

# INTERFERENCE ANALYSIS FOR PROPOSED W17DF-D, MUSKEGON, MI, CHANNEL 18

tvstudy v2.2.5 (4uoc83)  
Database: localhost, Study: w17df18pl, Model: Longley-Rice

Study build station data: LMS TV 2018-04-12

Proposal: W17DF18Pl D18 LD APP MUSKEGON, MI  
File number: w17df18pl  
Facility ID: 64442  
Station data: User record  
Record ID: 2610  
Country: U.S.

Build options:

Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WYIN	D17	DT	LIC	GARY, IN	BLEDT20040206AAA	241.2 km
Yes	WOTV	D17	DT	CP	BATTLE CREEK, MI	BLANK0000034787	99.7
No	WCMV	D17	DT	LIC	CADILLAC, MI	BLEDT20050914AAI	181.5
No	WXMI	D17	LD	LIC	GRAND RAPIDS, MI	BLCDT20141105ACV	140.2
No	WGBD-LD	D17	LD	APP	GREEN BAY, WI	BLANK0000048529	191.0
No	WBME-CD	D17	DC	CP	MILWAUKEE, WI	BLANK0000034630	145.6
No	WYTU-LD	D17	LD	LIC	MILWAUKEE, WI	BLDTL20120731ALQ	145.6
No	KRIN	D18	LD	APP	WATERLOO, IA	BDRTEDT20120604AFO	374.0
No	WBXC-CD	D18	DC	CP	CHAMPAIGN/URBANA, IL	BLANK0000034661	395.9
No	WMEU-CD	D18	DC	CP	CHICAGO, IL	BLANK0000034599	200.3
No	NEW	D18	LD	APP	DELPHI, IN	BNPDTL20100510ADO	289.6
No	WISE-TV	D18	DT	LIC	FORT WAYNE, IN	BLCDT20091103ACK	258.5
Yes	WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000034724	258.2
No	WAWV-TV	D18	DT	CP	TERRE HAUTE, IN	BLANK0000028343	464.2
No	W18BT	N18-	TX	LIC	ALPENA, MI	BLTTL19981113JB	296.2
No	WDWO-CD	D18	DC	LIC	DETROIT, MI	BLDTA20130108ABZ	249.2
Yes	WBWM-LD	D18	LD	CP	MT PLEASANT, MI	BDCCDTL20121130BNU	87.6
No	WURO-LD	D18	LD	LIC	ROSCOMMON, MI	BLDTL20141113AFT	190.9
Yes	WEYI-TV	D18	DT	CP	SAGINAW, MI	BLANK0000034331	197.2
No	WSTR-TV	D18	DT	CP	CINCINNATI, OH	BLANK0000027774	477.1
No	WSTR-TV	D18	DT	APP	CINCINNATI, OH	BLANK0000034777	477.1
No	WKEF	D18	DT	LIC	DAYTON, OH	BLANK0000004293	429.1
No	WLQP-LP	N18z	TX	LIC	LIMA, OH	BLTTL19990407JA	338.5
No	WDTJ-LD	D18	LD	LIC	TOLEDO, OH	BLDTL20121219ABP	282.3
No	W30BU	D18+	LD	APP	GREEN BAY, WI	BLANK0000051747	187.2
Yes	WMSN-TV	D18	DT	CP	MADISON, WI	BLANK0000034381	275.4
Yes	WVTV	D18	DT	LIC	MILWAUKEE, WI	BLCDT20101012ADH	143.8
No	NEW	D18	LD	CP	WAUSAU, WI	BNPDTL20090914AAF	331.7
No	WGN-TV	D19	DT	LIC	CHICAGO, IL	BMLCDT20080201APP	200.3
Yes	WXMI	D19	DT	LIC	GRAND RAPIDS, MI	BLCDT20030117ABD	86.1
No	W19EA-D	D19	LD	CP	ROSCOMMON, MI	BNPDTL20100223ACZ	177.4
No	W19DQ-D	D19	LD	CP	TRAVERSE CITY, MI	BNPDTL20100301ACZ	164.8
No	WMTV	D19	DT	LIC	MADISON, WI	BLCDT20100413AAW	271.6

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D18

Mask: Full Service

Latitude: 43 18 50.10 N (NAD83)  
Longitude: 86 9 17.20 W  
Height AMSL: 327.9 m  
HAAT: 0.0 m  
Peak ERP: 15.0 kW  
Antenna: Omnidirectional  
Elev Pattn: Generic  
Elec Tilt: 1.75

