

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: K17MH_MOD, Model: Longley-Rice
Start: 2021.09.12 17:40:55

Study created: 2021.09.12 17:40:55

Study build station data: LMS TV 2021-09-12

Proposal: K17MH-D D17 LD APP CEDAR FALLS, IA
File number: K17MH_MOD
Facility ID: 188735
Station data: User record
Record ID: 726
Country: U.S.

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

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	KDSM-TV	D16	DT	LIC	DES MOINES, IA	BLCDT20110609ABE	119.8 km
No	K16MA-D	D16	LD	LIC	FROST, MN	BLANK0000062831	131.5
No	W16DU-D	D16	LD	LIC	BLOOMINGTON, WI	BLANK0000062263	153.3
Yes	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	233.0
No	KPWT-LD	D17	LD	CP	FORT DODGE, IA	BLANK0000071899	109.8
Yes	KDAO-CD	D17-	DC	LIC	MARSHALLTOWN, IA	BLANK0000068435	73.7
Yes	KDAO-CD	D17-	DC	CP	MARSHALLTOWN, IA	BLANK0000156214	106.5
No	W17EH-D	D17	LD	CP	QUINCY, IL	BLANK0000154571	329.4
No	WYIN	D17	DT	LIC	GARY, IN	BLDTE20040206AAA	472.2
No	K17MX-D	D17	LD	LIC	FROST, MN	BLANK0000062750	131.5
No	K17MY-D	D17	LD	LIC	JACKSON, MN	BLANK0000064443	201.8
No	K17BV-D	D17	LD	LIC	REDWOOD FALLS, MN	BLDTE20120604AAY	266.5
No	K17MA-D	D17	LD	CP	RUSHMORE, MN	BNPDTL20100510AHY	259.3
No	KMWE-LD	D17	LD	CP	SAINT CLOUD, MN	BLANK0000158970	314.1
No	KMWE-LD	D17	LD	LIC	SAINT CLOUD, MN	BLANK0000157102	351.6
No	K17MW-D	D17	LD	LIC	ST. JAMES, MN	BLANK0000064441	210.5
No	K17FA-D	D17	LD	LIC	WILLMAR, MN	BLDTE20100122ABO	324.4
No	KMIZ	D17	DT	CP	COLUMBIA, MO	BLANK0000127487	440.0
No	KMIZ	D17	DT	LIC	COLUMBIA, MO	BLANK0000089534	440.0
No	KYNE-TV	D17	DT	LIC	OMAHA, NE	BLANK0000123806	308.8
No	K17PB-D	D17	LD	CP	BRERESFORD, SD	BLANK0000157103	327.4
No	K17NF-D	D17+	LD	LIC	BROOKINGS, SD	BLANK0000059096	365.6
No	K17NF-D	D17+	LD	CP	BROOKINGS, SD	BLANK0000067617	365.6
No	NEW	D17	LD	CP	SIOUX FALLS, SD	BNPDTL20090825AWE	230.0
Yes	WEAU	D17	DT	LIC	EAU CLAIRE, WI	BLANK0000120880	261.4
No	WBME-CD	D17	DC	LIC	MILWAUKEE, WI	BLANK0000086894	399.5
No	W02CF	D17z	LD	CP	MINOCQUA, WI	BLANK0000071851	425.5
Yes	KYIN	D18	DT	LIC	MASON CITY, IA	BLDTE20090612AHJ	83.4
No	K18GU-D	D18	LD	LIC	OTTUMWA, IA	BLDTE20091229AES	199.8
No	K18KG-D	D18	LD	LIC	SPENCER, IA	BLDTE20130327AAU	185.5
No	WMSN-TV	D18	DT	LIC	MADISON, WI	BLANK0000113879	269.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D17
Mask: Full Service
Latitude: 42 43 45.00 N (NAD83)
Longitude: 92 48 41.00 W
Height AMSL: 426.2 m
HAAT: 0.0 m
Peak ERP: 11.7 kW
Antenna: ATC BCC312M-V3-17 130.0 deg

Elev Pattn: Generic
Elec Tilt: 0.75

49.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	4.90 kW	115.8 m	41.0 km
45.0	5.96	126.6	42.7
90.0	9.86	123.6	45.1
135.0	11.6	141.9	47.2
180.0	8.98	130.2	45.0
225.0	5.39	122.9	42.0
270.0	5.11	124.4	41.8
315.0	5.85	114.5	41.8

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 125 m

Distance to Canadian border: 598.6 km

Distance to Mexican border: 1631.0 km

Conditions at FCC monitoring station: Grand Island NE
Bearing: 248.5 degrees Distance: 506.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 258.7 degrees Distance: 1072.1 km

