

Proposed Minor Change Application

The instant application proposes a minor change for WWHC-LP, Olean, NY, Channel 20, Low Power TV Station licensed pursuant to LMS File No. 0000022154. As shown on the coverage map contained elsewhere in this application, the proposed transmitter site change is less than 30 miles. Therefore, the instant proposal is a permitted minor change.

A study was performed using the FCC's software program, *tvstudy*, v.2.2.3, to ensure that the technical facility proposed herein properly protects all relevant facilities. 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 of the relevant protections discussed above. Accordingly, the instant proposal satisfies all applicable 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 maximized technical facility proposed herein satisfies DTV interference criteria with respect to all relevant Canadian allotments, applications and assignments. International notification and coordination of the instant proposal is respectfully requested.

tvstudy v2.2.3 (DAezul)
Database: localhost, Study: WWHC-LP 20 D VTT OMNI 1KW, Model: Longley-Rice
Start: 2017.11.03 16:00:27

Study created: 2017.11.03 15:59:43

Study build station data: LMS TV 2017-11-02 (13)

Proposal: WWHC-LP D20 LD APP OLEAN, NY
File number: WWHC-LP 20 D VTT OMNI 1KW
Facility ID: 10868
Station data: User record
Record ID: 24
Country: U.S.

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
W20BL-D	D20	LD	LIC	BATH, NY	BLDTL20120315AAG	110.4 km
WROC-TV	D21	DT	APP	ROCHESTER, NY	BLANK0000034937	110.3
WROC-TV	D21	DT	CP	ROCHESTER, NY	BLANK0000027721	110.3
CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	149.5

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: Stringent
Latitude: 42 26 37.00 N (NAD83)
Longitude: 78 33 10.00 W
Height AMSL: 782.0 m
HAAT: 0.0 m
Peak ERP: 1.00 kW
Antenna: Omnidirectional
Elev Pattn: Generic

49.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	1.00 kW	270.9 m	41.4 km
45.0	1.00	303.7	43.0
90.0	1.00	245.4	40.2
135.0	1.00	252.8	40.6
180.0	1.00	207.3	38.1
225.0	1.00	212.4	38.4
270.0	1.00	322.8	43.9
315.0	1.00	339.1	44.7

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 269 m

**Proposal 24.36 dBu contour crosses Canadian border, coordination required
Distance to Canadian border: 53.0 km

Distance to Mexican border: 2470.8 km

Conditions at FCC monitoring station: Canandaigua NY
Bearing: 63.2 degrees Distance: 117.4 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 272.5 degrees Distance: 2232.5 km

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 BLDLTL20120315AAG LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W20BL-D	D20	LD	LIC	BATH, NY	BLDLTL20120315AAG	
Undesireds:	WWHC-LP	N20	TX	LIC	OLEAN, NY	BLANK0000022154	102.8 km
	WWHC-LP	D20	LD	APP	OLEAN, NY	WWHC-LP 20 D VTT OMNI	110.4
	WSTM-TV	D19	DT	CP	SYRACUSE, NY	BLANK0000027419	114.6
	WNGJ-LP	D20	LD	CP	OGDENSBURG, NY	BDFCDTL20111222AWT	296.6
	WAWW-LP	N20-	TX	LIC	ROCHESTER, NY	BLTTL20121029AAV	96.5
	WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	114.6
	W20CP-D	D20	LD	LIC	MANSFIELD, PA	BLDTT20081128ABW	65.8
	WPGH-TV	D20	DT	APP	PITTSBURGH, PA	BLANK0000034375	307.4
	WROC-TV	D21	DT	APP	ROCHESTER, NY	BLANK0000034937	96.5
	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	230.2

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	3194.2	85,757	2493.1	55,945	2206.8	52,628	2204.8 52,612 0.09 0.03

Undesired	Total IX	Unique IX, before	Unique IX, after
WWHC-LP N20 TX LIC	0.0	0	0
WWHC-LP D20 LD APP	6.1	88	2.0 16
WAWW-LP N20- TX LIC	1.0	0	0.0 0
WCNY-TV D20 DT CP	182.3	1,813	119.9 1,204
W20CP-D D20 LD LIC	165.4	2,113	99.9 1,504
CBLT-DT D20 DT LIC	6.0	22	1.0 0

