TVSTUDY LICENSED FACILITY OF W24DW-D, DISPLACED

tvstudy v2.2.5 (4uoc83)
Database: 127.0.0.1, Study: BLANK0000010481 #1351, Model: Longley-Rice
Start: 2018.06.01 16:09:20

Study created: 2018.06.01 16:09:19

Study build station data: LMS TV 2018-05-31

    Proposal: W24DW-D D24 LD LIC CULEBRA, PR
 File number: BLANK0000010481
 Facility ID: 183412
Station data: LMS TV 2018-05-31
   Record ID: 25076f9153aedc3a0153b56ec4ca03d2
     Country: U.S.

Build options:
Protect pre-transition records not on baseline channel

Search options:
Baseline record excluded if station has CP
All records for new LPTV stations excluded

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WMNS-LD	N22+	TX	LIC	CHARLOTTE AMALIE, VI	BLTTL20041015ABV	37.4 km
Yes	W23EM-D	D23	LD	LIC	CEIBA, PR	BLANK0000010679	39.8
Yes	WXWZ-LD	D23	LD	LIC	GUAYAMA, PR	BLDTL20100324ABD	84.8
Yes	WVSN	D23	DT	CP	HUMACAO, PR	BLANK0000034762	58.5
No	WNJX-TV	D23	DT	LIC	MAYAGUEZ, PR	BLCDT20081029ACA	178.7
No	WQSJ-CD	D23	DC	CP	QUEBRADILLAS, PR	BLANK0000034540	199.0
Yes	WCVI-TV	D23	DT	LIC	CHRISTIANSTED, VI	BLANK0000053850	87.7
No	WSJX-LP	N24z	TX	LIC	AQUADILLA, PR	BLTTL20050407AAH	195.6
Yes	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	85.5
Yes	W24EI-D	D24	LD	LIC	CAYEY, PR	BLANK0000004264	102.1
No	WQQZ-CD	D24	DC	CP	PONCE, PR	BLANK0000034790	155.6
Yes	W24DO-D	D24	LD	LIC	SION FARM, ST CROIX, VI	BLANK0000010845	82.2
No	WQHA	D25	DT	CP	AGUADA, PR	BLANK0000024555	199.5
Yes	WQTO	D25	DD	LIC	PONCE, PR	BLEDT20130708ACB	155.3
Yes	W25EF-D	D25	LD	CP	TOA BAJA, PR	BLANK0000036602	83.1
No	W25EF-D	D25	LD	LIC	TOA BAJA, PR	BLDTL20140611AAU	102.1

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

```
    Channel: D24
       Mask: Stringent
   Latitude:  18 19 11.40 N (NAD83)
  Longitude:  65 17 58.00 W
Height AMSL: 175.0 m
       HAAT: 0.0 m
   Peak ERP: 15.0 kW
    Antenna: ANT-ACS8AR (ID 17789) 180.0 deg
Elev Pattrn: Generic
  Elec Tilt: 0.50
```

49.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.013 kW	175.0 m	14.8 km
45.0	0.013	175.0	14.8
90.0	12.2	166.8	48.2
135.0	13.0	174.8	49.1
180.0	15.0	175.0	49.8
225.0	13.0	175.0	49.1
270.0	12.2	175.0	48.7
315.0	0.013	175.0	14.8

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m   Computed HAAT: 174 m

Distance to Canadian border: 2944.4 km

Distance to Mexican border: 3355.7 km

Conditions at FCC monitoring station: Santa Isabel PR
Bearing: 253.1 degrees   Distance: 118.9 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 311.0 degrees   Distance: 4512.8 km

Study cell size: 0.50 km
Profile point spacing: 0.10 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLANK0000010679 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W23EM-D	D23	LD	LIC	CEIBA, PR	BLANK0000010679	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	39.8 km
	WVDO-LD	D22	LD	LIC	CAROLINA, PR	BLDTL20131108AIF	18.9
	WMNS-LD	D22	LD	LIC	CHARLOTTE AMALIE, VI	BLANK0000008100	74.1
	WXWZ-LD	D23	LD	LIC	GUAYAMA, PR	BLDTL20100324ABD	45.5
	WVSN	D23	DT	CP	HUMACAO, PR	BLANK0000034762	18.8
	WCVI-TV	D23	DT	LIC	CHRISTIANSTED, VI	BLANK0000053850	116.3
	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	45.9

