

ENGINEERING STATEMENT  
SUPPORTING REQUEST FOR WAIVER  
TELEVISION STATION WYCI(TV)  
(FACILITY ID NO. 77515)  
SARANAC LAKE, NEW YORK  
CHANNEL 34

Background

This statement was prepared on behalf of Cross Hill Communications, LLC, licensee of WYCI, Saranac Lake, New York, in support of a request for waiver of the FCC's Phase Assignment, Testing Period, and Phase Completion Date for television station WYCI in the Burlington-Plattsburgh DMA\*. WYCI is licensed for operation on RF Channel 40 with a maximum directional effective radiated power (ERP) of 11.4 kW and an antenna height above average terrain (HAAT) of 97 m.†

As a result of the FCC's Incentive Auction repack process, the WYCI facility was reassigned to RF Channel 34. WYCI holds a construction permit (C.P.) for expansion of its facility on Channel 34 with a maximum directional ERP of 440 kW and an antenna HAAT of 530 m utilizing a new transmitter site.‡ An FCC engineering database summary sheet for the WYCI C.P. facility is attached hereto for reference.

In coordination with the wireless carrier T-Mobile, WYCI seeks a waiver of the FCC's Phase Assignment, Testing Period, and Phase Completion Date to allow WYCI to make the transition to Channel 34 earlier than its given phase transition date. Specifically, the target date for WYCI to begin early transition operation on Channel 34 is September 1, 2018. This will facilitate the early deployment of new 600 MHz band wireless broadband services.

This statement demonstrates that WYCI can transition to Channel 34, as proposed herein, before its assigned phase date without any disruption to the FCC's transition plans.

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\* Nielsen Designated Market Area abbreviated as DMA.

† See FCC File No. BLCDDT-2010301ADR.

‡ See FCC File No. 0000034619.

Assigned Phase

WYCI was assigned to transition Phase 7, with a testing begin date of October 19, 2019. This is based on the latest FCC Phase Assignment spreadsheet dated March 23, 2018.

Linked Station Sets and Linked Station Neighbor Stations

An inspection of the latest FCC Linked Station Set (LSS) and Linked Station Neighbor (LSN) spreadsheet databases indicates that the WYCI facility is not part of any LSSs or LSNs. These are based on the latest LSS and LSN spreadsheets available from the FCC, both dated March 7, 2018.

Interference Caused Analysis Under Current Allocation Environment

An interference analysis was conducted for the WYCI Channel 34 C.P. facility utilizing the latest version<sup>§</sup> of the FCC's *TVStudy* coverage and interference analysis prediction software. The report of the results is attached hereto entitled 'Interference Caused Analysis for WYCI(TV) Channel 34 C.P. Facility Under Current Allocation Environment.'

The results of the analysis indicate that there are no cases of outgoing (caused) interference exceeding the normal 0.5% rounding tolerance level to any other protected full-power or Class A television stations now operating. As indicated, the interference analysis includes Canadian television records.

It is noted that the *TVStudy* analysis is based on the use of a higher resolution terrain profile point spacing of 0.1 km. It is requested that this higher resolution terrain profile point spacing be employed in studies to be conducted on the instant proposal.

Interference Received Analysis Under Current Allocation Environment

An interference analysis specifically for the 'received case' of interference was conducted for the WYCI Channel 34 C.P. facility utilizing the FCC's aforementioned

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<sup>§</sup> TVStudy Version 2.2.5

*TVStudy* prediction software. The analysis employed the same higher resolution terrain profile point spacing of 0.1 km. The report of the results is attached hereto entitled 'Interference Received Analysis for WYCI(TV) Channel 34 C.P. Facility Under Current Allocation Environment.' The purpose of this study is to evaluate all current environment records in the received interference analysis.

The results of the analysis indicate that there are no cases of incoming (received) interference exceeding the 2% temporary interference limit to the WYCI Channel 34 C.P. facility. There is predicted pairwise interference of 0.74% received to the WYCI Channel 34 C.P. facility from WMHT. While this exceeds the normal 0.5% interference rounding tolerance, it is well within the FCC's permitted 2% temporary interference limit.