No land mobile station failures found

Proposal is not within the Offshore Radio Service protected area

Study cell size: 0.50 km

Profile point spacing: 0.20 km

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

Maximum new IX to LPTV: 2.00%

Interference to BLCDT20110609ABE LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KDSM-TV	D16	DT	LIC	DES MOINES, IA	BLCDT20110609ABE	
Undesireds:	K17MH-D	D17	LD	APP	CEDAR FALLS, IA	K17MH_MOD	119.8 km
	KYOU-TV	D15	DT	LIC	OTTUMWA, IA	BLANK0000001581	155.2
	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	370.2
	WRSP-TV	D16	DT	LIC	SPRINGFIELD, IL	BLANK0000117317	415.6
	KPXM-TV	D16	DT	LIC	ST. CLOUD, MN	BLANK0000054906	390.2
	KDAO-CD	D17-	DC	LIC	MARSHALLTOWN, IA	BLANK0000068435	63.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
45438.3	1,098,943	45193.8	1,097,623	45124.3	1,093,816	44898.1 1,092,504	0.50 0.12
Undesired		Total IX		Unique IX, before		Unique IX, after	
K17MH-D	D17 LD APP	237.5	1,328			226.2 1,312	
KYOU-TV	D15 DT LIC	37.3	458	37.3	458	37.3 458	
WTVO	D16 DT LIC	10.7	274	10.7	274	10.4 274	
KPXM-TV	D16 DT LIC	11.3	16	11.3	16	0.2 0	
KDAO-CD	D17- DC LIC	10.2	3,059	10.2	3,059	10.2 3,059	

Interference to BLCDT20110609ABE LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KDSM-TV	D16	DT	LIC	DES MOINES, IA	BLCDT20110609ABE	
Undesireds:	K17MH-D	D17	LD	APP	CEDAR FALLS, IA	K17MH_MOD	119.8 km

KYOU-TV	D15	DT	LIC	OTTUMWA, IA	BLANK0000001581	155.2
WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	370.2
WRSP-TV	D16	DT	LIC	SPRINGFIELD, IL	BLANK0000117317	415.6
KPXM-TV	D16	DT	LIC	ST. CLOUD, MN	BLANK0000054906	390.2

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
45438.3 1,098,943	45193.8 1,097,623	45134.5 1,096,875	44908.3 1,095,563	0.50 0.12

Undesired	Total IX	Unique IX, before	Unique IX, after
K17MH-D D17 LD APP	237.5 1,328	226.2 1,312	
KYOU-TV D15 DT LIC	37.3 458	37.3 458	
WTVO D16 DT LIC	10.7 274	10.4 274	
KPXM-TV D16 DT LIC	11.3 16	11.3 16	0.2 0

Interference to BLANK0000097891 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	
Undesireds:	K17MH-D	D17	LD	APP	CEDAR FALLS, IA	K17MH_MOD	233.0 km
	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	135.8
	KDAO-CD	D17-	DC	LIC	MARSHALLTOWN, IA	BLANK0000068435	210.8
	WYIN	D17	DT	LIC	GARY, IN	BLEDT20040206AAA	257.3
	KMIZ	D17	DT	CP	COLUMBIA, MO	BLANK0000127487	355.1
	WEAU	D17	DT	LIC	EAU CLAIRE, WI	BLANK0000120880	348.7
	WBME-CD	D17	DC	LIC	MILWAUKEE, WI	BLANK0000086894	272.1
	WMSN-TV	D18	DT	LIC	MADISON, WI	BLANK0000113879	184.7

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
35485.1 1,066,599	35127.3 1,054,081	34774.1 1,041,709	34770.8 1,041,693	0.01 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
K17MH-D D17 LD APP	10.4 111	3.2 16	
WTVO D16 DT LIC	54.2 404	45.5 309	
WYIN D17 DT LIC	238.3 7,940	207.1 7,649	
KMIZ D17 DT CP	3.6 20	2.7 8	
WEAU D17 DT LIC	92.8 4,358	57.8 4,010	
WBME-CD D17 DC LIC	5.7 12	0.0 0	
WMSN-TV D18 DT LIC	2.5 0	0.0 0	