Interference to BLANK0000034937 APP, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WROC-TV	D21	DT	APP	ROCHESTER, NY	BLANK0000034937	
Undesireds:	WWHC-LP	N20	TX	LIC	OLEAN, NY	BLANK0000022154	138.6 km
	WWHC-LP	D20	LD	APP	OLEAN, NY	WWHC-LP 20 D VTT OMNI	110.3
	WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	120.9
	WSEE-TV	D21	DT	CP	ERIE, PA	BLANK0000028628	231.1
	WPNT	D21	DT	APP	PITTSBURGH, PA	BLANK0000034376	355.4
	WXXI-TV	D22	DT	CP	ROCHESTER, NY	BLANK0000028426	0.0
	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	156.2
	CICO-DT-92D21	DT	LIC	CLOYNE, ON	BLANKCANADA168		196.3
	CFTO-TV-21D21	DT	LIC	ORILLIA, ON	BLANKCANADA195		250.8

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	14274.2	1,187,579	13913.9	1,173,266	13848.7	1,171,554	13846.7 1,171,506 0.01 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WWHC-LP N20 TX LIC	0.0	0	0.0 0
WWHC-LP D20 LD APP	4.0	48	2.0 48
WCNY-TV D20 DT CP	40.1	1,191	40.1 1,191
WSEE-TV D21 DT CP	14.1	232	14.1 232
WXXI-TV D22 DT CP	5.0	0	5.0 0
CBLT-DT D20 DT LIC	4.0	210	4.0 210
CICO-DT-92 D21 DT LIC	1.0	79	0.0 0
CFTO-TV-21 D21 DT LIC	2.0	79	1.0 0

Interference to BLANK0000034937 APP, scenario 2

Call	Chan	Svc	Status	City, State	File Number	Distance
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Desired:	WROC-TV	D21	DT	APP	ROCHESTER, NY	BLANK0000034937	
Undesireds:	WWHC-LP	N20	TX	LIC	OLEAN, NY	BLANK0000022154	138.6 km
	WWHC-LP	D20	LD	APP	OLEAN, NY	WWHC-LP 20 D VTT OMNI	110.3
	WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	120.9
	WSEE-TV	D21	DT	APP	ERIE, PA	BLANK0000034791	236.7
	WPNT	D21	DT	APP	PITTSBURGH, PA	BLANK0000034376	355.4
	WXXI-TV	D22	DT	CP	ROCHESTER, NY	BLANK0000028426	0.0
	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	156.2
	CICO-DT-92	D21	DT	LIC	CLOYNE, ON	BLANKCANADA168	196.3
	CFTO-TV-21	D21	DT	LIC	ORILLIA, ON	BLANKCANADA195	250.8

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
	14274.2	1,187,579	13913.9	1,173,266	13841.7	1,171,444	13839.6	1,171,396	0.01 0.00

Undesired				Total IX	Unique IX, before		Unique IX, after
WWHC-LP N20 TX LIC		0.0		0	0.0	0	
WWHC-LP D20 LD APP		4.0		48		2.0	48
WCNY-TV D20 DT CP		40.1		1,191	39.1	1,191	39.1
WSEE-TV D21 DT APP		22.1		342	21.1	342	19.1
WXXI-TV D22 DT CP		5.0		0	5.0	0	5.0
CBLT-DT D20 DT LIC		4.0		210	4.0	210	4.0
CICO-DT-92 D21 DT LIC		1.0		79	0.0	0	0.0
CFTO-TV-21 D21 DT LIC		2.0		79	1.0	0	1.0

