TECHNICAL EXHIBIT
APPLICATION FOR MODIFICATION OF
DTV CONSTRUCTION PERMIT
STATION WKPV-DT
FACILITY ID: 58341
PONCE, PUERTO RICO

February 28, 2002

CH 19 1000 KW 288 M

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Technical Narrative

This Technical Exhibit supports an application for modification of DTV construction permit (BPCDT-19990719KI) for station WKPV-DT at Ponce, Puerto Rico. Station WKPV-DT is authorized by construction permit (CP) to operate on channel 19 (500-506 MHz) with an antenna maximum directional effective radiated power (ERP) of 50 kilowatts and an antenna radiation center height above average terrain (HHAT) of 288 meters. This application proposes to modify the WKPV-DT construction permit, by proposing a non-directional facility operating with an ERP of 1000 kilowatts and an HAAT of 288 meters. No other changes are proposed.

Station WKPV-DT proposes to operate on DTV channel 19 from its currently authorized construction permit site, N18-04-49 W66-44-53. Specifically, it is proposed to side mount a Dielectric TFU-30DSC-R 03 non-directional antenna on an existing 61 meter tower. The FAA has indicated in Aeronautical Study No. 98-ASO-2811-OE that the structure does not require notice to the FAA and obstruction marking and lighting are not necessary. The structure also passes the slope test of the FCC's Tower Air program. Therefore the structure does not require registration with the FCC.

Figure 1 is a graph and tabulation of the vertical relative field pattern for the proposed Dielectic TFU-30DSC-R O3 non-directional antenna.

There are no known authorized full service AM stations within 5 kilometers (3 miles) of the proposed transmitter site. The following is a list of known authorized full service FM and TV stations within 16 kilometers (10 miles) of the proposed site.

Station	Channel	Bearing(°True)	Distance(km)
WRIO(FM), Ponce, PR	266B	120	11.40
WKPV(TV), Ponce, PR	20	0	0.00
WQTO-DT, Ponce, PR	*25	316	0.04
WQTO, Ponce, PR	*26	316	0.04
WVOZ-DT, Ponce, PR	47	71	0.09
WVOZ-TV, Ponce, PR	48	71	0.09

Although no adverse electromagnetic impact is expected, the applicant recognizes its responsibility to correct problems that result from its proposed DTV operation.

The proposed site is more than 2800 kilometers from the closest point of the Canadian border. The proposed transmitter site is located more than 2000 kilometers from the closest point of the US/Mexican border area. The closest FCC monitoring station is at Santa Isabel, Puerto Rico, approximately 40 kilometers to the east. The closest point of the National Radio Quiet Zone (VA/WV) is more than 2400 kilometers to the north-northwest. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 4400 kilometers to the northwest. The closest radio astronomy site operating on TV channel 37 is at Arecibo, Puerto Rico, located approximately 30 kilometers to the north. The above separations are sufficient to not be a concern for coordination purposes, except with respect to the FCC monitoring station at Santa Isabel and the radio astronomy site at Arecibo, Puerto Rico. Therefore, both facilities will be notified of the proposal.

Figure 2 is a map showing the DTV predicted coverage contours. The map provides both the predicted 41 dBu f(50,90) noise limited contour and 48 dBu f(50,90) city

coverage contour. The extent of the contours has been calculated using the normal FCC prediction method. The Ponce city limits were derived from information contained in the 2000 U.S. Census for Puerto Rico.

Figure 3 is a separation study from the WKPV-DT authorized construction permit site. The study has been used to determine the assignments requiring interference studies. Interference calculations were made to pertinent stations using the procedures outlined in the FCC's OET-69 bulletin and employing a 2 kilometer grid.[1] Interference calculations for the proposed WKPV-DT operation are summarized below.

Protected NTSC/DTV Station	Service Population	Current Interference	Proposed Interference Population
WTRA, NTSC Ch. 16			
Mayaguez, PR	731,688	0.0%	5,863 (0.8%)
NEW(TV), NTSC Ch. 16			
Mayaguez, PR	566,602	0.0%	29 (0.0%)
WTCV(TV), NTSC Ch. 18			
San Juan, PR			
CP	2,318,447	0.0%	888 (0.0%)
License	2,577,601	0.0%	325 (0.0%)
WKPV(TV), NTSC Ch. 20			
Ponce, PR	779,925	0.0%	1,739 (0.2%)
DWSVI, DTV Ch. 20			
Christiansted, VI			
Allotment	111,603	--	0 (0.0%)
Application	111,906	--	0 (0.0%)
WNJX-TV, NTSC Ch. 22			
Mayaguez, PR			
CP	1,326,257	0.0%	47,096 (3.6%)
License	830,691	0.0%	260 (0.0%)
WQTO(TV), NTSC Ch. 26			
Ponce, PR			
License	934,803	0.0%	0 (0.0%)
CP	1,002,535	0.0%	0 (0.0%)
Application	1,189,010	0.0%	0 (0.0%)

[1] The duTreil, 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**. An Alpha based processor computer system was employed.

From the above, it is apparent that the proposed WKPV-DT operation on channel 19 complies with the FCC's 2%/10% interference standard towards all authorized analog and DTV assignments except with respect to authorized construction permit (BPCT-19990908AAA) of NTSC station WNJX-TV on channel 22 at Mayaguez, Puerto Rico. However, both WNJX-TV and WKPV-DT are commonly owned and therefore WNJX-TV will agree to accept the proposed interference from WKPV-DT.

