

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: KDIN CH 34 #241, Model: Longley-Rice
Start: 2023.11.03 15:56:46

Study created: 2023.11.03 15:56:46

Study build station data: LMS TV 2023-11-03

Proposal: KDIN-TV D34 DT LIC DES MOINES, IA
File number: KDIN CH 34
Facility ID: 29102
Station data: User record
Record ID: 129
Country: U.S.
Zone: II

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KBIN-TV	D33	DT	LIC	COUNCIL BLUFFS, IA	BLEDT20050711ABX	194.8 km
Yes	KTV0	D33	DT	LIC	KIRKSVILLE, MO	BLANK0000158746	172.8
Yes	KDIN	D34	DT	LIC	DAVENPORT, IA	BLEDT20120921ADS	274.7
No	WCIA	D34	DT	LIC	CHAMPAIGN, IL	BLANK0000203664	473.0
Yes	WQEC	D34	DT	CP	QUINCY, IL	BLANK0000035763	281.0
Yes	WQEC	D34	DT	LIC	QUINCY, IL	BLEDT20040715ADL	281.0
Yes	KTCA-TV	D34	DT	LIC	ST. PAUL, MN	BLANK0000221666	363.3
Yes	WDAF-TV	D34	DT	LIC	KANSAS CITY, MO	BLANK0000155694	315.3
Yes	KUSD-TV	D34	DT	LIC	VERMILLION, SD	BLEDT20100310ABZ	294.3
No	WWRS-TV	D34	DT	LIC	MAYVILLE, WI	BLANK0000087342	453.7
Yes	KHIN	D35	DT	LIC	RED OAK, IA	BLANK0000030114	145.9
Yes	KRIN	D35	DT	LIC	WATERLOO, IA	BLEDT20050218ABQ	155.5

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 48 33.00 N (NAD83)
Longitude: 93 36 54.00 W
Height AMSL: 893.0 m
HAAT: 600.0 m
Peak ERP: 1000 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.00

40.7 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	1000 kW	584.6 m	120.4 km
45.0	1000	606.4	121.7
90.0	1000	619.3	122.4
135.0	1000	597.4	121.2
180.0	1000	602.7	121.5
225.0	1000	614.6	122.1
270.0	1000	604.2	121.6
315.0	1000	580.2	120.2

Database HAAT does not agree with computed HAAT
Database HAAT: 600 m Computed HAAT: 601 m

ERP exceeds maximum
ERP: 1000 kW ERP maximum: 326 kW

Distance to Canadian border: 711.4 km

Distance to Mexican border: 1509.4 km

Conditions at FCC monitoring station: Grand Island NE
Bearing: 257.8 degrees Distance: 413.4 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 263.1 degrees Distance: 990.6 km

Study cell size: 2.00 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 BLANK0000158746 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KTV0	D33	DT	LIC	KIRKSVILLE, MO	BLANK0000158746	
Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	172.8 km
	WTJR	D32	DT	LIC	QUINCY, IL	BLCDT20091110ADL	113.0
	KTVI	D33	DT	LIC	ST. LOUIS, MO	BLANK0000158068	283.9
	WLAX	D33	DT	LIC	LA CROSSE, WI	BLANK0000121622	374.5
	WQEC	D34	DT	CP	QUINCY, IL	BLANK0000035763	114.0
	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	24556.6	227,128	24464.0	226,616	23912.2	222,413	23867.6 222,272 0.19 0.06
Undesired	Total IX		Unique IX, before		Unique IX, after		

KDIN-TV D34 DT LIC	44.6	141			44.6	141
WTJR D32 DT LIC	466.9	3,866	217.3	854	217.3	854
KTVI D33 DT LIC	129.1	443	56.5	232	56.5	232
WLAX D33 DT LIC	20.3	60	20.3	60	20.3	60
WQEC D34 DT CP	245.6	3,057	0.0	0	0.0	0