Interference to BLANK0000034937 APP, scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WROC-TV	D21	DT	APP	ROCHESTER, NY	BLANK0000034937	
Undesireds:	WWHC-LP	N20	TX	LIC	OLEAN, NY	BLANK0000022154	138.6 km
	WWHC-LP	D20	LD	APP	OLEAN, NY	WWHC-LP 20 D VTT OMNI	110.3
	WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	120.9
	WSEE-TV	D21	DT	CP	ERIE, PA	BLANK0000028628	231.1
	WPNT	D21	DT	APP	PITTSBURGH, PA	BLANK0000034376	355.4
	WXXI-TV	D22	DT	APP	ROCHESTER, NY	BLANK0000029838	0.0
	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	156.2
	CICO-DT-92	D21	DT	LIC	CLOYNE, ON	BLANKCANADA168	196.3
	CFTO-TV-21	D21	DT	LIC	ORILLIA, ON	BLANKCANADA195	250.8

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
	14274.2	1,187,579	13913.9	1,173,266	13840.7	1,170,393	13838.7	1,170,345	0.01 0.00

Undesired				Total IX	Unique IX, before		Unique IX, after
WWHC-LP N20 TX LIC		0.0		0	0.0	0	
WWHC-LP D20 LD APP		4.0		48		2.0	48
WCNY-TV D20 DT CP		40.1		1,191	40.1	1,191	40.1
WSEE-TV D21 DT CP		14.1		232	14.1	232	12.1
WXXI-TV D22 DT APP		13.0		1,161	13.0	1,161	13.0
CBLT-DT D20 DT LIC		4.0		210	4.0	210	4.0
CICO-DT-92 D21 DT LIC		1.0		79	0.0	0	0.0
CFTO-TV-21 D21 DT LIC		2.0		79	1.0	0	1.0

Interference to BLANK0000034937 APP, scenario 4

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WROC-TV	D21	DT	APP	ROCHESTER, NY	BLANK0000034937	
Undesireds:	WWHC-LP	N20	TX	LIC	OLEAN, NY	BLANK0000022154	138.6 km
	WWHC-LP	D20	LD	APP	OLEAN, NY	WWHC-LP 20 D VTT OMNI	110.3
	WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	120.9
	WSEE-TV	D21	DT	APP	ERIE, PA	BLANK0000034791	236.7
	WPNT	D21	DT	APP	PITTSBURGH, PA	BLANK0000034376	355.4
	WXXI-TV	D22	DT	APP	ROCHESTER, NY	BLANK0000029838	0.0
	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	156.2
	CICO-DT-92	D21	DT	LIC	CLOYNE, ON	BLANKCANADA168	196.3
	CFTO-TV-21	D21	DT	LIC	ORILLIA, ON	BLANKCANADA195	250.8

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
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14274.2	1,187,579	13913.9	1,173,266	13833.7	1,170,283	13831.6	1,170,235	0.01	0.00
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Undesired		Total IX	Unique IX, before	Unique IX, after
WWHC-LP N20 TX LIC	0.0	0	0.0	0
WWHC-LP D20 LD APP	4.0	48		2.0 48
WCNY-TV D20 DT CP	40.1	1,191	39.1 1,191	39.1 1,191
WSEE-TV D21 DT APP	22.1	342	21.1 342	19.1 342
WXXI-TV D22 DT APP	13.0	1,161	13.0 1,161	13.0 1,161
CBLT-DT D20 DT LIC	4.0	210	4.0 210	4.0 210
CICO-DT-92 D21 DT LIC	1.0	79	0.0 0	0.0 0
CFTO-TV-21 D21 DT LIC	2.0	79	1.0 0	1.0 0

Interference to BLANK0000027721 CP, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WROC-TV	D21	DT	CP	ROCHESTER, NY	BLANK0000027721	
Undesireds:	WWHC-LP	N20	TX	LIC	OLEAN, NY	BLANK0000022154	138.6 km
	WWHC-LP	D20	LD	APP	OLEAN, NY	WWHC-LP 20 D VTT OMNI	110.3
	WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	120.9
	WSEE-TV	D21	DT	CP	ERIE, PA	BLANK0000028628	231.1
	WPNT	D21	DT	APP	PITTSBURGH, PA	BLANK0000034376	355.4
	WXXI-TV	D22	DT	CP	ROCHESTER, NY	BLANK0000028426	0.0
	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	156.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
15522.9	1,194,448	15144.4	1,179,672	15096.3	1,178,206	15094.3 1,178,171	0.01 0.00
539.0	0	539.0	0	539.0	0	539.0 0	0.00 0.00
(in Canada)							

