

Post-Transition DTV Considerations

A study was performed using the FCC's software program, *tv_study*, v.2.2.2, to determine if the facility proposed herein is predicted to cause new prohibited interference to post reassignment DTV station, construction permits, DTV allotments, or Class A DTV stations. As demonstrated in the attached study results, the instant proposal is predicted to cause no new interference exceeding 0.5% to the populations served by any post reassignment DTV station, construction permit, allotment, or Class A DTV stations. In addition, the attached study also demonstrates that the predicted service area resulting from the technical facility proposed herein is within the baseline service area plus 1% and the proposed service area population is more than 95.0% of the baseline service area population. Accordingly, the instant proposal satisfies all applicable DTV coverage and DTV interference criteria.

International DTV Considerations

As shown in the attached study, the transmitter site specified herein is within 320 kilometers of the common border between the United States of America and Canada. As demonstrated in the attached study, the assigned, post transition, technical facility proposed herein satisfies DTV interference criteria with respect to all relevant Canadian allotments, applications and assignments.

tvstudy v2.2.2
 Database: localhost, Study: DTVBL_393H_98KW_605C, Model: Longley-Rice
 Start: 2017.06.26 11:45:07

Study created: 2017.06.26 11:45:00

Study build station data: LMS TV 2017-06-21 (19)

Proposal: WEYI-TV D18 DT APP SAGINAW, MI
 File number: DTVBL_393H_98KW_605C
 Facility ID: 72052
 Station data: User record
 Record ID: 709
 Country: U.S.

Non-U.S. records included

Stations potentially affected:

Call	Chan	Svc	Status	City, State	File Number	Distance
WOTV	D17	DT	BL	BATTLE CREEK, MI	DTVBL10212	159.4 km
WMEU-CD	D18	DC	BL	CHICAGO, IL	DTVBL168662	353.3
WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000025074	264.3
WFWA	D18	DT	BL	FORT WAYNE, IN	DTVBL22108	264.3
WSTR-TV	D18	DT	BL	CINCINNATI, OH	DTVBL11204	451.4
WMNO-CD	D18	DC	BL	MARION, OH	DTVBL1104	291.9
WXMI	D19	DT	LIC	GRAND RAPIDS, MI	BLCDT20030117ABD	158.7
CHWI-DT-60	D17	DT	LIC	WINDSOR, ON	BLANKCANADA243	114.5
CICO-DT-18	D18	DT	LIC	LONDON, ON	BLANKCANADA186	194.3
CFMT-DT	D18	DT	LIC	TORONTO, ON	BLANKCANADA239	353.0
CJMT-DT-1	D19	DT	LIC	LONDON, ON	BLANKCANADA187	194.3
CICO-DT-32	D19	DT	LIC	WINDSOR, ON	BLANKCANADA244	133.9

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
Latitude: 43 13 1.09 N (NAD83)
Longitude: 83 43 16.86 W
Height AMSL: 604.9 m
HAAT: 393.0 m
Peak ERP: 98.0 kW
Antenna: Omnidirectional

39.1 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	98.0 kW	408.2 m	90.7 km
45.0	98.0	398.5	90.1
90.0	98.0	372.3	88.4
135.0	98.0	371.4	88.3
180.0	98.0	376.7	88.7
225.0	98.0	393.7	89.9
270.0	98.0	407.7	90.7
315.0	98.0	414.1	91.0

Proposal service area is within baseline plus 1.0%

Proposal service area population is more than 95.0% of baseline

**Proposal is within coordination distance of Canadian border

Distance to Canadian border: 107.7 km

Distance to Mexican border: 2166.1 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 250.3 degrees Distance: 194.2 km
ERP: 98.0 kW Field strength: 9.4 dBu, 0.0 mV/m

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 266.5 degrees Distance: 1811.9 km

No land mobile station failures found

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%

Interference to DTVBL10212 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL10212 BL, scenario 2
Proposal causes no interference.

