

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 09-20-2007 Time: 16:44:02

Record Selected for Analysis

KWYB USERRECORD-01 BUTTE MT US
Channel 19 ERP 110.7 kW HAAT 599. m RCAMSL 02573 m
Latitude 046-00-24 Longitude 0112-26-30
Status APP Zone 2 Border
Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 0.
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

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	8.555	566.3	78.4
45.0	6.726	211.7	58.0
90.0	76.078	489.6	90.5
135.0	70.583	632.3	98.4
180.0	12.275	535.4	79.7
225.0	4.681	826.4	81.0
270.0	25.883	889.2	97.7
315.0	21.334	637.8	88.5

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

KWYB 19 BUTTE MT USERRECORD01

and station

SHORT TO: KWYB 19 BUTTE MT BPCDT 19991101AJX
046-00-24 0112-26-30
Req. separation 223.7 Actual separation 0.0 Short 223.7 km

SHORT TO: KWYB-DT 19 BUTTE MT DTVPLN DTVP0360
46-00-24 112-26-30
Req. separation 223.7 Actual separation 0.0 Short 223.7 km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance
Distance to border = 332.7km

Proposed facility is beyond the Mexican coordination distance

Proposed station is 2.07km from AM station
SILVER BOW MT NEW Status: Antenna: DA2

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
19	KWYB	BUTTE MT	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
18	KWYB	BUTTE MT	0.0	LIC	BLCT	-19961010KF
19	KBGH	FILER ID	396.5	LIC	BLET	-19940921KE
20	KUSM-DT	BOZEMAN MT	114.0	PLN	DTVPLN	-DTVP0406

Analysis of Interference to Affected Station 1

NTSC Baseline Analysis

Channel	Call	City/State	Application Ref. No.
18	KWYB	BUTTE MT	DTVPLN -NPLN1023

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
14	KTVH-DT	HELENA MT	107.0	PLN	DTVPLN -DTVP0138
15	KXLF-DT	BUTTE MT	0.1	PLN	DTVPLN -DTVP0175
16	KCTZ-DT	BOZEMAN MT	127.4	PLN	DTVPLN -DTVP0229
17	NEW	MISSOULA MT	147.6	PLN	DTVPLN -NPLN0991
18	KBGH-DT	FILER ID	396.5	PLN	DTVPLN -DTVP0303
18	KSVI-DT	BILLINGS MT	317.9	PLN	DTVPLN -DTVP0314
19	KWYB-DT	BUTTE MT	0.0	PLN	DTVPLN -DTVP0360
20	KUSM-DT	BOZEMAN MT	114.0	PLN	DTVPLN -DTVP0406

Results for: 18N MT BUTTE	DTVPLN	NPLN1023	PLN
	POPULATION	AREA (sq km)	
within Noise Limited Contour	80171	24318.1	
not affected by terrain losses	58108	13692.9	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	0	24.0	
lost to all IX	0	24.0	

Analysis of current record

Channel	Call	City/State	Application Ref. No.
18	KWYB	BUTTE MT	BLCT -19961010KF

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
14	KTVH-DT	HELENA MT	107.0	PLN	DTVPLN -DTVP0138
15	KXLF-DT	BUTTE MT	0.1	PLN	DTVPLN -DTVP0175
16	KCTZ-DT	BOZEMAN MT	127.4	PLN	DTVPLN -DTVP0229
17	KMMF	MISSOULA MT	146.9	LIC	BLCT -20021219AAW
18	KBGH-DT	FILER ID	396.5	PLN	DTVPLN -DTVP0303
18	KSVI-DT	BILLINGS MT	317.9	PLN	DTVPLN -DTVP0314
18	KSVI	BILLINGS MT	317.9	CP	BPCDT -19991029ACI
19	KWYB	BUTTE MT	0.0	CP	BPCDT -19991101AJX
19	KWYB-DT	BUTTE MT	0.0	PLN	DTVPLN -DTVP0360
20	KUSM-DT	BOZEMAN MT	114.0	PLN	DTVPLN -DTVP0406
33	KTVM-TV	BUTTE MT	0.1	LIC	BPRM -20001106ACL
33	KTVM	BUTTE MT	0.1	CP MOD	BMPCDT -20010723AAI
19	KWYB	BUTTE MT	0.0	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 2

NTSC Baseline Analysis

Channel	Call	City/State	Application Ref. No.
19	KBGH	FILER ID	DTVPLN -NPLN1041

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	KMVT-DT	TWIN FALLS ID	0.0	PLN	DTVPLN -DTVP0215
18	KBGH-DT	FILER ID	0.0	PLN	DTVPLN -DTVP0303
19	KWYB-DT	BUTTE MT	396.5	PLN	DTVPLN -DTVP0360
20	NEW	IDAHO FALLS ID	166.0	PLN	DTVPLN -NPLN1077
22	KIPT-DT	TWIN FALLS ID	0.0	PLN	DTVPLN -DTVP0480
34	KXTF-DT	TWIN FALLS ID	0.3	PLN	DTVPLN -DTVP0935

Results for: 19N ID FILER	DTVPLN	NPLN1041	PLN
	POPULATION	AREA (sq km)	
within Noise Limited Contour	99999	6675.3	
not affected by terrain losses	99944	6659.3	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	0	0.0	
lost to all IX	0	0.0	

