



**KAID - BOISE, IDAHO
MARCH 2024
APPENDIX B
603 kW - Channel 21
Longley-Rice Interference Analysis**

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: KAID 603kW Non-D, Model: Longley-Rice
Start: 2024.03.21 15:41:10

Study created: 2024.03.21 15:41:10

Study build station data: LMS TV 2024-03-20

Proposal: KAID D21 DD LIC BOISE, ID
File number: KAID 603kW Non-D
Facility ID: 62442
Station data: User record
Record ID: 324
Country: U.S.
Zone: II
Ref. lat.: 43 45 20.60 N
Ref. long.: 116 05 57.40 W
DTS sites: 4

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

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	KBOI-TV	D20	DT	CP	BOISE, ID	BLANK0000226094	0.0 km
No	KECI-TV	D21	DT	APP	MISSOULA, MT	BLANK0000219405	397.4
No	KTVZ	D21	DT	LIC	BEND, OR	BLCDT20100122ABM	420.4
No	K21JQ-D	D21	DC	LIC	WALLA WALLA, WA	BLDTA20090721ABT	297.2
No	KYVE	D21	DT	LIC	YAKIMA, WA	BLEDT20030910ACL	463.4
No	KIPT	D22	DD	LIC	TWIN FALLS, ID	BLEDT20120808ABN	177.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied, DTS site # 1:

Channel: D21
Latitude: 43 49 31.00 N (NAD83)
Longitude: 116 30 32.00 W
Height AMSL: 982.9 m
HAAT: 154.0 m
Peak ERP: 0.093 kW
Antenna: SCA-PR-TV-21/50 (ID 93009) 0.0 deg
Elev Pattn: SCA-PR-TV-21/50

39.5 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.005 kW	179.2 m	21.1 km
45.0	0.025	140.9	26.9

Appendix B - Interference Analysis
KAID - Boise, Idaho
Channel 21 -603 kW - Page 2

90.0	0.000	-36.7	4.2
135.0	0.000	133.2	8.0
180.0	0.000	187.3	7.4
225.0	0.000	188.7	7.1
270.0	0.000	165.7	8.9
315.0	0.000	267.1	11.1

Database HAAT does not agree with computed HAAT
Database HAAT: 154 m Computed HAAT: 153 m

Record parameters as studied, DTS site # 2:

Channel: D21
Latitude: 43 35 44.30 N (NAD83)
Longitude: 116 8 39.70 W
Height AMSL: 1121.5 m
HAAT: 50.0 m
Peak ERP: 0.251 kW
Antenna: SCA-PR-TV-21/50 (ID 93010) 0.0 deg
Elev Pattn: SCA-PR-TV-21/50

39.5 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.000 kW	-158.5 m	5.7 km
45.0	0.000	-194.8	5.0
90.0	0.000	-135.3	4.6
135.0	0.000	93.6	6.6
180.0	0.000	171.2	10.9
225.0	0.000	234.4	13.6
270.0	0.002	290.6	21.5
315.0	0.205	246.3	43.9

Database HAAT does not agree with computed HAAT
Database HAAT: 50 m Computed HAAT: 68 m

Record parameters as studied, DTS site # 3:

Channel: D21
Latitude: 43 35 44.30 N (NAD83)
Longitude: 116 8 39.70 W
Height AMSL: 1120.0 m
HAAT: 49.0 m
Peak ERP: 0.059 kW
Antenna: SCA-4DR-8-2HN (ID 93011) 0.0 deg
Elev Pattn: SCA-4DR-8-2HN

39.5 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.000 kW	-160.0 m	4.1 km
45.0	0.000	-196.3	3.9
90.0	0.002	-136.8	7.0
135.0	0.010	92.1	18.1
180.0	0.027	169.7	29.2
225.0	0.002	232.9	19.7
270.0	0.000	289.1	13.2
315.0	0.000	244.8	7.5

Database HAAT does not agree with computed HAAT
Database HAAT: 49 m Computed HAAT: 67 m

Record parameters as studied, DTS site # 4:

Channel: D21
Latitude: 43 45 20.80 N (NAD83)
Longitude: 116 5 57.00 W
Height AMSL: 2244.6 m
HAAT: 858.0 m

Appendix B - Interference Analysis

KAID - Boise, Idaho

Channel 21 -603 kW - Page 3

Peak ERP: 603 kW
Antenna: Omnidirectional
Elev Pattn: DIE-TAD-UDC-3-21
Elec Tilt: 1.10

39.5 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	603 kW	666.4 m	122.7 km
45.0	603	692.9	124.0
90.0	603	906.8	132.4
135.0	603	869.5	131.0
180.0	603	704.5	124.6
225.0	603	1085.1	140.3
270.0	603	1006.0	136.8
315.0	603	958.3	134.6

Database HAAT does not agree with computed HAAT
Database HAAT: 858 m Computed HAAT: 861 m

ERP exceeds maximum
ERP: 603 kW ERP maximum: 175 kW

**DTS proposal has coverage outside reference facility and distance limit

Distance to Canadian border: 575.2 km

Distance to Mexican border: 1215.1 km

Conditions at FCC monitoring station: Ferndale WA

DTS site # 1	Bearing: 323.1 degrees	Distance: 734.4 km
DTS site # 2	Bearing: 322.7 degrees	Distance: 772.4 km
DTS site # 3	Bearing: 322.7 degrees	Distance: 772.4 km
DTS site # 4	Bearing: 321.7 degrees	Distance: 760.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

DTS site # 1	Bearing: 109.9 degrees	Distance: 1014.4 km
DTS site # 2	Bearing: 109.3 degrees	Distance: 978.2 km
DTS site # 3	Bearing: 109.3 degrees	Distance: 978.2 km
DTS site # 4	Bearing: 110.4 degrees	Distance: 980.9 km

No land mobile station failures found

Study cell size: 2.00 km
Profile point spacing: 1.00 km

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

Interference to BLANK0000226094 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KBOI-TV	D20	DT	CP	BOISE, ID	BLANK0000226094	
Undesireds:	KAID	D21	DD	BL	BOISE, ID	DTVBL62442	0.0 km
	KAID	D21	DD	LIC	BOISE, ID	KAID 603kW Non-D	0.0
	950306KF	D20	DT	BL	IDAHO FALLS, ID	DTVBL41238	327.7
	KTVM-TV	D20	DT	CP	BUTTE, MT	BLANK0000157471	381.5
	KENV-DT	D20	DT	CP	ELKO, NV	BLANK0000219148	340.1

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
54272.8	717,314	45468.3	708,347	45292.8	708,346	45284.8 708,346	0.02 0.00

Appendix B - Interference Analysis
KAID - Boise, Idaho
Channel 21 -603 kW - Page 4

Undesired		Total IX	Unique IX, before	Unique IX, after
KAID D21 DD BL	4.0	0	4.0	0
KAID D21 DD LIC	12.0	0		12.0
950306KF D20 DT BL	111.5	1	111.5	1
KTVM-TV D20 DT CP	4.0	0	4.0	0
KENV-DT D20 DT CP	56.1	0	56.1	0

Interference to proposal scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KAID	D21	DD	LIC	BOISE, ID	KAID 603kW Non-D	
Undesireds:	KIPT	D22	DD	LIC	TWIN FALLS, ID	BLEDT20120808ABN	177.8 km

	Service area	Terrain-limited	IX-free	Percent IX
53674.1	716,826	44398.8	707,961	0.04
				0.00

Undesired	Total IX	Unique IX	Prcnt Unique IX
KIPT D22 DD LIC	15.9	0	0.04
			0.00