

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 02-24-2004 Time: 19:07:23

Record Selected for Analysis

K05LH USERRECORD-01 SIOUX CITY IA US
 Channel 05 ERP 3. kW HAAT 203. m RCAMSL 00541 m
 Latitude 042-29-26 Longitude 0096-18-21
 Status APP Zone 2 Border Offset Z
 Dir Antenna Make CDB Model 00000000047613 Beam tilt N Ref Azimuth 250.
 Last update Cutoff date Docket
 Comments
 Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Not full service station

Facility meets maximum power limit

Azimuth (Deg)	ERP (kW)	HAAT (m)	62.0 dBu F(50,50) (km)
0.0	0.011	166.7	6.8
45.0	0.030	153.1	8.4
90.0	0.030	166.9	8.9
135.0	0.009	176.4	6.7
180.0	0.173	198.3	14.8
225.0	2.142	198.1	27.4
270.0	2.430	203.4	28.5
315.0	0.270	156.8	14.7

Contour Overlap Evaluation from LPTV Station to Full Service TV & DTV

Contour overlap to station
 WOI-TV 5 AMES IA BLCT 2151

Contour overlap to station
 KHAS-TV 5 HASTINGS NE BLCT 2417

Contour overlap to station
 KDLV-TV 5 MITCHELL SD BLCT 20020501AAL

Contour overlap to station

WOWT-TV 6 OMAHA NE BLCT 19831024KI

Contour Overlap Evaluation from LPTV to Full Service TV & DTV Complete

Contour Overlap Evaluation from LPTV Station to LPTV Stations

Contour overlap to station
 K05KV 5 NORFOLK NE BNPTVL 20000802ABN

Contour Overlap Evaluation from LPTV to LPTV Stations Complete

Contour Overlap to Proposed Station

Contour Overlap Evaluation to Proposed Station Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
05	K05LH	SIOUX CITY IA	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
05	WOI-TV	AMES IA	234.3	LIC	BLCT	-2151
05	KHAS-TV	HASTINGS NE	267.7	LIC	BLCT	-2417
05	K05KV	NORFOLK NE	108.7	CP	BNPTVL	-20000802ABN
05	KDLV-TV	MITCHELL SD	221.5	LIC	BLCT	-20020501AAL
06	WOWT-TV	OMAHA NE	133.1	LIC	BLCT	-19831024KI

Analysis of Interference to Affected Station 1

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
05	WOITV	AMES IA	DTVPLN	-NPLN0349

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
05	KSTPTV	ST. PAUL MN	363.6	PLN	DTVPLN	-NPLN0357
05	KCTV	KANSAS CITY MO	315.2	PLN	DTVPLN	-NPLN0358
05	KHASTV	HASTINGS NE	418.9	PLN	DTVPLN	-NPLN0364
05	KDLT	MITCHELL SD	367.7	PLN	DTVPLN	-NPLN0378
06	KAAL	AUSTIN MN	205.7	PLN	DTVPLN	-NPLN0419
06	WOWT	OMAHA NE	208.1	PLN	DTVPLN	-NPLN0428

Results for:	5N IA AMES	DTVPLN	NPLN0349	PLN
		POPULATION	AREA (sq km)	
within Noise Limited Contour		996992	49612.0	
not affected by terrain losses		956620	47972.4	
lost to NTSC IX		72623	7570.8	
lost to additional IX by ATV		0	0.0	
lost to all IX		72623	7570.8	

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
05	WOI-TV	AMES IA	BLCT	-2151

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
05	KSTP-TV	ST. PAUL MN	363.6	LIC	BLCT	-20011126AAK
05	KCTV	KANSAS CITY MO	315.2	LIC	BMLCT	-19951020KE
05	KHAS-TV	HASTINGS NE	418.9	LIC	BLCT	-2417
06	KAAL	AUSTIN MN	205.7	LIC	BLCT	-2236
06	WOWT-TV	OMAHA NE	208.1	LIC	BLCT	-19831024KI
05	K05LH	SIOUX CITY IA	234.3	APP	USERRECORD-01	

