

ENGINEERING STATEMENT
SUPPORTING REQUEST FOR WAIVER
TELEVISION STATION WISE-TV
(FACILITY ID NO. 13960)
FORT WAYNE, INDIANA
CHANNEL 34

Background

This statement was prepared on behalf of Sagamorehill of Indiana Licenses, LLC, licensee of WISE-TV, Fort Wayne, Indiana, in support of a request for waiver of the FCC's Phase Assignment, Testing Period, and Phase Completion Date for television station WISE-TV in the Ft. Wayne DMA*. WISE-TV is licensed for operation on RF Channel 18 with a non-directional effective radiated power (ERP) of 320 kW and an antenna height above average terrain (HAAT) of 224 m.†

As a result of the FCC's Incentive Auction repack process, the WISE-TV facility was reassigned to RF Channel 34. WISE-TV holds a construction permit (C.P.) for replication of its facility on Channel 34 with a non-directional ERP of 456 kW and an antenna HAAT of 224 m.‡ FCC engineering database summary sheets for the WISE-TV C.P. replication facility is attached hereto for reference.

In coordination with the wireless carrier T-Mobile, WISE-TV seeks a waiver of the FCC's Phase Assignment, Testing Period, and Phase Completion Date to allow WISE-TV to make the transition to Channel 34 earlier than its given phase transition date. Specifically, the target date for WISE-TV 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 WISE-TV can transition to Channel 34 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-20091103ACK.

‡ See FCC File No. 0000027665.

Assigned Phase

WISE-TV was assigned to transition Phase 6, with a testing begin date of September 7, 2019. This is based on the latest FCC Phase Assignment spreadsheet dated February 9, 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 WISE-TV facility is part of LSS ID No. 44 in Phase 6. WISE-TV is associated with stations WFWA[§] (Facility ID 22108) (Downstream) and WCET^{**} (Facility ID 65666) (upstream) in LSNs, which is the reason for its inclusion in LSS ID No. 44. These are based on the latest LSS and LSN spreadsheets available from the FCC, both dated January 11, 2018.

Interference Caused Analysis Under Current Allocation Environment

An interference analysis was conducted for the WISE-TV 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 WISE-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 temporary 2% permissible interference level to any other protected full-power or Class A television stations now operating.

It is noted that the *TVStudy* analysis is based on the use of a higher resolution terrain profile point spacing of 0.1 km. Under this higher resolution terrain profile point spacing, the predicted interference to the WCET facility is within the 2% permissible

[§] WFWA(TV), Fort Wayne, IN, Channel 40. In conjunction with an agreement with T-Mobile, it is planned for the WFWA facility to make an early transition to Channel 18, which will be facilitated by the early move of WISE-TV to Channel 34.

^{**} WCET(TV), Cincinnati, OH, Channel 34 (Licensed). WCET will migrate to Channel 17 as part of the repack process. But as demonstrated herein, the early move of WISE-TV can be achieved without conflict with the WCET licensed facility on Channel 34.

^{††} *TVStudy* Version 2.2.4

level.^{‡‡} Therefore, the early move of WISE-TV as proposed herein will remove WISE-TV from the upstream LSN case and eliminate WISE-TV from LSS ID No. 44.

Interference Received Analysis Under Current Allocation Environment

An interference analysis specifically for the ‘received case’ of interference was conducted for the WISE-TV Channel 34 C.P. facility utilizing the FCC’s aforementioned *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 WISE-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 WISE-TV Channel 34 C.P. facility.^{§§}

Effects on Linked Station Sets

As indicated herein, utilizing a higher resolution terrain profile point spacing of 0.1 km, the early transition of WISE-TV to Channel 34 will not create an interference conflict exceeding the 2% with respect to the any other facilities, including the WCET licensed facility on Channel 34. In addition, the early transition of WISE-TV will eliminate it from LSS ID No. 44, which will simplify the repack process.

^{‡‡} The upstream LSN case involving WCET was based on the standard terrain spacing parameter of 1 km, which results in predicted interference caused to WCET of 2.33%.

^{§§} The results of the received interference analysis pass the 2% requirement under the standard 1 km terrain profile point spacing as well.

