

## OET-69 Interference Analysis (Proposed KOTA-LD, Rapid City, SD, Ch. 18)

Percent allowed new interference: 0.500  
Percent allowed new interference to non Class A LPTV: 2.000  
TW Census data selected 2000  
Data Base Selected  
/export/home/cdb/pt\_tvdb.sff

### TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 08-22-2013

Record Selected for Analysis

KOTA-LD USERRECORD-01 RAPID CITY SD US  
Channel 18 ERP 15. kW HAAT 194. m RCAMSL 01303 m STRINGENT MASK  
Latitude 044-04-07 Longitude 0103-15-03  
Status APP Zone 2 Border Site number: 01  
Last update Cutoff date Docket  
Comments  
Applicant

Cell Size for Service Analysis 1.0 km/side

Distance Increments for Longley-Rice Analysis 0.20 km

Not full service station  
Service Class = LD  
Maximum height/power limits not checked

Site number	1		
Azimuth	ERP	HAAT	51.0 dBu F(50,90)
(Deg)	(kW)	(m)	(km)
0.0	15.000	250.3	52.630
45.0	15.000	319.6	56.477
90.0	15.000	329.1	56.978
135.0	15.000	309.8	55.949
180.0	15.000	150.4	46.753
225.0	15.000	56.2	36.207
270.0	15.000	37.0	31.270
315.0	15.000	99.3	42.626

Contour Overlap to Proposed Station

Contour Overlap Evaluation to Proposed Station Complete

### Checks to Site Number 01

Proposed facility OK to FCC Monitoring Stations  
Proposed facility OK toward West Virginia quiet 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

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### Start of Interference Analysis

Channel	Proposed Station	Call	City/State	ARN
18	KOTA-LD	RAPID CITY SD	USERRECORD01	

### Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
17	K17JL-D	RAPID CITY SD	0.2	CP	BNPDTL	-20090825AVJ
17	K17KT-D	SUNDANCE WY	99.7	CP	BNPDTL	-20100505AII
18	K18KH-D	JULESBURG CO	358.8	LIC	BLDTT	-20120430AAK

# OET-69 Interference Analysis (Proposed KOTA-LD, Rapid City, SD, Ch. 18)

18	K18FN-D	PEETZ CO	353.1	LIC	BLDTT	-20110928AKM
18	K18GM-D	PLEASANT VALLEY CO	406.4	LIC	BLDTT	-20110613AAT
18	K18JE-D	BROADUS MT	223.4	LIC	BLDTT	-20130530ALQ
18	K18CR	CIRCLE MT	392.5	CP	BDFCDTT	-20110815AAK
18	K18CR	CIRCLE, ETC. MT	394.8	LIC	BLTT	-19900806IW
18	K18DH	BROKEN BOW NE	404.3	LIC	BLTT	-19901210JL
18	K18JQ-D	CASPER WY	289.7	CP	BNPDTL	-20100324ACH
18	K18JZ-D	ROZET WY	157.8	CP	BNPDTL	-20100505AIE
18	K18JY-D	SHERIDAN WY	299.3	CP	BNPDTL	-20100505AHJ
18	K18JD-D	TORRINGTON WY	234.2	LIC	BLDTT	-20110415ABJ
19	K19CG	BELLE FOURCHE SD	80.7	CP	BDFCDTT	-20091106ACS
19	K19CG	BELLE FOURCHE SD	80.7	LIC	BLDTT	-20101130AKH
19	K19KI-D	WASTA SD	69.7	CP	BNPDTL	-20100510AHJ
19	K19IQ-D	LUSK WY	173.4	CP	BNPDTT	-20090827AAI

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## Analysis of Interference to Affected Station 1

### Analysis of current record

Channel	Call	City/State	Application Ref. No.
17	K17JL-D	RAPID CITY SD	BNPDTL -20090825AVJ

### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	KCLO-TV	RAPID CITY SD	0.0	LIC	BLCDT -20060207ABK
17	KBMY	BISMARCK ND	338.7	LIC	BLCDT -20090701ADJ
17	KTWO-TV	CASPER WY	291.3	LIC	BLCDT -20110315ABB
17	K17KT-D	SUNDANCE WY	99.7	CP	BNPDTL -20100505AII
18	KOTA-LD	RAPID CITY SD	0.2	APP	USERRECORD-01

Total scenarios = 1

Result key:

1

Scenario 1 Affected station 1

Before Analysis

Results for: 17A SD RAPID CITY BNPDTL 20090825AVJ CP

HAAT 276.0 m, ATV ERP 3.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	100691	4840.9
not affected by terrain losses	100635	4821.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	30	49.3
lost to ATV IX only	30	49.3
lost to all IX	30	49.3

Potential Interfering Stations Included in above Scenario 1

16A SD RAPID CITY	BLCDT	20060207ABK	LIC
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After Analysis

Results for: 17A SD RAPID CITY BNPDTL 20090825AVJ CP

HAAT 276.0 m, ATV ERP 3.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	100691	4840.9
not affected by terrain losses	100635	4821.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1893	1574.5
lost to ATV IX only	1893	1574.5
lost to all IX	1893	1574.5

Potential Interfering Stations Included in above Scenario 1

16A SD RAPID CITY	BLCDT	20060207ABK	LIC
18A SD RAPID CITY	USERRECORD01		APP

Percent new IX = 1.8518%

Worst case new IX 1.8518% Scenario 1

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## Analysis of Interference to Affected Station 2

### Analysis of current record

Channel	Call	City/State	Application Ref. No.
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## OET-69 Interference Analysis (Proposed KOTA-LD, Rapid City, SD, Ch. 18)

17 K17KT-D SUNDANCE WY BNPDTL -20100505AII

Stations Potentially Affecting This Station

Proposal causes no interference

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application Ref. No.
18	K18KH-D	JULESBURG CO	BLDTT -20120430AAK

Stations Potentially Affecting This Station

Proposed station is beyond the site to  
nearest cell evaluation distance

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
18	K18FN-D	PEETZ CO	BLDTT -20110928AKM

Stations Potentially Affecting This Station

Proposed station is beyond the site to  
nearest cell evaluation distance

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Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application Ref. No.
18	K18GM-D	PLEASANT VALLEY CO	BLDTT -20110613AAT

Stations Potentially Affecting This Station

18 KOTA-LD RAPID CITY SD 406.4 APP USERRECORD-01

Proposed station is beyond the site to  
nearest cell evaluation distance

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application Ref. No.
18	K18JE-D	BROADUS MT	BLDTT -20130530ALQ

Stations Potentially Affecting This Station

Proposal causes no interference

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Analysis of Interference to Affected Station 7

Analysis of current record

Channel	Call	City/State	Application Ref. No.
18	K18CR	CIRCLE MT	BDFCDTT -20110815AAK

Stations Potentially Affecting This Station

Proposed station is beyond the site to  
nearest cell evaluation distance

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## OET-69 Interference Analysis (Proposed KOTA-LD, Rapid City, SD, Ch. 18)

### Analysis of Interference to Affected Station 8

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
18	K18CR	CIRCLE, ETC. MT	BLTT	-19900806IW

#### Stations Potentially Affecting This Station

Proposed station is beyond the site to  
nearest cell evaluation distance

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### Analysis of Interference to Affected Station 9

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
18	K18DH	BROKEN BOW NE	BLTT	-19901210JL

#### Stations Potentially Affecting This Station

Proposal causes no interference

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### Analysis of Interference to Affected Station 10

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
18	K18JQ-D	CASPER WY	BNPDTL	-20100324ACH

#### Stations Potentially Affecting This Station

Proposal causes no interference

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### Analysis of Interference to Affected Station 11

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
18	K18JZ-D	ROZET WY	BNPDTL	-20100505AIE

#### Stations Potentially Affecting This Station

Proposal causes no interference

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### Analysis of Interference to Affected Station 12

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
18	K18JY-D	SHERIDAN WY	BNPDTL	-20100505AHJ

