

INTERFERENCE ANALYSIS FOR PROPOSED WRFB-DTX CAROLINA, PR (CHANNEL 30)

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: WRFB-DTX AZ=71 100KW 1X.45, Model: Longley-Rice

Start: 2022.11.12 22:13:53

Study last edited: 2022.11.12 22:13:17

Proposal: WRFB-DTX D30 DT APP CAROLINA, PR
File number: WRFB-DTX AZ=71 100KW
Facility ID: 54443
Station data: User record
Record ID: 780
Country: U.S.

Proposal "before": WRFB D30 DT BL CAROLINA, PR
File number: DTVBL54443
Facility ID: 54443
Station data: LMS TV 2022-11-05
Record ID: DTVBL54443
Country: U.S.

Study has been edited. Stations studied for impact of proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
WORA-TV	D29	DD	LIC	MAYAGUEZ, PR	BLANK0000003621	95.4 km
WNJX-TV	D31	DT	LIC	MAYAGUEZ, PR	BLANK0000152412	94.8

Record parameters as studied:

Channel: D30
Latitude: 18 16 26.06 N (NAD83)
Longitude: 66 5 40.41 W
Height AMSL: 508.1 m
HAAT: 296.2 m
Peak ERP: 100 kW
Antenna: DIE TLP-16M/VP 71.0 deg
Elev Pattn: Generic
Elec Tilt: 1.70

40.3 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	89.0 kW	440.8 m	89.8 km
45.0	87.2	407.0	87.9
90.0	84.6	391.3	86.8
135.0	93.5	371.1	86.0
180.0	36.3	123.3	60.6
225.0	3.68	81.5	45.4
270.0	3.51	146.7	51.5
315.0	29.2	408.0	80.6

Distance to Canadian border: 2946.7 km

Distance to Mexican border: 3278.9 km

Conditions at FCC monitoring station: Santa Isabel PR
Bearing: 224.8 degrees Distance: 42.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 311.4 degrees Distance: 4453.1 km

Study cell size: 1.00 km (Higher resolution cell size processing is requested.)

Profile point spacing: 0.45 km (Higher resolution terrain profile spacing is requested.)

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

Maximum new IX to LPTV: 2.00%

Interference to BLANK0000003621 LIC scenario 1

****IX: 10.20% interference caused (WORA AND WRFB ARE COMMONLY OWNED, AND THE INTERFERENCE TO WORA-TV IS ACCEPTED)**

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WORA-TV	D29	DD	LIC	MAYAGUEZ, PR	BLANK0000003621	
Undesireds:	WRFB	D30	DT	BL	CAROLINA, PR	DTVBL54443	120.7 km
	WRFB-DTX	D30	DT	APP	CAROLINA, PR	WRFB-DTX AZ=71 100KW	95.4
	WKAQ-TV	D28	DT	LIC	SAN JUAN, PR	BLCDT20110325AAP	98.9

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
47923.8 3,594,690	46995.1 3,348,582	46563.4 3,177,048	45979.7 2,853,144	1.25 10.20

Undesired	Total IX	Unique IX, before	Unique IX, after
WRFB D30 DT BL	72.9 42,644	27.6 15,046	
WRFB-DTX D30 DT APP	680.1 383,945		611.2 338,950
WKAQ-TV D28 DT LIC	404.2 156,488	358.8 128,890	335.2 111,493

Interference to BLANK0000152412 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WNJX-TV	D31	DT	LIC	MAYAGUEZ, PR	BLANK0000152412	
Undesireds:	WRFB	D30	DT	BL	CAROLINA, PR	DTVBL54443	120.1 km
	WRFB-DTX	D30	DT	APP	CAROLINA, PR	WRFB-DTX AZ=71 100KW	94.8

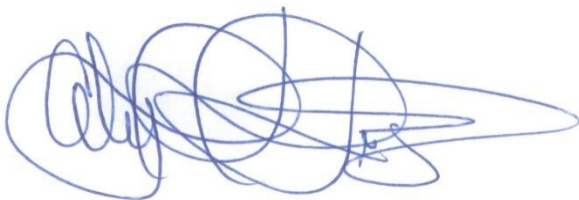
Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
39377.9 1,629,837	38828.2 1,437,522	38819.3 1,433,758	38805.5 1,427,034	0.04 0.47

Undesired	Total IX	Unique IX, before	Unique IX, after
WRFB D30 DT BL	8.9 3,764	8.9 3,764	
WRFB-DTX D30 DT APP	22.6 10,488		22.6 10,488

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Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WRFB-DTX	D30	DT	APP	CAROLINA, PR	WRFB-DTX AZ=71 100KW	
Undesireds:	WORA-TV	D29	DD	LIC	MAYAGUEZ, PR	BLANK0000003621	95.4 km
	WNJX-TV	D31	DT	LIC	MAYAGUEZ, PR	BLANK0000152412	94.8
Service area		Terrain-limited		IX-free		Percent IX	
17878.1	2,604,620	14910.3	2,381,683	14907.3	2,381,559	0.02 0.01	
Undesired		Total IX		Unique IX		Prct Unique IX	
WORA-TV	D29 DD LIC	2.0	124	1.0	26	0.01	0.00
WNJX-TV	D31 DT LIC	2.0	98	1.0	0	0.01	0.00



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