Note:
Study cell size: 1.00 km
Profile point spacing: 0.10 km

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: W04DU_Ch31_4x3_Post, Model: Longley-Rice
Start: 2019.05.31 13:59:25

Study created: 2019.05.31 13:41:44

Study build station data: LMS TV 2019-05-31

    Proposal: W04DU-D D31 LD APP FORT WAYNE, IN
 File number: W04DU_Ch31_4x3
 Facility ID: 188069
Station data: User record
   Record ID: 980
     Country: U.S.

Build options:
Protect baseline records from LPTV

Search options:
Baseline record excluded if station has CP
All records for new LPTV stations excluded

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WSJV	D30	DT	CP	ELKHART, IN	BLANK0000027461	124.7 km
No	W41DS-D	D30	LD	CP	FORT WAYNE, IN	BLANK0000052699	20.2
No	WSDI-LD	D30	LD	LIC	WOLCOTT, IN	BLANK0000040106	159.6
No	WXMI	D30	LD	LIC	GRAND RAPIDS, MI	BLCDT20140502AAR	158.5
No	WHIZ-TV	D30	DT	CP	ZANESVILLE, OH	BLANK0000068718	277.8
No	W25DW-D	D31	LD	APP	ARBURY HILLS, IL	BLANK0000068481	244.0
No	WESV-LD	D31	LD	CP	CHICAGO, IL	BLANK0000053952	244.0
No	WQAD-TV	D31	DT	CP	MOLINE, IL	BLANK0000034243	454.6
No	W33AY-D	D31	LD	CP	SPRINGFIELD, IL	BLANK0000051745	414.6
No	W31DT-D	D31	LD	CP	STERLING - DIXON, IL	BDCCDTL20110726AJF	399.8
No	DWKOG-LP	D31	DC	BL	INDIANAPOLIS, IN	DTVBL34894	168.2
Yes	WNIT	D31	DT	CP	SOUTH BEND, IN	BLANK0000024784	124.2
No	WVUT	D31	DT	CP	VINCENNES, IN	BLANK0000027953	335.8
No	WQDE-LD	D31	LD	CP	WOLCOTT, IN	BLANK0000051594	159.6
No	WKMA-TV	D31	DT	CP	MADISONVILLE, KY	BLANK0000034649	474.9
Yes	WMYD	D31	DT	CP	DETROIT, MI	BLANK0000034676	221.0
No	WMKG-CD	D31	DC	CP	MUSKEGON, MI	BLANK0000034413	265.1
Yes	WDTN	D31	DT	CP	DAYTON, OH	BLANK0000034768	152.3
No	WJOS-LD	D31	LD	CP	POMEROY, OH	BLANK0000054745	330.6
No	WTZP-LD	D31	LD	CP	PORTSMOUTH, OH	BLANK0000054002	295.0
No	WYTV	D31	DT	CP	YOUNGSTOWN, OH	BLANK0000034845	362.4
No	WIIC-LD	D31+	LD	LIC	PITTSBURGH, PA	BLANK0000001503	425.5
No	WITI	D31	DT	CP	MILWAUKEE, WI	BLANK0000062874	337.2
No	WOAY-TV	D31	DT	CP	OAK HILL, WV	BLANK0000028013	468.8
No	WICD	D32	DT	LIC	CHAMPAIGN, IL	BLANK0000059351	268.6
No	WANE-TV	D32	DT	CP	FORT WAYNE, IN	BLANK0000034806	22.1
No	WDIV-TV	D32	DT	CP	DETROIT, MI	BLANK0000027872	222.1
No	WXMI	D32	LD	CP	GRAND RAPIDS, MI	BLANK0000053427	158.5
No	WXMI	D32	LD	LIC	GRAND RAPIDS, MI	BLANK0000072959	158.5
No	WWRD-LP	N32+	TX	LIC	DAYTON, OH	BLTTL20071011AAP	162.5
No	W32DS-D	D32	LD	LIC	MAPLEWOOD, OH	BLDTT20110104ABK	60.4
No	WOCB-CD	D32	DC	BL	MARION, OH	DTVBL9939	177.6
No	WAMS-LP	N38z	TX	LIC	MINSTER/NEW BREMEN, OH	BLTTL20050527BIT	74.3
No	WDMY-LP	N38-	TX	LIC	TOLEDO, OH	BLTT20050805AAT	135.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D31
       Mask: Full Service
   Latitude: 40 58 38.00 N (NAD83)