Figure 4 is a print out of the OET-69 interference calculations with respect to the pertinent NTSC and DTV stations tabulated above.

Interference calculations were also prepared with respect to Class A LPTV stations based on the procedures outlined in the FCC's OET-69 bulletin. Interference calculations for the proposed WKPV-DT operation are summarized below.

Protected CLASS A LPTV Station	Service Population	Proposed Interference Population
W15BB, Class A Ch. 15 San Juan, PR	1,826,726	0 (0.0%)
W20BX, Class A Ch. 20 Arecibo, PR License	105,331	0 (0.0%)
W21AR, LPTV Ch. 21 Bayamon-San Juan, PR	1,139,561	0 (0.0%)

From the above, it is apparent that the proposed WKPV-DT operation on channel 19 complies with the FCC's 2%/10% interference standard towards all authorized LPTV and Class A NTSC and DTV stations.

Figure 5 is a print out of the OET-69 interference calculations with respect to the pertinent Class A LPTV stations tabulated above.

The proposed facilities were evaluated in terms of potential radio frequency (RF) energy exposure at 2 meters above ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 50 meters above ground level. The maximum DTV ERP is 1000 kW (horizontal polarization). A “worst-case” vertical plane relative field value of 0.09 (for angles below 60 degrees downward) is assumed for the antenna's downward radiation (see Sheet 2 of Figure 1). The calculated power density at a point 2 meters above ground level is 0.1175 mW/cm^2. This is 34.6% of the FCC's recommended limit of 0.34 mW/cm^2 for DTV channel 19 for an “uncontrolled” environment. Therefore, if necessary measurements will be taken to show compliance.

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 effect with the other stations in the event that workers or other authorized personnel enter the restricted area or climb the tower 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 or scheduling work when the stations are at reduced power or shut down.