#### Effects on Linked Station Sets

The early transition of WYCI, as proposed herein, in advance of its phase transition date will not create any new linked station sets.

#### Conclusion

It is concluded that the early transition of the WYCI C.P. facility on Channel 34 will not result in the creation of any linked station sets established in the Incentive Auction repack process.



Louis R. du Treil, Jr., P.E.

du Treil, Lundin & Rackley, Inc.  
3135 Southgate Circle  
Sarasota, Florida 34239

April 5, 2018

# TV Inquiry

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida



**Callsign:** WYCI      **Service:** DT      **Status:** CP MOD      **App. Status:** GRANT      **Border Code:**      **Rec. Type:** C  
**Channel:** 34      **Offset:**      **Zone:** 2      **Docket Number:**      **DTV Type:** POSTTRAN  
**Fac. ID:** 77515      **Assoc. ID:**      **Application File No.:** BLANK-0000034619      **DT Emission Mask:**  
**City:** SARANAC LAKE      **State:** NY      **Country:** US      **CP Expiration Date:**  
**Party Name:** CROSS HILL COMMUNICATIONS, LLC      **Last Change Date:** 2/12/2018

**Latitude (NAD 27):** 44-34-27.3      **Height AGL (m):** 225      **Polarization:** H  
**Longitude (NAD 27):** 073-40-29      **Overall Height AGL (m):** 233      **Electrical Tilt (°):** 0.75  
**Latitude (NAD 83):** 044-34-27.5      **ERP (kW):** 440      **Mechanical Tilt (°):**  
**Longitude (NAD 83):** 073-40-27.5      **Maximum ERP (kW):**      **Mechanical Tilt Azimuth (°):**  
**RCAMSL (m):** 836.7      **Maximum ERP (dBk):** 26.4      **Degrees True (°):**  
**Site Elevation AMSL (m):** 611.7      **Maximum ERP at any Angle (kW):**      **Antenna Make:**  
**HAAT (m):** 530      **Antenna Model:**  
**Maximum HAAT (m):**

**Antenna Type:** D      **Antenna ID:** 1002417      **Rotation (°):** 0

0° 0.286	90° 0.826	180° 0.428	270° 0.560	35° 0.164
10° 0.259	100° 0.936	190° 0.510	280° 0.388	113° 1.000
20° 0.201	110° 0.988	200° 0.652	290° 0.256	175° 0.408
30° 0.166	120° 0.958	210° 0.798	300° 0.192	234° 1.000
40° 0.174	130° 0.870	220° 0.910	310° 0.166	315° 0.164
50° 0.208	140° 0.742	230° 0.982	320° 0.174	
60° 0.304	150° 0.588	240° 0.972	330° 0.229	
70° 0.452	160° 0.470	250° 0.904	340° 0.271	
80° 0.640	170° 0.412	260° 0.754	350° 0.294	