Undesired		Total IX	Unique IX, before	Unique IX, after
WWHC-LP N20 TX LIC	0.0	0	0.0	0
WWHC-LP D20 LD APP	2.0	35		2.0 35
WCNY-TV D20 DT CP	40.1	1,164	40.1 1,164	40.1 1,164
WSEE-TV D21 DT CP	3.0	125	2.0 125	2.0 125
CBLT-DT D20 DT LIC	6.0	177	5.0 177	5.0 177

Interference to BLANK0000027721 CP, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WROC-TV	D21	DT	CP	ROCHESTER, NY	BLANK0000027721	
Undesireds:	WWHC-LP	N20	TX	LIC	OLEAN, NY	BLANK0000022154	138.6 km
	WWHC-LP	D20	LD	APP	OLEAN, NY	WWHC-LP 20 D VTT OMNI	110.3
	WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	120.9
	WSEE-TV	D21	DT	APP	ERIE, PA	BLANK0000034791	236.7
	WPNT	D21	DT	APP	PITTSBURGH, PA	BLANK0000034376	355.4
	WXXI-TV	D22	DT	CP	ROCHESTER, NY	BLANK0000028426	0.0
	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	156.2
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
15522.9	1,194,448	15144.4	1,179,672	15080.2	1,178,014	15078.2 1,177,979	0.01 0.00
539.0	0	539.0	0	539.0	0	539.0 0	0.00 0.00
(in Canada)							

Undesired		Total IX	Unique IX, before	Unique IX, after
WWHC-LP N20 TX LIC	0.0	0	0.0	0
WWHC-LP D20 LD APP	2.0	35		2.0 35
WCNY-TV D20 DT CP	40.1	1,164	40.1 1,164	40.1 1,164
WSEE-TV D21 DT APP	19.1	317	18.1 317	18.1 317
CBLT-DT D20 DT LIC	6.0	177	5.0 177	5.0 177

Interference to BLANKCANADA234 LIC, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	
Undesireds:	WWHC-LP	N20	TX	LIC	OLEAN, NY	BLANK0000022154	193.7 km

WWHC-LP	D20	LD	APP	OLEAN, NY	WWHC-LP 20 D VTT OMNI	149.5
WTVS	D20	DT	CP	DETROIT, MI	BLANK0000027886	334.9
WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	275.6
WPGH-TV	D20	DT	APP	PITTSBURGH, PA	BLANK0000034375	353.5
WROC-TV	D21	DT	APP	ROCHESTER, NY	BLANK0000034937	156.2
WSEE-TV	D21	DT	CP	ERIE, PA	BLANK0000028628	182.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
4674.4	798,591	4674.4	798,591	4674.4	798,591	4455.6	660,315	4.68	17.31
(in U.S.)									
24484.0	8,169,834	24335.1	8,149,522	24268.7	8,136,195	23407.1	8,101,035	3.55	0.43

Undesired		Total IX		Unique IX, before		Unique IX, after	
WWHC-LP N20 TX LIC	0.0	0	0.0	0			(in U.S.)
WWHC-LP D20 LD APP	218.9	138,276			218.9	138,276	(in U.S.)
WWHC-LP N20 TX LIC	0.0	0	0.0	0			
WWHC-LP D20 LD APP	864.6	35,160			861.5	35,160	
WTVS D20 DT CP	27.1	4,821	26.1	4,821	25.1	4,821	
WCNY-TV D20 DT CP	39.3	8,506	39.3	8,506	37.3	8,506	
WPGH-TV D20 DT APP	1.0	0	0.0	0	0.0	0	