Total scenarios = 1

Result key: 1
 Scenario 1 Affected station 1
 Before Analysis

Results for:	5N IA AMES	BLCT	2151	LIC
		POPULATION	AREA (sq km)	
within Noise Limited Contour		996992	49612.0	
not affected by terrain losses		956620	47972.4	
lost to NTSC IX		65724	6453.7	
lost to additional IX by ATV		0	0.0	

lost to all IX 65724 6453.7

Potential Interfering Stations Included in above Scenario 1

5N MN ST. PAUL	BLCT	20011126AAK	LIC
5N MO KANSAS CITY	BMLCT	19951020KE	LIC
5N NE HASTINGS	BLCT	2417	LIC
6N MN AUSTIN	BLCT	2236	LIC
6N NE OMAHA	BLCT	19831024KI	LIC

After Analysis

Results for: 5N IA AMES	BLCT	2151	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	996992	49612.0	
not affected by terrain losses	956620	47972.4	
lost to NTSC IX	67603	6755.0	
lost to additional IX by ATV	0	0.0	
lost to all IX	67603	6755.0	

Potential Interfering Stations Included in above Scenario 1

5N MN ST. PAUL	BLCT	20011126AAK	LIC
5N MO KANSAS CITY	BMLCT	19951020KE	LIC
5N NE HASTINGS	BLCT	2417	LIC
6N MN AUSTIN	BLCT	2236	LIC
6N NE OMAHA	BLCT	19831024KI	LIC
5N IA SIOUX CITY	USERRECORD01		APP

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Analysis of Interference to Affected Station 2

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
05	KHASTV	HASTINGS NE	DTVPLN	-NPLN0364

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
05	WOITV	AMES IA	418.9	PLN	DTVPLN	-NPLN0349
05	KBSD-DT	ENSIGN KS	374.8	PLN	DTVPLN	-DTVP0020
05	KCTV	KANSAS CITY MO	368.9	PLN	DTVPLN	-NPLN0358
05	KDLT	MITCHELL SD	341.6	PLN	DTVPLN	-NPLN0378
06	KWNBTV	HAYES CENTER NE	223.4	PLN	DTVPLN	-NPLN0427
06	WOWT	OMAHA NE	211.0	PLN	DTVPLN	-NPLN0428

Results for: 5N NE HASTINGS	DTVPLN	NPLN0364	PLN
	POPULATION	AREA (sq km)	
within Noise Limited Contour	220934	28815.4	
not affected by terrain losses	219889	28327.9	
lost to NTSC IX	6989	2054.0	

lost to additional IX by ATV	383	163.8
lost to all IX	7372	2217.8

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
05	KHAS-TV	HASTINGS NE	BLCT	-2417

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
05	WOI-TV	AMES IA	418.9	LIC	BLCT	-2151
05	KBSD-TV	ENSIGN KS	374.8	CP	BPCDT	-19991015ABG
05	KBSD-DT	ENSIGN KS	374.8	PLN	DTVPLN	-DTVP0020
05	KCTV	KANSAS CITY MO	368.9	LIC	BMLCT	-19951020KE
05	KDLV-TV	MITCHELL SD	345.4	LIC	BLCT	-20020501AAL
06	KWNB-TV	HAYES CENTER NE	223.1	LIC	BLCT	-20000828AHT
06	WOWT-TV	OMAHA NE	211.0	LIC	BLCT	-19831024KI
05	K05LH	SIOUX CITY IA	267.7	APP	USERRECORD-01	

Total scenarios = 2

Result key: 2
 Scenario 1 Affected station 2
 Before Analysis

Results for: 5N NE HASTINGS	BLCT	2417	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	220934	28815.4	
not affected by terrain losses	219889	28327.9	
lost to NTSC IX	5376	1558.5	
lost to additional IX by ATV	818	347.7	
lost to all IX	6194	1906.1	

