

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

tvstudy v2.2.5 (4uoc83)  
Database: localhost, Study: W50EI\_Ch23\_Omni\_Hgt\_Pre, Model: Longley-Rice  
Start: 2019.04.18 19:05:57

Study created: 2019.04.18 18:32:45

Study build station data: LMS TV 2019-04-18

Proposal: W50EI-D D23 LD APP EAU CLAIRE, WI  
File number: W50EI\_Ch23\_Omni\_Hgt  
Facility ID: 184443  
Station data: User record  
Record ID: 874  
Country: U.S.

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

Search options:  
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	W39DD-D	D22	LD	APP	DODGE CENTER, MN	BLANK0000071791	146.7 km
Yes	WUCW	D22	DT	LIC	MINNEAPOLIS, MN	BLCDT20060405AAI	114.4
No	W22DT-D	D22	LD	CP	GALESVILLE, WI	BNPDTL20090825CBA	87.6
No	KCWI-TV	D23	DT	APP	AMES, IA	BPCDT20130205AAY	376.3
No	KCWI-TV	D23	DT	LIC	AMES, IA	BLCDT20090612AIO	376.3
No	WCIU-TV	D23	DT	CP	CHICAGO, IL	BLANK0000034608	470.7
No	WQPT-TV	D23	DT	APP	MOLINE, IL	BLANK0000035678	414.6
No	WQPT-TV	D23	DT	LIC	MOLINE, IL	BLEDT20030702AAR	414.6
No	WFBN-LD	D23	LD	CP	ROCKFORD, IL	BLANK0000053948	355.2
No	K23MH-D	D23	LD	CP	ALEXANDRIA, MN	BNPDTL20100505AKP	312.9
No	K23KZ-D	D23	LD	LIC	BIGFORK/MARCELL, MN	BLDTT20111107ALI	339.7
No	K23MQ-D	D23	LD	CP	DULUTH, MN	BNPDTL20100428ABY	224.8
No	K23FY-D	D23	LD	LIC	FROST, MN	BLDTT20090730ACT	231.1
No	K23FO-D	D23	LD	LIC	JACKSON, MN	BLDTT20090811AAW	300.1
Yes	KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	133.7
No	K23FP-D	D23	LD	LIC	OLIVIA, MN	BLDTT20120213ABJ	250.8
No	K23MF-D	D23	LD	LIC	ST. JAMES, MN	BLDTL20120625AAW	246.8
Yes	KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	113.2
No	K56GF	D23	LD	CP	SIOUX FALLS, SD	BDISDTL20110829ABH	424.9
No	NEW	D23	LD	APP	SIOUX FALLS, SD	BNPDTL20090825AWE	281.3
No	K23LI-D	D23	LD	CP	WATERTOWN, SD	BNPDTL20100331AFE	421.1
No	WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	297.6
No	W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	272.8
No	W23BW-D	D23	DC	LIC	MADISON, WI	BLDTA20140827AAD	272.8
No	WTAS-LP	D23-	LD	CP	WAUKESHA, WI	BLANK0000054059	354.6
No	KIMT	D24	DT	LIC	MASON CITY, IA	BLANK0000067292	179.2
No	NEW	D24	LD	APP	DODGE CITY, MN	BNPDTL20090825BFG	146.7
No	NEW	D24	LD	APP	DULUTH, MN	BNPDTL20100428ABW	224.8
No	NEW	D24	LD	APP	ROCHESTER, MN	BNPDTL20090825AJP	118.1
No	K24JA-D	D24	LD	CP	WINONA, MN	BNPDTL20090825BYM	107.9
No	W24CL-D	D24	LD	LIC	GRANTSBURG, WI	BLANK0000062268	119.2
No	WHRM-TV	D24	DT	APP	WAUSAU, WI	BLANK0000035674	158.0
No	WHRM-TV	D24	DT	LIC	WAUSAU, WI	BLEDT20051014AAW	158.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D23  
Mask: Full Service  
Latitude: 44 54 59.00 N (NAD83)  
Longitude: 91 41 56.00 W

Height AMSL: 471.8 m  
HAAT: 0.0 m  
Peak ERP: 15.0 kW  
Antenna: Omnidirectional  
Elev Pattn: Generic

49.7 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	15.0 kW	162.3 m	49.1 km
45.0	15.0	131.9	47.0
90.0	15.0	174.6	49.9
135.0	15.0	193.3	51.0
180.0	15.0	198.8	51.3
225.0	15.0	194.4	51.0
270.0	15.0	200.5	51.4
315.0	15.0	180.1	50.2

