



FCC Form 2100  
WTOM-TV DTV Allocation Considerations  
August, 2017  
Amended Post-Transition DTV Considerations

The instant amendment to application # 0000027395 is to provide a new study to identify potential interference and to reduce the proposed ERP from 38 kW to 37.8 kW in order to comply with the 1% limit to the extension of coverage contour in any direction.

A new study was performed using the new version of the FCC's software program, *tv\_study*, v.2.2.3, to determine if the facility as 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 new 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.



## WTOM-TV - CHEBOYGAN, MICHIGAN Amended Appendix B - Longley-Rice Interference Analysis August, 2017

tvstudy v2.2.3 (Dxtpx3)  
Database: localhost, Study: WTOM\_16\_37\_8K\_3B, Model: Longley-Rice  
Start: 2017.07.31 14:28:51

Study created: 2017.07.31 14:28:32

Study build station data: LMS TV 2017-07-27 (27)

Proposal: WTOM-TV D16 DT APP CHEBOYGAN, MI  
File number: WTOM\_16\_37\_8K\_3B  
Facility ID: 21254  
Station data: User record  
Record ID: 984  
Country: U.S.  
Zone: II

Build options:  
Protect records not on baseline channel

Search options:  
Non-U.S. records included  
Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
WCMV	D17	DT	LIC	CADILLAC, MI	BLEDT20050914AAI	115.3 km

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D16  
Latitude: 45 39 1.00 N (NAD83)  
Longitude: 84 20 37.00 W  
Height AMSL: 383.7 m  
HAAT: 194.0 m  
Peak ERP: 37.8 kW  
Antenna: DIE-TLP-24M (C)/VP (ID 1001615) 230.0 deg  
Elev Pattn: Generic  
Elec Tilt: 0.5

38.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	5.81 kW	206.7 m	59.3 km
45.0	2.20	206.7	54.5
90.0	2.92	206.0	55.8
135.0	20.3	175.8	63.4
180.0	37.6	174.2	66.3
225.0	30.5	180.8	65.7
270.0	35.9	198.0	67.7
315.0	25.4	204.4	66.5

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: 54.3 km

# Amended Appendix B - Interference Analysis

## WTOM-TV - Cheboygan, Michigan

### Channel 16 - 37.8 kW - Page 2

Distance to Mexican border: 2306.1 km

Conditions at FCC monitoring station: Allegan MI

Bearing: 201.4 degrees Distance: 362.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 257.6 degrees Distance: 1800.3 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 BLEDT20050914AAI LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WCMV	D17	DT	LIC	CADILLAC, MI	BLEDT20050914AAI	
Undesireds:	WTOM-TV	D16	DT	BL	CHEBOYGAN, MI	DTVBL21254	115.3 km
	WTOM-TV	D16	DT	APP	CHEBOYGAN, MI	WTOM_16_37_8K_3B	115.3
	WOTV	D17	DT	APP	BATTLE CREEK, MI	BLANK0000027727	244.1
	WBME-CD	D17	DC	APP	MILWAUKEE, WI	BLANK0000028177	292.5
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	27753.6	418,707	27061.6	407,222	25748.0	388,648	-0.03 -0.02
Undesired				Total IX	Unique IX, before	Unique IX, after	
WTOM-TV D16 DT BL		104.0		912	104.0	912	
WTOM-TV D16 DT APP		96.0		824		96.0 824	
WOTV D17 DT APP		1209.6		17,662	1193.6	17,597	
WBME-CD D17 DC APP		16.0		65	0.0	0	

#### ----- Interference to proposal, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTOM-TV	D16	DT	APP	CHEBOYGAN, MI	WTOM_16_37_8K_3B	
	Service area		Terrain-limited		IX-free	Percent IX	
	12232.9	83,974	12044.6	82,715	12044.6	82,715	0.00 0.00