STUDY

Job Title:  
Channel: 53  
Class: VU  
Type: DT

Separation Buffer: 161km  
Coordinates: 40-45-22 73-59-12  
Zone: I

Call Id	City St	File Status Num	Channel Zone	ERP HAAT	DA Id	Latitude Longitude	Bear	Dist. (km)	Req. min	max
DWPHLT	PHILADELPHI PA	DTV	54( ) I	172.000 320	D	40-02-30 075-14-24	233.6	132.7 22.72	24.0	110.0 Clear
WNAC-T 73311	PROVIDENCE RI	BPCDT APP C 19991029AB	54( ) I	1000.000 295	D 40205	41-52-14 071-17-45	60.2	257.1 147.08	24.0	110.0 Clear
DWNACT	PROVIDENCE RI	DTV	54( ) I	92.600 315	D	41-52-14 071-17-45	60.2	257.1 147.08	24.0	110.0 Clear
WLNY 73206	RIVERHEAD NY	BLCT LIC C 19850429KJ	55(+) I	5000.000 194	D 18225	40-53-50 072-54-56	79.8	91.7 11.20	24.1	80.5 Close
DWGGF 54969	LEBANON PA	C	55(-) I		N	40-20-24 076-25-36	258.1	211.8 131.29	24.1	80.5 Clear
WOLF-T 73375	HAZLETON PA	BLCT LIC C 19981202KG	56(Z) I	1580.000 503	D 18881	41-11-00 075-52-10	287.3	165.4 84.93	24.1	80.5 Clear
WPSG 12499	PHILADELPHI PA	BLCT LIC C 19851120KG	57(Z) I	5000.000 353	D 17169	40-02-21 075-14-13	233.4	132.7 52.18	24.1	80.5 Clear
WPSG 12499	PHILADELPHI PA	BPCT CP C 19960628KI	57(Z) I	3470.000 359	N	40-02-21 075-14-13	233.4	132.7 52.18	24.1	80.5 Clear
WGBY-T 72096	SPRINGFIELD MA	BMPET CP C 19910624KF	57(+) I	1480.000 305	N	42-14-29 072-38-56	33.6	199.2 118.72	24.1	80.5 Clear
WGBY-T 72096	SPRINGFIELD MA	BLET LIC C 345	57(+) I	1200.000 305	N	42-14-30 072-38-54	33.6	199.3 118.77	24.1	80.5 Clear
WBPH-T 60850	BETHLEHEM PA	BMPCT CP C 20020628AA	60(-) I	2950.000 285.5	D 43758	40-33-52 075-26-24	260.6	124.7 44.23	24.1	80.5 Clear
WBPH-T 60850	BETHLEHEM PA	BLCT LIC C 20020703AA	60(-) I	2950.000 285.5	D 43758	40-33-52 075-26-24	260.6	124.7 44.23	24.1	80.5 Clear
WTIC-T 147	HARTFORD CT	BLCT LIC C 19840927KG	61(+) I	5000.000 515		41-42-13 072-49-57	42.1	143.0 62.46	24.1	80.5 Clear
WPPX 51984	WILMINGTON DE	BLCT LIC C 19860717KH	61(Z) I	3020.000 292		39-41-43 075-17-55	223.8	162.3 81.81	24.1	80.5 Clear

TECHNICAL EXHIBIT  
APPLICATION FOR MODIFICATION OF  
DTV CONSTRUCTION PERMIT  
STATION WFUT-DT  
NEWARK, NEW JERSEY  
CH 53 310 KW (MAX-DA) 321 M

OET-69 Interference Summary

Protected Station	FCC Service Population	Unique Interference Population
WPHA, Class A Ch. 38 Philadelphia, PA Authorized CP	No Interference Calculated	
W36AS, Class A Ch. 39 Edison, NJ Authorized CP	No Interference Calculated	
WLVT-TV NTSC Ch. 39 Allentown, PA	No Interference Calculated	
WLBX-LP, Class A Ch. 46 Manhattan, NY Authorized CP	No Interference Calculated	
WRNN-LP, Class A Ch. 46 Nyack, NY BPTTA-20000915AAN BMJPTTA-20020228ADF	No Interference Calculated No Interference Calculated	
WEDW, NTSC Ch. 49 Bridgeport, CT Licensed	No Interference Calculated	
WNJN, NTSC Ch. 50 Montclair, NJ Authorized CP Licensed	No Interference Calculated No Interference Calculated	
WEDW-DT, DTV Ch. 52 Bridgeport, CT Authorized CP DTV Allotment	3,275,657 3,275,657	17,139 (0.52%) 33,835 (1.03%)
WNJT, NTSC Ch. 52 Trenton, NJ Licensed Authorized CP	8,832,453 8,845,300	0 (0.00%) 3,146 (0.04%)

