

## **ENGINEERING EXHIBIT**

### **Request for Special Temporary Authorization** prepared for

**Bluestone License Holdings Inc.**  
KECI-TV Missoula, MT  
Facility ID 18084

*Bluestone License Holdings Inc. ("Bluestone")* is the licensee of KECI-TV, Missoula, MT, Facility ID 18084. During the pre-transition period, KECI-TV operated on digital Channel 40 (BLCDT-20060817ACY). A Construction Permit ("CP", BMPCDT-20080613ABF) authorizes construction of the KECI-TV post-transition digital facility on VHF Channel 13, its former analog channel. KECI-TV is presently operating on Channel 13 pursuant to the CP and a license application is pending to cover the construction (BLCDT- 20090622AEJ). This statement supports *Bluestone's* request for Special Temporary Authority ("STA") to increase KECI-TV's effective radiated power on digital Channel 13.

Since switching to Channel 13 on the transition date, KECI-TV has received numerous calls regarding reception problems, particularly regarding indoor reception, as described elsewhere in the STA request. Problems with digital VHF reception by other stations have been widely publicized since the transition date. It has been found that indoor reception is difficult for digital VHF stations such as KECI-TV due to the longer wavelength signal's inability to readily pass through buildings (the windows are smaller than the wavelength size), the ineffectiveness of many indoor antennas many of which were designed to emphasize the shorter wavelengths for UHF reception, and issues regarding manmade and environmental noise.

The proposed STA would allow KECI-TV to operate with the authorized antenna at 41.3 kW ERP to aid indoor reception, pending further disposition as to how to recover its analog viewers. The proposed STA would increase KECI-TV's power by 38 percent (1.4 dB). The existing

transmitter has capacity to accomplish the power increase upon FCC grant of the STA. The current 2.90 kW transmitter power output will be raised to 4 kW.

FCC Staff has informally advised that the STA request should provide a determination as to the power level required to eliminate the reception problem, and that the request should be limited to the power level necessary to restore service. In response, the proposed 1.4 dB increase in power is not expected to entirely solve the problem, but could improve the situation. The proposed power level was chosen as it represents the maximum power level that can be achieved by the existing transmitting equipment's excess capacity. This power level is within that which has already been coordinated with Canada<sup>1</sup> for KECI-TV. The proposed power increase can be implemented immediately upon FCC approval.

At this point in the transition, it is impossible to determine an exact power level that would be required to solve the problem. Only extensive field testing involving a statistically sound quantity of receiving locations and configurations will yield this information. Such testing would need to consider locations nearby the transmitter all the way to the outer fringe of the intended service area; to consider urban, suburban, and rural areas; and to consider all types of antenna configurations including indoor and outdoor antennas presently in use and available. Absent such a comprehensive set of field tests to establish baseline signal levels for actual reception under these scenarios, a target minimum power level cannot be determined.

Published reports do provide a starting point for the amount of additional power necessary. For example, a report<sup>2</sup> by MSW regarding detailed testing of over 100 indoor antennas shows that some are designed for UHF reception only and yield poor performance on the VHF band. The report indicates that VHF performance varies greatly even for antennas intended for VHF and UHF reception, with one antenna even found to have a "gain" of -10 dB on VHF frequencies (in other words, a 10 dB loss) even though a preamplifier was integral to the unit. Of concern was that the

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<sup>1</sup>"Table B: *United States Plan of Allotments and Primary Assignments*" Industry Canada, December 15, 2008, indicates that the KECI-TV post-transition Channel 13 has been coordinated with Canada at 55 kW ERP and 610 m HAAT. The KECI-TV site location is within the Canadian coordination zone (220 km to the Canada border).

<sup>2</sup>"*A Report on Television Indoor Antenna Performance Attributes*" Gary Sgrignoli, and Dennis Wallace of Meintel, Sgrignoli & Wallace (MSW), May 8, 2007.

report indicates that most indoor antennas tested had a high return loss resulting in impedance mismatch to the receiver. Such impedance mismatch results in a significant signal loss at the input terminal of the receiver.

