



# KECI-TV - MISSOULA, MONTANA MAY 2024 APPENDIX B 950 kW - Channel 21 Longley-Rice Interference Analysis

tvstudy v2.2.5 (4uoc83)  
Database: localhost, Study: KECI TV 21 Missoula MT, Model: Longley-Rice  
Start: 2024.05.07 13:21:58

Study created: 2024.05.07 13:21:58

Study build station data: LMS TV 2024-05-07

Proposal: KECI-TV D21 DT APP \*P MISSOULA, MT  
File number: BLANK0000219405  
Facility ID: 18084  
Station data: LMS TV 2024-05-07  
Record ID: 25076f918974eb250189d5a0b2a23f88  
Country: U.S.  
Zone: II

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	KTVM-TV	D20	DT	CP	BUTTE, MT	BLANK0000157471	164.5 km
No	KREM	D20	DT	APP	SPOKANE, WA	BLANK0000243656	255.8
No	KREM	D20	DT	LIC	SPOKANE, WA	BLCDT20050623ABG	255.8
No	KAID	D21	DD	CP	BOISE, ID	BLANK0000243298	397.4
No	KAID	D21	DD	LIC	BOISE, ID	BLEDT20120719ABH	397.4
Yes	KUGF-TV	D21	DT	LIC	GREAT FALLS, MT	BLEDT20101008ACG	213.7
No	K21JQ-D	D21	DC	LIC	WALLA WALLA, WA	BLDTA20090721ABT	338.3
No	KRTV	D22	DT	CP	GREAT FALLS, MT	BLANK0000206207	213.7
No	CBRT-DT	D21	DT	LIC	CALGARY, AB	BLANKCANADA7	450.1
No	CHAT-TV	D21	DT	LIC	MEDICINE HAT, AB	BLANKCANADA34	415.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D21  
Latitude: 47 1 4.00 N (NAD83)  
Longitude: 114 0 50.00 W  
Height AMSL: 2151.8 m  
HAAT: 610.0 m  
Peak ERP: 950 kW  
Antenna: Omnidirectional  
Elev Pattn: Generic  
Elec Tilt: 1.05

39.5 dBu contour:  
Azimuth ERP HAAT Distance

**Appendix B - Interference Analysis**  
**KECI-TV - Missoula, Montana**  
**Channel 21 -950 kW - Page 2**

0.0 deg	950 kW	816.3 m	134.2 km
45.0	950	3.0	59.0
90.0	950	209.6	87.0
135.0	950	578.5	122.3
180.0	950	1016.1	143.3
225.0	950	1052.0	144.8
270.0	950	852.4	135.8
315.0	950	686.6	128.6

Database HAAT does not agree with computed HAAT  
 Database HAAT: 610 m    Computed HAAT: 652 m

ERP exceeds maximum  
 ERP: 950 kW    ERP maximum: 282 kW

\*\*Proposal is within coordination distance of Canadian border  
 Distance to Canadian border: 220.2 km

Distance to Mexican border: 1590.5 km

Conditions at FCC monitoring station: Ferndale WA  
 Bearing: 291.9 degrees    Distance: 670.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
 Bearing: 134.2 degrees    Distance: 1037.8 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%

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 Interference to BLANK0000157471 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KTVM-TV	D20	DT	CP	BUTTE, MT	BLANK0000157471	
Undesireds:	KECI-TV	D21	DT	APP	MISSOULA, MT	BLANK0000219405	164.5 km
	KBOI-TV	D20	DT	CP	BOISE, ID	BLANK0000226094	381.5
	950306KF	D20	DT	BL	IDAHO FALLS, ID	DTVBL41238	281.1
	KTVQ	D20	DT	CP	BILLINGS, MT	BLANK0000190318	309.4
	KREM	D20	DT	APP	SPOKANE, WA	BLANK0000243656	409.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
47272.5	251,480	33362.0	179,125	33157.6	179,064	33097.5    179,027	0.18    0.02
Undesired				Total IX	Unique IX, before	Unique IX, after	
KECI-TV D21 DT APP				60.1    37	60.1    37		
KBOI-TV D20 DT CP				16.0    0    4.0    0	4.0    0		
950306KF D20 DT BL				152.4    0    136.4    0	136.4    0		
KTVQ D20 DT CP				52.1    61    48.0    61	48.0    61		

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 Interference to BLEDT20101008ACG LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KUGF-TV	D21	DT	LIC	GREAT FALLS, MT	BLEDT20101008ACG	
Undesireds:	KECI-TV	D21	DT	APP	MISSOULA, MT	BLANK0000219405	213.7 km
	KRTV	D22	DT	CP	GREAT FALLS, MT	BLANK0000206207	0.0

**Appendix B - Interference Analysis**  
**KECI-TV - Missoula, Montana**  
**Channel 21 -950 kW - Page 3**

CHAT-TV	D21	DT	LIC	MEDICINE HAT, AB	BLANKCANADA34	293.0		
Service area			Terrain-limited	IX-free, before	IX-free, after	Percent New IX		
12104.8	86,622	11250.0	85,986	11146.3	85,961	11146.3	85,961	0.00 0.00
Undesired			Total IX	Unique IX, before	Unique IX, after			
KECI-TV D21 DT APP		27.9	6		0.0	0		
KRTV D22 DT CP		39.9	7	27.9	5	27.9	5	
CHAT-TV D21 DT LIC		75.8	20	63.9	18	40.0	14	

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Interference to proposal scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KECI-TV	D21	DT	APP	MISSOULA, MT	BLANK0000219405	
Undesireds:	KTVM-TV	D20	DT	CP	BUTTE, MT	BLANK0000157471	164.5 km
	KAID	D21	DD	CP	BOISE, ID	BLANK0000243298	397.4
Service area		Terrain-limited		IX-free		Percent IX	
48124.7	232,805	38552.1	196,125	38495.8	196,111	0.15 0.01	
Undesired		Total IX		Unique IX	Prcnt Unique IX		
KTVM-TV D20 DT CP		56.3	14	56.3	14	0.15 0.01	