Conclusion

It is concluded that the early transition of the WISE-TV C.P. facility on Channel 34, as described herein, will not result in the creation of any new linked station sets established in the Incentive Auction repack process. In addition, the proposal will remove WISE-TV from the LSS ID No. 44, which will simplify the Incentive Auction repack process.



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3135 Southgate Circle
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February 26, 2018

TV Inquiry

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



Callsign: WISE-TV **Service:** DT **Status:** CP **App. Status:** GRANT **Border Code:** **Rec. Type:** C
Channel: 34 **Offset:** **Zone:** 1 **Docket Number:** **DTV Type:** POSTTRAN
Fac. ID: 13960 **Assoc. ID:** **Application File No.:** BLANK-0000027665 **DT Emission Mask:**
City: FORT WAYNE **State:** IN **Country:** US **CP Expiration Date:**
Party Name: SAGAMOREHILL OF INDIANA LICENSES, LLC **Last Change Date:** 8/7/2017

Latitude (NAD 83): 41-06-08 **Height AGL (m):** 227.1 **Polarization:** H
Longitude (NAD 83): 085-11-05 **Overall Height AGL (m):** 235 **Electrical Tilt (°):** 0.5
ERP (kW): 456 **Mechanical Tilt (°):**
Maximum ERP (kW): **Mechanical Tilt Azimuth (°):**
Maximum ERP (dBk): 26.6 **Degrees True (°):**
RCAMSL (m): 470 **Antenna Make:**
Site Elevation AMSL (m): 242.9 **Antenna Model:**
HAAT (m): 224
Maximum HAAT (m):

Antenna Type: N **Antenna ID:** 93360 **Rotation (°):**

0° 1.000	90° 1.000	180° 1.000	270° 1.000
10° 1.000	100° 1.000	190° 1.000	280° 1.000
20° 1.000	110° 1.000	200° 1.000	290° 1.000
30° 1.000	120° 1.000	210° 1.000	300° 1.000
40° 1.000	130° 1.000	220° 1.000	310° 1.000
50° 1.000	140° 1.000	230° 1.000	320° 1.000
60° 1.000	150° 1.000	240° 1.000	330° 1.000
70° 1.000	160° 1.000	250° 1.000	340° 1.000
80° 1.000	170° 1.000	260° 1.000	350° 1.000

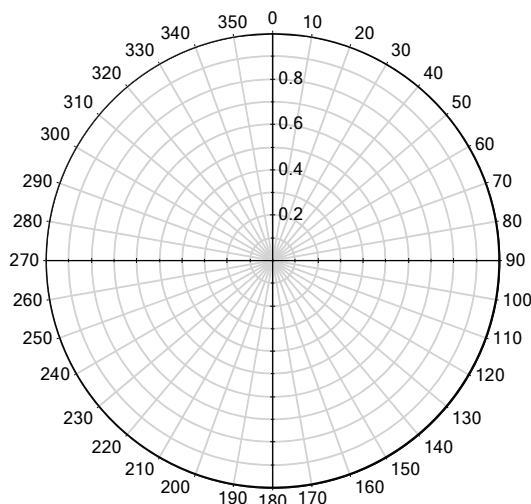
Standard Pattern:

Antenna Make: DIE

Antenna Model: TUA-O4-10/40H-T-1-R

Last Change Date:

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



Type: TOWER	ASRN: 1029441	FAA Study No.:	Structure Height (m): 221.0
Latitude (NAD 27): 041-06-07.8	Date Received: 11/02/2015	Structure Height (ft): 725.1	
Longitude (NAD 27): 085-11-05.1	Date Entered: 11/02/2015	Ground Elevation (m): 242.9	
Latitude (NAD 83): 41-06-08.0	Date Issued: 11/03/2015	Ground Elevation (ft): 796.9	
Longitude (NAD 83): 085-11-05.0	Date Constructed: 01/01/1957	Overall Height AGL (m): 235.0	
Struct. Address:	Date Dismantled:	Overall Height AGL (ft): 771.0	
3401 BUTLER RD		Overall Height AMSL (m): 477.9	
FORT WAYNE	IN	Overall Height AMSL (ft): 1567.9	
Entity Name: WPTA Television, Inc.			