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

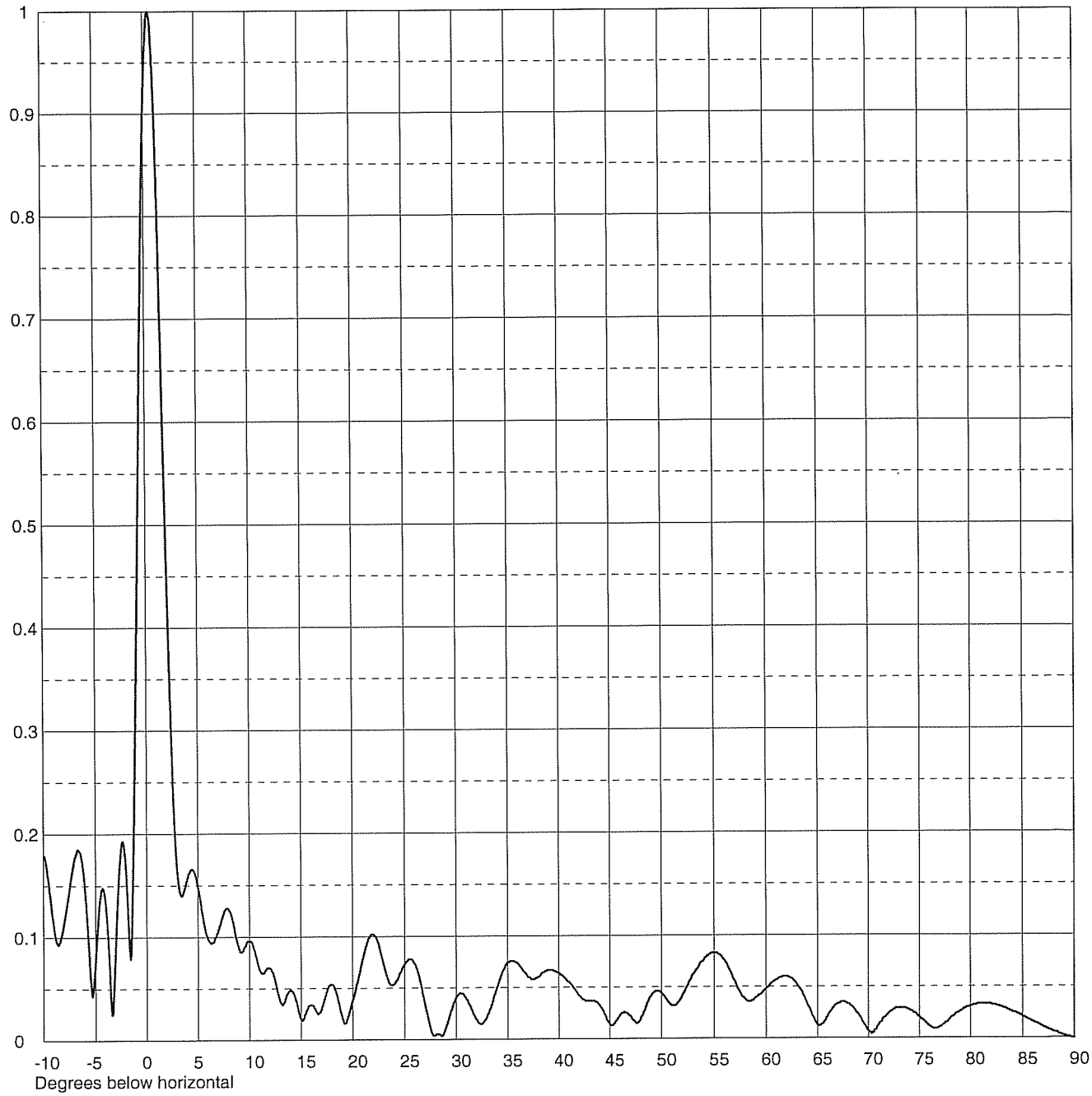
February 28, 2002

Dielectric

Date	**25 Feb 2002**		
Call Letters	**WKPV-DT**	Channel	**19**
Location	**Ponce, PR**		
Customer			
Antenna Type	**TFU-30DSC-R O3**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**25.5 (14.07 dB)**	Beam Tilt	**0.50 Degrees**
RMS Gain at Horizontal	**21.0 (13.22 dB)**	Frequency	**503.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**30Q255050-90**



Remarks:

Dielectric

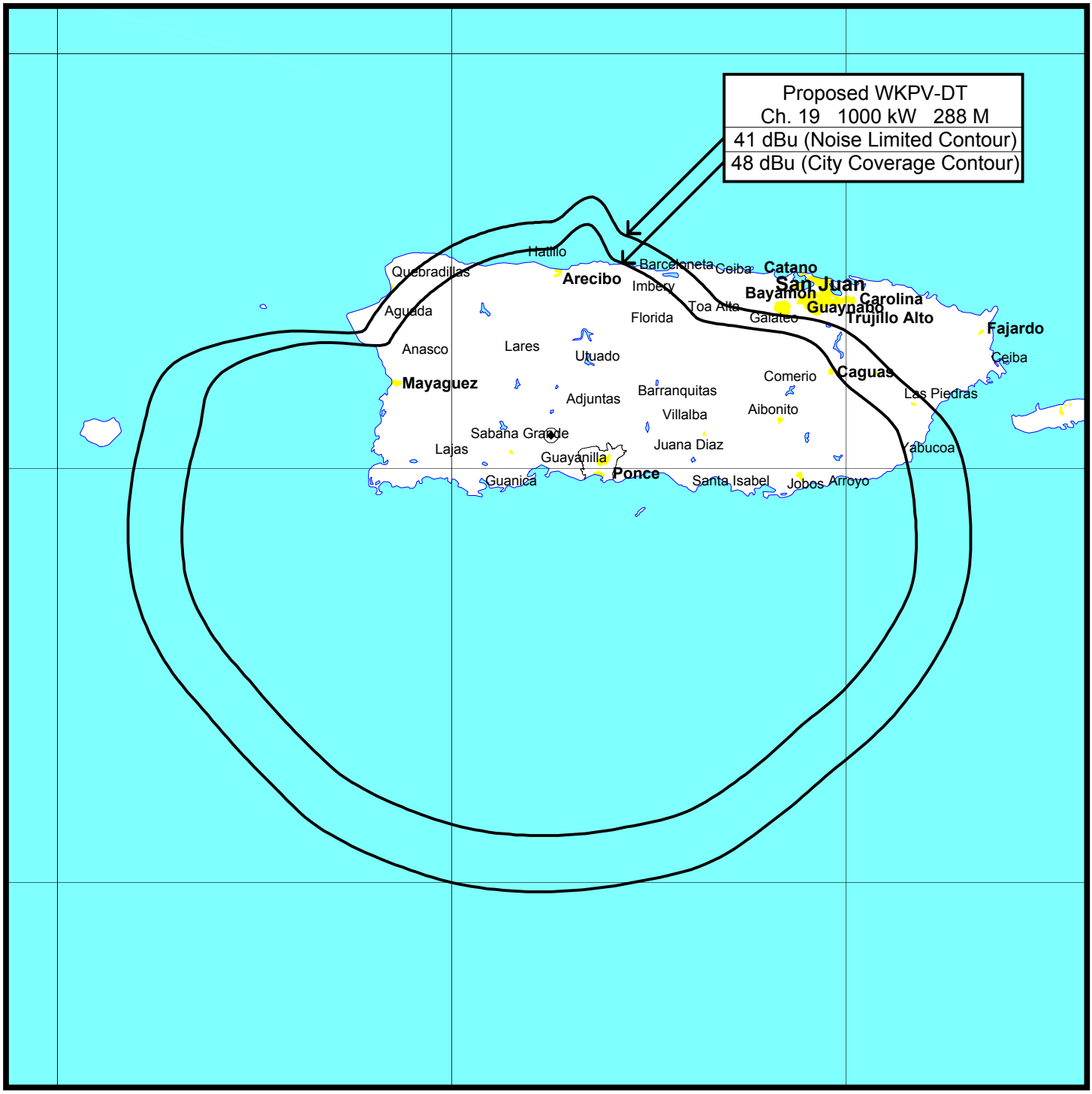
Date 25 Feb 2002
Call Letters WKPV-DT Channel 19
Location Ponce, PR
Customer
Antenna Type TFU-30DSC-R O3