Interference to DTVBL168662 BL, scenario 1
Proposal causes no interference.

 Interference to DTVBL168662 BL, scenario 2
 Proposal causes no interference.

 Interference to DTVBL168662 BL, scenario 3
 Proposal causes no interference.

 Interference to DTVBL168662 BL, scenario 4
 Proposal causes no interference.

 Interference to BLANK0000025074 CP, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	
Distance							
Desired:	WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000025074	
Undesireds:	WEYI-TV	D18	DT	BL	SAGINAW, MI	DTVBL72052	264.3
km	WEYI-TV	D18	DT	APP	SAGINAW, MI	DTVBL_393H_98KW_605C	264.3
	WALV-CD	D17	DC	BL	INDIANAPOLIS, IN	DTVBL70161	155.1
	WOTV	D17	DT	BL	BATTLE CREEK, MI	DTVBL10212	164.7
	WBXC-CD	D18	DC	APP	CHAMPAIGN/URBANA, IL	BLANK0000025142	280.1
	WMEU-CD	D18	DC	BL	CHICAGO, IL	DTVBL168662	221.0
	WAWV-TV	D18	DT	BL	TERRE HAUTE, IN	DTVBL65247	278.7
	WKYI-CD	D18	DC	BL	LOUISVILLE, KY	DTVBL25078	309.4

WSTR-TV	D18	DT	BL	CINCINNATI, OH	DTVBL11204	219.0
WMNO-CD	D18	DC	BL	MARION, OH	DTVBL1104	181.2
WIPB	D19	DT	BL	MUNCIE, IN	DTVBL3646	113.5

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent
New IX				
17481.6	946,092	17477.6	945,840	17441.4
944,638	-0.02	-0.01		944,541
				17445.5

Undesired	Total IX	Unique IX, before	Unique IX, after
WEYI-TV D18 DT BL	4.0	97	4.0
WEYI-TV D18 DT APP	0.0	0	0.0
WSTR-TV D18 DT BL	12.1	356	12.1
WIPB D19 DT BL	20.0	846	20.0

Interference to BLANK0000025074 CP, scenario 2

Distance	Call	Chan	Svc	Status	City, State	File Number
Desired:	WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000025074
Undesireds:	WEYI-TV	D18	DT	BL	SAGINAW, MI	DTVBL72052
km	WEYI-TV	D18	DT	APP	SAGINAW, MI	DTVBL_393H_98KW_605C
	WALV-CD	D17	DC	BL	INDIANAPOLIS, IN	DTVBL70161
	WOTV	D17	DT	BL	BATTLE CREEK, MI	DTVBL10212
	WBXC-CD	D18	DC	BL	CHAMPAIGN/URBANA, IL	DTVBL70428
	WMEU-CD	D18	DC	BL	CHICAGO, IL	DTVBL168662
	WAWV-TV	D18	DT	BL	TERRE HAUTE, IN	DTVBL65247
	WKYI-CD	D18	DC	BL	LOUISVILLE, KY	DTVBL25078
	WSTR-TV	D18	DT	BL	CINCINNATI, OH	DTVBL11204

WMNO-CD	D18	DC	BL	MARION, OH	DTVBL1104	181.2
WIPB	D19	DT	BL	MUNCIE, IN	DTVBL3646	113.5

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent
New IX				
17481.6	946,092	17477.6	945,840	17441.4
944,638	-0.02	-0.01		944,541
			17445.5	

Undesired	Total IX	Unique IX, before	Unique IX, after
WEYI-TV D18 DT BL	4.0	97	4.0
WEYI-TV D18 DT APP	0.0	0	0.0
WSTR-TV D18 DT BL	12.1	356	12.1
WIPB D19 DT BL	20.0	846	20.0