Potential Interfering Stations Included in above Scenario 1

5N MO KANSAS CITY	BMLCT	19951020KE	LIC
5N SD MITCHELL	BLCT	20020501AAL	LIC
5A KS ENSIGN	BPCDT	19991015ABG	CP

After Analysis

Results for: 5N NE HASTINGS	BLCT	2417	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	220934	28815.4	
not affected by terrain losses	219889	28327.9	
lost to NTSC IX	5376	1558.5	
lost to additional IX by ATV	818	347.7	
lost to all IX	6194	1906.1	

Potential Interfering Stations Included in above Scenario 1

5N MO KANSAS CITY	BMLCT	19951020KE	LIC
5N SD MITCHELL	BLCT	20020501AAL	LIC

5A KS ENSIGN BPCDT 19991015ABG CP
 5N IA SIOUX CITY USERRECORD01 APP

Result key: 3
 Scenario 2 Affected station 2
 Before Analysis

Results for: 5N NE HASTINGS BLCT 2417 LIC
 POPULATION AREA (sq km)
 within Noise Limited Contour 220934 28815.4
 not affected by terrain losses 219889 28327.9
 lost to NTSC IX 5376 1558.5
 lost to additional IX by ATV 383 163.8
 lost to all IX 5759 1722.3

Potential Interfering Stations Included in above Scenario 2

5N MO KANSAS CITY BMLCT 19951020KE LIC
 5N SD MITCHELL BLCT 20020501AAL LIC
 5A KS ENSIGN DTVPLN DTVP0020 PLN

After Analysis

Results for: 5N NE HASTINGS BLCT 2417 LIC
 POPULATION AREA (sq km)
 within Noise Limited Contour 220934 28815.4
 not affected by terrain losses 219889 28327.9
 lost to NTSC IX 5376 1558.5
 lost to additional IX by ATV 383 163.8
 lost to all IX 5759 1722.3

Potential Interfering Stations Included in above Scenario 2

5N MO KANSAS CITY BMLCT 19951020KE LIC
 5N SD MITCHELL BLCT 20020501AAL LIC
 5A KS ENSIGN DTVPLN DTVP0020 PLN
 5N IA SIOUX CITY USERRECORD01 APP

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel Call City/State Application Ref. No.
 05 K05KV NORFOLK NE BNPTVL -20000802ABN

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
05	WOI-TV	AMES IA	321.3	LIC	BLCT -2151
05	K05LH	SIOUX CITY IA	108.7	CP	BNPTVL -20000831APL
05	KHAS-TV	HASTINGS NE	196.7	APP	BPCT -20001121AIA

05	KHAS-TV	HASTINGS NE	172.7	LIC	BLCT	-2417
05	KDLV-TV	MITCHELL SD	204.2	LIC	BLCT	-20020501AAL
05	K05LH	SIOUX CITY IA	108.7	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 4

NTSC Baseline Analysis

Channel	Call	City/State	Application Ref. No.
05	KDLT	MITCHELL SD	DTVPLN -NPLN0378

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
05	WOITV	AMES IA	367.7	PLN	DTVPLN -NPLN0349
05	KSTPTV	ST. PAUL MN	372.1	PLN	DTVPLN -NPLN0357
05	KFYRTV	BISMARCK ND	426.3	PLN	DTVPLN -NPLN0363
05	KHASTV	HASTINGS NE	341.6	PLN	DTVPLN -NPLN0364
06	KPLOTV	RELIANCE SD	182.7	PLN	DTVPLN -NPLN0439

Results for:	5N SD MITCHELL	DTVPLN	NPLN0378	PLN
		POPULATION	AREA (sq km)	
within Noise Limited Contour		380167	42640.9	
not affected by terrain losses		377056	41862.4	
lost to NTSC IX		36971	3565.1	
lost to additional IX by ATV		0	0.0	
lost to all IX		36971	3565.1	