  Longitude: 84 57 58.00 W
Height AMSL: 326.9 m
       HAAT: 0.0 m
   Peak ERP: 15.0 kW
    Antenna: SIRA 4x3 335.0 deg
Elev Pattrn: Generic

50.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	8.65 kW	91.9 m	39.7 km
45.0	8.53	91.1	39.5
90.0	9.50	87.0	39.5
135.0	0.273	76.8	20.1
180.0	0.525	79.9	23.9
225.0	11.2	81.7	39.6
270.0	8.77	83.1	38.6
315.0	8.62	85.4	38.8

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m   Computed HAAT: 85 m

Proposal 25.42 dBu contour does not cross Canadian border
Distance to Canadian border: 186.3 km

Distance to Mexican border: 1935.7 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 336.0 degrees   Distance: 198.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 273.6 degrees   Distance: 1709.2 km

Study cell size: 1.00 km
Profile point spacing: 0.10 km

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

Interference to BLANK0000024784 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WNIT	D31	DT	CP	SOUTH BEND, IN	BLANK0000024784	
Undesireds:	W04DU-D	D31	LD	APP	FORT WAYNE, IN	W04DU_Ch31_4x3	124.2 km
	WSJV	D30	DT	CP	ELKHART, IN	BLANK0000027461	0.5
	WQAD-TV	D31	DT	CP	MOLINE, IL	BLANK0000034243	350.6
	WMYD	D31	DT	CP	DETROIT, MI	BLANK0000034676	265.7
	WMKG-CD	D31	DC	CP	MUSKEGON, MI	BLANK0000034413	173.6
	WDTN	D31	DT	CP	DAYTON, OH	BLANK0000034768	266.3
	WITI	D31	DT	CP	MILWAUKEE, WI	BLANK0000062874	215.9
	WANE-TV	D32	DT	CP	FORT WAYNE, IN	BLANK0000034806	102.1

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
19614.4	1,304,265	19598.3	1,303,623	19015.5	1,264,114	18984.3	1,263,070	0.16	0.08

Undesired		Total IX		Unique IX, before		Unique IX, after	
W04DU-D D31 LD APP	370.1	18,696				31.2	1,044
WSJV D30 DT CP	4.0	116	4.0	116	4.0	116	
WQAD-TV D31 DT CP	12.1	1,318	0.0	0	0.0	0	
WMYD D31 DT CP	29.0	1,341	23.0	1,140	23.0	1,140	
WMKG-CD D31 DC CP	6.0	36	1.0	26	1.0	26	
WDTN D31 DT CP	259.6	14,836	40.7	431	24.8	259	
WITI D31 DT CP	131.5	18,541	100.4	16,149	100.4	16,149	
WANE-TV D32 DT CP	389.7	20,171	175.7	5,885	60.5	2,522	

Interference to BLANK0000034676 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance

Desired:	WMYD	D31	DT	CP	DETROIT, MI	BLANK0000034676	
Undesireds:	W04DU-D	D31	LD	APP	FORT WAYNE, IN	W04DU_Ch31_4x3	221.0 km
	WNEM-TV	D30	DT	CP	BAY CITY, MI	BLANK0000024833	126.1
	WNIT	D31	DT	CP	SOUTH BEND, IN	BLANK0000024784	265.7
	WDTN	D31	DT	CP	DAYTON, OH	BLANK0000034768	316.6
	WYTV	D31	DT	CP	YOUNGSTOWN, OH	BLANK0000034845	260.5
	WDIV-TV	D32	DT	CP	DETROIT, MI	BLANK0000027872	4.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent	New IX
21705.8	5,749,759	21667.8	5,748,703	20972.2	5,649,253	20972.2	5,649,253	0.00	0.00
6203.1	534,208	6203.1	534,208	6202.1	534,208	6202.1	534,208	0.00	0.00

(in Canada)

Undesired	Total IX		Unique IX, before		Unique IX, after		
W04DU-D D31 LD APP	1.0	53			0.0	0	
WNEM-TV D30 DT CP	684.5	97,960	683.5	97,960	683.5	97,960	
WNIT D31 DT CP	4.0	996	2.0	943	2.0	943	
WDTN D31 DT CP	5.0	245	2.0	134	2.0	134	
WYTV D31 DT CP	3.0	58	1.0	0	1.0	0	
WDIV-TV D32 DT CP	3.0	302	3.0	302	3.0	302	
WDIV-TV D32 DT CP	1.0	0	1.0	0	1.0	0	(in Canada)

