

INTERFERENCE ANALYSIS FOR PROPOSED WSHM-LD, SPRINGFIELD, MA, CHANNEL 20

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: wshm20p3, Model: Longley-Rice

Study build station data: LMS TV 2018-04-25

Proposal: WSHM20P3 D20 LD LIC SPRINGFIELD, MA
File number: wshm20p3
Facility ID: 67980
Station data: User record
Record ID: 2671
Country: U.S.

Search options:
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	WUTF-TV	D19	DT	CP	WORCESTER, MA	BLANK0000034871	98.9 km
No	WYPX-TV	D19	DT	CP	AMSTERDAM, NY	BLANK0000034884	174.0
No	WRGB	D19	LD	LIC	SCHENECTADY, NY	BLCDT20130213ABE	86.1
Yes	WBZ-TV	D20	DT	CP	BOSTON, MA	BLANK0000034573	98.9
No	NEW	D20	LD	APP	BANGOR, ME	BNPDTL20100728AFK	421.5
Yes	W20EB-D	D20	LD	CP	WESTMORELAND, NH	BNPDTL20100514AIM	108.5
No	W20EF-D	D20	LD	LIC	Teaneck, NJ	BLANK0000008104	199.8
No	W20EF-D	D20	LD	CP	Teaneck, NJ	BLANK0000035010	199.8
No	W20EF-D	D20	LD	APP	Teaneck, NJ	BLANK0000053224	199.8
No	WBGH-CD	D20z	DC	LIC	BINGHAMTON, NY	BLANK0000004524	291.4
No	W20CQ-D	D20	LD	LIC	HEMPSTEAD, NY	BLDTL20130912ABS	171.3
No	WNGJ-LP	D20	LD	CP	OGDENSBURG, NY	BDFCDTL20111222AWT	373.6
No	WNGJ-LP	N20-	TX	LIC	OGDENSBURG, NY	BLTTL20110318AEZ	373.6
No	W20CM	N20-	TX	LIC	PORT JERVIS, NY	BLTTL20071129AIS	206.0
No	WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	317.2
No	W20CP-D	D20	LD	LIC	MANSFIELD, PA	BLDTT20081128ABW	375.4
No	W25AQ-D	D20	LD	APP	TOWANDA, PA	BLANK0000051861	340.3
No	WCAX-TV	D20	DT	CP	BURLINGTON, VT	BLANK0000024928	269.4
No	W20CS-D	D20	LD	LIC	RUTLAND, VT	BLDTT20100315ACR	168.1
No	WEDW	D21	DT	CP	BRIDGEPORT, CT	BLANK0000034869	152.5
No	WEDW	D21	DD	APP	BRIDGEPORT, CT	BLANK0000036047	152.5
No	WSBK-TV	D21	DT	CP	BOSTON, MA	BLANK0000034574	98.9
No	WFXQ-CD	D21	DC	CP	SPRINGFIELD, MA	BLANK0000027611	24.2
No	W21CQ	N21+	TX	LIC	BENNINGTON, VT	BLTTL20061201AAG	135.4
No	W28AJ	N28z	TX	LIC	ALLINGTOWN, CT	BLTTL20010608AAO	103.1

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D20
Mask: Full Service
Latitude: 42 7 11.60 N (NAD83)
Longitude: 72 24 37.30 W
Height AMSL: 292.6 m
HAAT: 0.0 m
Peak ERP: 6.00 kW
Antenna: AND-ALP8L3-HSNR (ID 17016) 280.0 deg
Elev Pattn: Generic
Elec Tilt: 0.75

49.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.844 kW	183.7 m	35.9 km
45.0	0.213	141.8	26.3
90.0	0.106	100.7	19.2
135.0	0.079	38.7	11.0
180.0	0.457	90.4	25.8
225.0	1.94	217.8	42.2
270.0	5.72	228.7	48.4
315.0	3.57	218.5	45.4

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 153 m

Distance to Canadian border: 320.6 km

Distance to Mexican border: 2865.7 km

Conditions at FCC monitoring station: Belfast ME
Bearing: 45.0 degrees Distance: 373.2 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 276.5 degrees Distance: 2738.8 km

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No land mobile station failures found

