

# INTERFERENCE ANALYSIS FOR PROPOSED KSBS-CD DENVER, CO (CHANNEL 19)

tvstudy v2.2.4 (Z2Qqz3)  
Database: localhost, Study: ksbs19a16a (2075), Model: Longley-Rice

Study build station data: LMS TV 2017-11-26 (94)

Proposal: KSBS19A16A D19 DC APP DENVER, CO  
File number: ksbs19a16a  
Facility ID: 168750  
Station data: User record  
Record ID: 1904  
Country: U.S.

Build options:  
Protect LPTV records from Class A

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K18LN-D	D18	LD	CP	ASPEN, CO	BNPDTL20090825BXE	148.2 km
Yes	KPXC-TV	D18	DT	APP	DENVER, CO	BLANK0000027023	50.1
Yes	KPXC-TV	D18	DT	BL	DENVER, CO	DTVBL68695	50.1
No	K19FH-D	D19	LD	LIC	ASPEN, CO	BLDTT20121119AGZ	148.2
No	K19DY	D19	LD	CP	CANON CITY, CO	BDFCDTT20100111AEX	145.5
No	K19DY	N19	TX	LIC	CANON CITY, CO	BLTT20001027AAF	145.5
No	K19JA-D	D19	LD	LIC	CORTEZ, CO	BLDTT20110331AFA	365.2
No	K19KN-D	D19	LD	LIC	EADS, ETC., CO	BLANK0000001775	245.5
No	K19HC-D	D19	LD	LIC	HOEHNE, CO	BLDTT20090720AAK	294.8
No	K19EG-D	D19	LD	LIC	HOLYOKE, CO	BLDTT20110613AAO	259.4
No	K19CE	N19z	TX	LIC	MONTROSE, CO	BLTT20040602ABQ	258.7
No	K19HG-D	D19	LD	LIC	REDSTONE, CO	BLDTT20091221ABC	178.5
No	K19IX-D	D19	LD	LIC	ROMEO, CO	BLDTT20130107ABJ	326.5
No	KWKS	D19	DT	LIC	COLBY, KS	BLEDT20070601ATA	336.8
No	K19FX-D	D19	LD	LIC	LARAMIE, WY	BLDTT20111129FFV	173.8
No	K19JH-D	D19	LD	CP	WHEATLAND, WY	BNPDTL20100510AEL	291.3
No	KSZG-LD	D20	LD	LIC	ASPEN, CO	BLDTL20091027AAO	150.5
No	KXTU-LD	D20	LD	LIC	COLORADO SPRINGS, CO	BLDTL20120127AGP	114.0
Yes	KRMT	D20	DT	APP	DENVER, CO	BLANK0000034798	14.6
Yes	KRMT	D20	DT	CP	DENVER, CO	BLANK0000024933	14.6
Yes	KRMT	D20	DT	BL	DENVER, CO	DTVBL20476	14.6
No	K20KE-D	D20	LD	LIC	FORT MORGAN, CO	BLDTL20150115AAB	102.1
No	K20JG-D	D20	LD	LIC	SALIDA, ETC., CO	BLDTT20101004ACB	157.6
No	K27CB	N27+	TX	LIC	FRASER, ETC., CO	BLTT19890609IM	48.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D19

Mask: Full Service

Latitude: 39 43 45.90 N (NAD83)

Longitude: 105 14 9.90 W

Height AMSL: 2254.9 m (Adjusted based on actual ground elevation calculation)

HAAT: 0.0 m

Peak ERP: 13.8 kW

Antenna: DIE-TLP-8M/VP-R BB (ID 1002370) 90.0 deg

Elev Pattn: DIE-TLP8M/VP-R BB

Tilts: elec 2.60, mech 2.10 @ 320.0 deg

49.3 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	2.41 kW	414.5 m	52.9 km
45.0	9.27	537.2	64.9
90.0	10.8	544.5	66.1
135.0	13.4	465.7	65.1
180.0	7.95	78.8	38.8
225.0	1.02	-12.8	18.8
270.0	0.230	-21.0	12.8
315.0	0.163	-182.6	11.8

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 228 m

Distance to Canadian border: 1030.4 km

Distance to Mexican border: 890.8 km

Conditions at FCC monitoring station: Grand Island NE  
Bearing: 74.9 degrees Distance: 591.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

# INTERFERENCE ANALYSIS FOR PROPOSED KSBS-CD DENVER, CO (CHANNEL 19)

Bearing: 358.0 degrees Distance: 43.2 km  
ERP: 7.98 kW Field strength: 77.9 dBu, 7.8 mV/m

No land mobile station failures found

Study cell size: 0.50 km (Higher resolution cell size is requested.)  
Profile point spacing: 0.20 km (Higher resolution terrain profile point spacing.)