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # 30Q255050-90

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.183	2.4	0.313	10.6	0.083	30.5	0.045	51.0	0.032	71.5	0.019
-9.5	0.153	2.6	0.248	10.8	0.075	31.0	0.039	51.5	0.034	72.0	0.024
-9.0	0.110	2.8	0.199	11.0	0.068	31.5	0.029	52.0	0.042	72.5	0.028
-8.5	0.094	3.0	0.165	11.5	0.066	32.0	0.019	52.5	0.052	73.0	0.029
-8.0	0.116	3.2	0.146	12.0	0.070	32.5	0.015	53.0	0.062	73.5	0.029
-7.5	0.148	3.4	0.140	12.5	0.057	33.0	0.022	53.5	0.070	74.0	0.027
-7.0	0.177	3.6	0.143	13.0	0.037	33.5	0.035	54.0	0.076	74.5	0.024
-6.5	0.182	3.8	0.150	13.5	0.040	34.0	0.051	54.5	0.081	75.0	0.020
-6.0	0.143	4.0	0.157	14.0	0.049	34.5	0.065	55.0	0.083	75.5	0.016
-5.5	0.063	4.2	0.163	14.5	0.039	35.0	0.074	55.5	0.081	76.0	0.011
-5.0	0.076	4.4	0.166	15.0	0.020	35.5	0.076	56.0	0.076	76.5	0.009
-4.5	0.140	4.6	0.164	15.5	0.027	36.0	0.073	56.5	0.066	77.0	0.010
-4.0	0.132	4.8	0.159	16.0	0.034	36.5	0.066	57.0	0.055	77.5	0.014
-3.5	0.043	5.0	0.149	16.5	0.028	37.0	0.060	57.5	0.044	78.0	0.018
-3.0	0.096	5.2	0.138	17.0	0.029	37.5	0.058	58.0	0.038	78.5	0.022
-2.8	0.141	5.4	0.125	17.5	0.047	38.0	0.060	58.5	0.036	79.0	0.026
-2.6	0.175	5.6	0.113	18.0	0.054	38.5	0.065	59.0	0.039	79.5	0.029
-2.4	0.192	5.8	0.104	18.5	0.043	39.0	0.067	59.5	0.043	80.0	0.031
-2.2	0.188	6.0	0.098	19.0	0.022	39.5	0.066	60.0	0.048	80.5	0.032
-2.0	0.163	6.2	0.095	19.5	0.020	40.0	0.064	60.5	0.053	81.0	0.033
-1.8	0.119	6.4	0.095	20.0	0.038	40.5	0.060	61.0	0.057	81.5	0.033
-1.6	0.079	6.6	0.097	20.5	0.057	41.0	0.055	61.5	0.059	82.0	0.033
-1.4	0.118	6.8	0.101	21.0	0.079	41.5	0.049	62.0	0.060	82.5	0.032
-1.2	0.219	7.0	0.107	21.5	0.097	42.0	0.042	62.5	0.058	83.0	0.030
-1.0	0.342	7.2	0.113	22.0	0.102	42.5	0.038	63.0	0.052	83.5	0.028
-0.8	0.472	7.4	0.120	22.5	0.092	43.0	0.037	63.5	0.044	84.0	0.026
-0.6	0.601	7.6	0.125	23.0	0.072	43.5	0.037	64.0	0.033	84.5	0.024
-0.4	0.721	7.8	0.128	23.5	0.055	44.0	0.033	64.5	0.022	85.0	0.021
-0.2	0.825	8.0	0.127	24.0	0.054	44.5	0.024	65.0	0.013	85.5	0.018
0.0	0.908	8.2	0.123	24.5	0.063	45.0	0.014	65.5	0.014	86.0	0.016
0.2	0.966	8.4	0.115	25.0	0.073	45.5	0.015	66.0	0.021	86.5	0.013
0.4	0.996	8.6	0.105	25.5	0.078	46.0	0.023	66.5	0.029	87.0	0.011
0.6	0.997	8.8	0.096	26.0	0.073	46.5	0.026	67.0	0.033	87.5	0.008
0.8	0.971	9.0	0.089	26.5	0.057	47.0	0.022	67.5	0.035	88.0	0.006
1.0	0.921	9.2	0.085	27.0	0.033	47.5	0.016	68.0	0.033	88.5	0.004
1.2	0.851	9.4	0.087	27.5	0.011	48.0	0.019	68.5	0.029	89.0	0.002
1.4	0.766	9.6	0.091	28.0	0.004	48.5	0.031	69.0	0.023	89.5	0.001
1.6	0.672	9.8	0.095	28.5	0.004	49.0	0.041	69.5	0.015	90.0	0.000
1.8	0.575	10.0	0.096	29.0	0.011	49.5	0.046	70.0	0.007		
2.0	0.479	10.2	0.095	29.5	0.027	50.0	0.044	70.5	0.005		
2.2	0.391	10.4	0.090	30.0	0.040	50.5	0.038	71.0	0.012		

Remarks:



PREDICTED COVERAGE CONTOURS

DTV STATION WKPV-DT
PONCE, PUERTO RICO
CH 19 1000 KW 288 M

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

DTV - TV Separation Study

Job Title :WKPV-DT
Zone : 2
Channel 19 (500-506 MHz)

Separation Buffer 32 km
FCC TV DB Date : 02/21/02
Coordinates : 18-04-49 66-44-53