#### Stations Potentially Affecting This Station

Proposal causes no interference

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### Analysis of Interference to Affected Station 13

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
18	K18JD-D	TORRINGTON WY	BLDTT	-20110415ABJ

#### Stations Potentially Affecting This Station

Proposal causes no interference

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## OET-69 Interference Analysis (Proposed KOTA-LD, Rapid City, SD, Ch. 18)

### Analysis of Interference to Affected Station 14

#### Analysis of current record

Channel	Call	City/State	Application Ref. No.
19	K19CG	BELLE FOURCHE SD	BDFCDTT -20091106ACS

#### Stations Potentially Affecting This Station

Proposal causes no interference

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### Analysis of Interference to Affected Station 15

#### Analysis of current record

Channel	Call	City/State	Application Ref. No.
19	K19CG	BELLE FOURCHE SD	BLDDTT -20101130AKH

#### Stations Potentially Affecting This Station

Proposal causes no interference

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### Analysis of Interference to Affected Station 16

#### Analysis of current record

Channel	Call	City/State	Application Ref. No.
19	K19KI-D	WASTA SD	BNPDTL -20100510AHJ

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
19	KXMA-TV	DICKINSON ND	301.2	LIC	BLCDT -20090715AHZ
19	KPRY-TV	PIERRE SD	183.4	LIC	BLCDT -20080806AAT
20	K20KI-D	RAPID CITY SD	69.6	CP	BNPDTL -20090825AUY
18	KOTA-LD	RAPID CITY SD	69.7	APP	USERRECORD-01

Total scenarios = 1

Result key: 2

Scenario 1 Affected station 16  
Before Analysis

Results for: 19A SD WASTA BNPDTL 20100510AHJ CP  
HAAT 177.0 m, ATV ERP 1.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1751	2955.4
not affected by terrain losses	1748	2936.7
lost to NTSC IX	0	0.0
lost to additional IX by ATV	59	215.0
lost to ATV IX only	59	215.0
lost to all IX	59	215.0

Potential Interfering Stations Included in above Scenario 1

19A SD PIERRE BLCDT 20080806AAT LIC

After Analysis

Results for: 19A SD WASTA BNPDTL 20100510AHJ CP  
HAAT 177.0 m, ATV ERP 1.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1751	2955.4
not affected by terrain losses	1748	2936.7
lost to NTSC IX	0	0.0
lost to additional IX by ATV	74	253.4
lost to ATV IX only	74	253.4
lost to all IX	74	253.4

Potential Interfering Stations Included in above Scenario 1

19A SD PIERRE BLCDT 20080806AAT LIC  
18A SD RAPID CITY USERRECORD01 APP

Percent new IX = 0.8881%

## OET-69 Interference Analysis (Proposed KOTA-LD, Rapid City, SD, Ch. 18)

Worst case new IX 0.8881% Scenario 1

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Analysis of Interference to Affected Station 17

Analysis of current record

Channel	Call	City/State	Application Ref. No.
19	K19IQ-D	LUSK WY	BNPDTT -20090827AAI

Stations Potentially Affecting This Station

Proposed station is beyond the site to  
nearest cell evaluation distance

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Analysis of Interference to Affected Station 18

Analysis of current record

Channel	Call	City/State	Application Ref. No.
18	KOTA-LD	RAPID CITY SD	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
17	K17JL-D	RAPID CITY SD	0.2	CP	BNPDTL -20090825AVJ
19	K19KI-D	WASTA SD	69.7	CP	BNPDTL -20100510AHJ

Total scenarios = 1

Result key: 3

Scenario 1 Affected station 18

Before Analysis

Results for: 18A SD RAPID CITY USERRECORD01 APP

HAAT 194.0 m, ATV ERP 15.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	112179	8040.4
not affected by terrain losses	109665	7946.7
lost to NTSC IX	0	0.0
lost to additional IX by ATV	21	42.4
lost to ATV IX only	21	42.4
lost to all IX	21	42.4

Potential Interfering Stations Included in above Scenario 1

19A SD WASTA BNPDTL 20100510AHJ CP

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