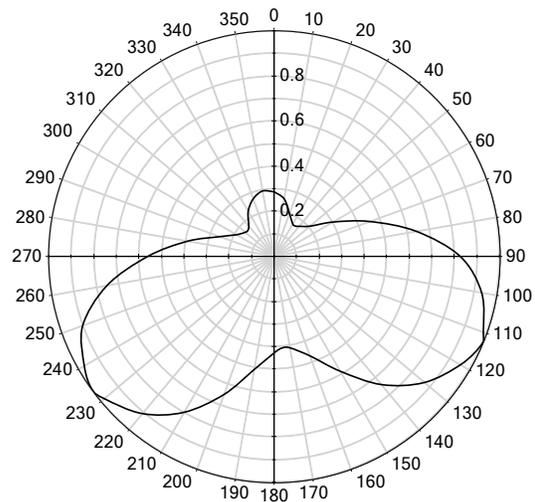
**Standard Pattern:**

**Antenna Make:** SWR

**Antenna Model:** SWEDM18BF/34

**Last Change Date:**

**Note:** Rotation or tilt is not applied to the pattern shown



**Type:** GTOWER      **ASRN:** 1003384      **FAA Study No.:** 2015-AEA-2856-OE      **Structure Height (m):** 233.0  
**Latitude (NAD 27):** 044-34-27.1      **Date Received:** 11/22/2016      **Structure Height (ft):** 764.4  
**Longitude (NAD 27):** 073-40-30.5      **Date Entered:** 11/22/2016      **Ground Elevation (m):** 611.7  
**Latitude (NAD 83):** 44-34-27.3      **Date Issued:** 11/03/2015      **Ground Elevation (ft):** 2006.9  
**Longitude (NAD 83):** 073-40-29.0      **Date Constructed:** 09/09/2016      **Overall Height AGL (m):** 233.0  
**Struct. Address:**      **Date Dismantled:**      **Overall Height AGL (ft):** 764.4  
TERRY MTN 7.3 MI W      **Overall Height AMSL (m):** 844.7  
PERU      NY      **Overall Height AMSL (ft):** 2771.3

**Entity Name:** County of Essex

# INTERFERENCE CAUSED ANALYSIS FOR WYCI(TV) CHANNEL 34 C.P. FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT (PROFILE POINT SPACING OF 0.1 KM)

tvstudy v2.2.5 (4uoc83)

Database: localhost, Study: wyci34cp, Model: Longley-Rice

Study build station data: LMS TV 2018-04-05

Proposal: WYCI34CP D34 DT CP SARANAC LAKE, NY  
File number: wyci34cp  
Facility ID: 77515  
Station data: User record  
Record ID: 2537  
Country: U.S.  
Zone: II

Build options:  
Protect pre-transition records not on baseline channel

Search options:  
Non-U.S. records included  
All post-transition APP, CP, and baseline records excluded

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WPXG-TV	D33	DT	LIC	CONCORD, NH	BLCDT20031014AEP	243.8 km
Yes	WNEU	D34	DT	LIC	MERRIMACK, NH	BLCDT20021028AAH	243.5
No	WIVT	D34	DT	LIC	BINGHAMTON, NY	BLCDT20090819AGR	334.2
Yes	WMHT	D34	DT	LIC	SCHENECTADY, NY	BLEDT20040108ALV	218.3
Yes	WONO-CD	D34	DC	LIC	SYRACUSE, ETC., NY	BLANK0000001647	261.4
No	WNYF-CD	D35	DC	LIC	WATERTOWN, NY	BLDTL20090924ABW	177.4
No	CBOFT-DT	D33	DT	LIC	OTTAWA, ON	BLANKCANADA205	199.6
No	CIVC-DT	D33	DT	LIC	TROISRIVIERES, QC	BLANKCANADA317	227.5
Yes	CFGS-DT	D34	DT	LIC	GATINEAU, QC	BLANKCANADA266	199.6
Yes	CFKM-DT	D34	DT	LIC	TROISRIVIERES, QC	BLANKCANADA316	227.5
No	CHRO-DT-43D35	D35	DT	LIC	OTTAWA, ON	BLANKCANADA207	165.0
No	CFJP-DT	D35	DT	LIC	MONTRAL, QC	BLANKCANADA279	103.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

**Channel: D34**

Latitude: 44 34 27.30 N (NAD83)

Longitude: 73 40 29.00 W

Height AMSL: 836.7 m

HAAT: 530.0 m

**Peak ERP: 440 kW**

Antenna: SWR-SWEDM18BF/34 (ID 1002417) 0.0 deg

Elev Pattnr: Generic

Elec Tilt: 0.75

40.7 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	36.0 kW	515.5 m	87.2 km
45.0	16.1	651.2	87.1
90.0	300	675.3	113.5
135.0	286	593.7	109.4
180.0	80.6	447.0	88.8
225.0	394	454.3	102.4
270.0	138	446.8	92.7
315.0	11.8	450.7	76.4