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

tvstudy v2.2.4 (Z2Qqz3)

Database: localhost, Study: wise34e3, Model: Longley-Rice

Study build station data: LMS TV 2018-02-26 (142)

Proposal: WISE34E3 D34 DT CP FORT WAYNE, IN
File number: wise34e3
Facility ID: 13960
Station data: User record
Record ID: 2266
Country: U.S.
Zone: I

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	WSTR-TV	D33	DT	LIC	CINCINNATI, OH	BLCDT20091117ACS	218.8 km
No	KQIN	D34	DT	LIC	DAVENPORT, IA	BLEDT20120921ADS	435.0
Yes	WEDE-CD	D34	DC	LIC	ARLINGTON HEIGHTS, IL	BLDTA20140430ACQ	221.6
Yes	WCET	D34	DT	LIC	CINCINNATI, OH	BLEDT20061031AAR	227.0
No	WQHS-DT	D34	DT	LIC	CLEVELAND, OH	BLCDT20031030AGJ	292.7
No	WISN-TV	D34	DT	LIC	MILWAUKEE, WI	BLCDT20101104AAA	317.9
No	WVPB-TV	D34	DT	LIC	HUNTINGTON, WV	BLEDT20120214AAS	385.9
Yes	WNIT	D35	DT	LIC	SOUTH BEND, IN	BLEDT20110516ADN	101.2
No	WLWT	D35	DT	LIC	CINCINNATI, OH	BLCDT20050502ABC	227.0
No	WOHL-CD	D35	DC	LIC	LIMA, OH	BLDTA20090817ACL	96.8
No	CIII-DT-22D33		DT	LIC	STEVENSON, ON	BLANKCANADA222	248.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D34

Latitude: 41 6 8.00 N (NAD83)
Longitude: 85 11 5.00 W
Height AMSL: 470.0 m
HAAT: 224.0 m

Peak ERP: 456 kW

Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 0.50

40.7 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	456 kW	211.2 m	79.9 km
45.0	456	223.4	80.8
90.0	456	233.1	81.5
135.0	456	228.7	81.1
180.0	456	232.4	81.4
225.0	456	225.0	80.9
270.0	456	211.5	79.9
315.0	456	210.9	79.8

Database HAAT does not agree with computed HAAT

Database HAAT: 224 m Computed HAAT: 222 m

**Proposal is within coordination distance of Canadian border
Distance to Canadian border: 195.4 km

Distance to Mexican border: 1928.8 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 339.4 degrees Distance: 178.9 km

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

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 273.0 degrees Distance: 1690.1 km

Study cell size: 2.00 km

Profile point spacing: 0.10 km (Higher resolution terrain 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 BLDTA20140430ACQ LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WEDE-CD	D34	DC	LIC	ARLINGTON HEIGHTS, IL	BLDTA20140430ACQ	
Undesireds:	WISE34E3	D34	DT	CP	FORT WAYNE, IN	wise34e3	221.6 km
	KQIN	D34	DT	LIC	DAVENPORT, IA	BLEDT20120921ADS	236.6
	WISN-TV	D34	DT	LIC	MILWAUKEE, WI	BLCDT20101104AAA	139.1
	WLPD-CD	D35	DC	LIC	PLANO, IL	BLANK0000034510	37.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
4136.3 5,617,715		4136.3 5,617,715		4048.1 5,511,005		4048.1 5,511,005	0.00 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
WISE34E3 D34 DT CP		4.0 0				0.0 0	
KQIN D34 DT LIC		4.0 0		0.0 0		0.0 0	
WISN-TV D34 DT LIC		56.1 84,071		52.1 84,071		52.1 84,071	
WLPD-CD D35 DC LIC		32.1 22,639		32.1 22,639		32.1 22,639	

Interference to BLEDT20061031AAR LIC scenario 1

**IX: 0.98% interference caused

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WCET	D34	DT	LIC	CINCINNATI, OH	BLEDT20061031AAR	
Undesireds:	WISE34E3	D34	DT	CP	FORT WAYNE, IN	wise34e3	227.0 km
	WSTR-TV	D33	DT	LIC	CINCINNATI, OH	BLCDT20091117ACS	8.5
	WTNZ	D34	DT	LIC	KNOXVILLE, TN	BMLCDT20040706ABG	350.6
	WVPB-TV	D34	DT	LIC	HUNTINGTON, WV	BLEDT20120214AAS	212.8
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
23740.5 3,122,924		23495.9 3,094,072		23468.0 3,089,339		23307.2 3,059,024	0.69 0.98
Undesired		Total IX		Unique IX, before		Unique IX, after	
WISE34E3 D34 DT CP		164.8 30,470				160.8 30,315	
WSTR-TV D33 DT LIC		19.9 4,578		19.9 4,578		19.9 4,578	
WTNZ D34 DT LIC		4.0 155		4.0 155		0.0 0	
WVPB-TV D34 DT LIC		4.0 0		4.0 0		4.0 0	