 Interference to DTVBL22108 BL, scenario 1

Distance	Call	Chan	Svc	Status	City, State	File Number	
Desired:	WFWA	D18	DT	BL	FORT WAYNE, IN	DTVBL22108	
Undesireds:	WEYI-TV	D18	DT	BL	SAGINAW, MI	DTVBL72052	264.3
km	WEYI-TV	D18	DT	APP	SAGINAW, MI	DTVBL_393H_98KW_605C	264.3
	WALV-CD	D17	DC	BL	INDIANAPOLIS, IN	DTVBL70161	155.1
	WOTV	D17	DT	BL	BATTLE CREEK, MI	DTVBL10212	164.7
	WBXC-CD	D18	DC	APP	CHAMPAIGN/URBANA, IL	BLANK0000025142	280.2
	WMEU-CD	D18	DC	BL	CHICAGO, IL	DTVBL168662	221.0
	WAWV-TV	D18	DT	BL	TERRE HAUTE, IN	DTVBL65247	278.8
	WKYI-CD	D18	DC	BL	LOUISVILLE, KY	DTVBL25078	309.4
	WSTR-TV	D18	DT	BL	CINCINNATI, OH	DTVBL11204	219.0
	WMNO-CD	D18	DC	BL	MARION, OH	DTVBL1104	181.2

	WIPB	D19	DT	BL	MUNCIE, IN	DTVBL3646	113.5
	Service area			Terrain-limited	IX-free, before	IX-free, after	Percent
New IX							
17208.6	935,064	17204.5		934,812	17172.4	933,574	0.00
0.00							
Undesired				Total IX	Unique IX, before	Unique IX, after	
WEYI-TV D18 DT BL		4.0		97	4.0	97	
WEYI-TV D18 DT APP		4.0		97		4.0	97
WSTR-TV D18 DT BL		12.1		356	12.1	356	
WIPB D19 DT BL		16.0		785	16.0	785	

Interference to DTVBL22108 BL, scenario 2

	Call	Chan	Svc	Status	City, State	File Number	
Distance							
Desired:	WFWA	D18	DT	BL	FORT WAYNE, IN	DTVBL22108	
Undesireds:	WEYI-TV	D18	DT	BL	SAGINAW, MI	DTVBL72052	264.3
km	WEYI-TV	D18	DT	APP	SAGINAW, MI	DTVBL_393H_98KW_605C	264.3
	WALV-CD	D17	DC	BL	INDIANAPOLIS, IN	DTVBL70161	155.1
	WOTV	D17	DT	BL	BATTLE CREEK, MI	DTVBL10212	164.7
	WBXC-CD	D18	DC	BL	CHAMPAIGN/URBANA, IL	DTVBL70428	280.2
	WMEU-CD	D18	DC	BL	CHICAGO, IL	DTVBL168662	221.0
	WAWV-TV	D18	DT	BL	TERRE HAUTE, IN	DTVBL65247	278.8
	WKYI-CD	D18	DC	BL	LOUISVILLE, KY	DTVBL25078	309.4
	WSTR-TV	D18	DT	BL	CINCINNATI, OH	DTVBL11204	219.0
	WMNO-CD	D18	DC	BL	MARION, OH	DTVBL1104	181.2
	WIPB	D19	DT	BL	MUNCIE, IN	DTVBL3646	113.5

	Service area	Terrain-limited		IX-free, before		IX-free, after		Percent
New IX								
17208.6	935,064	17204.5	934,812	17172.4	933,574	17172.4	933,574	0.00
0.00								

Undesired		Total IX	Unique IX, before	Unique IX, after
WEYI-TV D18 DT BL	4.0	97	4.0	97
WEYI-TV D18 DT APP	4.0	97		4.0
WSTR-TV D18 DT BL	12.1	356	12.1	356
WIPB D19 DT BL	16.0	785	16.0	785

Interference to DTVBL11204 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL11204 BL, scenario 2
Proposal causes no interference.

Interference to DTVBL11204 BL, scenario 3
Proposal causes no interference.