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
7512.3	349,261	7295.9	314,496	4223.4	278,556	4204.2	277,277	0.46	0.46

Undesired		Total IX	Unique IX, before		Unique IX, after	
W24DW-D D24 LD LIC	183.8	2,286			19.2	1,279
WVDO-LD D22 LD LIC	44.4	1,810	0.0	0	0.0	0
WMNS-LD D22 LD LIC	167.3	3,206	52.0	1,976	32.3	1,810
WXWZ-LD D23 LD LIC	1386.5	2,233	648.3	2,141	597.5	2,130
WVSN D23 DT CP	2224.6	31,793	1527.7	28,585	1523.7	27,845
WCVI-TV D23 DT LIC	120.4	49	27.8	4	14.0	4
WUJA D24 DT CP	14.1	607	0.5	23	0.5	23

Interference to BLANK0000010679 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W23EM-D	D23	LD	LIC	CEIBA, PR	BLANK0000010679	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	39.8 km
	WVDO-LD	D22	LD	LIC	CAROLINA, PR	BLDTL20131108AIF	18.9

	Call	Chan	Svc	Status	City, State	File Number	Distance
	WXWZ-LD	D23	LD	LIC	GUAYAMA, PR	BLDTL20100324ABD	45.5
	WVSN	D23	DT	CP	HUMACAO, PR	BLANK0000034762	18.8
	WCVI-TV	D23	DT	LIC	CHRISTIANSTED, VI	BLANK0000053850	116.3
	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	45.9

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
7512.3	349,261	7295.9	314,496	4275.4	280,532	4236.5	279,087	0.91	0.52

Undesired		Total IX	Unique IX, before		Unique IX, after	
W24DW-D D24 LD LIC	183.8	2,286			39.0	1,445
WVDO-LD D22 LD LIC	44.4	1,810	0.0	0	0.0	0
WXWZ-LD D23 LD LIC	1386.5	2,233	663.3	2,141	603.7	2,130
WVSN D23 DT CP	2224.6	31,793	1538.3	29,815	1533.4	29,075
WCVI-TV D23 DT LIC	120.4	49	37.7	4	17.0	4
WUJA D24 DT CP	14.1	607	12.3	23	10.9	23

Interference to BLDTL20100324ABD LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WXWZ-LD	D23	LD	LIC	GUAYAMA, PR	BLDTL20100324ABD	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	84.8 km
	WVDO-LD	D22	LD	LIC	CAROLINA, PR	BLDTL20131108AIF	27.8
	WSJN-CD	D22	DC	CP	SAN JUAN, PR	BLANK0000034542	17.4
	WMNS-LD	D22	LD	LIC	CHARLOTTE AMALIE, VI	BLANK0000008100	119.0
	W23EM-D	D23	LD	LIC	CEIBA, PR	BLANK0000010679	45.5
	WVSN	D23	DT	CP	HUMACAO, PR	BLANK0000034762	27.9
	WQSJ-CD	D23	DC	CP	QUEBRADILLAS, PR	BLANK0000034540	117.6
	WCVI-TV	D23	DT	LIC	CHRISTIANSTED, VI	BLANK0000053850	150.4
	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	13.8
	W24EI-D	D24	LD	LIC	CAYEY, PR	BLANK0000004264	24.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
4587.5	1,688,039	3744.4	1,375,096	1758.7	674,817	1755.0	674,817	0.21	0.00

Undesired		Total IX	Unique IX, before		Unique IX, after	
W24DW-D D24 LD LIC	116.8	178			3.7	0
WVDO-LD D22 LD LIC	209.3	12,218	0.0	0	0.0	0
WSJN-CD D22 DC CP	101.1	69,304	0.0	0	0.0	0
WMNS-LD D22 LD LIC	102.0	171	17.5	5	1.0	5
W23EM-D D23 LD LIC	598.4	4,781	113.8	3,958	97.3	3,958
WVSN D23 DT CP	1763.3	680,033	987.0	268,293	986.7	268,293