Call Status	City St	FCC File No.	Channel Zone	ERP(kW) HAAT(m)		Latitude Longitude	Bear. True	Dist. (km)	Req. (km)
WTRA	MAYAGUEZ		16(o)	214	DA	18-19-06	300.3	52.60	24.1/96.6
LIC	PR	BLCT -19860826	II	347		67-10-42		-28.50	SHORT
920102	MAYAGUEZ		16(o)	9.55		18-18-51	299.2	53.45	24.1/96.6
APP	PR	BPCT -19920102	II	338		67-11-24		-29.35	SHORT
WTCV	SAN JUAN		18(o)	447	DA	18-16-30	72.5	72.55	12.0/106.0
CP	PR	BPCT -19971113	II	275		66-05-36		-33.45	SHORT
WTCV	SAN JUAN		18(o)	759	DA	18-18-36	75.6	104.02	12.0/106.0
LIC	PR	BLCT -19840808	II	847		65-47-41		-1.98	SHORT
WKPV	PONCE		20(o)	77.6	DA	18-04-49	0.0	0.00	12.0/106.0
LIC	PR	BLCT -20010130	II	288		66-44-53		12.00	CLOSE
WNJX-T	MAYAGUEZ		22(o)	4201	DA	18-09-00	287.4	26.08	24.1/96.6
CP	PR	BPCT -19990908	II	676		66-59-00		-1.98	SHORT
WNJX-T	MAYAGUEZ		22(o)	112	DA	18-09-05	287.3	26.69	24.1/96.6
LIC	PR	BLCT -19990720		602		66-59-20		-2.59	SHORT
WQTO	PONCE		*26(o)	437	DA	18-04-50	315.9	0.05	24.1/96.6
LIC	PR	BLET -19861222	II	302		66-44-54		24.05	CLEAR
WQTO	PONCE		*26(o)	437	DA	18-04-50	315.9	0.05	24.1/96.6
CP	PR	BPET -20000719	II	302		66-44-54		24.05	CLEAR
WQTO	PONCE		*26(o)	1000	DA	18-04-48	250.3	0.10	24.1/96.6
APP	PR	BMPET -20001020	II	310		66-44-56		24.00	CLEAR
WRUA	FAJARDO		34(o)	50.1	DA	18-18-36	75.6	104.02	24.1/96.6
LIC	PR	BLCT -19970216	II	848		65-47-41		7.42	CLOSE

DTV - DTV Separation Study

Job Title :WKPV-DT Separation Buffer 32 km
Zone : 2
Channel 19 (500-506 MHz) Coordinates : 18-04-49 66-44-53

Call Status	City St FCC File No.	Channel Zone	ERP(kW) HAAT(m)	Latitude Longitude	Bear. True	Dist. (km)	Req. (km)
DWKPV	PONCE	19	50.1	18-04-50	70.6	0.09	
DTVALT	PR	II	259	66-44-50			
WKPV-D	PONCE	19	50 DA	18-04-49	0.0	0.00	
CP	PR BPCDT -19990719	II	288	66-44-53			

** End of DTV Separation Study for Channel 19 **

OET-69 DTV AND FULL SERVICE NTSC INTERFERENCE CAUSED STUDY

Study Date: 20020225
INTERFERENCE CAUSED
CELL SIZE : 2.00
Using offset in determining thresholds
Per 6th Report & Order and FCC OET-69 Bulletin

****

DWTRA 18-19-06 067-10-42 16(Z) 214.000 kw 410 m DA 50.0 % 61.9 dBu
MAYAGUEZ PR 11527 0 FCC IX POP%: 0.0
LIC BLCT19860826KG
0.96 1.00 0.98 0.92 0.82 0.70 0.57 0.44 0.32 0.34 0.32 0.43
0.56 0.70 0.82 0.92 0.98 1.00 0.96 0.86 0.71 0.54 0.36 0.18
0.08 0.02 0.01 0.01 0.01 0.02 0.08 0.18 0.36 0.54 0.71 0.86
Ref Az: 0.0
Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	8924.087	731688
not affected by terrain losses	8112.079	561427

****
WKPVD 18-04-49 066-44-53 19(N) 1000.000 kw 670 m 10.0 % 39.2 dBu
PONCE PR 15818 0 DTVSERVICE: 0 NTSCSERVICE: 0
CP BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline: -34.00

	Area	**Pop**
Interference	**84.00**	**5863(0.8%)**

****
920102 18-18-51 067-11-24 16(Z) 9.550 kw 385 m 50.0 % 61.9 dBu
MAYAGUEZ PR 11527 0 FCC IX POP%: 0.0
APP BPCT19920102KE
Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	6020.146	566602
not affected by terrain losses	5328.129	449650

****
WKPVD 18-04-49 066-44-53 19(N) 1000.000 kw 670 m 10.0 % 39.2 dBu
PONCE PR 15818 0 DTVSERVICE: 0 NTSCSERVICE: 0
CP BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline: -34.00