Database HAAT does not agree with computed HAAT  
Database HAAT: 0 m    Computed HAAT: 179 m

Distance to Canadian border: 347.8 km

Distance to Mexican border: 1885.8 km

Conditions at FCC monitoring station: Allegan MI  
Bearing: 117.1 degrees    Distance: 527.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 249.2 degrees    Distance: 1225.8 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%

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Interference to BLCDT20060405AAI LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WUCW	D22	DT	LIC	MINNEAPOLIS, MN	BLCDT20060405AAI	
Undesireds:	W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	114.4 km
	WEUX	D21	DT	CP	CHIPPEWA FALLS, WI	BLANK0000053767	116.2
	KPXR-TV	D22	DT	LIC	CEDAR RAPIDS, IA	BLANK0000063428	323.6
	KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	1.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
34024.4	3,665,135	33507.6	3,649,111	33224.3	3,634,505	33210.1    3,633,729	0.04    0.02
Undesired		Total IX		Unique IX, before		Unique IX, after	
W50EI-D	D23 LD APP	181.5	11,216			14.2    776	
WEUX	D21 DT CP	260.2	12,988	255.2	12,491	91.9    2,548	
KPXR-TV	D22 DT LIC	24.1	2,065	19.1	1,568	19.1    1,568	
KTCI-TV	D23 DT LIC	4.0	50	4.0	50	4.0    50	

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Interference to BLANK0000001542 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	
Undesireds:	W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	133.7 km
	KCWI-TV	D23	DT	APP	AMES, IA	BPCDT20130205AAY	284.9
	WQPT-TV	D23	DT	APP	MOLINE, IL	BLANK0000035678	281.0
	KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	205.6
	WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	273.2
	W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	166.0
	KIMT	D24	DT	LIC	MASON CITY, IA	BLANK0000067292	117.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
6744.1	227,815	6227.9	194,858	6193.8	194,580	6192.8	194,580	0.02	0.00
Undesired		Total IX		Unique IX, before		Unique IX, after			
W50EI-D	D23 LD APP	3.0	12			1.0	0		
KCWI-TV	D23 DT APP	4.0	38	1.0	2	1.0	2		
WQPT-TV	D23 DT APP	7.0	37	2.0	10	2.0	10		
KTCI-TV	D23 DT LIC	31.1	266	20.1	190	19.1	190		
WBAY-TV	D23 DT LIC	3.0	0	0.0	0	0.0	0		
W23BW-D	D23 DC APP	2.0	22	0.0	0	0.0	0		
KIMT	D24 DT LIC	2.0	37	0.0	0	0.0	0		

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Interference to BLANK0000001542 LIC scenario 2

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	
Undesireds: W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	133.7 km
KCWI-TV	D23	DT	APP	AMES, IA	BPCDT20130205AAY	284.9
WQPT-TV	D23	DT	APP	MOLINE, IL	BLANK0000035678	281.0
KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	205.6
WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	273.2
W23BW-D	D23	DC	LIC	MADISON, WI	BLDTA20140827AAD	166.0
KIMT	D24	DT	LIC	MASON CITY, IA	BLANK0000067292	117.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
6744.1	227,815	6227.9	194,858	6193.8	194,580	6192.8	194,580	0.02	0.00
Undesired		Total IX		Unique IX, before		Unique IX, after			
W50EI-D	D23 LD APP	3.0	12			1.0	0		
KCWI-TV	D23 DT APP	4.0	38	1.0	2	1.0	2		
WQPT-TV	D23 DT APP	7.0	37	2.0	10	2.0	10		
KTCI-TV	D23 DT LIC	31.1	266	20.1	190	19.1	190		
WBAY-TV	D23 DT LIC	3.0	0	0.0	0	0.0	0		
W23BW-D	D23 DC LIC	1.0	0	0.0	0	0.0	0		
KIMT	D24 DT LIC	2.0	37	0.0	0	0.0	0		

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Interference to BLANK0000001542 LIC scenario 3