Database HAAT does not agree with computed HAAT

Database HAAT: 530 m Computed HAAT: 529 m

\*\*Proposal is within coordination distance of Canadian border

Distance to Canadian border: 47.6 km

Distance to Mexican border: 2928.9 km

Conditions at FCC monitoring station: Canandaigua NY

# INTERFERENCE CAUSED ANALYSIS FOR WYCI(TV) CHANNEL 34 C.P. FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT (PROFILE POINT SPACING OF 0.1 KM)

Bearing: 238.6 degrees    Distance: 342.4 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 270.3 degrees    Distance: 2620.3 km

Study cell size: 2.00 km

Profile point spacing: 0.10 km (Higher resolution profile point spacing is requested.)

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

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Interference to BLCDT20021028AAH LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance			
	WNEU	D34	DT	LIC	MERRIMACK, NH	BLCDT20021028AAH				
Undesireds:	WYCI34CP	D34	DT	CP	SARANAC LAKE, NY	wyci34cp	243.5 km			
	WPXG-TV	D33	DT	LIC	CONCORD, NH	BLCDT20031014AEP	31.2			
	WMHT	D34	DT	LIC	SCHENECTADY, NY	BLEDT20040108ALV	201.5			
	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
	16043.9	3,471,700	14738.6	3,351,445	14031.0	3,269,458	14023.1	3,269,426	0.06	0.00
Undesired			Total IX		Unique IX, before		Unique IX, after			
WYCI34CP D34 DT CP			7.9	32			7.9	32		
WPXG-TV D33 DT LIC			639.8	79,621	596.1	75,363	596.1	75,363		
WMHT D34 DT LIC			111.4	6,624	67.8	2,366	67.8	2,366		

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Interference to BLEDT20040108ALV LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance			
	WMHT	D34	DT	LIC	SCHENECTADY, NY	BLEDT20040108ALV				
Undesireds:	WYCI34CP	D34	DT	CP	SARANAC LAKE, NY	wyci34cp	218.3 km			
	WFSB	D33	DT	LIC	HARTFORD, CT	BLCDT20041029AIL	137.0			
	WNEU	D34	DT	LIC	MERRIMACK, NH	BLCDT20021028AAH	201.5			
	WIVT	D34	DT	LIC	BINGHAMTON, NY	BLCDT20090819AGR	170.7			
	WONO-CD	D34	DC	LIC	SYRACUSE, ETC., NY	BLANK0000001647	182.2			
	WCAU	D34	DT	LIC	PHILADELPHIA, PA	BLCDT20090914AAX	304.8			
	WVIT	D35	DT	LIC	NEW BRITAIN, CT	BLANK0000048456	141.4			
	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
	30358.1	1,622,458	26215.8	1,487,888	25955.6	1,478,078	25947.7	1,477,923	0.03	0.01
Undesired			Total IX		Unique IX, before		Unique IX, after			
WYCI34CP D34 DT CP			15.9	155			7.9	155		
WFSB D33 DT LIC			20.0	357	0.0	0	0.0	0		
WNEU D34 DT LIC			48.0	589	12.0	169	12.0	169		
WIVT D34 DT LIC			172.1	1,673	132.1	1,366	124.1	1,366		
WONO-CD D34 DC LIC			4.0	0	4.0	0	4.0	0		
WCAU D34 DT LIC			56.1	7,709	40.1	7,670	40.1	7,670		
WVIT D35 DT LIC			36.0	447	16.0	75	16.0	75		

**INTERFERENCE CAUSED ANALYSIS FOR WYCI(TV) CHANNEL 34  
C.P. FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT  
(PROFILE POINT SPACING OF 0.1 KM)**