Interference to DTVBL11204 BL, scenario 4
Proposal causes no interference.

Interference to DTVBL1104 BL, scenario 1
Proposal causes no interference.

Interference to DTVBL1104 BL, scenario 2
Proposal causes no interference.

Interference to BLCDT20030117ABD LIC, scenario 1
Proposal causes no interference.

Interference to BLCDT20030117ABD LIC, scenario 2
Proposal causes no interference.

Interference to BLANKCANADA243 LIC, scenario 1
Proposal causes no interference.

Interference to BLANKCANADA186 LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	
Distance							
Desired:	CICO-DT-18D18		DT	LIC	LONDON, ON	BLANKCANADA186	
Undesireds:	WEYI-TV	D18	DT	BL	SAGINAW, MI	DTVBL72052	194.3

km

WEYI-TV	D18	DT	APP	SAGINAW, MI	DTVBL_393H_98KW_605C	194.3
WMNO-CD	D18	DC	BL	MARION, OH	DTVBL1104	297.5
WJPW-CD	D18	DC	LIC	WEIRTON, WV	BLDTA20130417ABH	294.6
CHWI-DT-60D17		DT	LIC	WINDSOR, ON	BLANKCANADA243	155.0
CFMT-DT	D18	DT	LIC	TORONTO, ON	BLANKCANADA239	176.6
CJMT-DT-1	D19	DT	LIC	LONDON, ON	BLANKCANADA187	0.1
CICO-DT-32D19		DT	LIC	WINDSOR, ON	BLANKCANADA244	158.3

	Service area		Terrain-limited		IX-free, before		IX-free, after	Percent
New IX								
11763.7	710,481	11763.7	710,481	11616.3	698,811	11648.2		
699,969	-0.27	-0.17						

Undesired				Total IX	Unique IX, before	Unique IX, after
WEYI-TV D18 DT BL		111.6		8,828	59.8	5,691
WEYI-TV D18 DT APP		67.7		4,533		27.9
CFMT-DT D18 DT LIC		87.6		5,979	35.8	2,842
						47.8
						5,979

Interference to BLANKCANADA186 LIC, scenario 2

	Call	Chan	Svc	Status	City, State	File Number
Distance						
Desired:	CICO-DT-18D18	D18	DT	LIC	LONDON, ON	BLANKCANADA186
Undesireds:	WEYI-TV	D18	DT	BL	SAGINAW, MI	DTVBL72052
km						194.3
	WEYI-TV	D18	DT	APP	SAGINAW, MI	DTVBL_393H_98KW_605C
	WMNO-CD	D18	DC	BL	MARION, OH	DTVBL1104
	WJPW-CD	D18	DC	LIC	WEIRTON, WV	BLDTA20130417ABH
	CHWI-DT-60D17		DT	LIC	WINDSOR, ON	BLANKCANADA243
						155.0

CFMT-DT	D18	DT	LIC	TORONTO, ON	BLANKCANADA239	176.6
CJMT-DT-1	D19	DT	LIC	LONDON, ON	BLANKCANADA187	0.1
CICO-DT-32	D19	DT	LIC	WINDSOR, ON	BLANKCANADA244	158.3

	Service area		Terrain-limited		IX-free, before		IX-free, after	Percent
New IX								
11763.7	710,481	11763.7	710,481	11616.3	698,811	11648.2		
699,969	-0.27	-0.17						

Undesired			Total IX	Unique IX, before		Unique IX, after
WEYI-TV D18 DT BL	111.6	8,828	59.8	5,691		
WEYI-TV D18 DT APP	67.7	4,533			27.9	4,533
CFMT-DT D18 DT LIC	87.6	5,979	35.8	2,842	47.8	5,979

 Interference to BLANKCANADA239 LIC, scenario 1
 Proposal causes no interference.

 Interference to BLANKCANADA187 LIC, scenario 1
 Proposal causes no interference.