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

## Interference to BLANK0000027023 APP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KPXC-TV	D18	DT	APP	DENVER, CO	BLANK0000027023	
Undesireds:	KSBS-CD	D19	DC	BL	DENVER, CO	DTVBL168750	50.1 km
	KSBS19A16AD19	DC	APP		DENVER, CO	ksbs19a16a	50.1
	KPJR-TV	D17	DT	CP	GREELEY, CO	BLANK0000026606	0.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
31217.9		3,405,374		29290.9 3,381,941		29256.5 3,376,204	0.05 0.09
Undesired		Total IX		Unique IX, before		Unique IX, after	
KSBS-CD D19 DC BL		19.6		2,560		19.6 2,560	
KSBS19A16A D19 DC APP		34.4		5,737		34.4 5,737	

## Interference to BLANK0000027023 APP scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KPXC-TV	D18	DT	APP	DENVER, CO	BLANK0000027023	
Undesireds:	KSBS-CD	D19	DC	BL	DENVER, CO	DTVBL168750	50.1 km
	KSBS19A16AD19	DC	APP		DENVER, CO	ksbs19a16a	50.1
	KPJR-TV	D17	DT	BL	GREELEY, CO	DTVBL166510	0.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
31217.9		3,405,374		29290.9 3,381,941		29255.5 3,376,204	0.05 0.09
Undesired		Total IX		Unique IX, before		Unique IX, after	
KSBS-CD D19 DC BL		19.6		2,560		19.6 2,560	
KSBS19A16A D19 DC APP		34.4		5,737		34.4 5,737	
KPJR-TV D17 DT BL		1.0		0		1.0 0	

## Interference to DTVBL68695 BL scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KPXC-TV	D18	DT	BL	DENVER, CO	DTVBL68695	
Undesireds:	KSBS-CD	D19	DC	BL	DENVER, CO	DTVBL168750	50.1 km
	KSBS19A16AD19	DC	APP		DENVER, CO	ksbs19a16a	50.1
	KPJR-TV	D17	DT	CP	GREELEY, CO	BLANK0000026606	0.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
28929.2		3,399,749		27288.1 3,374,772		27250.0 3,366,173	0.05 0.13
Undesired		Total IX		Unique IX, before		Unique IX, after	
KSBS-CD D19 DC BL		22.8		4,144		22.8 4,144	
KSBS19A16A D19 DC APP		37.6		8,562		37.6 8,562	
KPJR-TV D17 DT CP		0.5		37		0.5 37	

## Interference to DTVBL68695 BL scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KPXC-TV	D18	DT	BL	DENVER, CO	DTVBL68695	
Undesireds:	KSBS-CD	D19	DC	BL	DENVER, CO	DTVBL168750	50.1 km
	KSBS19A16AD19	DC	APP		DENVER, CO	ksbs19a16a	50.1
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
28929.2		3,399,749		27288.1 3,374,772		27250.5 3,366,210	0.05 0.13
Undesired		Total IX		Unique IX, before		Unique IX, after	
KSBS-CD D19 DC BL		22.8		4,144		22.8 4,144	
KSBS19A16A D19 DC APP		37.6		8,562		37.6 8,562	

# INTERFERENCE ANALYSIS FOR PROPOSED KSBS-CD DENVER, CO (CHANNEL 19)

Interference to BLANK0000034798 APP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KRMT	D20	DT	APP	DENVER, CO	BLANK0000034798	
Undesireds:	KSBS-CD	D19	DC	BL	DENVER, CO	DTVBL168750	14.6 km
	KSBS19A16AD19	DC	APP		DENVER, CO	ksbs19a16a	14.6
	KFCT	D21	DT	LIC	FORT COLLINS, CO	BLCDT20070920ACM	120.6
	KGHB-CD	D21z	DC	APP	PUEBLO, ETC., CO	BLANK0000034455	147.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
16858.0		2,956,159		15493.7		2,845,739	0.44 0.46
Undesired		Total IX		Unique IX, before		Unique IX, after	
KSBS-CD D19 DC BL		17.3		9,874			
KSBS19A16A D19 DC APP		88.8		24,689		85.4	22,891
KFCT D21 DT LIC		18.9		3,925		15.4	2,127
KGHB-CD D21z DC APP		10.7		399		10.7	399