Interference to BLANK0000158746 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KTV0	D33	DT	LIC	KIRKSVILLE, MO	BLANK0000158746	
Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	172.8 km
	WTJR	D32	DT	LIC	QUINCY, IL	BLCDDT00091110ADL	113.0
	KTVI	D33	DT	LIC	ST. LOUIS, MO	BLANK0000158068	283.9
	WLAX	D33	DT	LIC	LA CROSSE, WI	BLANK0000121622	374.5
	WQEC	D34	DT	LIC	QUINCY, IL	BLEDT20040715ADL	114.0
Service area	24556.6	227,128	Terrain-limited	24464.0	226,616	IX-free, before	23912.2
						IX-free, after	222,272
						Percent New IX	0.19 0.06
Undesired			Total IX		Unique IX, before	Unique IX, after	
KDIN-TV D34 DT LIC	44.6	141			44.6	141	
WTJR D32 DT LIC	466.9	3,866	394.4	3,624	394.4	3,624	
KTVI D33 DT LIC	129.1	443	60.6	250	60.6	250	
WLAX D33 DT LIC	20.3	60	20.3	60	20.3	60	
WQEC D34 DT LIC	48.3	161	0.0	0	0.0	0	

Interference to BLEDT20120921ADS LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KQIN	D34	DT	LIC	DAVENPORT, IA	BLEDT20120921ADS	
Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	274.7 km
	WCIA	D34	DT	LIC	CHAMPAIGN, IL	BLANK0000203664	210.7
	WCPX-TV	D34	DT	LIC	CHICAGO, IL	BLANK0000087607	236.6
	WQEC	D34	DT	CP	QUINCY, IL	BLANK0000035763	167.7
	WVRS-TV	D34	DT	LIC	MAYVILLE, WI	BLANK0000087342	280.9
Service area	16010.5	596,371	Terrain-limited	15990.4	596,277	IX-free, before	15518.7
						IX-free, after	592,944
						Percent New IX	0.18 0.02
Undesired			Total IX		Unique IX, before	Unique IX, after	
KDIN-TV D34 DT LIC	52.3	501			28.2	145	
WCIA D34 DT LIC	148.5	761	40.1	124	36.1	120	
WCPX-TV D34 DT LIC	72.6	558	8.1	41	8.1	41	
WQEC D34 DT CP	383.0	3,008	295.1	2,182	287.1	2,158	
WVRS-TV D34 DT LIC	32.2	158	0.0	0	0.0	0	

Interference to BLEDT20120921ADS LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KQIN	D34	DT	LIC	DAVENPORT, IA	BLEDT20120921ADS	
Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	274.7 km
	WCIA	D34	DT	LIC	CHAMPAIGN, IL	BLANK0000203664	210.7
	WCPX-TV	D34	DT	LIC	CHICAGO, IL	BLANK0000087607	236.6
	WQEC	D34	DT	LIC	QUINCY, IL	BLEDT20040715ADL	167.7
	WVRS-TV	D34	DT	LIC	MAYVILLE, WI	BLANK0000087342	280.9
Service area	16010.5	596,371	Terrain-limited	15990.4	596,277	IX-free, before	15801.8
						IX-free, after	595,092
						Percent New IX	0.20 0.03
Undesired			Total IX		Unique IX, before	Unique IX, after	
KDIN-TV D34 DT LIC	52.3	501			32.2	163	
WCIA D34 DT LIC	148.5	761	84.0	545	75.9	504	
WCPX-TV D34 DT LIC	72.6	558	12.1	47	12.1	47	
WQEC D34 DT LIC	35.9	363	12.0	34	8.0	28	
WVRS-TV D34 DT LIC	32.2	158	0.0	0	0.0	0	

