

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: STJ18d400wP, Model: Longley-Rice
Start: 2018.04.20 09:22:41

Study created: 2018.04.20 09:15:59

Study build station data: LMS TV 2018-04-12 (6)

Proposal: K41IZ-D D18 LD APP ST. JAMES, MN
Facility ID: 13846
Station data: User record
Record ID: 460
Country: U.S.

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

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WUMN-LD	D17	LD	LIC	MINNEAPOLIS, MN	BLDTL20141217AAM	142.6 km
No	K17BV-D	D17	LD	LIC	REDWOOD FALLS, MN	BLDTT20120604AAY	57.2
No	K17MA-D	D17	LD	CP	RUSHMORE, MN	BNPDTL20100510AHY	107.2
No	K17FA-D	D17	LD	LIC	WILLMAR, MN	BLDTT20100122ABO	122.8
No	WLAX	D17	DT	LIC	LA CROSSE, WI	BLCDT20081105ABY	260.4
Yes	KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	167.2
No	K18GU-D	D18	LD	LIC	OTTUMWA, IA	BLDTT20091229AES	394.4
No	K18KG-D	D18	LD	LIC	SPENCER, IA	BLDTL20130327AAU	99.5
No	KRIN	D18	LD	APP	WATERLOO, IA	BDRTEDT20120604AFO	367.0
No	K18DG-D	D18z	LD	LIC	ALEXANDRIA, MN	BLANK0000024529	213.6
No	K18DG-D	N18z	TX	LIC	ALEXANDRIA, MN	BLTTL19911226IC	213.5
No	KQDS-TV	D18	DT	CP	DULUTH, MN	BLANK0000027535	355.7
No	K18KU-D	D18	LD	CP	DULUTH, MN	BNPDTL20100514AAL	354.8
No	K18GF-D	D18	LD	LIC	LITTLE FALLS, MN	BLDTL20120523ADD	204.7
No	KHVM-LD	D18	LD	APP	MINNEAPOLIS, MN	BLANK0000052068	155.2
No	KJNK-LD	D18	LD	APP	MINNEAPOLIS, MN	BLANK0000051592	142.7
Yes	K18IR-D	D18	LD	LIC	OLIVIA, MN	BLDTT20120213ABO	75.6
No	K18CD-D	D18	LD	CP	LINCOLN, NE	BLANK0000036613	402.5

No	K18CD-D	D18	LD	LIC	LINCOLN, NE	BLDTL20111118BAO	399.9
No	K18IW-D	D18	LD	CP	RAPID CITY, SD	BPDTL20140613ABU	187.6
No	K18IW-D	D18	LD	LIC	RAPID CITY, SD	BLDTL20140228AEJ	187.2
No	WBOO-LP	D18	LD	CP	ELK MOUND, WI	BDISDTT20091223AMF	259.6
No	WMSN-TV	D18	DT	CP	MADISON, WI	BLANK0000034381	424.1
No	KDMI	D19	DT	LIC	DES MOINES, IA	BLCDT20120627AAE	265.5
No	KDMI	D19	DT	APP	DES MOINES, IA	BPCDT20130205AAM	265.5
No	KKTW-LD	D19	LD	LIC	Buffalo, MN	BLANK0000032578	132.9
No	KKTW-LD	D19	LD	CP	Buffalo, MN	BLANK0000034959	134.3
No	KKTW-LD	N19-	TX	LIC	Buffalo, MN	BLTTL19870921IE	159.3
No	K19HZ-D	D19	LD	LIC	JACKSON, MN	BLDTT20090910AAS	64.3
No	K19KB-D	D19	LD	CP	OAKLAND, MN	BNPDTL20100510AJX	131.0
No	K19CV-D	D19	LD	LIC	REDWOOD FALLS, MN	BLDTT20120604AAX	57.2
No	K19IH-D	D19	LD	LIC	WILLMAR, MN	BLDTT20100122ACJ	122.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D18
 Mask: Stringent
 Latitude: 44 6 28.00 N (NAD83)
 Longitude: 94 35 56.00 W
 Height AMSL: 496.0 m
 HAAT: 0.0 m
 Peak ERP: 0.400 kW
 Antenna: Omnidirectional
 Elev Pattn: Generic

49.1 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.400 kW	185.4 m	32.4 km
45.0	0.400	188.0	32.5
90.0	0.400	184.6	32.4
135.0	0.400	182.0	32.2
180.0	0.400	174.8	31.8

225.0	0.400	170.1	31.6
270.0	0.400	173.1	31.7
315.0	0.400	182.5	32.2

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 180 m

Distance to Canadian border: 488.2 km

Distance to Mexican border: 1702.5 km

Conditions at FCC monitoring station: Grand Island NE
Bearing: 222.9 degrees Distance: 473.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 247.0 degrees Distance: 979.0 km

No land mobile station failures found

Proposal is not within the Offshore Radio Service protected area

Study cell size: 1.00 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 BLEDT20090612AHJ LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	
Undesireds:	K41IZ-D	D18	LD	APP	ST. JAMES, MN		167.2 km

KDAO-CD	D17-	DC	CP	MARSHALLTOWN, IA	BLANK0000034815	157.0
KQDS-TV	D18	DT	CP	DULUTH, MN	BLANK0000027535	371.7
WMSN-TV	D18	DT	CP	MADISON, WI	BLANK0000034381	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
29725.1 576,628	29657.7 573,062	29448.9 570,364	29158.9 567,602	0.98 0.48