WQSJ-CD D23 DC CP	0.5	0	0.0	0	0.0	0
WCVI-TV D23 DT LIC	13.0	0	0.0	0	0.0	0
WUJA D24 DT CP	556.2	422,546	14.5	12,239	14.0	12,239
W24EI-D D24 LD LIC	1.0	0	0.0	0	0.0	0

Interference to BLDTL20100324ABD LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WXWZ-LD	D23	LD	LIC	GUAYAMA, PR	BLDTL20100324ABD	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	84.8 km
	WVDO-LD	D22	LD	LIC	CAROLINA, PR	BLDTL20131108AIF	27.8
	WSJN-CD	D22	DC	CP	SAN JUAN, PR	BLANK0000034542	17.4
	W23EM-D	D23	LD	LIC	CEIBA, PR	BLANK0000010679	45.5
	WVSN	D23	DT	CP	HUMACAO, PR	BLANK0000034762	27.9
	WQSJ-CD	D23	DC	CP	QUEBRADILLAS, PR	BLANK0000034540	117.6
	WCVI-TV	D23	DT	LIC	CHRISTIANSTED, VI	BLANK0000053850	150.4
	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	13.8
	W24EI-D	D24	LD	LIC	CAYEY, PR	BLANK0000004264	24.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
4587.5	1,688,039	3744.4	1,375,096	1776.2	674,822	1756.0	674,822	1.14	0.00

Undesired		Total IX		Unique IX, before		Unique IX, after	
W24DW-D D24 LD LIC	116.8	178				20.2	0
WVDO-LD D22 LD LIC	209.3	12,218	0.0	0	0.0	0	
WSJN-CD D22 DC CP	101.1	69,304	0.0	0	0.0	0	
W23EM-D D23 LD LIC	598.4	4,781	162.3	3,958	97.5	3,958	
WVSN D23 DT CP	1763.3	680,033	987.7	268,293	986.7	268,293	
WQSJ-CD D23 DC CP	0.5	0	0.0	0	0.0	0	
WCVI-TV D23 DT LIC	13.0	0	0.0	0	0.0	0	
WUJA D24 DT CP	556.2	422,546	15.0	12,239	14.0	12,239	
W24EI-D D24 LD LIC	1.0	0	0.0	0	0.0	0	

Interference to BLANK0000034762 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WVSN	D23	DT	CP	HUMACAO, PR	BLANK0000034762	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	58.5 km
	WSJN-CD	D22	DC	CP	SAN JUAN, PR	BLANK0000034542	33.2

	WQSJ-CD	D23	DC	CP	QUEBRADILLAS, PR	BLANK0000034540	140.7
	WCVI-TV	D23	DT	LIC	CHRISTIANSTED, VI	BLANK0000053850	132.6
	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	27.1
	WQQZ-CD	D24	DC	CP	PONCE, PR	BLANK0000034790	97.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
26313.6	2,947,873	24025.7	2,626,806	23786.1	2,598,049	23782.2	2,597,878	0.02	0.01

Undesired		Total IX	Unique IX, before		Unique IX, after	
W24DW-D D24 LD LIC	25.3	171			3.9	171
WSJN-CD D22 DC CP	49.9	8,409	10.3	5,078	10.3	5,078
WQSJ-CD D23 DC CP	23.2	4,216	10.3	4,148	10.3	4,148
WCVI-TV D23 DT LIC	23.6	148	4.7	80	4.2	80
WUJA D24 DT CP	97.6	19,383	57.8	16,052	54.9	16,052
WQQZ-CD D24 DC CP	116.4	0	107.5	0	107.5	0

Interference to BLANK0000053850 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WCVI-TV	D23	DT	LIC	CHRISTIANSTED, VI	BLANK0000053850	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	87.7 km
	WVSN	D23	DT	CP	HUMACAO, PR	BLANK0000034762	132.6

