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**Consulting Engineer**

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tvstudy v2.2.3 (Dxtpx3)

Database: localhost, Study: WRFB-PSIBA105-10292017, Model: Longley-Rice

Start: 2017.10.29 14:02:32

Study created: 2017.10.29 13:59:35

**Study build station data: LMS TV 2017-10-28** (41)

Proposal: WRFB-PSIBA D30 DT APP SAN LORENZO, PR

File number: WRFB-PSIBA-105T

Facility ID: 54443

Station data: User record

Record ID: 142

Country: U.S.

Stations affected by 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	APP	MAYAGUEZ, PR	BLANK00000029719
94.8					
WNJX-TV	D31	DT	CP	MAYAGUEZ, PR	BLANK00000028561
94.8					

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D30

Latitude: 18 16 25.00 N (NAD83)

Longitude: 66 5 40.00 W

Height AMSL: 515.0 m

HAAT: 302.4 m

Peak ERP: 250 kW

Antenna: PSI-BA\_PATTERN 105.0 deg

Elev Pattn: PSI-BAPAT\_ELEVATION

Elec Tilt: 1.5

40.3 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	168 kW	447.3 m	95.0 km
45.0	235	414.4	95.6
90.0	235	399.2	94.7
135.0	216	378.3	92.7
180.0	243	129.0	70.3
225.0	99.2	87.2	61.2
270.0	11.6	149.7	57.3

315.0            13.2            414.4            75.7

\*\*Proposal service area extends beyond baseline plus 1.0%  
Proposal service area population is more than 95.0% of baseline

Distance to Canadian border: 2465.4 km

Distance to Mexican border: 3279.0 km

\*\*Proposal is within coordination distance of FCC monitoring station  
Conditions at FCC monitoring station: Santa Isabel PR  
Bearing: 224.9 degrees    Distance: 42.1 km  
ERP: 99.8 kW    HAAT: 87.1m Field strength: 58.4 dBu, 0.8 mV/m

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: 2.00 km  
Profile point spacing: 1.00 km

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

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Interference to BLANK0000003621 LIC, scenario 1

Number	Call	Chan	Svc	Status	City, State	File
		Distance				
Desired:	WORA-TV	D29	DD	LIC	MAYAGUEZ, PR	
BLANK0000003621						
Undesireds:	WRFB	D30	DT	BL	CAROLINA, PR	
DTVBL54443		120.7 km				
	WRFB-PSIBAD30	DT	APP		SAN LORENZO, PR	
WRFB-PSIBA-105T		95.4				
	WKAQ-TV	D28	DT	LIC	SAN JUAN, PR	
BLCDDT20110325AAP		98.9				

	Service area		Terrain-limited		IX-free, before
IX-free, after	Percent	New IX			
45342.1	2,733,629	44777.5	2,586,149	44409.0	2,437,176
44409.0	2,439,768	0.00	-0.11		

Undesired		Total IX	Unique IX, before
Unique IX, after			
WRFB D30 DT BL	52.0	25,663	24.0    14,315
WRFB-PSIBA D30 DT APP	24.0	11,723	
24.0    11,723			
WKAQ-TV D28 DT LIC	344.4	134,658	316.4    123,310
344.4    134,658			

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 Interference to BLANK0000029719 APP, scenario 1

Number	Call	Chan	Svc	Status	City, State	File
	Distance					
Desired:	WNJX-TV	D31	DT	APP	MAYAGUEZ, PR	
BLANK0000029719						
Undesireds:	WRFB	D30	DT	BL	CAROLINA, PR	
DTVBL54443		120.1 km				
	WRFB-PSIBAD30	DT	APP		SAN LORENZO, PR	
WRFB-PSIBA-105T		94.8				
	WIPM-TV	D32	DT	CP	MAYAGUEZ, PR	
BLANK0000024551		0.1				

Service area	Terrain-limited	IX-free, before
IX-free, after	Percent New IX	
39240.2	1,624,070	38483.7
1,412,597	38463.7	1,407,039
38459.7	1,402,113	0.01
		0.35

Undesired	Total IX	Unique IX, before
Unique IX, after		
WRFB D30 DT BL	8.0	1,907
WRFB-PSIBA D30 DT APP	12.0	6,833
12.0	6,833	
WIPM-TV D32 DT CP	12.0	3,651
12.0	3,651	

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 Interference to BLANK0000028561 CP, scenario 1

Number	Call	Chan	Svc	Status	City, State	File
	Distance					
Desired:	WNJX-TV	D31	DT	CP	MAYAGUEZ, PR	
BLANK0000028561						
Undesireds:	WRFB	D30	DT	BL	CAROLINA, PR	
DTVBL54443		120.2 km				
	WRFB-PSIBAD30	DT	APP		SAN LORENZO, PR	
WRFB-PSIBA-105T		94.8				

Service area	Terrain-limited	IX-free, before
IX-free, after	Percent New IX	
38390.5	1,578,890	37698.0
1,362,322	37690.0	1,361,099
37682.1	1,355,266	0.02
		0.43

Undesired	Total IX	Unique IX, before
Unique IX, after		
WRFB D30 DT BL	8.0	1,223
WRFB-PSIBA D30 DT APP	16.0	7,056
16.0	7,056	

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Interference to proposal, scenario 1

Number	Call	Chan	Svc	Status	City, State	File
	Distance					
Desired:	WRFB-PSIBAD30	DT	APP		SAN LORENZO, PR	
WRFB-PSIBA-105T						

Undesireds:	WORA-TV	D29	DD	LIC	MAYAGUEZ, PR
BLANK0000003621		95.4 km			
	WNJX-TV	D31	DT	APP	MAYAGUEZ, PR
BLANK0000029719		94.8			

Service area	Terrain-limited	IX-free
Percent IX		
21031.7	2,700,696	16747.5
0.26	0.03	2,395,331
		16703.4
		2,394,530

Undesired	Total IX	Unique IX
Prct Unique IX		
WORA-TV D29 DD LIC	44.1	801
0.02 0.03		4.0
WNJX-TV D31 DT APP	40.1	0
0.00 0.00		0.0
		0

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Interference to proposal, scenario 2

Number	Call	Chan	Svc	Status	City, State	File
	Distance					
Desired:	WRFB-PSIBAD30	DT	APP		SAN LORENZO, PR	
WRFB-PSIBA-105T						

Undesireds:	WORA-TV	D29	DD	LIC	MAYAGUEZ, PR
BLANK0000003621		95.4 km			
	WNJX-TV	D31	DT	CP	MAYAGUEZ, PR
BLANK0000028561		94.8			

Service area	Terrain-limited	IX-free
Percent IX		
21031.7	2,700,696	16747.5
0.29	0.03	2,395,331
		16699.4
		2,394,517

Undesired	Total IX	Unique IX
Prct Unique IX		
WORA-TV D29 DD LIC	44.1	801
0.02 0.03		4.0
WNJX-TV D31 DT CP	44.1	13
0.02 0.00		4.0
		13