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Interference to BLANK0000001647 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WONO-CD	D34	DC	LIC	SYRACUSE, ETC., NY	BLANK0000001647	
Undesireds:	WYCI34CP	D34	DT	CP	SARANAC LAKE, NY	wyci34cp	261.4 km
	WMHT	D34	DT	LIC	SCHENECTADY, NY	BLEDT20040108ALV	182.2
	CFGS-DT	D34	DT	LIC	GATINEAU, QC	BLANKCANADA266	272.9
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	2822.2	518,653	2666.6	509,148	2646.7	507,556	0.00 0.00
Undesired			Total IX		Unique IX, before	Unique IX, after	
WYCI34CP D34 DT CP		4.0	162		0.0	0	
WMHT D34 DT LIC		15.9	1,430		15.9	1,430	
CFGS-DT D34 DT LIC		4.0	162		4.0	162	

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Interference to BLANKCANADA266 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	CFGS-DT	D34	DT	LIC	GATINEAU, QC	BLANKCANADA266	
Undesireds:	WYCI34CP	D34	DT	CP	SARANAC LAKE, NY	wyci34cp	199.6 km
	CBOFT-DT	D33	DT	LIC	OTTAWA, ON	BLANKCANADA205	0.0
	CHRO-DT-43D35	D35	DT	LIC	OTTAWA, ON	BLANKCANADA207	38.9
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	17206.6	1,419,485	16634.0	1,417,546	16373.1	1,406,120	0.02 0.00
Undesired			Total IX		Unique IX, before	Unique IX, after	
WYCI34CP D34 DT CP		4.0	0		4.0	0	
CBOFT-DT D33 DT LIC		244.8	10,923		236.7	10,923	
CHRO-DT-43 D35 DT LIC		24.2	503		16.1	503	

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Interference to BLANKCANADA316 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	CFKM-DT	D34	DT	LIC	TROISRIVIERES, QC	BLANKCANADA316	
Undesireds:	WYCI34CP	D34	DT	CP	SARANAC LAKE, NY	wyci34cp	227.5 km
	CIVC-DT	D33	DT	LIC	TROISRIVIERES, QC	BLANKCANADA317	0.0
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	13295.8	497,886	12760.5	491,222	12748.5	490,381	0.47 0.20
Undesired			Total IX		Unique IX, before	Unique IX, after	
WYCI34CP D34 DT CP		60.3	958		60.3	958	
CIVC-DT D33 DT LIC		12.0	841		12.0	841	

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# INTERFERENCE RECEIVED ANALYSIS FOR WYCI(TV) CHANNEL 34 C.P. FACILITY UNDER CURRENT ALLOCATION ENVIRONMENT (PROFILE POINT SPACING OF 0.1 KM)

tvstudy v2.2.5 (4uoc83)

Database: localhost  
 Station Data: LMS TV 2018-03-14  
 Study: LMS180315  
 Model: Longley-Rice  
 Scenario: wyci34cp  
 Start: 2018.04.05 09:20:28

Desired station	Service area		Terrain-limited		Interference-free	
Undesired station	Total interference		Unique interference			
WYCI D34 DT CP SARANAC LAKE, NY	25130.6	528,613	18808.0	428,142	18228.6	423,894
WNEU D34 DT LIC MERRIMACK, NH	0.0	0	0.0	0	0	
WIVT D34 DT LIC BINGHAMTON, NY	0.0	0	0.0	0	0	
WMHT D34 DT LIC SCHENECTADY, NY	176.2	3,191	140.3	3,168	(0.74%)	
WONO-CD D34 DC LIC SYRACUSE, ETC., NY	0.0	0	0.0	0	0	
WNYF-CD D35 DC LIC WATERTOWN, NY	0.0	0	0.0	0	0	
CHRO-DT-43 D35 DT LIC OTTAWA, ON	0.0	0	0.0	0	0	
CFGS-DT D34 DT LIC GATINEAU, QC	402.9	873	346.8	681	(0.16%)	
CFJP-DT D35 DT LIC MONTRAL, QC	32.3	205	4.0	25	(0.01%)	
CFKM-DT D34 DT LIC TROISRIVIERES, QC	40.3	269	28.2	182	(0.04%)	