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
8249.1	50,601	7811.8	50,397	7374.1	50,397	7238.9	50,288	1.83	0.22

Undesired		Total IX	Unique IX, before		Unique IX, after	
W24DW-D D24 LD LIC	135.2	109			135.2	109
WVSN D23 DT CP	437.7	0	437.7	0	437.7	0

Interference to BLANK0000034758 CP scenario 1 [POST-REPACK CH 24 OF WUJA DT]
**IX: 1.01% interference caused

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	85.5 km
	WVSN	D23	DT	CP	HUMACAO, PR	BLANK0000034762	27.1
	WQQZ-CD	D24	DC	CP	PONCE, PR	BLANK0000034790	71.3

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent	New IX
19638.5	2,698,877	16376.7	2,479,017	15514.6	2,466,382	14124.9	2,441,486	8.96	1.01

Undesired		Total IX	Unique IX, before		Unique IX, after	
W24DW-D D24 LD LIC	1934.6	30,761			1389.6	24,896
WVSN D23 DT CP	825.1	12,635	369.4	12,635	89.0	6,770
WQQZ-CD D24 DC CP	492.7	0	37.0	0	18.3	0

Interference to BLANK0000004264 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W24EI-D	D24	LD	LIC	CAYEY, PR	BLANK0000004264	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	102.1 km
	W23EM-D	D23	LD	LIC	CEIBA, PR	BLANK0000010679	62.6
	WXWZ-LD	D23	LD	LIC	GUAYAMA, PR	BLDTL20100324ABD	24.4
	WVSN	D23	DT	CP	HUMACAO, PR	BLANK0000034762	43.8
	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	16.7
	W24DO-D	D24	LD	LIC	SION FARM, ST CROIX, VI	BLANK0000010845	166.3
	W25EF-D	D25	LD	CP	TOA BAJA, PR	BLANK0000036602	19.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent	New IX
4457.4	2,242,611	4154.0	2,088,260	3144.3	1,168,772	3141.9	1,168,078	0.08	0.06

Undesired		Total IX	Unique IX, before		Unique IX, after	
W24DW-D D24 LD LIC	14.5	3,500			2.5	694
W23EM-D D23 LD LIC	0.5	665	0.0	0	0.0	0
WXWZ-LD D23 LD LIC	20.9	3,998	3.2	568	3.2	568
WVSN D23 DT CP	7.9	2,617	1.5	472	1.5	472
WUJA D24 DT CP	1002.8	917,061	971.0	898,722	962.4	897,129
W24DO-D D24 LD LIC	2.2	916	0.0	0	0.0	0
W25EF-D D25 LD CP	15.5	15,061	1.2	703	1.2	703

Interference to BLANK0000004264 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W24EI-D	D24	LD	LIC	CAYEY, PR	BLANK0000004264	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	102.1 km
	W23EM-D	D23	LD	LIC	CEIBA, PR	BLANK0000010679	62.6
	WXWZ-LD	D23	LD	LIC	GUAYAMA, PR	BLDTL20100324ABD	24.4

	WVSN	D23	DT	CP	HUMACAO, PR	BLANK0000034762	43.8
	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	16.7
	W24DO-D	D24	LD	LIC	SION FARM, ST CROIX, VI	BLANK0000010845	166.3
	W25EF-D	D25	LD	LIC	TOA BAJA, PR	BLDTL20140611AAU	0.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
4457.4	2,242,611	4154.0	2,088,260	3110.9	1,146,587	3108.4	1,145,893	0.08	0.06

Undesired	Total IX		Unique IX, before		Unique IX, after	
W24DW-D D24 LD LIC	14.5	3,500			2.5	694
W23EM-D D23 LD LIC	0.5	665	0.0	0	0.0	0
WXWZ-LD D23 LD LIC	20.9	3,998	3.4	703	3.4	703
WVSN D23 DT CP	7.9	2,617	1.5	472	1.5	472
WUJA D24 DT CP	1002.8	917,061	690.9	717,501	680.3	715,422
W24DO-D D24 LD LIC	2.2	916	0.0	0	0.0	0
W25EF-D D25 LD LIC	325.4	218,084	34.7	22,888	34.7	22,888