Interference to BLANK0000034768 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WDTN	D31	DT	CP	DAYTON, OH	BLANK0000034768	
Undesireds:	W04DU-D	D31	LD	APP	FORT WAYNE, IN	W04DU_Ch31_4x3	152.3 km
	WNIT	D31	DT	CP	SOUTH BEND, IN	BLANK0000024784	266.3
	WMYD	D31	DT	CP	DETROIT, MI	BLANK0000034676	316.6
	WYTV	D31	DT	CP	YOUNGSTOWN, OH	BLANK0000034845	339.9
	WOAY-TV	D31	DT	CP	OAK HILL, WV	BLANK0000028013	332.6
	WOCB-CD	D32	DC	BL	MARION, OH	DTVBL9939	122.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent	New IX
32125.9	3,834,458	31760.6	3,821,410	31360.2	3,806,187	31352.3	3,806,130	0.03	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
W04DU-D D31 LD APP	29.9	469			8.0	57
WNIT D31 DT CP	17.0	526	2.0	151	2.0	151
WMYD D31 DT CP	315.5	8,101	131.7	2,995	122.7	2,903
WYTV D31 DT CP	198.7	10,615	24.9	5,764	24.9	5,764
WOAY-TV D31 DT CP	17.9	441	13.9	416	13.9	416
WOCB-CD D32 DC BL	58.1	993	38.1	724	38.1	724

Interference to proposal scenario 1
10.17% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W04DU-D	D31	LD	APP	FORT WAYNE, IN	W04DU_Ch31_4x3	
Undesireds:	WNIT	D31	DT	CP	SOUTH BEND, IN	BLANK0000024784	124.2 km
	WDTN	D31	DT	CP	DAYTON, OH	BLANK0000034768	152.3
	WANE-TV	D32	DT	CP	FORT WAYNE, IN	BLANK0000034806	22.1

Service area		Terrain-limited		IX-free		Percent IX	
4136.5	429,396	4136.5	429,396	3310.3	385,712	19.97	10.17

Undesired	Total IX		Unique IX		Prcnt	Unique IX
WNIT D31 DT CP	6.1	112	0.0	0	0.00	0.00
WDTN D31 DT CP	54.5	1,357	0.0	0	0.00	0.00
WANE-TV D32 DT CP	826.2	43,684	765.7	42,215	18.51	9.83

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: W04DU_Ch31_4x3_Post, Model: Longley-Rice
Start: 2019.05.31 13:59:25

Study created: 2019.05.31 13:41:44

Study build station data: LMS TV 2019-05-31

Proposal: W04DU-D D31 LD APP FORT WAYNE, IN
File number: W04DU_Ch31_4x3

Facility ID: 188069
Station data: User record
Record ID: 980
Country: U.S.

Build options:
Protect baseline records from LPTV

Search options:
Baseline record excluded if station has CP
All records for new LPTV stations excluded