Analysis of current record

Channel	Call	City/State	Application Ref. No.
05	KDLV-TV	MITCHELL SD	BLCT -20020501AAL

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
05	KFYR-TV	BISMARCK ND	367.8	LIC	BLCT -2276
05	KHAS-TV	HASTINGS NE	352.7	APP	BPCT -20001121AIA
05	KHAS-TV	HASTINGS NE	345.4	LIC	BLCT -2417
06	KPLO-TV	RELIANCE SD	98.1	LIC	BLCT -1436
05	K05LH	SIOUX CITY IA	221.5	APP	USERRECORD-01

Total scenarios = 2

Result key: 4
 Scenario 1 Affected station 4
 Before Analysis

Results for:	5N SD MITCHELL	BLCT	20020501AAL	LIC
		POPULATION	AREA (sq km)	

within Noise Limited Contour	107155	33406.2
not affected by terrain losses	103037	32045.1
lost to NTSC IX	8792	5214.7
lost to additional IX by ATV	0	0.0
lost to all IX	8792	5214.7

Potential Interfering Stations Included in above Scenario 1

5N ND BISMARCK	BLCT	2276	LIC
5N NE HASTINGS	BLCT	2417	LIC
6N SD RELIANCE	BLCT	1436	LIC

After Analysis

Results for: 5N SD MITCHELL BLCT 20020501AAL LIC

	POPULATION	AREA (sq km)
within Noise Limited Contour	107155	33406.2
not affected by terrain losses	103037	32045.1
lost to NTSC IX	9011	5263.0
lost to additional IX by ATV	0	0.0
lost to all IX	9011	5263.0

Potential Interfering Stations Included in above Scenario 1

5N ND BISMARCK	BLCT	2276	LIC
5N NE HASTINGS	BLCT	2417	LIC
6N SD RELIANCE	BLCT	1436	LIC
5N IA SIOUX CITY	USERRECORD01		APP

Result key: 5
 Scenario 2 Affected station 4
 Before Analysis

Results for: 5N SD MITCHELL BLCT 20020501AAL LIC

	POPULATION	AREA (sq km)
within Noise Limited Contour	107155	33406.2
not affected by terrain losses	103037	32045.1
lost to NTSC IX	10067	5206.6
lost to additional IX by ATV	0	0.0
lost to all IX	10067	5206.6

Potential Interfering Stations Included in above Scenario 2

5N ND BISMARCK	BLCT	2276	LIC
5N NE HASTINGS	BPCT	20001121AIA	APP
6N SD RELIANCE	BLCT	1436	LIC

After Analysis

Results for: 5N SD MITCHELL BLCT 20020501AAL LIC

	POPULATION	AREA (sq km)
within Noise Limited Contour	107155	33406.2
not affected by terrain losses	103037	32045.1
lost to NTSC IX	10454	5263.0

lost to additional IX by ATV	0	0.0
lost to all IX	10454	5263.0

Potential Interfering Stations Included in above Scenario 2

5N ND BISMARCK	BLCT	2276	LIC
5N NE HASTINGS	BPCT	20001121AIA	APP
6N SD RELIANCE	BLCT	1436	LIC
5N IA SIOUX CITY	USERRECORD01		APP

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Analysis of Interference to Affected Station 5

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
06	WOWT	OMAHA NE	DTVPLN	-NPLN0428

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
05	WOITV	AMES IA	208.1	PLN	DTVPLN	-NPLN0349
05	KHASTV	HASTINGS NE	211.0	PLN	DTVPLN	-NPLN0364
06	KAAL	AUSTIN MN	349.0	PLN	DTVPLN	-NPLN0419
06	KMOSTV	SEDALIA MO	368.9	PLN	DTVPLN	-NPLN0420
06	KWNBTV	HAYES CENTER NE	426.9	PLN	DTVPLN	-NPLN0427
06	KPLOTV	RELIANCE SD	415.3	PLN	DTVPLN	-NPLN0439