Interference to BLANK0000010845 LIC scenario 1
**IX: 2.16% interference caused

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W24DO-D	D24	LD	LIC	SION FARM, ST CROIX, VI	BLANK0000010845	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	82.2 km
	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	150.3

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
7646.4	50,601	7640.3	50,393	7485.0	49,186	6966.2	48,122	6.93	2.16

Undesired	Total IX		Unique IX, before		Unique IX, after	
W24DW-D D24 LD LIC	643.2	2,271			518.9	1,064
WUJA D24 DT CP	155.3	1,207	155.3	1,207	30.9	0

Interference to BLEDT20130708ACB LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WQTO	D25	DD	LIC	PONCE, PR	BLEDT20130708ACB	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	155.3 km

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX

30345.1	2,886,062	28979.9	2,192,036	28979.9	2,192,036	28973.5	2,191,863	0.02	0.01

Undesired	Total IX	Unique IX, before	Unique IX, after
W24DW-D D24 LD LIC	6.4	173	6.4	173

Interference to BLANK0000036602 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W25EF-D	D25	LD	CP	TOA BAJA, PR	BLANK0000036602	
Undesireds:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	83.1 km
	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	2.9
	W24EI-D	D24	LD	LIC	CAYEY, PR	BLANK0000004264	19.4
	WQHA	D25	DT	CP	AGUADA, PR	BLANK0000024555	116.7
	WUSP-LD	D26	LD	LIC	PONCE, PR	BLDTL20140521AHB	51.1
	WIPR-TV	D26	DT	CP	SAN JUAN, PR	BLANK0000034681	17.6
	W26DK-D	D26	LD	LIC	SAN JUAN, PR	BLDTL20120713ACZ	1.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
4468.4	1,656,698	4301.7	1,598,242	4032.0	1,369,909	4029.1	1,369,909	0.07	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
W24DW-D D24 LD LIC	8.6	0			3.0	0
WUJA D24 DT CP	196.2	188,016	149.4	124,033	148.2	124,033
W24EI-D D24 LD LIC	2.0	85	0.2	79	0.2	79
WQHA D25 DT CP	8.4	2,396	5.2	7	1.2	7
WIPR-TV D26 DT CP	112.4	102,346	67.9	40,225	67.9	40,225
W26DK-D D26 LD LIC	0.7	3,968	0.0	0	0.0	0

Interference to proposal scenario 1
9.58% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W24DW-D	D24	LD	LIC	CULEBRA, PR	BLANK0000010481	
Undesireds:	W23EM-D	D23	LD	LIC	CEIBA, PR	BLANK0000010679	39.8 km
	WXWZ-LD	D23	LD	LIC	GUAYAMA, PR	BLDTL20100324ABD	84.8
	WUJA	D24	DT	CP	CAGUAS, PR	BLANK0000034758	85.5
	W24EI-D	D24	LD	LIC	CAYEY, PR	BLANK0000004264	102.1
	W24DO-D	D24	LD	LIC	SION FARM, ST CROIX, VI	BLANK0000010845	82.2
	W25EF-D	D25	LD	CP	TOA BAJA, PR	BLANK0000036602	83.1

Service area		Terrain-limited		IX-free		Percent IX	
5216.7	149,537	5113.3	140,101	3870.9	126,678	24.30	9.58

Undesired		Total IX		Unique IX		Prcnt Unique IX	
W23EM-D D23 LD LIC	175.0	6,426	39.9	3,779		0.78	2.70
WXWZ-LD D23 LD LIC	0.2	0	0.0	0		0.00	0.00
WUJA D24 DT CP	895.2	8,439	427.4	5,725		8.36	4.09
W24EI-D D24 LD LIC	113.6	31	6.4	0		0.13	0.00
W24DO-D D24 LD LIC	641.3	1,289	297.0	1,157		5.81	0.83