Interference to BLANK0000097891 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	
Undesireds:	K17MH-D	D17	LD	APP	CEDAR FALLS, IA	K17MH_MOD	233.0 km
	WTVO	D16	DT	LIC	ROCKFORD, IL	BLCDT20021024AAS	135.8
	KDAO-CD	D17-	DC	LIC	MARSHALLTOWN, IA	BLANK0000068435	210.8
	WYIN	D17	DT	LIC	GARY, IN	BLEDT20040206AAA	257.3
	KMIZ	D17	DT	LIC	COLUMBIA, MO	BLANK0000089534	355.1
	WEAU	D17	DT	LIC	EAU CLAIRE, WI	BLANK0000120880	348.7
	WBME-CD	D17	DC	LIC	MILWAUKEE, WI	BLANK0000086894	272.1
	WMSN-TV	D18	DT	LIC	MADISON, WI	BLANK0000113879	184.7

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
35485.1 1,066,599	35127.3 1,054,081	34775.5 1,041,717	34772.3 1,041,701	0.01 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
K17MH-D D17 LD APP	10.4 111	3.2 16	
WTVO D16 DT LIC	54.2 404	45.5 309	
WYIN D17 DT LIC	238.3 7,940	207.8 7,649	
KMIZ D17 DT LIC	1.5 12	1.2 0	
WEAU D17 DT LIC	92.8 4,358	57.8 4,010	
WBME-CD D17 DC LIC	5.7 12	0.0 0	
WMSN-TV D18 DT LIC	2.5 0	0.0 0	

Interference to BLANK0000068435 LIC scenario 1

Desired:	Call KDAO-CD	Chan D17-	Svc DC	Status LIC	City, State MARSHALLTOWN, IA	File Number BLANK0000068435	Distance
Undesireds:	K17MH-D	D17	LD	APP	CEDAR FALLS, IA	K17MH_MOD	73.7 km
	KDSM-TV	D16	DT	LIC	DES MOINES, IA	BLCDT20110609ABE	63.3
	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	210.8
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	1582.3 44,388		1582.3 44,388		1580.8 44,388	1580.6 44,388	0.02 0.00
Undesired			Total IX		Unique IX, before	Unique IX, after	
K17MH-D D17 LD APP			0.2		0	0.2	0
KDSM-TV D16 DT LIC			1.0		1.0 0	1.0	0
KWQC-TV D17 DT LIC			0.5		0.5 0	0.5	0

Interference to BLANK0000156214 CP scenario 1

Desired:	Call KDAO-CD	Chan D17-	Svc DC	Status CP	City, State MARSHALLTOWN, IA	File Number BLANK0000156214	Distance
Undesireds:	K17MH-D	D17	LD	APP	CEDAR FALLS, IA	K17MH_MOD	106.5 km
	KDSM-TV	D16	DT	LIC	DES MOINES, IA	BLCDT20110609ABE	33.6
	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	228.8
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	3416.6 111,875		3409.9 111,685		3041.8 87,574	3041.8 87,574	0.00 0.00
Undesired			Total IX		Unique IX, before	Unique IX, after	
K17MH-D D17 LD APP			0.7		8	0.0	0
KDSM-TV D16 DT LIC			367.6		24,107	362.1	23,023
KWQC-TV D17 DT LIC			5.3		1,080 0.5 4	0.5	4

Interference to BLANK0000120880 LIC scenario 1

Desired:	Call WEAU	Chan D17	Svc DT	Status LIC	City, State EAU CLAIRE, WI	File Number BLANK0000120880	Distance
Undesireds:	K17MH-D	D17	LD	APP	CEDAR FALLS, IA	K17MH_MOD	261.4 km
	WJFW-TV	D16	DT	LIC	RHINELANDER, WI	BLCDT20070222AOP	177.0
	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	348.7
	KDAO-CD	D17-	DC	LIC	MARSHALLTOWN, IA	BLANK0000068435	328.8
	WBME-CD	D17	DC	LIC	MILWAUKEE, WI	BLANK0000086894	297.8
	KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	192.1
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	47513.0 1,007,568		46627.7 960,808		46228.4 958,999	46228.4 958,999	0.00 0.00
Undesired			Total IX		Unique IX, before	Unique IX, after	
K17MH-D D17 LD APP			0.5		0	0.0	0
WJFW-TV D16 DT LIC			351.7		547	351.7	547
KWQC-TV D17 DT LIC			45.6		1,208 44.2 1,109	43.9	1,109
WBME-CD D17 DC LIC			2.9		109 1.7 54	1.7	54
KYIN D18 DT LIC			0.5		44 0.2 0	0.0	0