Undesired	Total IX	Unique IX, before	Unique IX, after
K41IZ-D D18 LD APP 291.0	2,774	290.0 2,762	
KQDS-TV D18 DT CP 21.1	675	17.1 466	
WMSN-TV D18 DT CP 191.7	2,232	187.7 2,023	

Interference to BLEDT20090612AHJ LIC scenario 2

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	
Undesireds: K41IZ-D	D18	LD	APP	ST. JAMES, MN		167.2 km
KDAO-CD	D17-	DC	CP	MARSHALLTOWN, IA	BLANK0000034815	157.0
KQDS-TV	D18	DT	BL	DULUTH, MN	DTVBL35525	371.7
WMSN-TV	D18	DT	CP	MADISON, WI	BLANK0000034381	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
29725.1 576,628	29657.7 573,062	29448.9 568,645	29158.9 565,883	0.98 0.49

Undesired	Total IX	Unique IX, before	Unique IX, after
K41IZ-D D18 LD APP 291.0	2,774	290.0 2,762	
KQDS-TV D18 DT BL 21.1	2,394	17.1 2,185	
WMSN-TV D18 DT CP 191.7	2,232	187.7 2,023	

Interference to BLEDT20090612AHJ LIC scenario 3

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	

Undesireds:	K41IZ-D	D18	LD	APP	ST. JAMES, MN		167.2 km
	KDAO-CD	D17-	DC	CP	MARSHALLTOWN, IA	BLANK0000034815	157.0
	KQDS-TV	D18	DT	CP	DULUTH, MN	BLANK0000027535	371.7
	WMSN-TV	D18	DT	BL	MADISON, WI	DTVBL10221	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
29725.1	576,628	29657.7	573,062	29555.5	571,049	29265.5	568,287	0.98	0.48

Undesired				Total IX	Unique IX, before	Unique IX, after
K41IZ-D D18 LD APP	291.0			2,774		290.0 2,762
KQDS-TV D18 DT CP	21.1			675	18.1 466	17.1 454
WMSN-TV D18 DT BL	84.1			1,547	81.1 1,338	81.1 1,338

Interference to BLEDT20090612AHJ LIC scenario 4

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	
Undesireds:	K41IZ-D	D18	LD	APP	ST. JAMES, MN		167.2 km
	KDAO-CD	D17-	DC	CP	MARSHALLTOWN, IA	BLANK0000034815	157.0
	KQDS-TV	D18	DT	BL	DULUTH, MN	DTVBL35525	371.7
	WMSN-TV	D18	DT	BL	MADISON, WI	DTVBL10221	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
29725.1	576,628	29657.7	573,062	29555.5	569,330	29265.5	566,568	0.98	0.49

Undesired				Total IX	Unique IX, before	Unique IX, after
K41IZ-D D18 LD APP	291.0			2,774		290.0 2,762
KQDS-TV D18 DT BL	21.1			2,394	18.1 2,185	17.1 2,173
WMSN-TV D18 DT BL	84.1			1,547	81.1 1,338	81.1 1,338

Interference to BLDTT20120213ABO LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K18IR-D	D18	LD	LIC	OLIVIA, MN	BLDTT20120213ABO	
Undesireds:	K41IZ-D	D18	LD	APP	ST. JAMES, MN		75.6 km
	K17BV-D	D17	LD	LIC	REDWOOD FALLS, MN	BLDTT20120604AAY	24.4
	KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	224.0
	K18DG-D	D18z	LD	LIC	ALEXANDRIA, MN	BLANK0000024529	138.0
	K18IW-D	D18	LD	CP	RAPID CITY, SD	BPDTL20140613ABU	195.7
	KKTW-LD	D19	LD	LIC	Buffalo, MN	BLANK0000032578	90.5
	K19CV-D	D19	LD	LIC	REDWOOD FALLS, MN	BLDTT20120604AAX	24.4

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
1351.9	9,674	1346.9	9,227	1321.9 9,214
		9,492		0.53 0.14

Undesired	Total IX	Unique IX, before	Unique IX, after
K41IZ-D D18 LD APP	7.0	13	7.0 13
K17BV-D D17 LD LIC	18.0	265	0.0 0
KYIN D18 DT LIC	4.0	6	0.0 0
K19CV-D D19 LD LIC	18.0	265	0.0 0

Interference to proposal scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	K41IZ-D	D18	LD	APP	ST. JAMES, MN		
Undesireds:	KYIN	D18	DT	LIC	MASON CITY, IA	BLEDT20090612AHJ	167.2 km
	K18KG-D	D18	LD	LIC	SPENCER, IA	BLDTL20130327AAU	99.5
	K18DG-D	D18z	LD	LIC	ALEXANDRIA, MN	BLANK0000024529	213.6
	K18IW-D	D18	LD	CP	RAPID CITY, SD	BPDTL20140613ABU	187.6

Service area	Terrain-limited	IX-free	Percent IX
3239.3	40,545	3236.3	40,530
		3229.3	40,239
			0.22 0.72

Undesired	Total IX	Unique IX	Prcnt Unique IX
KYIN D18 DT LIC	7.0	291	6.0 242
K18KG-D D18 LD LIC	1.0	49	0.0 0
			0.19 0.60
			0.00 0.00