

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.

^{*} 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[§] 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

[§] 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.



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du Treil, Lundin & Rackley, Inc.
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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	

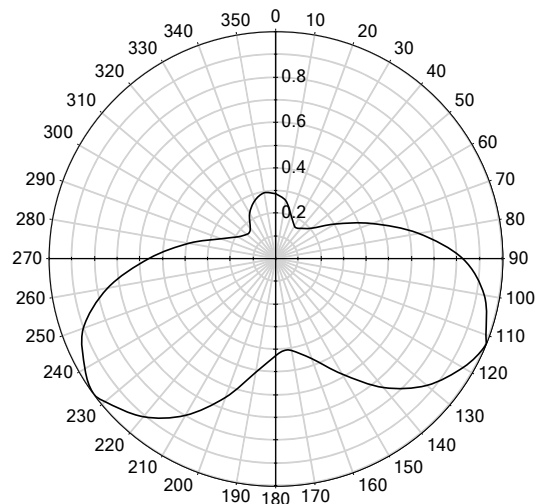
Standard Pattern:

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-43D	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 Pattn: 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%

----- Interference to BLCDT20021028AAH LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	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	

----- Interference to BLEDT20040108ALV LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	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 to BLANK0000001647 LIC scenario 1

Desired:	Call WONO-CD	Chan D34	Svc DC	Status LIC	City, State SYRACUSE, ETC., NY	File Number BLANK0000001647	Distance		
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	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	15.9	1,430	
CFGS-DT	D34	DT	LIC	4.0	162	4.0	0.0	0	

Interference to BLANKCANADA266 LIC scenario 1

Desired:	Call CFG5-DT	Chan D34	Svc DT	Status LIC	City, State GATINEAU, QC	File Number BLANKCANADA266	Distance		
Undesireds:	WYCI34CP	D34	DT	CP	SARANAC LAKE, NY	wyci34cp	199.6 km		
	CBOFT-DT	D33	DT	LIC	OTTAWA, ON	BLANKCANADA205	0.0		
	CHRO-DT-43	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	16369.1	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	236.7	10,923
CHRO-DT-43	D35	DT	LIC	24.2	503	16.1	503	16.1	503

Interference to BLANKCANADA316 LIC scenario 1

Desired:	Call CFKM-DT	Chan D34	Svc DT	Status LIC	City, State TROISRIVIERES, QC	File Number BLANKCANADA316	Distance
Undesireds:	WYCI34CP CIVC-DT	D34 D33	DT DT	CP LIC	SARANAC LAKE, NY TROISRIVIERES, QC	wyci34cp BLANKCANADA317	227.5 km 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
						12688.2	489,423
							0.47
							0.20
Undesired					Total IX	Unique IX, before	Unique IX, after
WYCI34CP	D34	DT	CP		958		60.3
CIVC-DT	D33	DT	LIC		841	12.0	841
							12.0
							841

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		
WIVT D34 DT LIC BINGHAMTON, NY	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		
WNYF-CD D35 DC LIC WATERTOWN, NY	0.0	0	0.0	0		
CHRO-DT-43 D35 DT LIC OTTAWA, ON	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%)	