Interference to BLEDT20090612AHJ LIC scenario 1

Desired:	Call KYIN	Chan D18	Svc DT	Status LIC	City, State MASON CITY, IA	File Number BLEDT20090612AHJ	Distance
Undesireds:	K17MH-D	D17	LD	APP	CEDAR FALLS, IA	K17MH_MOD	83.4 km
	KDAO-CD	D17-	DC	LIC	MARSHALLTOWN, IA	BLANK0000068435	157.0
	KQDS-TV	D18	DT	LIC	DULUTH, MN	BLANK0000120640	371.7
	WMSN-TV	D18	DT	LIC	MADISON, WI	BLANK0000113879	261.0
	KDMI	D19	DT	LIC	DES MOINES, IA	BLCDT20120627AAE	197.4
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	29724.6 576,449		29660.7 571,847		29542.6 568,616	29346.0 566,285	0.67 0.41

Undesired				Total IX	Unique IX, before	Unique IX, after
K17MH-D D17 LD APP	197.3			2,331		196.6 2,331
KQDS-TV D18 DT LIC	13.3			2,016	12.1 2,014	12.1 2,014
WMSN-TV D18 DT LIC	105.6			1,215	104.3 1,213	103.6 1,213
KDMI D19 DT LIC	0.5			2	0.5 2	0.5 2

Interference to BLEDT20090612AHJ LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	
Undesireds:	K17MH-D	D17	LD	APP	CEDAR FALLS, IA	K17MH_MOD	83.4 km
	KDAO-CD	D17-	DC	LIC	MARSHALLTOWN, IA	BLANK0000068435	157.0
	KQDS-TV	D18	DT	LIC	DULUTH, MN	BLANK0000120640	371.7
	WMSN-TV	D18	DT	LIC	MADISON, WI	BLANK0000113879	261.0
	KDMI	D19	DT	APP	DES MOINES, IA	BPCDT20130205AAM	197.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
29724.6	576,449	29660.7	571,847	29542.3	568,616	29345.7 566,285	0.67 0.41

Undesired				Total IX	Unique IX, before	Unique IX, after
K17MH-D D17 LD APP	197.3			2,331		196.6 2,331
KQDS-TV D18 DT LIC	13.3			2,016	12.1 2,014	12.1 2,014
WMSN-TV D18 DT LIC	105.6			1,215	104.3 1,213	103.6 1,213
KDMI D19 DT APP	0.7			2	0.7 2	0.7 2

Interference to proposal scenario 1
4.80% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K17MH-D	D17	LD	APP	CEDAR FALLS, IA	K17MH_MOD	
Undesireds:	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	233.0 km
	KPWT-LD	D17	LD	CP	FORT DODGE, IA	BLANK0000071899	109.8
	KDAO-CD	D17-	DC	LIC	MARSHALLTOWN, IA	BLANK0000068435	73.7
	KMWE-LD	D17	LD	CP	SAINT CLOUD, MN	BLANK0000158970	314.1
	WEAU	D17	DT	LIC	EAU CLAIRE, WI	BLANK0000120880	261.4
	KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	83.4
Service area		Terrain-limited		IX-free		Percent IX	
5868.3	148,203	5866.6	148,197	5804.8	141,086	1.05 4.80	

Undesired				Total IX	Unique IX	Prcnt Unique IX
KWQC-TV D17 DT LIC	5.9			517	5.5 517	0.09 0.35
KPWT-LD D17 LD CP	3.9			0	3.2 0	0.05 0.00
KDAO-CD D17- DC LIC	14.1			23	14.1 23	0.24 0.02
WEAU D17 DT LIC	1.7			38	0.2 0	0.00 0.00
KYIN D18 DT LIC	37.5			6,571	37.3 6,533	0.64 4.41

Interference to proposal scenario 2
4.78% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K17MH-D	D17	LD	APP	CEDAR FALLS, IA	K17MH_MOD	
Undesireds:	KWQC-TV	D17	DT	LIC	DAVENPORT, IA	BLANK0000097891	233.0 km
	KPWT-LD	D17	LD	CP	FORT DODGE, IA	BLANK0000071899	109.8
	KMWE-LD	D17	LD	CP	SAINT CLOUD, MN	BLANK0000158970	314.1
	WEAU	D17	DT	LIC	EAU CLAIRE, WI	BLANK0000120880	261.4
	KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	83.4
Service area		Terrain-limited		IX-free		Percent IX	
5868.3	148,203	5866.6	148,197	5819.0	141,109	0.81 4.78	

Undesired				Total IX	Unique IX	Prcnt Unique IX
KWQC-TV D17 DT LIC	5.9			517	5.5 517	0.09 0.35
KPWT-LD D17 LD CP	3.9			0	3.2 0	0.05 0.00
WEAU D17 DT LIC	1.7			38	0.2 0	0.00 0.00

KYIN D18 DT LIC	37.5	6,571	37.3	6,533	0.64	4.41
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