An IEEE Transactions<sup>3</sup> report examining the planning factors indicates that “expected noise levels could be higher than originally estimated by more than 20 dB at VHF frequencies ...” and suggests that “the effective noise figure for single-conversion receivers, including the VSWR effect of practical antennas, be raised from 7 dB to 12 dB for all bands.” It is noted that the VSWR effect cited by the IEEE Transactions report is the same problem of impedance mismatch (return loss) found in the MSW measurements. In any event, these reports suggest that the VHF power levels are insufficient by much more than the 1.4 dB requested herein for KECI-TV. Thus, it can be concluded that the proposed 1.4 dB power increase does not exceed that necessary to restore service.

The proposed 41.3 kW ERP exceeds the §73.622(f) power limit for 610 m HAAT. A waiver of §73.622(f) is requested if necessary. A coverage contour map is supplied as **Figure 1**, demonstrating compliance with §73.625(a)(1) concerning principal community coverage. Although the contours are plotted in the usual manner, the STA’s purpose is not intended to expand KECI-TV’s coverage but rather to provide better service within its principal community and other areas close-in to the facility.

A detailed interference study per OET Bulletin 69<sup>4</sup> shows that the proposed power increase does not cause impermissible interference to any other station. Of the full-power stations near enough for consideration, the maximum amount of interference predicted to occur is to KXLY-TV (Ch. 13, Spokane, WA), at less than 0.01 percent. Therefore, the proposed STA facility complies with the 0.5 percent interference limit of §73.616(e). The interference study output report is provided as **Table 1**. Protection requirements towards authorized Class A stations are also satisfied.

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<sup>3</sup> “Planning Factors for Fixed and Portable DTTV Reception” Oded Bendov, Yiyan Wu, Charles W. Rhodes, and John F.X. Browne,” IEEE Transactions of Broadcasting, Vol. 50, No. 3, September 2004.

<sup>4</sup>FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 (“OET-69”). A standard cell size of 2 km was employed. Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission’s implementation of OET-69 show excellent correlation.

Regarding RF exposure, calculations per OET Bulletin Number 65 considering 15 percent antenna relative field in downward elevations show that the signal density near the tower at two meters above ground level attributable to the proposed facility is  $8.0 \mu\text{W}/\text{cm}^2$ , which is 4.0 percent of the general population/uncontrolled maximum permitted exposure limit. This is below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent. The applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

### **Certification**

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.



Joseph M. Davis, P.E.  
August 11, 2009

**Chesapeake RF Consultants, LLC**  
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Manassas, VA 20112  
703-650-9600

### List of Attachments

Figure 1	Proposed STA Coverage Contours
Table 1	OET Bulletin 69 Interference Study