49.1 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	15.0 kW	115.8 m	46.4 km
45.0	15.0	109.9	45.9
90.0	15.0	124.4	47.1
135.0	15.0	128.8	47.4
180.0	15.0	133.4	47.7
225.0	15.0	145.6	48.6
270.0	15.0	129.9	47.5
315.0	15.0	122.9	47.0

Database HAAT does not agree with computed HAAT  
Database HAAT: 0 m Computed HAAT: 126 m

Proposal 24.15 dBu contour does not cross Canadian border

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Distance to Canadian border: 274.1 km

Distance to Mexican border: 2023.0 km

Conditions at FCC monitoring station: Allegan MI  
Bearing: 168.3 degrees Distance: 80.4 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 264.0 degrees Distance: 1616.5 km

No land mobile station failures found

Proposal is not within the Offshore Radio Service protected area

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 BLANK0000034787 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WOTV	D17	DT	CP	BATTLE CREEK, MI	BLANK0000034787	
Undesireds:	W17DF18P1	D18	LD	APP	MUSKEGON, MI	w17df18p1	99.7 km
	WFWC-CD	D16	DC	CP	FORT WAYNE, IN	BLANK0000025862	165.8
	WOBC-CD	D16	DC	CP	BATTLE CREEK, MI	BLANK0000027730	40.1
	WSMH	D16	DT	LIC	FLINT, MI	BLCDT20090804ABG	134.7
	WYIN	D17	DT	LIC	GARY, IN	BLEDT20040206AAA	209.6
	WALV-CD	D17	DC	CP	INDIANAPOLIS, IN	BLANK0000028083	299.7
	WBNX-TV	D17	DT	CP	AKRON, OH	BLANK0000028072	338.5
	WBME-CD	D17	DC	CP	MILWAUKEE, WI	BLANK0000034630	209.4
	WMEU-CD	D18	DC	CP	CHICAGO, IL	BLANK0000034599	194.3
	WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000034724	164.7
	WEYI-TV	D18	DT	CP	SAGINAW, MI	BLANK0000034331	159.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
27508.6	2,368,326	27495.6	2,368,069	27332.8	2,357,750	27264.9 2,348,282	0.25 0.40

Undesired			Total IX	Unique IX, before		Unique IX, after	
W17DF18P1 D18 LD APP	76.9		9,627			67.9	9,468
WSMH D16 DT LIC	47.2		1,105	45.2	1,079	45.2	1,079
WYIN D17 DT LIC	107.6		9,091	101.6	8,986	101.6	8,986
WBME-CD D17 DC CP	14.0		228	8.0	123	1.0	0
WEYI-TV D18 DT CP	2.0		26	0.0	0	0.0	0

## Interference to BLANK0000034724 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000034724	
Undesireds:	W17DF18P1	D18	LD	APP	MUSKEGON, MI	w17df18p1	258.2 km
	WALV-CD	D17	DC	CP	INDIANAPOLIS, IN	BLANK0000028083	155.1
	WOTV	D17	DT	CP	BATTLE CREEK, MI	BLANK0000034787	164.7
	WBXC-CD	D18	DC	CP	CHAMPAIGN/URBANA, IL	BLANK0000034661	280.1
	WMEU-CD	D18	DC	CP	CHICAGO, IL	BLANK0000034599	221.0
	WAWV-TV	D18	DT	CP	TERRE HAUTE, IN	BLANK0000028343	278.7
	WKYI-CD	D18	DC	CP	LOUISVILLE, KY	BLANK0000034220	309.4
	WEYI-TV	D18	DT	CP	SAGINAW, MI	BLANK0000034331	264.3
	WSTR-TV	D18	DT	CP	CINCINNATI, OH	BLANK0000027774	219.0
	WCBZ-CD	D18	DC	CP	Columbus, OH	BLANK0000034600	216.4
	WIPB	D19	DT	CP	MUNCIE, IN	BLANK0000027189	113.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
21103.5	1,141,942	21092.5	1,141,664	20923.6	1,136,238	20923.6 1,136,238	0.00 0.00

Undesired			Total IX	Unique IX, before		Unique IX, after	
W17DF18P1 D18 LD APP	2.0		83			0.0	0
WAWV-TV D18 DT CP	7.9		663	1.0	5	1.0	5
WEYI-TV D18 DT CP	20.0		1,010	8.0	304	8.0	304
WSTR-TV D18 DT CP	25.0		1,540	5.0	153	5.0	153
WIPB D19 DT CP	135.9		3,600	134.9	3,577	134.9	3,577