Interference to BLANK0000034798 APP scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KRMT	D20	DT	APP	DENVER, CO	BLANK0000034798	
Undesireds:	KSBS-CD	D19	DC	BL	DENVER, CO	DTVBL168750	14.6 km
	KSBS19A16AD19	DC	APP		DENVER, CO	ksbs19a16a	14.6
	KFCT	D21	DT	LIC	FORT COLLINS, CO	BLCDT20070920ACM	120.6
	KGHB-CD	D21z	DC	CP	PUEBLO, ETC., CO	BLANK0000028395	147.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
16858.0		2,956,159		15493.7		2,832,752	0.44 0.46
Undesired		Total IX		Unique IX, before		Unique IX, after	
KSBS-CD D19 DC BL		17.3		9,874			
KSBS19A16A D19 DC APP		88.8		24,689		85.4	22,891
KFCT D21 DT LIC		18.9		3,925		15.4	2,127
KGHB-CD D21z DC CP		8.7		369		8.7	369

Interference to BLANK0000034798 APP scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KRMT	D20	DT	APP	DENVER, CO	BLANK0000034798	
Undesireds:	KSBS-CD	D19	DC	BL	DENVER, CO	DTVBL168750	14.6 km
	KSBS19A16AD19	DC	APP		DENVER, CO	ksbs19a16a	14.6
	KFCT	D21	DT	LIC	FORT COLLINS, CO	BLCDT20070920ACM	120.6
	KGHB-CD	D21	DC	BL	PUEBLO, ETC., CO	DTVBL24515	147.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
16858.0		2,956,159		15493.7		2,832,752	0.44 0.46
Undesired		Total IX		Unique IX, before		Unique IX, after	
KSBS-CD D19 DC BL		17.3		9,874			
KSBS19A16A D19 DC APP		88.8		24,689		85.4	22,891
KFCT D21 DT LIC		18.9		3,925		15.4	2,127
KGHB-CD D21 DC BL		9.2		369		9.2	369

Interference to BLANK0000024933 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KRMT	D20	DT	CP	DENVER, CO	BLANK0000024933	
Undesireds:	KSBS-CD	D19	DC	BL	DENVER, CO	DTVBL168750	14.6 km
	KSBS19A16AD19	DC	APP		DENVER, CO	ksbs19a16a	14.6
	KFCT	D21	DT	LIC	FORT COLLINS, CO	BLCDT20070920ACM	120.6
	KGHB-CD	D21z	DC	APP	PUEBLO, ETC., CO	BLANK0000034455	147.5
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
15241.8		2,939,755		13996.4		2,815,404	0.53 0.47
Undesired		Total IX		Unique IX, before		Unique IX, after	
KSBS-CD D19 DC BL		19.2		10,534			
KSBS19A16A D19 DC APP		97.9		24,948		93.5	23,815
KFCT D21 DT LIC		14.5		2,873		10.1	1,740
KGHB-CD D21z DC APP		3.0		238		3.0	238

Interference to BLANK0000024933 CP scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KRMT	D20	DT	CP	DENVER, CO	BLANK0000024933	

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Undesireds:	KSBS-CD D19 DC BL	DENVER, CO	DTVBL168750	14.6 km
	KSBS19A16AD19 DC APP	DENVER, CO	ksbs19a16a	14.6
	KFCT D21 DT LIC	FORT COLLINS, CO	BLCDT20070920ACM	120.6
	KGHB-CD D21z DC CP	PUEBLO, ETC., CO	BLANK0000028395	147.5

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
15241.8 2,939,755	13996.4 2,842,330	13960.7 2,828,863	13886.5 2,815,582	0.53 0.47

Undesired	Total IX	Unique IX, before	Unique IX, after
KSBS-CD D19 DC BL	19.2 10,534	19.2 10,534	
KSBS19A16A D19 DC APP	97.9 24,948		93.5 23,815
KFCT D21 DT LIC	14.5 2,873	14.5 2,873	10.1 1,740
KGHB-CD D21z DC CP	2.0 60	2.0 60	2.0 60