Study cell size: 1.00 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%

Interference to BLANK0000034871 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUTF-TV	D19	DT	CP	WORCESTER, MA	BLANK0000034871	
Undesireds:	WSHM20P3	D20	LD	LIC	SPRINGFIELD, MA	wshm20p3	98.9 km
	WEKW-TV	D18	DT	CP	KEENE, NH	BLANK0000034357	122.5
	WYPX-TV	D19	DT	CP	AMSTERDAM, NY	BLANK0000034884	252.1
	WSTM-TV	D19	DT	CP	SYRACUSE, NY	BLANK0000027419	405.4
	WBZ-TV	D20	DT	CP	BOSTON, MA	BLANK0000034573	0.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
36207.2	7,922,163	34335.8	7,707,993	33928.1	7,677,597	33913.1 7,675,704	0.04 0.02
Undesired				Total IX	Unique IX, before	Unique IX, after	
WSHM20P3 D20 LD LIC				35.8 5,743	14.9 1,893		
WEKW-TV D18 DT CP				117.0 1,628	97.8 1,148		
WYPX-TV D19 DT CP				306.9 29,248	287.8 28,768	266.9 24,918	
WBZ-TV D20 DT CP				3.0 0	3.0 0	3.0 0	

Interference to BLANK0000034573 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WBZ-TV	D20	DT	CP	BOSTON, MA	BLANK0000034573	
Undesireds:	WSHM20P3	D20	LD	LIC	SPRINGFIELD, MA	wshm20p3	98.9 km
	WCAX-TV	D20	DT	CP	BURLINGTON, VT	BLANK0000024928	277.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
36724.1	7,966,312	34741.3	7,732,772	34302.5	7,698,243	33930.3 7,672,863	1.09 0.33
Undesired				Total IX	Unique IX, before	Unique IX, after	
WSHM20P3 D20 LD LIC				469.5 32,405	372.2 25,380		
WCAX-TV D20 DT CP				438.7 34,529	438.7 34,529	341.5 27,504	

Interference to BNPDTL20100514AIM CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W20EB-D	D20	LD	CP	WESTMORELAND, NH	BNPDTL20100514AIM	
Undesireds:	WSHM20P3	D20	LD	LIC	SPRINGFIELD, MA	wshm20p3	108.5 km
	WBZ-TV	D20	DT	CP	BOSTON, MA	BLANK0000034573	124.0
	W20EF-D	D20	LD	LIC	Teaneck, NJ	BLANK0000008104	293.9
	WNGJ-LP	D20	LD	CP	OGDENSBURG, NY	BDFCDTL20111222AWT	305.2
	WCAX-TV	D20	DT	CP	BURLINGTON, VT	BLANK0000024928	164.1
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
2681.2	101,552	2074.9	63,787	1927.5	58,268	1927.5 58,268	0.00 0.00
Undesired				Total IX	Unique IX, before	Unique IX, after	
WSHM20P3 D20 LD LIC				2.0 0	0.0 0		
WBZ-TV D20 DT CP				73.1 1,288	61.0 953	60.0 953	
WCAX-TV D20 DT CP				86.3 4,566	74.3 4,231	73.3 4,231	

Interference to proposal scenario 1 2.26% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WSHM20P3	D20	LD	LIC	SPRINGFIELD, MA	wshm20p3	
Undesireds:	WBZ-TV	D20	DT	CP	BOSTON, MA	BLANK0000034573	98.9 km
	W20EB-D	D20	LD	CP	WESTMORELAND, NH	BNPDTL20100514AIM	108.5
	W20EF-D	D20	LD	LIC	Teaneck, NJ	BLANK0000008104	199.8
	WCAX-TV	D20	DT	CP	BURLINGTON, VT	BLANK0000024928	269.4
Service area		Terrain-limited		IX-free		Percent IX	
3689.8	852,104	3248.3	805,066	3073.4	786,853	5.38 2.26	
Undesired				Total IX	Unique IX	Prct Unique IX	
WBZ-TV D20 DT CP				155.9 11,846	143.8 10,830	4.43 1.35	
W20EB-D D20 LD CP				4.0 1,212	1.0 1,083	0.03 0.13	
WCAX-TV D20 DT CP				29.0 6,295	17.0 5,160	0.52 0.64	