	Area	**Pop**
Interference	**8.0**	**29(0.0%)**

OET-69 DTV AND FULL SERVICE NTSC INTERFERENCE CAUSED STUDY

****
WTCV2 18-16-30 066-05-36 18(Z) 447.000 kw 490 m DA 50.0 % 62.1 dBu
SAN JUAN PR 22841 0 FCC IX POP%: 0.0
CP BPCT19971113KE
1.00 1.00 0.96 0.91 0.82 0.73 0.66 0.61 0.57 0.53 0.50 0.46
0.41 0.35 0.24 0.20 0.23 0.28 0.30 0.28 0.23 0.20 0.24 0.35
0.41 0.46 0.50 0.53 0.51 0.61 0.66 0.73 0.82 0.91 0.96 1.00
Ref Az: 0.0
Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	10448.81	2318447
not affected by terrain losses	8813.933	2030400

****
WKPVD 18-04-49 066-44-53 19(N) 1000.000 kw 670 m 10.0 % 39.2 dBu
PONCE PR 15818 0 DTVSERVICE: 0 NTSCSERVICE: 0
CP BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline: -17.00

	Area	**Pop**
Interference	**7.99**	**888(0.0%)**

****
WTCV 18-18-36 065-47-41 18(Z) 759.000 kw 1056 m DA 50.0 % 62.1 dBu
SAN JUAN PR 22841 0 FCC IX POP%: 0.0
LIC BLCT19840808KN
0.58 0.54 0.51 0.47 0.43 0.38 0.29 0.20 0.20 0.25 0.29 0.29
0.25 0.21 0.20 0.29 0.39 0.44 0.48 0.51 0.55 0.58 0.63 0.69
0.77 0.87 0.94 0.97 1.00 1.00 0.99 0.93 0.87 0.77 0.69 0.63
Ref Az: 0.0
Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	22919.05	2577601
not affected by terrain losses	21251.41	2330222

****
WKPVD 18-04-49 066-44-53 19(N) 1000.000 kw 670 m 10.0 % 39.2 dBu
PONCE PR 15818 0 DTVSERVICE: 0 NTSCSERVICE: 0
CP BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline: -17.00

	Area	**Pop**
Interference	**207.96**	**325(0.0%)**

OET-69 DTV AND FULL SERVICE NTSC INTERFERENCE CAUSED STUDY

```
****************************
WKPV     18-04-49 066-44-53  20(Z)   77.600 kw 670     m DA   50.0 % 62.3 dBu
PONCE           PR  7812       0                                FCC IX POP%: 0.0
LIC     BLCT20010130ABD
0.89  0.90  0.90  0.91  0.93  0.96  0.99  1.00  0.99  0.94  0.86  0.74
0.60  0.44  0.31  0.22  0.20  0.22  0.23  0.22  0.20  0.22  0.31  0.44
0.60  0.74  0.86  0.94  0.99  1.00  0.99  0.96  0.93  0.91  0.90  0.90
Ref Az: 180.0
Using DEFAULT vertical antenna pattern
                                  Area              Pop
within Noise Limited Contour     8549.743           779925
not affected by terrain losses   7952.224           626443
************
 WKPVD    18-04-49 066-44-53  19(N) 1000.000 kw 670     m 10.0 % 39.2 dBu
PONCE           PR 15818       0   DTVSERVICE:       0   NTSCSERVICE:       0
CP      BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline:  -14.00
                                  Area              Pop
Interference                      56.14            1739(0.2%)



 ****************************
 DWSVI    17-45-21 064-47-56  20(0)  501.200 kw 343     m DA   90.0 % 39.3 dBu
CHRISTIANSTED   VI 25457       0
DTVALT  DTV ALLOTMENT
0.94  0.82  0.67  0.51  0.35  0.17  0.06  0.07  0.11  0.14  0.15  0.15
0.14  0.12  0.10  0.08  0.07  0.05  0.06  0.09  0.12  0.14  0.16  0.15
0.14  0.12  0.10  0.13  0.22  0.31  0.47  0.66  0.82  0.94  1.00  1.00
Ref Az:   0.0
Using DEFAULT vertical antenna pattern
                                  Area              Pop
within Noise Limited Contour     17853.42           111672
not affected by terrain losses   17424.43           111603
************
 WKPVD    18-04-49 066-44-53  19(N) 1000.000 kw 670     m 10.0 % 39.2 dBu
PONCE           PR 15818       0   DTVSERVICE:       0   NTSCSERVICE:       0
CP      BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline:  -28.00
                                  Area              Pop
Interference                        0                0(0.0%)
```