Interference to BLANKCANADA234 LIC, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	
Undesireds:	WWHC-LP	N20	TX	LIC	OLEAN, NY	BLANK0000022154	193.7 km
	WWHC-LP	D20	LD	APP	OLEAN, NY	WWHC-LP 20 D VTT OMNI	149.5
	WTVS	D20	DT	CP	DETROIT, MI	BLANK0000027886	334.9
	WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	275.6
	WPGH-TV	D20	DT	CP	PITTSBURGH, PA	BLANK0000025698	353.5
	WROC-TV	D21	DT	APP	ROCHESTER, NY	BLANK0000034937	156.2
	WSEE-TV	D21	DT	CP	ERIE, PA	BLANK0000028628	182.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
4674.4	798,591	4674.4	798,591	4674.4	798,591	4455.6	660,315	4.68	17.31
(in U.S.)									
24484.0	8,169,834	24335.1	8,149,522	24268.7	8,136,195	23407.1	8,101,035	3.55	0.43

Undesired		Total IX		Unique IX, before		Unique IX, after	
WWHC-LP N20 TX LIC	0.0	0	0.0	0			(in U.S.)
WWHC-LP D20 LD APP	218.9	138,276			218.9	138,276	(in U.S.)
WWHC-LP N20 TX LIC	0.0	0	0.0	0			
WWHC-LP D20 LD APP	864.6	35,160			861.5	35,160	
WTVS D20 DT CP	27.1	4,821	26.1	4,821	25.1	4,821	
WCNY-TV D20 DT CP	39.3	8,506	39.3	8,506	37.3	8,506	
WPGH-TV D20 DT CP	1.0	0	0.0	0	0.0	0	

Interference to proposal, scenario 1
**MX: 34.01% interference

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WWHC-LP	D20	LD	APP	OLEAN, NY	WWHC-LP 20 D VTT OMNI	
Undesireds:	WAWW-LP	N20-	TX	LIC	ROCHESTER, NY	BLTTL20121029AAV	110.2 km
	WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	206.5
	WPGH-TV	D20	DT	APP	PITTSBURGH, PA	BLANK0000034375	248.0
	WROC-TV	D21	DT	APP	ROCHESTER, NY	BLANK0000034937	110.3
	WSEE-TV	D21	DT	CP	ERIE, PA	BLANK0000028628	126.7
	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	149.5

Service area		Terrain-limited		IX-free		Percent IX	
5339.8	217,502	4155.0	127,559	3468.7	84,178	16.52	34.01

Undesired		Total IX		Unique IX		Prcnt Unique IX	
WAWW-LP N20- TX LIC	36.4	334	15.2	54	0.37	0.04	
WCNY-TV D20 DT CP	36.4	277	7.0	95	0.17	0.07	
WPGH-TV D20 DT APP	47.4	995	8.1	104	0.19	0.08	
CBLT-DT D20 DT LIC	636.8	43,011	602.5	42,068	14.50	32.98	

Interference to proposal, scenario 2
33.93% interference

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WWHC-LP	D20	LD	APP	OLEAN, NY	WWHC-LP 20 D VTT OMNI	
Undesireds:	WAWW-LP	N20-	TX	LIC	ROCHESTER, NY	BLTTL20121029AAV	110.2 km
	WCNY-TV	D20	DT	CP	SYRACUSE, NY	BLANK0000028027	206.5
	WPGH-TV	D20	DT	CP	PITTSBURGH, PA	BLANK0000025698	248.0
	WROC-TV	D21	DT	APP	ROCHESTER, NY	BLANK0000034937	110.3
	WSEE-TV	D21	DT	CP	ERIE, PA	BLANK0000028628	126.7
	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	149.5

Service area	Terrain-limited	IX-free	Percent IX
5339.8	217,502	4155.0	127,559
		3472.7	84,277
			16.42
			33.93

Undesired	Total IX	Unique IX	Prcnt Unique IX
WAWW-LP N20- TX LIC	36.4	334	15.2
WCNY-TV D20 DT CP	36.4	277	8.1
WPGH-TV D20 DT CP	29.2	557	4.0
CBLT-DT D20 DT LIC	636.8	43,011	609.6
		42,310	14.67
			33.17