TECHNICAL EXHIBIT  
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NEWARK, NEW JERSEY  
CH 53 310 KW (MAX-DA) 321 M

OET-69 Interference Summary

Protected Station	FCC Service Population	Unique Interference Population
WEDN, NTSC Ch. 53 Norwich, CT Licensed Authorized CP	1,578,237 1,468,921	28,749 (1.83%) 24,212 (1.65%)
WMDT-DT DTV Ch. 53 Salisbury, MD Authorized CP DTV Allotment	No Interference Calculated No Interference Calculated	
WWAC-TV NTSC Ch. 53 Atlantic City, NJ Licensed	No Interference Calculated	
WPXJ-DT, DTV Ch. 53 Batavia, NY Application DTV Allotment	No Interference Calculated No Interference Calculated	
WILF, NTSC Ch. 53 Williamsport, PA Licensed	No Interference Calculated	
WNVT, NTSC Ch. 53 Goldvein, VA Licensed	No Interference Calculated	
WTBY, NTSC Ch. 54 Poughkeepsie, NY Licensed	4,671,132	13,158 (0.28%)
WPHL-DT, DTV Ch. 54 Philadelphia, PA Authorized CP DTV Allotment	No Interference Calculated No Interference Calculated	



TECHNICAL EXHIBIT  
APPLICATION FOR MODIFICATION OF  
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OET-69 Interference Summary

WLNY, NTSC Ch. 55 Riverhead, NY Licensed	No Interference Calculated
WPSG, NTSC Ch. 57 Philadelphia, PA Licensed Authorized CP	No Interference Calculated No Interference Calculated
WBPH-TV, NTSC Ch. 60 Bethlehem, PA Licensed	No Interference Calculated

**Figure 5**

TECHNICAL EXHIBIT  
APPLICATION FOR MODIFICATION OF  
DTV CONSTRUCTION PERMIT  
STATION WFUT-DT  
NEWARK, NEW JERSEY  
CH 53 310 KW (MAX-DA) 321 M

OET-69 Interference Comparison to Station WEDW-DT

Predicted Interference from WFUT-DT Authorized CP to authorized WEDW-DT

Scenario	Affected Station	Interference Before	Interference After	Baseline	% New Interference
1	WEDW-DT	225,859	245,812	3275657	<b>0.609</b>
2	WEDW-DT	194,384	215,573	3275657	<b>0.647</b>
3	WEDW-DT	227,635	247,291	3275657	<b>0.600</b>
4	WEDW-DT	196,160	217,052	3275657	<b>0.638</b>

Predicted Interference from proposed WFUT-DT to authorized WEDW-DT

Scenario	Affected Station	Interference Before	Interference After	Baseline	% New Interference
1	WEDW-DT	225,859	242,998	3275657	<b>0.523</b>
2	WEDW-DT	194,384	210,414	3275657	<b>0.489</b>
3	WEDW-DT	227,635	243,732	3275657	<b>0.491</b>
4	WEDW-DT	196,160	211,148	3275657	<b>0.458</b>