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WSJV	D30	DT	CP	ELKHART, IN	BLANK0000027461	124.7 km
No	W41DS-D	D30	LD	CP	FORT WAYNE, IN	BLANK0000052699	20.2
No	WSDI-LD	D30	LD	LIC	WOLCOTT, IN	BLANK0000040106	159.6
No	WXMI	D30	LD	LIC	GRAND RAPIDS, MI	BLCDT20140502AAR	158.5
No	WHIZ-TV	D30	DT	CP	ZANESVILLE, OH	BLANK0000068718	277.8
No	W25DW-D	D31	LD	APP	ARBURY HILLS, IL	BLANK0000068481	244.0
No	WESV-LD	D31	LD	CP	CHICAGO, IL	BLANK0000053952	244.0
No	WQAD-TV	D31	DT	CP	MOLINE, IL	BLANK0000034243	454.6
No	W33AY-D	D31	LD	CP	SPRINGFIELD, IL	BLANK0000051745	414.6
No	W31DT-D	D31	LD	CP	STERLING - DIXON, IL	BDCCDTL20110726AJF	399.8
No	DWKOG-LP	D31	DC	BL	INDIANAPOLIS, IN	DTVBL34894	168.2
Yes	WNIT	D31	DT	CP	SOUTH BEND, IN	BLANK0000024784	124.2
No	WVUT	D31	DT	CP	VINCENNES, IN	BLANK0000027953	335.8
No	WQDE-LD	D31	LD	CP	WOLCOTT, IN	BLANK0000051594	159.6
No	WKMA-TV	D31	DT	CP	MADISONVILLE, KY	BLANK0000034649	474.9
Yes	WMYD	D31	DT	CP	DETROIT, MI	BLANK0000034676	221.0
No	WMKG-CD	D31	DC	CP	MUSKEGON, MI	BLANK0000034413	265.1
Yes	WDTN	D31	DT	CP	DAYTON, OH	BLANK0000034768	152.3
No	WJOS-LD	D31	LD	CP	POMEROY, OH	BLANK0000054745	330.6
No	WTZP-LD	D31	LD	CP	PORTSMOUTH, OH	BLANK0000054002	295.0
No	WYTV	D31	DT	CP	YOUNGSTOWN, OH	BLANK0000034845	362.4
No	WIIC-LD	D31+	LD	LIC	PITTSBURGH, PA	BLANK0000001503	425.5
No	WITI	D31	DT	CP	MILWAUKEE, WI	BLANK0000062874	337.2
No	WOAY-TV	D31	DT	CP	OAK HILL, WV	BLANK0000028013	468.8
No	WICD	D32	DT	LIC	CHAMPAIGN, IL	BLANK0000059351	268.6
No	WANE-TV	D32	DT	CP	FORT WAYNE, IN	BLANK0000034806	22.1
No	WDIV-TV	D32	DT	CP	DETROIT, MI	BLANK0000027872	222.1
No	WXMI	D32	LD	CP	GRAND RAPIDS, MI	BLANK0000053427	158.5
No	WXMI	D32	LD	LIC	GRAND RAPIDS, MI	BLANK0000072959	158.5
No	WWRD-LP	N32+	TX	LIC	DAYTON, OH	BLTTL20071011AAP	162.5
No	W32DS-D	D32	LD	LIC	MAPLEWOOD, OH	BLDTT20110104ABK	60.4
No	WOCB-CD	D32	DC	BL	MARION, OH	DTVBL9939	177.6
No	WAMS-LP	N38z	TX	LIC	MINSTER/NEW BREMEN, OH	BLTTL20050527BIT	74.3
No	WDMY-LP	N38-	TX	LIC	TOLEDO, OH	BLTT20050805AAT	135.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D31
Mask: Full Service
Latitude: 40 58 38.00 N (NAD83)
Longitude: 84 57 58.00 W
Height AMSL: 326.9 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: SIRA 4x3 335.0 deg
Elev Pattrn: Generic

50.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	8.65 kW	91.9 m	39.7 km
45.0	8.53	91.1	39.5
90.0	9.50	87.0	39.5
135.0	0.273	76.8	20.1
180.0	0.525	79.9	23.9
225.0	11.2	81.7	39.6

270.0 8.77 83.1 38.6
315.0 8.62 85.4 38.8

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 85 m

Proposal 25.42 dBu contour does not cross Canadian border
Distance to Canadian border: 186.3 km

Distance to Mexican border: 1935.7 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 336.0 degrees Distance: 198.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 273.6 degrees Distance: 1709.2 km

Study cell size: 1.00 km
Profile point spacing: 0.10 km

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

Interference to BLANK0000024784 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WNIT	D31	DT	CP	SOUTH BEND, IN	BLANK0000024784	
Undesireds:	W04DU-D	D31	LD	APP	FORT WAYNE, IN	W04DU_Ch31_4x3	124.2 km
	WSJV	D30	DT	CP	ELKHART, IN	BLANK0000027461	0.5
	WQAD-TV	D31	DT	CP	MOLINE, IL	BLANK0000034243	350.6
	WMYD	D31	DT	CP	DETROIT, MI	BLANK0000034676	265.7
	WMKG-CD	D31	DC	CP	MUSKEGON, MI	BLANK0000034413	173.6
	WDTN	D31	DT	CP	DAYTON, OH	BLANK0000034768	266.3
	WITI	D31	DT	CP	MILWAUKEE, WI	BLANK0000062874	215.9
	WANE-TV	D32	DT	CP	FORT WAYNE, IN	BLANK0000034806	102.1

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
19614.4	1,304,265	19598.3	1,303,623	19015.5	1,264,114	18984.3	1,263,070	0.16	0.08