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	
Undesireds: W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	133.7 km
KCWI-TV	D23	DT	APP	AMES, IA	BPCDT20130205AAY	284.9
KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	205.6
WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	273.2
W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	166.0
KIMT	D24	DT	LIC	MASON CITY, IA	BLANK0000067292	117.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
6744.1	227,815	6227.9	194,858	6195.8	194,590	6194.8	194,590	0.02	0.00
Undesired		Total IX		Unique IX, before		Unique IX, after			
W50EI-D	D23 LD APP	3.0	12			1.0	0		
KCWI-TV	D23 DT APP	4.0	38	1.0	2	1.0	2		
KTCI-TV	D23 DT LIC	31.1	266	23.1	195	22.1	195		
WBAY-TV	D23 DT LIC	3.0	0	0.0	0	0.0	0		
W23BW-D	D23 DC APP	2.0	22	0.0	0	0.0	0		
KIMT	D24 DT LIC	2.0	37	0.0	0	0.0	0		

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Interference to BLANK0000001542 LIC scenario 4

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	
Undesireds: W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	133.7 km
KCWI-TV	D23	DT	APP	AMES, IA	BPCDT20130205AAY	284.9
KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	205.6
WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	273.2
W23BW-D	D23	DC	LIC	MADISON, WI	BLDTA20140827AAD	166.0
KIMT	D24	DT	LIC	MASON CITY, IA	BLANK0000067292	117.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
6744.1	227,815	6227.9	194,858	6195.8	194,590	6194.8	194,590	0.02	0.00
Undesired		Total IX		Unique IX, before		Unique IX, after			
W50EI-D	D23 LD APP	3.0	12			1.0	0		
KCWI-TV	D23 DT APP	4.0	38	1.0	2	1.0	2		
KTCI-TV	D23 DT LIC	31.1	266	24.1	217	23.1	217		
WBAY-TV	D23 DT LIC	3.0	0	0.0	0	0.0	0		
W23BW-D	D23 DC LIC	1.0	0	0.0	0	0.0	0		
KIMT	D24 DT LIC	2.0	37	0.0	0	0.0	0		

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Interference to BLANK0000001542 LIC scenario 5

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	
Undesireds: W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	133.7 km
WQPT-TV	D23	DT	APP	MOLINE, IL	BLANK0000035678	281.0
KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	205.6
WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	273.2
W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	166.0
KIMT	D24	DT	LIC	MASON CITY, IA	BLANK0000067292	117.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
6744.1	227,815	6227.9	194,858	6194.8	194,582	6193.8	194,582	0.02	0.00
Undesired		Total IX		Unique IX, before		Unique IX, after			
W50EI-D	D23 LD APP	3.0	12			1.0	0		
WQPT-TV	D23 DT APP	7.0	37	2.0	10	2.0	10		
KTCI-TV	D23 DT LIC	31.1	266	22.1	202	20.0	190		
WBAY-TV	D23 DT LIC	3.0	0	0.0	0	0.0	0		
W23BW-D	D23 DC APP	2.0	22	0.0	0	0.0	0		
KIMT	D24 DT LIC	2.0	37	0.0	0	0.0	0		

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Interference to BLANK0000001542 LIC scenario 6

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	
Undesireds: W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	133.7 km
WQPT-TV	D23	DT	APP	MOLINE, IL	BLANK0000035678	281.0
KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	205.6
WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	273.2
W23BW-D	D23	DC	LIC	MADISON, WI	BLDTA20140827AAD	166.0
KIMT	D24	DT	LIC	MASON CITY, IA	BLANK0000067292	117.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
6744.1	227,815	6227.9	194,858	6194.8	194,582	6193.8	194,582	0.02	0.00
Undesired		Total IX		Unique IX, before		Unique IX, after			
W50EI-D	D23 LD APP	3.0	12			1.0	0		
WQPT-TV	D23 DT APP	7.0	37	2.0	10	2.0	10		
KTCI-TV	D23 DT LIC	31.1	266	22.1	202	20.0	190		
WBAY-TV	D23 DT LIC	3.0	0	0.0	0	0.0	0		
W23BW-D	D23 DC LIC	1.0	0	0.0	0	0.0	0		
KIMT	D24 DT LIC	2.0	37	0.0	0	0.0	0		

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Interference to BLANK0000001542 LIC scenario 7

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	
Undesireds: W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	133.7 km
KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	205.6
WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	273.2
W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	166.0
KIMT	D24	DT	LIC	MASON CITY, IA	BLANK0000067292	117.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
6744.1	227,815	6227.9	194,858	6196.8	194,592	6195.8	194,592	0.02	0.00