# **du Treil, Lundin, and Rackley**

**Coordinates: 40-45-22 73-59-12 Frequency Range: 200-300**

**Range: 16**

Date: 6/26/2003

## **CDBS FM Inquiry List**

Page: 1

Rec Type	Fac Id	Call	Status	Chan	Svc Class	Class	City	St	DA	Latitude	Longitude	ERP (kW)	HAAT (m)	RCAMSL (m)	Bear	Dist. (km)
C	48699	WBGO	LIC	202	FM	B1	NEWARK	NJ		40-44-11	074-10-15	4.500	131.0	165.0	262.0	15.7
C	48695	WNYU-F	LIC	206	FM	B1	NEW YORK	NY		40-51-26	073-54-48	8.300	78.0	106.0	28.7	12.8
C	68270	WKCR-F	LIC	210	FM	B1	NEW YORK	NY	N	40-42-43	074-00-49	0.630	433.0	443.0	204.8	5.4
C	68270	WKCR-F	APP	210	FM	B1	NEW YORK	NY	N	40-48-43	073-57-47	6.900	136.0	157.0	17.7	6.5
C	11412	WHCR-F	LIC	212	FM	D	NEW YORK	NY		40-49-09	073-56-59	0.008	81.0	102.0	23.9	7.7
C	22033	WFUV	APP	214	FM	B	NEW YORK	NY	D	40-51-44	073-53-00	50.000	119.0	140.0	36.4	14.7
C	22033	WFUV	CP	214	FM	B	NEW YORK	NY	D	40-51-44	073-53-00	50.000	150.0	172.0	36.4	14.7
C	22033	WFUV	LIC	214	FM	B	NEW YORK	NY		40-51-37	073-53-03	50.000	66.0	86.0	36.6	14.4
C	22033	WFUV	APP	214	FM	B	NEW YORK	NY	D	40-51-44	073-53-00	50.000	119.0	140.0	36.4	14.7
C	3539	WNYE	LIC	218	FM	B	NEW YORK	NY	N	40-41-21	073-58-37	18.000	131.0	141.0	173.7	7.5
C	58579	WXRK	LIC	222	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	51663	WPAT-F	LIC	226	FM	B	PATERSON	NJ		40-42-43	074-00-49	5.400	433.0	443.0	204.8	5.4
C	51663	WPAT-F	APP	226	FM	B	PATERSON	NJ	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	73355	WNYC-F	APP	230	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	73355	WNYC-F	LIC	230	FM	B	NEW YORK	NY		40-42-43	074-00-49	5.400	432.0	443.0	204.8	5.4
C	73887	WPLJ	LIC	238	FM	B	NEW YORK	NY		40-44-54	073-59-10	6.700	407.0	421.0	177.0	0.9
C	29022	WQXR-F	LIC	242	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	19615	WQHT	LIC	246	FM	B	NEW YORK	NY		40-44-54	073-59-10	6.700	408.0	422.0	177.0	0.9
C	61641	WSKQ-F	LIC	250	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	63781	WRKS	LIC	254	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	51249	WBAI	LIC	258	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	4.300	415.0	429.0	177.0	0.9
C	59953	WHTZ	LIC	262	FM	B	NEWARK	NJ	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	9611	WCBS-F	LIC	266	FM	B	NEW YORK	NY		40-44-54	073-59-10	6.800	404.0	418.0	177.0	0.9
C	67846	WQCD	LIC	270	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	6.200	413.0	428.0	177.0	0.9
C	25442	WNEW	LIC	274	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	6595	WKTU	CP	278	FM	B	LAKE SUCCESS	NY	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	6595	WKTU	LIC	278	FM	B	LAKE SUCCESS	NY		40-42-43	074-00-49	5.400	432.0	443.0	204.8	5.4
C	23004	WAXQ	LIC	282	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	6373	WWPR-F	LIC	286	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	46978	WCAA	LIC	290	FM	B1	NEWARK	NJ	N	40-45-04	073-58-37	2.450	220.0	234.0	124.2	1.0
C	46978	WCAA	CP	290	FM	B1	NEWARK	NJ	N	40-44-54	073-59-10	0.610	416.0	430.0	177.0	0.9
C	56571	WLTW	LIC	294	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	6.000	415.0	429.0	177.0	0.9
C	28203	WBLS	LIC	298	FM	B	NEW YORK	NY	N	40-44-54	073-59-10	4.200	415.0	429.0	177.0	0.9