Interference to BLEDT20110516ADN LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNIT	D35	DT	LIC	SOUTH BEND, IN	BLEDT20110516ADN	
Undesireds:	WISE34E3	D34	DT	CP	FORT WAYNE, IN	wise34e3	101.2 km
	WLPD-CD	D35	DC	LIC	PLANO, IL	BLANK0000034510	158.9
	WLWT	D35	DT	LIC	CINCINNATI, OH	BLCDT20050502ABC	310.6
	WFFT-TV	D36	DT	LIC	FORT WAYNE, IN	BLCDT20090521AAQ	100.1
	WJYS	D36	DT	LIC	HAMMOND, IN	BLCDT20100922ABI	123.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
19520.6 1,298,159		19508.6 1,295,694		18999.9 1,251,596		18948.1 1,250,460	0.27 0.09
Undesired		Total IX		Unique IX, before		Unique IX, after	
WISE34E3 D34 DT CP		342.6 18,521				51.8 1,136	

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

WLPD-CD D35 DC LIC	80.6	7,598	8.1	3,618	8.1	3,618
WLWT D35 DT LIC	11.9	767	11.9	767	4.0	45
WFFT-TV D36 DT LIC	347.6	18,539	347.6	18,539	64.8	1,876
WJYS D36 DT LIC	141.1	21,174	68.6	17,194	68.6	17,194

Interference to BLEDT20110516ADN LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WNIT	D35	DT	LIC	SOUTH BEND, IN	BLEDT20110516ADN	
Undesireds:	WISE34E3	D34	DT	CP	FORT WAYNE, IN	wise34e3	101.2 km
	WLPD-CD	D35	DC	LIC	PLANO, IL	BLANK0000034510	158.9
	WLWT	D35	DT	LIC	CINCINNATI, OH	BLCDT20050502ABC	310.6
	WFFT-TV	D36	DT	LIC	FORT WAYNE, IN	BLCDT20090521AAQ	100.1
	WJYS	D36	DT	LIC	HAMMOND, IN	BLCDT20020801ABI	123.6

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
19520.6 1,298,159	19508.6 1,295,694	19056.4 1,267,013	19004.5 1,265,877	0.27 0.09

Undesired	Total IX	Unique IX, before	Unique IX, after
WISE34E3 D34 DT CP	342.6 18,521	51.8 1,136	
WLPD-CD D35 DC LIC	80.6 7,598	48.3 4,908	
WLWT D35 DT LIC	11.9 767	4.0 45	
WFFT-TV D36 DT LIC	347.6 18,539	64.8 1,876	
WJYS D36 DT LIC	44.4 4,467	12.1 1,777	

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

tvstudy v2.2.4 (Z2Qqz3)

Database: localhost
Station Data: LMS TV 2018-01-24 (122)
Study: LMS180123
Model: Longley-Rice
Scenario: wise34e3r

Desired station	Service area		Terrain-limited		Interference-free	
Undesired station	Total interference		Unique interference			
WISE34E2 D34 DT CP FORT WAYNE, IN	20465.5	1,089,665	20465.5	1,089,665	20272.1	1,068,017
WEDE-CD D34 DC LIC ARLINGTON HEIGHTS, IL	0.0	0	0.0	0	0 (0.00%)	
WNIT D35 DT LIC SOUTH BEND, IN	141.5	20,736	141.5	20,736	20,736 (1.90%)	
WCET D34 DT LIC CINCINNATI, OH	8.0	47	8.0	47	47 (0.00%)	
WQHS-DT D34 DT LIC CLEVELAND, OH	0.0	0	0.0	0	0 (0.00%)	
WOHL-CD D35 DC LIC LIMA, OH	43.9	865	43.9	865	865 (0.08%)	
WISN-TV D34 DT LIC MILWAUKEE, WI	0.0	0	0.0	0	0 (0.00%)	