OET-69 DTV AND FULL SERVICE NTSC INTERFERENCE CAUSED STUDY

```
 ****************************
 WSVI     17-45-21 064-47-56  20(N)  459.000 kw 355     m DA   90.0 % 39.3 dBu
CHRISTIANSTED   VI 25457       0
APP      BPCDT19991028AED
0.95  0.87  0.77  0.67  0.57  0.48  0.41  0.35  0.30  0.26  0.22  0.19
0.15  0.11  0.10  0.12  0.15  0.15  0.12  0.10  0.11  0.15  0.19  0.22
0.25  0.30  0.35  0.40  0.48  0.57  0.67  0.77  0.87  0.95  0.99  0.99
Ref Az: 345.0
Using DEFAULT vertical antenna pattern
                                  Area              Pop
within Noise Limited Contour     20510.72           111953
not affected by terrain losses   20057.60           111906
************
 WKPVD    18-04-49 066-44-53  19(N) 1000.000 kw 670     m 10.0 % 39.2 dBu
PONCE           PR 15818       0   DTVSERVICE:       0   NTSCSERVICE:       0
CP       BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline:  -28.00
                                 Area              Pop
Interference                      0                 0(0.0%)



****************************
 WNJX-2   18-09-00 066-59-00  22(Z) 4201.000 kw 983     m DA   50.0 % 62.5 dBu
MAYAGUEZ        PR 27691       0                                FCC IX POP%: 0.0
CP       BPCT19990908AAA
1.00  0.99  0.94  0.85  0.73  0.59  0.44  0.30  0.22  0.21  0.23  0.25
0.23  0.21  0.22  0.30  0.44  0.59  0.73  0.85  0.94  0.99  1.00  0.99
0.96  0.94  0.92  0.90  0.90  0.90  0.90  0.90  0.92  0.94  0.96  0.99
Ref Az:   0.0
Using DEFAULT vertical antenna pattern
                                  Area              Pop
within Noise Limited Contour     33290.93           1326257
not affected by terrain losses   32514.12           1074910
************
 WKPVD    18-04-49 066-44-53  19(N) 1000.000 kw 670     m 10.0 % 39.2 dBu
PONCE           PR 15818       0   DTVSERVICE:       0   NTSCSERVICE:       0
CP       BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline:  -30.00
                                 Area              Pop
Interference                     60.06            47096(3.6%)
```

OET-69 DTV AND FULL SERVICE NTSC INTERFERENCE CAUSED STUDY

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**************************
 WNJX-T   18-09-05 066-59-20  22(Z)  112.000 kw 895     m DA   50.0 % 62.5 dBu
MAYAGUEZ        PR 27691       0                                FCC IX POP%: 0.0
LIC     BLCT19990720LI
1.00  1.00  1.00  1.00  1.00  0.99  0.95  0.89  0.81  0.73  0.62  0.53
0.43  0.29  0.15  0.07  0.09  0.14  0.15  0.14  0.09  0.07  0.15  0.29
0.43  0.53  0.62  0.73  0.81  0.89  0.95  0.99  1.00  1.00  1.00  1.00
Ref Az: 290.0
Using DEFAULT vertical antenna pattern
                                  Area              Pop
within Noise Limited Contour     11886.85           830691
not affected by terrain losses   11406.41           695595
************
 WKPVD    18-04-49 066-44-53  19(N) 1000.000 kw 670     m 10.0 % 39.2 dBu
PONCE           PR 15818       0   DTVSERVICE:       0   NTSCSERVICE:       0
CP      BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline:  -30.00
                                 Area              Pop
Interference                     12.01             260(0.0%)



**************************
 WQTO3    18-04-50 066-44-54  26(Z)  437.000 kw 685     m DA   50.0 % 62.9 dBu
PONCE           PR 12274       0                                FCC IX POP%: 0.0
LIC     BLET19861222KU
0.22  0.20  0.19  0.18  0.20  0.27  0.37  0.50  0.68  0.88  0.98  0.99
0.92  0.79  0.51  0.39  0.39  0.38  0.36  0.38  0.39  0.39  0.51  0.79
0.92  0.99  0.98  0.88  0.68  0.50  0.37  0.27  0.20  0.18  0.19  0.20
Ref Az:   0.0
Using DEFAULT vertical antenna pattern
                                  Area              Pop
within Noise Limited Contour     10581.95           934803
not affected by terrain losses   9775.969           733969
************
 WKPVD    18-04-49 066-44-53  19(N) 1000.000 kw 670     m 10.0 % 39.2 dBu
PONCE           PR 15818       0   DTVSERVICE:       0   NTSCSERVICE:       0
CP      BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline:  -35.00
                                 Area              Pop
Interference                     0                 0(0.0%)
```

OET-69 DTV AND FULL SERVICE NTSC INTERFERENCE CAUSED STUDY

```
****************************
 WQTO2    18-04-50 066-44-54  26(Z)  437.000 kw 620     m DA   50.0 % 62.9 dBu
PONCE           PR 12274       0                                FCC IX POP%: 0.0
CP      BPET20000719AAW
0.57  0.54  0.48  0.42  0.42  0.52  0.68  0.84  0.96  1.00  0.96  0.84
0.68  0.52  0.42  0.42  0.48  0.54  0.57  0.54  0.48  0.42  0.42  0.52
0.68  0.84  0.96  1.00  0.96  0.84  0.68  0.52  0.42  0.42  0.48  0.54
Ref Az:   0.0
Using DEFAULT vertical antenna pattern
                                  Area              Pop
within Noise Limited Contour     10489.43          1002535
not affected by terrain losses   9675.454           786717
************
 WKPVD    18-04-49 066-44-53  19(N) 1000.000 kw 670     m 10.0 % 39.2 dBu
PONCE           PR 15818       0   DTVSERVICE:       0   NTSCSERVICE:       0
CP      BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline:  -35.00
                                  Area              Pop
Interference                      4.01              0(0.0%)