Interference to BLANK0000035763 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WQEC	D34	DT	CP	QUINCY, IL	BLANK0000035763	
Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	281.0 km
	KTV0	D33	DT	LIC	KIRKSVILLE, MO	BLANK0000158746	114.0
	KQIN	D34	DT	LIC	DAVENPORT, IA	BLEDT20120921ADS	167.7
	WCIA	D34	DT	LIC	CHAMPAIGN, IL	BLANK0000203664	243.7
	WSIL-TV	D34	DT	LIC	HARRISBURG, IL	BLCDDT00080718AAR	337.0
	WDAF-TV	D34	DT	LIC	KANSAS CITY, MO	BLANK0000155694	299.2
Service area	17497.3	231,854	Terrain-limited	17381.3	231,585	IX-free, before	17140.9
						IX-free, after	230,348
						Percent New IX	0.09 0.03
Undesired			Total IX		Unique IX, before	Unique IX, after	
KDIN-TV D34 DT LIC	32.1	117			16.0	78	
KTV0 D33 DT LIC	36.2	95	36.2	95	24.1	65	
KQIN D34 DT LIC	31.9	320	24.0	290	24.0	290	
WCIA D34 DT LIC	164.4	820	152.5	704	152.5	704	
WSIL-TV D34 DT LIC	19.9	131	7.9	15	7.9	15	
WDAF-TV D34 DT LIC	7.9	17	4.0	8	4.0	8	

Interference to BLEDT20040715ADL LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WQEC	D34	DT	LIC	QUINCY, IL	BLEDT20040715ADL	

Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	281.0 km
	KTV0	D33	DT	LIC	KIRKSVILLE, MO	BLANK0000158746	114.0
	KQIN	D34	DT	LIC	DAVENPORT, IA	BLEDT20120921ADS	167.7
	WCIA	D34	DT	LIC	CHAMPAIGN, IL	BLANK0000203664	243.7
	WSIL-TV	D34	DT	LIC	HARRISBURG, IL	BLCDT20080718AAR	337.0
	WDAF-TV	D34	DT	LIC	KANSAS CITY, MO	BLANK0000155694	299.2

Service area	13221.0	183,969	Terrain-limited	13137.1	183,690	IX-free, before	12956.8	183,250	IX-free, after	12952.8	183,250	Percent New IX	0.03	0.00
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Undesired		Total IX	Unique IX, before	Unique IX, after
KDIN-TV D34 DT LIC	12.0	57		4.0
KTV0 D33 DT LIC	12.1	12	12.1	12
KQIN D34 DT LIC	11.9	65	8.0	55
WCIA D34 DT LIC	152.2	367	120.2	319
WSIL-TV D34 DT LIC	32.1	40	4.0	2
WDAF-TV D34 DT LIC	7.9	14	4.0	4

Interference to BLANK0000221666 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KTCa-TV	D34	DT	LIC	ST. PAUL, MN	BLANK0000221666	
Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	363.3 km
	K33LN-D	D33	DC	LIC	MINNEAPOLIS, MN	BLANK0000164726	14.8
	KSTP-TV	D35	DT	LIC	ST. PAUL, MN	BLANK0000218479	1.3

Service area	30283.0	3,656,218	Terrain-limited	29943.9	3,641,882	IX-free, before	29321.4	3,619,910	IX-free, after	29305.4	3,619,469	Percent New IX	0.05	0.01
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Undesired		Total IX	Unique IX, before	Unique IX, after
KDIN-TV D34 DT LIC	16.0	441		16.0
K33LN-D D33 DC LIC	7.9	423	4.0	18
KSTP-TV D35 DT LIC	618.5	21,954	614.6	21,549

Interference to BLANK0000155694 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WDAF-TV	D34	DT	LIC	KANSAS CITY, MO	BLANK0000155694	
Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	315.3 km
	WQEC	D34	DT	CP	QUINCY, IL	BLANK0000035763	299.2
	KMYT-TV	D34	DT	LIC	TULSA, OK	BLANK0000067647	351.7

Service area	32826.7	2,539,581	Terrain-limited	32486.7	2,537,411	IX-free, before	32383.2	2,534,561	IX-free, after	32154.0	2,531,801	Percent New IX	0.71	0.11
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Undesired		Total IX	Unique IX, before	Unique IX, after
KDIN-TV D34 DT LIC	265.1	2,851		229.2
WQEC D34 DT CP	59.9	2,734	59.9	2,734
KMYT-TV D34 DT LIC	43.6	116	43.6	116