Analysis of current record

Channel	Call	City/State	Application Ref. No.
19	KBGH	FILER ID	BLET -19940921KE

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	KMVT-DT	TWIN FALLS ID	0.0	PLN	DTVPLN -DTVP0215
18	KBGH-DT	FILER ID	0.0	PLN	DTVPLN -DTVP0303
19	KWYB	BUTTE MT	396.5	CP	BPCDT -19991101AJX
19	KWYB-DT	BUTTE MT	396.5	PLN	DTVPLN -DTVP0360
22	KIPT	TWIN FALLS ID	0.0	LIC	BLEDT -20030530BKW
22	KIPT-DT	TWIN FALLS ID	0.0	PLN	DTVPLN -DTVP0480
34	KXTF-DT	TWIN FALLS ID	0.3	PLN	DTVPLN -DTVP0935
19	KWYB	BUTTE MT	396.5	APP	USERRECORD-01

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 3

DTV Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
20	KUSM-DT	BOZEMAN MT	DTVPLN	-DTVP0406

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
19	KWYB-DT	BUTTE MT	114.0	PLN	DTVPLN	-DTVP0360
20	NEW	IDAHO FALLS ID	272.4	PLN	DTVPLN	-NPLN1077

Results for: 20A MT BOZEMAN DTVPLN DTVP0406 PLN

HAAT -104.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	61776	2381.1
not affected by terrain losses	61720	2288.6
lost to NTSC IX	5	12.1
lost to additional IX by ATV	0	8.0
lost to ATV IX only	0	8.0
lost to all IX	5	20.1

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
09	KUSM	BOZEMAN MT	DTVPLN	-NPLN0605

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
08	KULRTV	BILLINGS MT	202.0	PLN	DTVPLN	-NPLN0545
09	KIFI-DT	IDAHO FALLS ID	272.3	PLN	DTVPLN	-DTVP0056
09	NEW	HAVRE MT	330.2	PLN	DTVPLN	-NPLN0606
09	KCFWTV	KALISPELL MT	362.5	PLN	DTVPLN	-NPLN0607
09	NEW	SHERIDAN WY	329.7	PLN	DTVPLN	-NPLN0635
10	KAQR	HELENA MT	140.9	PLN	DTVPLN	-NPLN0663

Results for: 9N MT BOZEMAN DTVPLN NPLN0605 PLN

	POPULATION	AREA (sq km)
within Noise Limited Contour	61776	2381.1
not affected by terrain losses	61086	2188.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to all IX	0	0.0

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
20	KUSM-DT	BOZEMAN MT	DTVPLN	-DTVP0406

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
19	KWYB-DT	BUTTE MT	114.0	PLN	DTVPLN	-DTVP0360
20	950306KF	IDAHO FALLS ID	223.4	CP	BPCT	-19950306KF
21	NEW	GREAT FALLS MT	208.5	LIC	BPRM	-20040325AHX
19	KWYB	BUTTE MT	114.0	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 4

DTV Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
19	KWYB-DT	BUTTE MT	DTVPLN	-DTVP0360

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
18	KWYB	BUTTE MT	0.0	PLN	DTVPLN	-NPLN1023
19	KBGH	FILER ID	396.5	PLN	DTVPLN	-NPLN1041
20	KUSM-DT	BOZEMAN MT	114.0	PLN	DTVPLN	-DTVP0406

Results for: 19A MT BUTTE DTVPLN DTVP0360 PLN
HAAT 585.0 m, ATV ERP 111.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	80195	24354.1
not affected by terrain losses	60005	14846.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1996	192.2
lost to ATV IX only	1996	192.2
lost to all IX	1996	192.2

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
18	KWYB	BUTTE MT	DTVPLN	-NPLN1023

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
14	KTVH-DT	HELENA MT	107.0	PLN	DTVPLN	-DTVP0138
15	KXLF-DT	BUTTE MT	0.1	PLN	DTVPLN	-DTVP0175
16	KCTZ-DT	BOZEMAN MT	127.4	PLN	DTVPLN	-DTVP0229
17	NEW	MISSOULA MT	147.6	PLN	DTVPLN	-NPLN0991
18	KBGH-DT	FILER ID	396.5	PLN	DTVPLN	-DTVP0303
18	KSVI-DT	BILLINGS MT	317.9	PLN	DTVPLN	-DTVP0314
19	KWYB-DT	BUTTE MT	0.0	PLN	DTVPLN	-DTVP0360
20	KUSM-DT	BOZEMAN MT	114.0	PLN	DTVPLN	-DTVP0406

Results for: 18N MT BUTTE DTVPLN NPLN1023 PLN

	POPULATION	AREA (sq km)
within Noise Limited Contour	80171	24318.1
not affected by terrain losses	58108	13692.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	24.0
lost to all IX	0	24.0

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
19	KWYB	BUTTE MT	USERRECORD-01	

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
18	KWYB	BUTTE MT	0.0	LIC	BLCT	-19961010KF
19	KBGH	FILER ID	396.5	LIC	BLET	-19940921KE
20	KUSM-DT	BOZEMAN MT	114.0	PLN	DTVPLN	-DTVP0406

Total scenarios = 1

Result key: 1
Scenario 1 Affected station 4
Before Analysis

Results for: 19A MT BUTTE USERRECORD01 APP
HAAT 599.0 m, ATV ERP 110.7 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	79439	24856.7
not affected by terrain losses	61917	15332.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1871	220.3
lost to ATV IX only	1871	220.3
lost to all IX	1871	220.3

Potential Interfering Stations Included in above Scenario 1

20A MT BOZEMAN DTVPLN DTVP0406 PLN

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