## Interference to BDCCDTL20121130BNU CP scenario 1

# INTERFERENCE ANALYSIS FOR PROPOSED W17DF-D, MUSKEGON, MI, CHANNEL 18

Desired:	Call WBWM-LD	Chan D18	Svc LD	Status CP	City, State MT PLEASANT, MI	File Number BDCCDTL20121130BNU	Distance
Undesireds:	W17DF18P1	D18	LD	APP	MUSKEGON, MI	w17df18p1	87.6 km
	WEYI-TV	D18	DT	CP	SAGINAW, MI	BLANK0000034331	111.8
	WXMI	D19	DT	LIC	GRAND RAPIDS, MI	BLCDT20030117ABD	88.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
1744.8	92,849	1744.8	92,849	1108.8	39,976	1107.8 39,976	0.09 0.00
Undesired				Total IX	Unique IX, before	Unique IX, after	
W17DF18P1	D18	LD	APP	3.0 27		1.0 0	
WEYI-TV	D18	DT	CP	635.0 52,864	635.0 52,864	634.0 52,846	
WXMI	D19	DT	LIC	1.0 9	1.0 9	0.0 0	

## Interference to BLANK0000034331 CP scenario 1

Desired:	Call WEYI-TV	Chan D18	Svc DT	Status CP	City, State SAGINAW, MI	File Number BLANK0000034331	Distance		
Undesireds:	W17DF18P1	D18	LD	APP	MUSKEGON, MI	w17df18p1	197.2 km		
	WOTV	D17	DT	CP	BATTLE CREEK, MI	BLANK0000034787	159.4		
	WMEU-CD	D18	DC	CP	CHICAGO, IL	BLANK0000034599	353.3		
	WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000034724	264.3		
	WCBZ-CD	D18	DC	CP	Columbus, OH	BLANK0000034600	350.2		
Service area		Terrain-limited			IX-free, before		IX-free, after	Percent New IX	
30414.0	3,721,774	30293.0	3,661,006		30187.7	3,582,759	30187.7	3,582,759	0.00 0.00
Undesired				Total IX	Unique IX, before		Unique IX, after		
W17DF18P1	D18	LD	APP	1.0	80		0.0	0	
WFWA	D18	DT	CP	105.3	78,247	105.3	78,247	104.3	78,167

## Interference to BLANK0000034381 CP scenario 1

Desired:	Call WMSN-TV	Chan D18	Svc DT	Status CP	City, State MADISON, WI	File Number BLANK0000034381	Distance		
Undesireds:	W17DF18P1	D18	LD	APP	MUSKEGON, MI	w17df18p1	275.4 km		
	KWQC-TV	D17	DT	CP	DAVENPORT, IA	BLANK0000033932	184.7		
	WBME-CD	D17	DC	CP	MILWAUKEE, WI	BLANK0000034630	130.4		
	KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	261.0		
	WBXC-CD	D18	DC	CP	CHAMPAIGN/URBANA, IL	BLANK0000034661	344.5		
	WMEU-CD	D18	DC	CP	CHICAGO, IL	BLANK0000034599	203.3		
	WSEC	D18	DT	CP	JACKSONVILLE, IL	BLANK0000034851	386.2		
	WGN-TV	D19	DT	LIC	CHICAGO, IL	BMLCDT20080201APP	203.3		
	WMTV	D19	DT	LIC	MADISON, WI	BLCDT20100413AAW	3.9		
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX		
35723.1	1,945,147	35158.8	1,923,326	34432.3	1,802,831	34432.3	1,802,831	0.00	0.00
Undesired				Total IX	Unique IX, before		Unique IX, after		
W17DF18P1	D18	LD	APP	13.0	2,049	0.0		0	
KWQC-TV	D17	DT	CP	11.0	185	6.0	181	6.0	181
WBME-CD	D17	DC	CP	405.6	103,316	341.2	94,004	336.2	93,839
KYIN	D18	DT	LIC	62.5	1,043	58.5	1,042	58.5	1,042
WMEU-CD	D18	DC	CP	269.8	24,337	198.4	15,031	197.4	15,014
WSEC	D18	DT	CP	13.9	28	4.0	19	4.0	19
WGN-TV	D19	DT	LIC	1.0	7	0.0	0	0.0	0
WMTV	D19	DT	LIC	42.2	908	41.2	889	41.2	889