****************************
 WQTO     18-04-48 066-44-56  26(Z) 1000.000 kw 681     m DA   50.0 % 62.9 dBu
PONCE           PR 12274       0                                FCC IX POP%: 0.0
APP     BMPET20001020AAJ
0.57  0.54  0.48  0.42  0.42  0.52  0.68  0.84  0.96  1.00  0.96  0.84
0.68  0.52  0.42  0.42  0.48  0.54  0.57  0.54  0.48  0.42  0.42  0.52
0.68  0.84  0.96  1.00  0.96  0.84  0.68  0.52  0.42  0.42  0.48  0.54
Ref Az:   0.0
Using DEFAULT vertical antenna pattern
                                  Area              Pop
within Noise Limited Contour     13706.98          1189010
not affected by terrain losses   12491.88           896782
************
 WKPVD    18-04-49 066-44-53  19(N) 1000.000 kw 670     m 10.0 % 39.2 dBu
PONCE           PR 15818       0   DTVSERVICE:       0   NTSCSERVICE:       0
CP      BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline:  -35.00
                                 Area              Pop
Interference                     0                 0(0.0%)
```

SUMMARY OF CALCULATIONS:

Facility	Channel	Type	Baseline	Permissible	IX	%Base
DWTRA, MAYAGUEZ, PR	16	TV	731688	2.0	5863	0.80
920102, MAYAGUEZ, PR	16	TV	566602	2.0	29	0.01
WTCV2, SAN JUAN, PR	18	TV	2318447	2.0	888	0.04
WTCV, SAN JUAN, PR	18	TV	2577601	2.0	325	0.01
WKPV, PONCE, PR	20	TV	779925	2.0	1739	0.22
DWSVI, CHRISTIANSTED, V	20	DTV	0	2.0	0	0.00
WSVI, CHRISTIANSTED, VI	20	DTV	0	2.0	0	0.00
WNJX-2, MAYAGUEZ, PR	22	TV	1326257	2.0	47096	3.55
WNJX-T, MAYAGUEZ, PR	22	TV	830691	2.0	260	0.03
WQTO3, PONCE, PR	26	TV	934803	2.0	0	0.00
WQTO2, PONCE, PR	26	TV	1002535	2.0	0	0.00
WQTO, PONCE, PR	26	TV	1189010	2.0	0	0.00

OET-69 CLASS A LPTV INTERFERENCE CAUSED STUDY

Study Date: 20020225
INTERFERENCE CAUSED
CELL SIZE : 2.00
Per 6th Report & Order and FCC OET-69 Bulletin

****
W15BB 18-17-42 066-09-56 15(N) 38.800 kw 553 m DA 50.0 % 71.8 dBu
SAN JUAN PR
LIC BLTTL19940223IC
1.00 0.97 0.95 0.93 0.92 0.94 0.98 1.00 0.98 0.95 0.88 0.77
0.63 0.47 0.35 0.23 0.22 0.22 0.23 0.22 0.22 0.23 0.35 0.47
0.63 0.77 0.88 0.95 0.98 1.00 0.98 0.94 0.92 0.93 0.95 0.97
Ref Az: 40.0
Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	3614.789	1826726
not affected by terrain losses	3290.897	1683731

****
WKPVD 18-04-49 066-44-53 19(N) 1000.000 kw 670 m 10.0 % 39.2 dBu
PONCE PR 15818 0
CP BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline: -25.00

	Area	**Pop**
Interference	**0**	**0(0.0%)**

****
W20BX 18-27-14 066-38-15 20(-) 10.000 kw 133 m DA 50.0 % 72.3 dBu
ARECIBO PR
LIC BLTTL20010102AAX
1.00 0.97 0.95 0.93 0.92 0.94 0.98 1.00 0.98 0.95 0.88 0.77
0.63 0.47 0.35 0.23 0.22 0.22 0.23 0.22 0.22 0.23 0.35 0.47
0.63 0.77 0.88 0.95 0.98 1.00 0.98 0.94 0.92 0.93 0.95 0.97
Ref Az: 0.0
Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	623.2648	105331
not affected by terrain losses	619.2695	105257

****
WKPVD 18-04-49 066-44-53 19(N) 1000.000 kw 670 m 10.0 % 39.2 dBu
PONCE PR 15818 0
CP BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline: -14.00

	Area	**Pop**
Interference	**0**	**0(0.0%)**

OET-69 CLASS A/LPTV INTERFERENCE CAUSED STUDY

****

W21AR 18-17-31 066-10-30 21(Z) 19.200 kw 505 m DA 50.0 % 72.4 dBu
BAYAMON-SAN JUAN PR
LIC BLTTL19920330IP

1.00 0.97 0.88 0.76 0.60 0.46 0.25 0.06 0.03 0.03 0.03 0.03
0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03
0.03 0.03 0.03 0.03 0.03 0.06 0.25 0.46 0.60 0.76 0.88 0.97
Ref Az: 15.0
Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	1087.223	1139561
not affected by terrain losses	1083.225	1137715

****

WKPVD 18-04-49 066-44-53 19(N) 1000.000 kw 670 m 10.0 % 39.2 dBu
PONCE PR 15818 0
CP BPCDT19990719KI
Using DEFAULT vertical antenna pattern

D/U Baseline: -24.00

	Area	**Pop**
Interference	**0**	**0(0.0%)**

SUMMARY OF CALCULATIONS:

Facility	Channel	Type	Baseline	Permissible	IX	%Base
W15BB, SAN JUAN, PR	15	TV	1826726	2.0	0	0.00
W20BX, ARECIBO, PR	20	TV	105331	2.0	0	0.00
W21AR, BAYAMON-SAN JUAN	21	TV	1139561	2.0	0	0.00