 Interference to BLANKCANADA244 LIC, scenario 1
 Proposal causes no interference.

 Interference to BLANKCANADA244 LIC, scenario 2
 Proposal causes no interference.

Interference to proposal, scenario 1							
4.77% interference							
Distance	Call	Chan	Svc	Status	City, State	File Number	
Desired:	WEYI-TV	D18	DT	APP	SAGINAW, MI	DTVBL_393H_98KW_605C	
Undesireds:	WOTV	D17	DT	BL	BATTLE CREEK, MI	DTVBL10212	159.4
km	WMEU-CD	D18	DC	BL	CHICAGO, IL	DTVBL168662	353.3
	WFWA	D18	DT	CP	FORT WAYNE, IN	BLANK0000025074	264.3
	WMNO-CD	D18	DC	BL	MARION, OH	DTVBL1104	291.9
	WXMI	D19	DT	LIC	GRAND RAPIDS, MI	BLCDT20030117ABD	158.7
	CHWI-DT-60	D17	DT	LIC	WINDSOR, ON	BLANKCANADA243	114.5
	CICO-DT-18	D18	DT	LIC	LONDON, ON	BLANKCANADA186	194.3
	CHCH-TV-5	D18	DT	LIC	SAULT STE MARIE, ON	BLANKCANADA220	378.3
	CFMT-DT	D18	DT	LIC	TORONTO, ON	BLANKCANADA239	353.0
	CICO-DT-32	D19	DT	LIC	WINDSOR, ON	BLANKCANADA244	133.9
Service area		Terrain-limited		IX-free		Percent IX	
25326.8	2,711,026	25234.5	2,632,423	25030.2	2,506,776	0.81	4.77
Undesired		Total IX		Unique IX		Prcnt Unique IX	
WFWA D18 DT CP		68.3	65,934	24.1	13,430	0.10	0.51
CICO-DT-18 D18 DT LIC		103.8	28,014	83.8	7,569	0.33	0.29
CICO-DT-32 D19 DT LIC		88.4	96,537	52.2	52,144	0.21	1.98

Interference to proposal, scenario 2							

4.61% interference

Distance	Call	Chan	Svc	Status	City, State	File Number	
Desired:	WEYI-TV	D18	DT	APP	SAGINAW, MI	DTVBL_393H_98KW_605C	
Undesireds:	WOTV	D17	DT	BL	BATTLE CREEK, MI	DTVBL10212	159.4
km	WMEU-CD	D18	DC	BL	CHICAGO, IL	DTVBL168662	353.3
	WFWA	D18	DT	BL	FORT WAYNE, IN	DTVBL22108	264.3
	WMNO-CD	D18	DC	BL	MARION, OH	DTVBL1104	291.9
	WXMI	D19	DT	LIC	GRAND RAPIDS, MI	BLC DT20030117ABD	158.7
	CHWI-DT-60	D17	DT	LIC	WINDSOR, ON	BLANKCANADA243	114.5
	CICO-DT-18	D18	DT	LIC	LONDON, ON	BLANKCANADA186	194.3
	CHCH-TV-5	D18	DT	LIC	SAULT STE MARIE, ON	BLANKCANADA220	378.3
	CFMT-DT	D18	DT	LIC	TORONTO, ON	BLANKCANADA239	353.0
	CICO-DT-32	D19	DT	LIC	WINDSOR, ON	BLANKCANADA244	133.9

Service area	Terrain-limited	IX-free	Percent IX
25326.8 2,711,026	25234.5 2,632,423	25042.2 2,511,013	0.76 4.61

Undesired	Total IX	Unique IX	Prcnt Unique IX
WFWA D18 DT BL 56.2	61,697	12.0 9,193	0.05 0.35
CICO-DT-18 D18 DT LIC 103.8	28,014	83.8 7,569	0.33 0.29
CICO-DT-32 D19 DT LIC 88.4	96,537	52.2 52,144	0.21 1.98