## Interference to BLANK0000024933 CP scenario 3

Desired:	Call KRMT	Chan D20	Svc DT	Status CP	City, State DENVER, CO	File Number BLANK0000024933	Distance
Undesireds:	KSBS-CD D19 DC BL	DENVER, CO	DTVBL168750	14.6 km			
	KSBS19A16AD19 DC APP	DENVER, CO	ksbs19a16a	14.6			
	KFCT D21 DT LIC	FORT COLLINS, CO	BLCDT20070920ACM	120.6			
	KGHB-CD D21 DC BL	PUEBLO, ETC., CO	DTVBL24515	147.5			

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
15241.8 2,939,755	13996.4 2,842,330	13960.2 2,828,863	13886.0 2,815,582	0.53 0.47

Undesired	Total IX	Unique IX, before	Unique IX, after
KSBS-CD D19 DC BL	19.2 10,534	19.2 10,534	
KSBS19A16A D19 DC APP	97.9 24,948		93.5 23,815
KFCT D21 DT LIC	14.5 2,873	14.5 2,873	10.1 1,740
KGHB-CD D21 DC BL	2.5 60	2.5 60	2.5 60

## Interference to DTVBL20476 BL scenario 1

Desired:	Call KRMT	Chan D20	Svc DT	Status BL	City, State DENVER, CO	File Number DTVBL20476	Distance
Undesireds:	KSBS-CD D19 DC BL	DENVER, CO	DTVBL168750	14.6 km			
	KSBS19A16AD19 DC APP	DENVER, CO	ksbs19a16a	14.6			
	KFCT D21 DT LIC	FORT COLLINS, CO	BLCDT20070920ACM	120.6			
	KGHB-CD D21z DC APP	PUEBLO, ETC., CO	BLANK0000034455	147.5			

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
15240.6 2,939,660	14000.6 2,841,677	13963.7 2,828,032	13891.1 2,814,898	0.52 0.46

Undesired	Total IX	Unique IX, before	Unique IX, after
KSBS-CD D19 DC BL	19.7 10,534	19.7 10,534	
KSBS19A16A D19 DC APP	96.7 24,801		92.3 23,668
KFCT D21 DT LIC	14.2 2,873	14.2 2,873	9.8 1,740
KGHB-CD D21z DC APP	3.0 238	3.0 238	3.0 238

## Interference to DTVBL20476 BL scenario 2

Desired:	Call KRMT	Chan D20	Svc DT	Status BL	City, State DENVER, CO	File Number DTVBL20476	Distance
Undesireds:	KSBS-CD D19 DC BL	DENVER, CO	DTVBL168750	14.6 km			
	KSBS19A16AD19 DC APP	DENVER, CO	ksbs19a16a	14.6			
	KFCT D21 DT LIC	FORT COLLINS, CO	BLCDT20070920ACM	120.6			
	KGHB-CD D21z DC CP	PUEBLO, ETC., CO	BLANK0000028395	147.5			

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
15240.6 2,939,660	14000.6 2,841,677	13964.7 2,828,210	13892.1 2,815,076	0.52 0.46

Undesired	Total IX	Unique IX, before	Unique IX, after
KSBS-CD D19 DC BL	19.7 10,534	19.7 10,534	
KSBS19A16A D19 DC APP	96.7 24,801		92.3 23,668
KFCT D21 DT LIC	14.2 2,873	14.2 2,873	9.8 1,740
KGHB-CD D21z DC CP	2.0 60	2.0 60	2.0 60

## Interference to DTVBL20476 BL scenario 3

Desired:	Call KRMT	Chan D20	Svc DT	Status BL	City, State DENVER, CO	File Number DTVBL20476	Distance
Undesireds:	KSBS-CD D19 DC BL	DENVER, CO	DTVBL168750	14.6 km			
	KSBS19A16AD19 DC APP	DENVER, CO	ksbs19a16a	14.6			
	KFCT D21 DT LIC	FORT COLLINS, CO	BLCDT20070920ACM	120.6			

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KGHB-CD	D21	DC	BL	PUEBLO, ETC., CO		DTVBL24515		147.5	
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent	New IX
15240.6	2,939,660	14000.6	2,841,677	13964.2	2,828,210	13891.6	2,815,076	0.52	0.46
Undesired			Total IX	Unique IX, before		Unique IX, after			
KSBS-CD D19 DC BL		19.7	10,534	19.7	10,534				
KSBS19A16A D19 DC APP		96.7	24,801			92.3	23,668		
KFCT D21 DT LIC		14.2	2,873	14.2	2,873	9.8	1,740		
KGHB-CD D21 DC BL		2.5	60	2.5	60	2.5	60		

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