## Interference to BLCDDT20101012ADH LIC scenario 1

Desired:	Call WVTV	Chan D18	Svc DT	Status LIC	City, State MILWAUKEE, WI	File Number BLCDDT20101012ADH	Distance		
Undesireds:	W17DF18P1	D18	LD	APP	MUSKEGON, MI	w17df18p1	143.8 km		
	WGN-TV	D19	DT	LIC	CHICAGO, IL	BMLCDT20080201APP	137.1		
	WMTV	D19	DT	LIC	MADISON, WI	BLCDDT20100413AAW	128.6		
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX		
27019.7	2,997,443	26830.4	2,982,759	25973.2	2,827,733	25777.6	2,826,094	0.75	0.06
Undesired				Total IX		Unique IX, before		Unique IX, after	
W17DF18P1	D18	LD	APP	226.7	3,550	195.7	1,639		
WGN-TV	D19	DT	LIC	293.1	126,130	293.1	126,130		
WMTV	D19	DT	LIC	564.1	28,896	533.0	26,985		

# INTERFERENCE ANALYSIS FOR PROPOSED W17DF-D, MUSKEGON, MI, CHANNEL 18

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Interference to BLCDT20030117ABD LIC scenario 1

Desired:	Call WXMI	Chan D19	Svc DT	Status LIC	City, State GRAND RAPIDS, MI	File Number BLCDT20030117ABD	Distance		
Undesireds:	W17DF18P1	D18	LD	APP	MUSKEGON, MI	w17df18p1	86.1 km		
	WMEU-CD	D18	DC	CP	CHICAGO, IL	BLANK0000034599	194.9		
	WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000034724	178.3		
	WEYI-TV	D18	DT	CP	SAGINAW, MI	BLANK0000034331	158.7		
	WGN-TV	D19	DT	LIC	CHICAGO, IL	BMLCDT20080201APP	194.9		
	WIPB	D19	DT	CP	MUNCIE, IN	BLANK0000027189	288.5		
	WKYC	D19	DT	CP	CLEVELAND, OH	BLANK0000028024	348.7		
	WCLL-CD	D19	DC	LIC	COLUMBUS, OH	BLDTA20110616AAM	367.2		
	WMTV	D19	DT	LIC	MADISON, WI	BLCDT20100413AAW	324.6		
	WLWK-CD	D19	DC	CP	STURGEON BAY, WI	BLANK0000026768	287.0		
	WWME-CD	D20	DC	CP	CHICAGO, IL	BLANK0000034604	194.9		
	WFFT-TV	D20	DT	CP	FORT WAYNE, IN	BLANK0000027652	177.6		
	WCMW	D20	DT	CP	MANISTEE, MI	BLANK0000027385	166.3		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
25218.4	1,985,475	25193.4	1,984,795	24242.6	1,966,112	24063.0	1,956,792	0.74	0.47
Undesired				Total IX		Unique IX, before		Unique IX, after	
W17DF18P1	D18	LD	APP	180.7	9,398	179.7	9,320		
WGN-TV	D19	DT	LIC	944.8	18,552	921.9	18,083	921.9	18,083
WIPB	D19	DT	CP	27.0	522	5.0	53	5.0	53
WMTV	D19	DT	LIC	2.0	78	1.0	78	0.0	0

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Interference to proposal scenario 1

Desired:	Call W17DF18P1	Chan D18	Svc LD	Status APP	City, State MUSKEGON, MI	File Number w17df18p1	Distance
Undesireds:	WOTV	D17	DT	CP	BATTLE CREEK, MI	BLANK0000034787	99.7 km
	WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000034724	258.2
	WBWM-LD	D18	LD	CP	MT PLEASANT, MI	BDCCDTL20121130BNU	87.6
	WEYI-TV	D18	DT	CP	SAGINAW, MI	BLANK0000034331	197.2
	WMSN-TV	D18	DT	CP	MADISON, WI	BLANK0000034381	275.4
	WXMI	D19	DT	LIC	GRAND RAPIDS, MI	BLCDT20030117ABD	86.1
Service area		Terrain-limited		IX-free		Percent IX	
7007.6	365,582	6960.0	362,805	6872.7	358,620	1.25	1.15
Undesired				Total IX	Unique IX	Prcnt Unique IX	
WOTV	D17	DT	CP	6.0	288	0.0	0.00
WFWA	D18	DT	CP	6.1	388	1.0	0.01
WBWM-LD	D18	LD	CP	30.0	1,919	12.0	0.17
WEYI-TV	D18	DT	CP	12.1	587	4.0	0.06
WMSN-TV	D18	DT	CP	3.0	137	2.0	0.03
WXMI	D19	DT	LIC	63.2	3,261	45.1	0.65