Results for:	6N NE OMAHA	DTVPLN	NPLN0428	PLN
		POPULATION	AREA (sq km)	
within Noise Limited Contour		1144400	40095.1	
not affected by terrain losses		1129759	38761.9	
lost to NTSC IX		12994	2314.0	
lost to additional IX by ATV		0	0.0	
lost to all IX		12994	2314.0	

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
06	WOWT-TV	OMAHA NE	BLCT	-19831024KI

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
05	WOI-TV	AMES IA	208.1	LIC	BLCT	-2151
05	KHAS-TV	HASTINGS NE	211.0	LIC	BLCT	-2417
06	NEW	HUTCHINSON KS	423.7	APP	BPRM	-20011009AEG
06	KAAL	AUSTIN MN	349.0	LIC	BLCT	-2236
06	KMOS-TV	SEDALIA MO	401.8	LIC	BLET	-20010926ACE
06	KWNB-TV	HAYES CENTER NE	426.6	LIC	BLCT	-20000828AHT
06	KPLO-TV	RELIANCE SD	415.3	LIC	BLCT	-1436
05	K05LH	SIOUX CITY IA	133.1	APP	USERRECORD-01	

Total scenarios = 1

Result key: 6
 Scenario 1 Affected station 5
 Before Analysis

Results for: 6N NE OMAHA BLCT 19831024KI LIC
 POPULATION AREA (sq km)
 within Noise Limited Contour 1144400 40095.1
 not affected by terrain losses 1129759 38761.9
 lost to NTSC IX 10240 1697.5
 lost to additional IX by ATV 0 0.0
 lost to all IX 10240 1697.5

Potential Interfering Stations Included in above Scenario 1

5N IA AMES BLCT 2151 LIC
 6N MN AUSTIN BLCT 2236 LIC
 6N MO SEDALIA BLET 20010926ACE LIC

After Analysis

Results for: 6N NE OMAHA BLCT 19831024KI LIC
 POPULATION AREA (sq km)
 within Noise Limited Contour 1144400 40095.1
 not affected by terrain losses 1129759 38761.9
 lost to NTSC IX 11413 1889.7
 lost to additional IX by ATV 0 0.0
 lost to all IX 11413 1889.7

Potential Interfering Stations Included in above Scenario 1

5N IA AMES BLCT 2151 LIC
 6N MN AUSTIN BLCT 2236 LIC
 6N MO SEDALIA BLET 20010926ACE LIC
 5N IA SIOUX CITY USERRECORD01 APP

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel Call City/State Application Ref. No.
 05 K05LH SIOUX CITY IA USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
05	WOI-TV	AMES IA	234.3	LIC	BLCT -2151
05	KSTP-TV	ST. PAUL MN	382.4	LIC	BLCT -20011126AAK
05	KHAS-TV	HASTINGS NE	297.4	APP	BPCT -20001121AIA

05	KHAS-TV	HASTINGS NE	267.7	LIC	BLCT	-2417
05	K05KV	NORFOLK NE	108.7	CP	BNPTVL	-20000802ABN
05	KDLV-TV	MITCHELL SD	221.5	LIC	BLCT	-20020501AAL
06	WOWT-TV	OMAHA NE	133.1	LIC	BLCT	-19831024KI

Total scenarios = 1

Result key: 7
 Scenario 1 Affected station 6
 Before Analysis

Results for: 5N IA SIOUX CITY	USERRECORD01	APP
	POPULATION	AREA (sq km)
within Noise Limited Contour	103480	865.1
not affected by terrain losses	103480	865.1
lost to NTSC IX	5136	305.8
lost to additional IX by ATV	0	0.0
lost to all IX	5136	305.8

Potential Interfering Stations Included in above Scenario 1

5N IA AMES	BLCT	2151	LIC
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