Undesired		Total IX	Unique IX, before	Unique IX, after
W50EI-D D23 LD APP	3.0	12		1.0 0
KTCI-TV D23 DT LIC	31.1	266	25.1 207	23.1 195
WBAY-TV D23 DT LIC	3.0	0	0.0 0	0.0 0
W23BW-D D23 DC APP	2.0	22	0.0 0	0.0 0
KIMT D24 DT LIC	2.0	37	0.0 0	0.0 0

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Interference to BLANK0000001542 LIC scenario 8

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	
Undesireds:	W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	133.7 km
	KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	205.6
	WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	273.2
	W23BW-D	D23	DC	LIC	MADISON, WI	BLDTA20140827AAD	166.0
	KIMT	D24	DT	LIC	MASON CITY, IA	BLANK0000067292	117.5
Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX			
6744.1 227,815	6227.9 194,858	6196.8 194,592	6195.8 194,592	0.02 0.00			

Undesired		Total IX	Unique IX, before	Unique IX, after
W50EI-D D23 LD APP	3.0	12		1.0 0
KTCI-TV D23 DT LIC	31.1	266	26.1 229	24.1 217
WBAY-TV D23 DT LIC	3.0	0	0.0 0	0.0 0
W23BW-D D23 DC LIC	1.0	0	0.0 0	0.0 0
KIMT D24 DT LIC	2.0	37	0.0 0	0.0 0

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Interference to BLEDT20100326AAI LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	
Undesireds:	W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	113.2 km
	WUCW	D22	DT	LIC	MINNEAPOLIS, MN	BLCDT20060405AAI	1.3
	KCWI-TV	D23	DT	APP	AMES, IA	BPCDT20130205AAY	361.0
	KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	205.6
	W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	366.7
Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX			
28803.0 3,608,122	28504.0 3,598,989	28446.7 3,596,412	27773.5 3,584,304	2.37 0.34			

Undesired		Total IX	Unique IX, before	Unique IX, after
W50EI-D D23 LD APP	678.3	12,201		673.2 12,108
WUCW D22 DT LIC	36.2	1,840	36.2 1,840	35.2 1,778
KCWI-TV D23 DT APP	16.1	686	16.1 686	14.1 683
KQEG-CD D23 DC LIC	5.1	51	5.1 51	3.0 23

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Interference to BLEDT20100326AAI LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	
Undesireds:	W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	113.2 km
	WUCW	D22	DT	LIC	MINNEAPOLIS, MN	BLCDT20060405AAI	1.3
	KCWI-TV	D23	DT	LIC	AMES, IA	BLCDT20090612AIO	361.0
	KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	205.6
	W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	366.7
Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX			
28803.0 3,608,122	28504.0 3,598,989	28459.8 3,597,095	27785.5 3,584,987	2.37 0.34			

Undesired		Total IX	Unique IX, before	Unique IX, after
W50EI-D D23 LD APP	678.3	12,201		674.2 12,108
WUCW D22 DT LIC	36.2	1,840	36.2 1,840	35.2 1,778
KCWI-TV D23 DT LIC	3.0	3	3.0 3	2.0 0
KQEG-CD D23 DC LIC	5.1	51	5.1 51	3.0 23

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Interference to proposal scenario 1

2.06% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W50EI-D	D23	LD	APP	EAU CLAIRE, WI	W50EI_Ch23_Omni_Hgt	
Undesireds:	WUCW	D22	DT	LIC	MINNEAPOLIS, MN	BLCDT20060405AAI	114.4 km
	KQEG-CD	D23	DC	LIC	LA CRESCENT, MN	BLANK0000001542	133.7
	KTCI-TV	D23	DT	LIC	ST. PAUL, MN	BLEDT20100326AAI	113.2
	WBAY-TV	D23	DT	LIC	GREEN BAY, WI	BMLCDT20040723ADS	297.6
	W23BW-D	D23	DC	APP	MADISON, WI	BLANK0000035876	272.8

Service area		Terrain-limited		IX-free		Percent IX	
7908.5	225,394	7690.0	222,446	7254.5	217,866	5.66	2.06

Undesired				Total IX	Unique IX	Prcnt Unique IX	
WUCW	D22	DT	LIC	13.2	95	0.0	0
KQEG-CD	D23	DC	LIC	4.0	143	2.0	33
KTCI-TV	D23	DT	LIC	432.4	4,500	413.2	4,228
WBAY-TV	D23	DT	LIC	5.0	114	1.0	47