Undesired	Total IX		Unique IX, before		Unique IX, after	
W04DU-D D31 LD APP	370.1	18,696			31.2	1,044
WSJV D30 DT CP	4.0	116	4.0	116	4.0	116
WQAD-TV D31 DT CP	12.1	1,318	0.0	0	0.0	0
WMYD D31 DT CP	29.0	1,341	23.0	1,140	23.0	1,140
WMKG-CD D31 DC CP	6.0	36	1.0	26	1.0	26
WDTN D31 DT CP	259.6	14,836	40.7	431	24.8	259
WITI D31 DT CP	131.5	18,541	100.4	16,149	100.4	16,149
WANE-TV D32 DT CP	389.7	20,171	175.7	5,885	60.5	2,522

Interference to BLANK0000034676 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WMYD	D31	DT	CP	DETROIT, MI	BLANK0000034676	
Undesireds:	W04DU-D	D31	LD	APP	FORT WAYNE, IN	W04DU_Ch31_4x3	221.0 km
	WNEM-TV	D30	DT	CP	BAY CITY, MI	BLANK0000024833	126.1
	WNIT	D31	DT	CP	SOUTH BEND, IN	BLANK0000024784	265.7
	WDTN	D31	DT	CP	DAYTON, OH	BLANK0000034768	316.6
	WYTV	D31	DT	CP	YOUNGSTOWN, OH	BLANK0000034845	260.5
	WDIV-TV	D32	DT	CP	DETROIT, MI	BLANK0000027872	4.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
21705.8	5,749,759	21667.8	5,748,703	20972.2	5,649,253	20972.2	5,649,253	0.00	0.00
6203.1	534,208	6203.1	534,208	6202.1	534,208	6202.1	534,208	0.00	0.00
(in Canada)									

Undesired	Total IX	Unique IX, before	Unique IX, after

W04DU-D D31 LD APP	1.0	53			0.0	0	
WNEM-TV D30 DT CP	684.5	97,960	683.5	97,960	683.5	97,960	
WNIT D31 DT CP	4.0	996	2.0	943	2.0	943	
WDTN D31 DT CP	5.0	245	2.0	134	2.0	134	
WYTV D31 DT CP	3.0	58	1.0	0	1.0	0	
WDIV-TV D32 DT CP	3.0	302	3.0	302	3.0	302	
WDIV-TV D32 DT CP	1.0	0	1.0	0	1.0	0	(in Canada)

Interference to BLANK0000034768 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WDTN	D31	DT	CP	DAYTON, OH	BLANK0000034768	
Undesireds:	W04DU-D	D31	LD	APP	FORT WAYNE, IN	W04DU_Ch31_4x3	152.3 km
	WNIT	D31	DT	CP	SOUTH BEND, IN	BLANK0000024784	266.3
	WMYD	D31	DT	CP	DETROIT, MI	BLANK0000034676	316.6
	WYTV	D31	DT	CP	YOUNGSTOWN, OH	BLANK0000034845	339.9
	WOAY-TV	D31	DT	CP	OAK HILL, WV	BLANK0000028013	332.6
	WOCB-CD	D32	DC	BL	MARION, OH	DTVBL9939	122.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
32125.9	3,834,458	31760.6	3,821,410	31360.2	3,806,187	31352.3	3,806,130	0.03	0.00

Undesired		Total IX	Unique IX, before		Unique IX, after	
W04DU-D D31 LD APP	29.9	469			8.0	57
WNIT D31 DT CP	17.0	526	2.0	151	2.0	151
WMYD D31 DT CP	315.5	8,101	131.7	2,995	122.7	2,903
WYTV D31 DT CP	198.7	10,615	24.9	5,764	24.9	5,764
WOAY-TV D31 DT CP	17.9	441	13.9	416	13.9	416
WOCB-CD D32 DC BL	58.1	993	38.1	724	38.1	724

Interference to proposal scenario 1
10.17% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W04DU-D	D31	LD	APP	FORT WAYNE, IN	W04DU_Ch31_4x3	
Undesireds:	WNIT	D31	DT	CP	SOUTH BEND, IN	BLANK0000024784	124.2 km
	WDTN	D31	DT	CP	DAYTON, OH	BLANK0000034768	152.3
	WANE-TV	D32	DT	CP	FORT WAYNE, IN	BLANK0000034806	22.1

Service area		Terrain-limited		IX-free		Percent IX	
4136.5	429,396	4136.5	429,396	3310.3	385,712	19.97	10.17

Undesired		Total IX		Unique IX		Prcnt Unique IX	
WNIT D31 DT CP	6.1	112	0.0	0	0.00	0.00	
WDTN D31 DT CP	54.5	1,357	0.0	0	0.00	0.00	
WANE-TV D32 DT CP	826.2	43,684	765.7	42,215	18.51	9.83	