Interference to BLANK0000155694 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WDAF-TV	D34	DT	LIC	KANSAS CITY, MO	BLANK0000155694	
Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	315.3 km
	WQEC	D34	DT	LIC	QUINCY, IL	BLEDT20040715ADL	299.2
	KMYT-TV	D34	DT	LIC	TULSA, OK	BLANK0000067647	351.7

Service area	32826.7	2,539,581	Terrain-limited	32486.7	2,537,411	IX-free, before	32435.1	2,537,285	IX-free, after	32178.0	2,534,444	Percent New IX	0.79	0.11
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Undesired		Total IX	Unique IX, before	Unique IX, after
KDIN-TV D34 DT LIC	265.1	2,851		257.1
WQEC D34 DT LIC	8.0	10	8.0	10
KMYT-TV D34 DT LIC	43.6	116	43.6	116

Interference to BLEDT20100310ABZ LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KUSD-TV	D34	DT	LIC	VERMILLION, SD	BLEDT20100310ABZ	
Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	294.3 km

Service area	19537.1	460,480	Terrain-limited	19481.0	460,277	IX-free, before	19481.0	460,277	IX-free, after	19432.9	459,267	Percent New IX	0.25	0.22
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Undesired		Total IX	Unique IX, before	Unique IX, after
KDIN-TV D34 DT LIC	48.1	1,010		48.1

Interference to BLANK0000030114 LIC scenario 1

**IX: 0.74% interference caused

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KHIN	D35	DT	LIC	RED OAK, IA	BLANK0000030114	
Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	145.9 km
	KRIN	D35	DT	LIC	WATERLOO, IA	BLEDT20050218ABQ	301.4
	KFPX-TV	D36	DT	LIC	NEWTON, IA	BLANK0000063434	145.4

Service area	31734.6	1,041,244	Terrain-limited	31446.1	1,039,383	IX-free, before	31007.1	1,030,189	IX-free, after	30080.0	1,022,573	Percent New IX	2.99	0.74
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Undesired			Total IX	Unique IX, before	Unique IX, after	
KDIN-TV D34 DT LIC	1285.8		15,797		927.1	7,616
KRIN D35 DT LIC	164.8		2,911	72.1	56.0	838
KFPX-TV D36 DT LIC	366.9		8,119	274.2	20.2	161

Interference to BLEDT20050218ABQ LIC scenario 1
 **IX: 0.88% interference caused

Desired:	Call KRIN	Chan D35	Svc DT	Status LIC	City, State WATERLOO, IA	File Number BLEDT20050218ABQ	Distance
Undesireds:	KDIN-TV	D34	DT	LIC	DES MOINES, IA	KDIN CH 34	155.5 km
	KHIN	D35	DT	LIC	RED OAK, IA	BLANK0000030114	301.4
	WGB0-DT	D35	DT	LIC	JOLIET, IL	BLANK0000124507	352.3
	WTVP	D35	DT	LIC	PEORIA, IL	BLANK0000110583	267.4
	KSTP-TV	D35	DT	LIC	ST. PAUL, MN	BLANK0000218479	322.1
	KFPX-TV	D36	DT	LIC	NEWTON, IA	BLANK0000063434	156.0
	KAAL	D36	DT	LIC	AUSTIN, MN	BLCDT20091110AAF	157.1
Service area	949,313	Terrain-limited	36012.2	IX-free, before	IX-free, after	Percent New IX	
36428.2		923,735	35708.4	918,490	35379.5	910,447	0.92 0.88

Undesired			Total IX	Unique IX, before	Unique IX, after	
KDIN-TV D34 DT LIC	368.9		8,481		328.9	8,043
KHIN D35 DT LIC	20.2		334	20.2	12.1	40
WGB0-DT D35 DT LIC	76.1		1,554	28.1	28.1	392
WTVP D35 DT LIC	84.3		3,190	36.3	36.3	2,028
KSTP-TV D35 DT LIC	79.5		907	63.6	63.6	814
KFPX-TV D36 DT LIC	40.0		272	40.0	8.0	128
KAAL D36 DT LIC	67.6		243	51.7	51.7	150