**du Treil, Lundin, and Rackley**

**Coordinates: 40-45-22 73-59-12 Channel Range: 2-100 Range: 16**

Date: 6/25/2003

**CDBS Tv Inquiry List**

Page: 1

Rec Type	Facility Id	Call	Status	Chan	Svc Class	Class	City	St	DA	Latitude	Longitude	ERP (kW)	HAAT (m)	RCAMSL (m)	Bearing	Dist. (km)
C	9610	WCBS-T	LIC	2	TV		NEW YORK	NY	N	40-44-54	073-59-10	45.000	389	402	176.9	0.87
C	47535	WNBC	LIC	4	TV		NEW YORK	NY	N	40-42-43	074-00-49	17.400	515	525	204.8	5.41
C	22206	WNYW	LIC	5	TV		NEW YORK	NY	N	40-42-43	074-00-49	17.400	515	525	204.8	5.41
C	1328	WABC-T	LIC	7	TV		NEW YORK	NY	N	40-42-43	074-00-49	64.600	491	502	204.8	5.41
C	74197	WWOR-T	LIC	9	TV		SECAUCUS	NJ		40-42-43	074-00-49	61.700	500	510	204.8	5.41
C	73881	WPIX	LIC	11	TV		NEW YORK	NY	N	40-42-43	074-00-49	58.900	506	518	204.8	5.41
C	73881	WPIX	STA	12	DS		NEW YORK	NY	N	40-44-54	073-59-10	0.125	306	320	176.9	0.87
C	18795	WNET	LIC	13	TV		NEWARK	NJ		40-42-43	074-00-49	60.300	500	510	204.8	5.41
C	6048	WNYE-T	STA	24	DS		NEW YORK	NY	N	40-41-20	073-58-36	21.500	176.4	186	173.5	7.51
C	6048	WNYE-T	APP	24	DT		NEW YORK	NY	D	40-44-54	073-59-10	200.000	410.5	424	176.9	0.87
C	6048	WNYE-T	LIC	25	TV		NEW YORK	NY	D	40-44-54	073-59-10	2450.00	395	408	176.9	0.87
C	47535	WNBC	CP	28	DT		NEW YORK	NY	N	40-42-43	074-00-49	178.000	448	459	204.8	5.41
C	73356	WPXN-T	CP	30	DT		NEW YORK	NY	D	40-42-43	074-00-49	220.000	458	470	204.8	5.41
C	73356	WPXN-T	LIC	31	TV		NEW YORK	NY	D	40-42-43	074-00-49	2820.00	475	486	204.8	5.41
C	73881	WPIX	CP	33	DT		NEW YORK	NY	D	40-42-43	074-00-49	265.000	448	459	204.8	5.41
C	73333	WNJU	CP	36	DT		LINDEN	NJ	D	40-44-54	073-59-10	832.000	407.5	421	176.9	0.87
C	74197	WWOR-T	CP	38	DT		SECAUCUS	NJ	N	40-42-43	074-00-49	143.000	448	459	204.8	5.41
C	74215	WXTV	CP	40	DT		PATERSON	NJ	D	40-44-54	073-59-10	300.000	421	437	176.9	0.87
C	74215	WXTV	CP	41	TV		PATERSON	NJ	D	40-44-54	073-59-10	2340.00	421	437	176.9	0.87
C	74215	WXTV	LIC	41	TV		PATERSON	NJ	D	40-44-54	073-59-10	2340.00	421	438	176.9	0.87
C	22206	WNYW	STA	44	DS		NEW YORK	NY	N	40-44-54	073-59-10	73.800	368	379	176.9	0.87
C	22206	WNYW	LIC	44	DT		NEW YORK	NY	N	40-44-54	073-59-10	246.000	366	379	176.9	0.87
C	22206	WNYW	APP	44	DT		NEW YORK	NY	D	40-44-54	073-59-10	1000.00	366	381	176.9	0.87
C	1328	WABC-T	CP	45	DT		NEW YORK	NY	N	40-42-43	074-00-49	182.400	448	459	204.8	5.41
C	73333	WNJU	LIC	47	TV		LINDEN	NJ	D	40-42-43	074-00-49	4570.00	460	471	204.8	5.41
C	73333	WNJU	CP	47	TV		LINDEN	NJ	D	40-42-43	074-00-49	4000.00	458	470	204.8	5.41
C	73333	WNJU	APP	47	TV		LINDEN	NJ	D	40-44-54	073-59-10	3330.00	407.5	421	176.9	0.87

Date: 6/25/2003

**CDBS Tv Inquiry List**

Page: 2

<b>Rec Type</b>	<b>Facility Id</b>	<b>Call</b>	<b>Status</b>	<b>Chan</b>	<b>Svc Class</b>	<b>Class</b>	<b>City</b>	<b>St</b>	<b>DA</b>	<b>Latitude</b>	<b>Longitude</b>	<b>ERP (kW)</b>	<b>HAAT (m)</b>	<b>RCAMSL (m)</b>	<b>Bearing</b>	<b>Dist. (km)</b>
C	60555	WFUT	STA	53	DS		NEWARK	NJ	D	40-45-22	073-59-12	3.500	227	242	0	0
C	60555	WFUT	STA	53	DS		NEWARK	NJ	N	40-45-22	073-59-12	3.450	265.4	282	0	0
C	60555	WFUT	CP	53	DT		NEWARK	NJ	D	40-44-54	073-59-10	200.000	439	452	176.9	0.87
C	9610	WCBS-T	LIC	56	DT		NEW YORK	NY	N	40-44-54	073-59-10	349.000	397	410	176.9	0.87
C	18795	WNET	STA	61	DS		NEWARK	NJ	D	40-45-11	073-59-56	2.660	94.2	110	251.7	1.09
C	18795	WNET	STA	61	DS		NEWARK	NJ	D	40-45-11	073-59-56	2.660	94.2	110	251.7	1.09
C	18795	WNET	CP	61	DT		NEWARK	NJ	N	40-42-43	074-00-49	219.000	448	459	204.8	5.41
C	60555	WFUT	LIC	68	TV		NEWARK	NJ	D	40-44-54	073-59-10	2630.00	439	452	176.9	0.87