Interference to proposal scenario 1
 1.63% interference received

Desired:	Call KDIN-TV	Chan D34	Svc DT	Status LIC	City, State DES MOINES, IA	File Number KDIN CH 34	Distance
Undesireds:	KTV0	D33	DT	LIC	KIRKSVILLE, MO	BLANK0000158746	172.8 km
	KQIN	D34	DT	LIC	DAVENPORT, IA	BLEDT20120921ADS	274.7
	WQEC	D34	DT	CP	QUINCY, IL	BLANK0000035763	281.0
	KTCA-TV	D34	DT	LIC	ST. PAUL, MN	BLANK0000221666	363.3
	WDAF-TV	D34	DT	LIC	KANSAS CITY, MO	BLANK0000155694	315.3
	KUSD-TV	D34	DT	LIC	VERMILLION, SD	BLEDT20100310ABZ	294.3
	KHIN	D35	DT	LIC	RED OAK, IA	BLANK0000030114	145.9
	KRIN	D35	DT	LIC	WATERLOO, IA	BLEDT20050218ABQ	155.5
Service area	1,098,856	Terrain-limited	45986.3	IX-free	Percent IX		
46279.8		1,097,310	44085.6	1,079,387	4.13	1.63	

Undesired			Total IX	Unique IX	Prcnt Unique IX
KTV0 D33 DT LIC	8.0		18	0.0	0.00 0.00
KQIN D34 DT LIC	112.5		709	20.1	0.04 0.00
WQEC D34 DT CP	104.1		567	24.0	0.05 0.00
KTCA-TV D34 DT LIC	20.0		26	16.0	0.03 0.00
WDAF-TV D34 DT LIC	308.4		1,152	183.6	0.40 0.06
KUSD-TV D34 DT LIC	60.4		1,508	28.1	0.06 0.05
KHIN D35 DT LIC	839.8		5,918	722.6	1.57 0.43
KRIN D35 DT LIC	713.1		10,200	668.9	1.45 0.90

Interference to proposal scenario 2
 1.63% interference received

Desired:	Call KDIN-TV	Chan D34	Svc DT	Status LIC	City, State DES MOINES, IA	File Number KDIN CH 34	Distance
Undesireds:	KTV0	D33	DT	LIC	KIRKSVILLE, MO	BLANK0000158746	172.8 km
	KQIN	D34	DT	LIC	DAVENPORT, IA	BLEDT20120921ADS	274.7
	WQEC	D34	DT	LIC	QUINCY, IL	BLEDT20040715ADL	281.0
	KTCA-TV	D34	DT	LIC	ST. PAUL, MN	BLANK0000221666	363.3
	WDAF-TV	D34	DT	LIC	KANSAS CITY, MO	BLANK0000155694	315.3
	KUSD-TV	D34	DT	LIC	VERMILLION, SD	BLEDT20100310ABZ	294.3
	KHIN	D35	DT	LIC	RED OAK, IA	BLANK0000030114	145.9
	KRIN	D35	DT	LIC	WATERLOO, IA	BLEDT20050218ABQ	155.5
Service area	1,098,856	Terrain-limited	45986.3	IX-free	Percent IX		
46279.8		1,097,310	44109.6	1,079,439	4.08	1.63	

Undesired			Total IX	Unique IX	Prcnt Unique IX
KTV0 D33 DT LIC	8.0		18	8.0	0.02 0.00
KQIN D34 DT LIC	112.5		709	52.4	0.11 0.04
WQEC D34 DT LIC	20.0		100	0.0	0.00 0.00
KTCA-TV D34 DT LIC	20.0		26	16.0	0.03 0.00
WDAF-TV D34 DT LIC	308.4		1,152	199.5	0.43 0.06
KUSD-TV D34 DT LIC	60.4		1,508	28.1	0.06 0.05
KHIN D35 DT LIC	839.8		5,918	722.6	1.57 0.43
KRIN D35 DT LIC	713.1		10,200	668.9	1.45 0.90