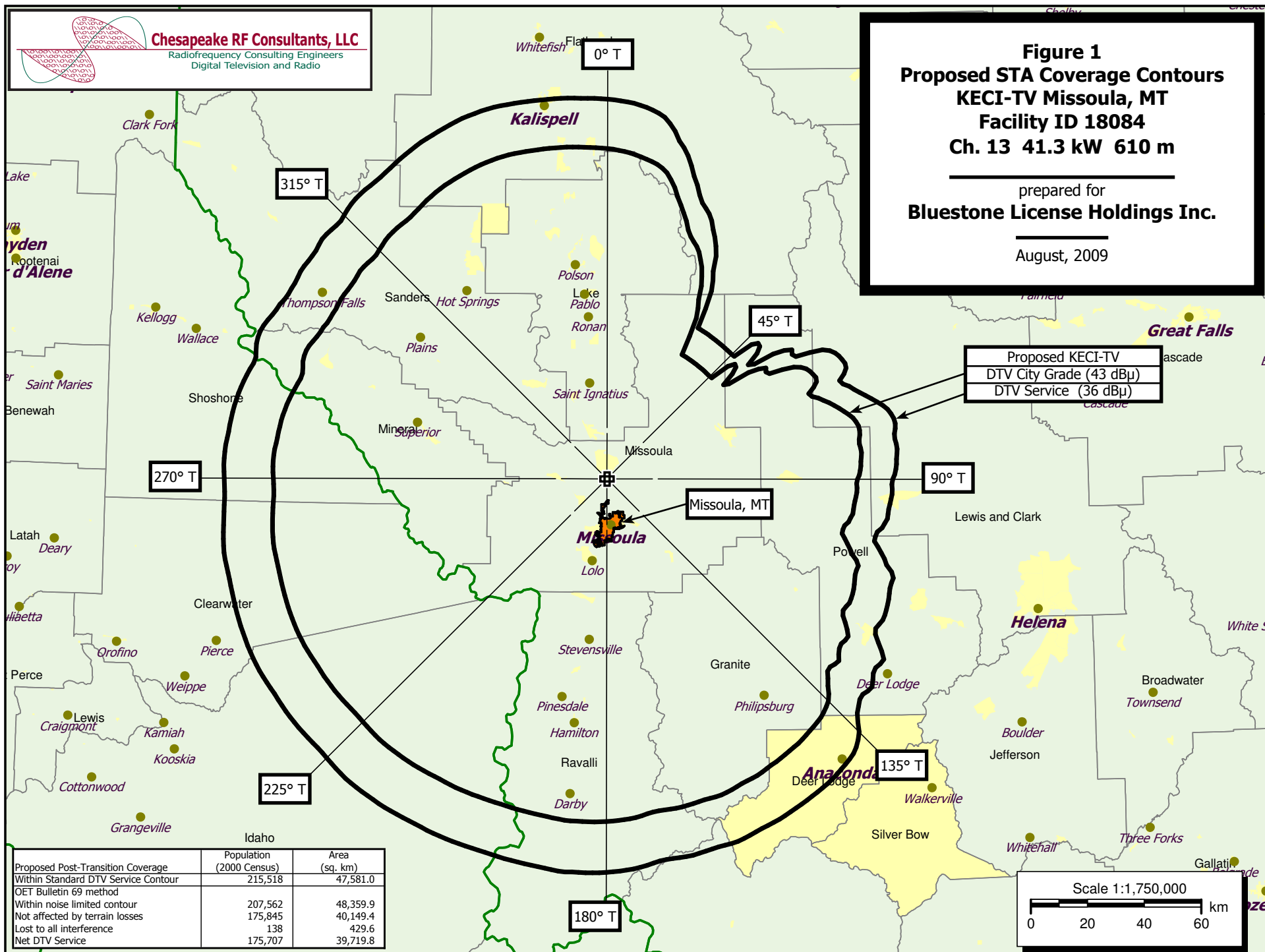


**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

**Figure 1**  
**Proposed STA Coverage Contours**  
**KECI-TV Missoula, MT**  
**Facility ID 18084**  
**Ch. 13 41.3 kW 610 m**

prepared for  
**Bluestone License Holdings Inc.**

August, 2009



**Table 1 KECI-TV STA OET Bulletin 69 Interference Study**

(worst-case scenarios shown page 1 of 11)

TW Census data selected 2000  
Post Transition Data Base Selected /space/software/cdbs/pt\_tvdb.sff

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 08-11-2009 Time: 14:16:32

Record Selected for Analysis

KECI-DT USERRECORD-01 MISSOULA MT US  
Channel 13 ERP 41.3 kW HAAT 650. m RCAMSL 02152 m  
Latitude 047-01-04 Longitude 0114-00-47  
Status APP Zone 2 Border  
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 does not meet maximum height/power limits  
Channel 13 ERP = 41.30 HAAT = 650.

Azimuth (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)
0.0	41.185	790.2	133.3
45.0	41.300	33.0	63.5
90.0	41.300	228.1	99.5
135.0	41.300	584.2	125.2
180.0	40.869	1010.6	138.5
225.0	40.828	1040.5	139.2
270.0	41.110	841.7	134.4
315.0	41.300	677.4	130.3

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance  
Distance to border = 220.3km

Proposed facility is beyond the Mexican coordination distance

**Table 1 KECI-TV STA OET Bulletin 69 Interference Study**

(worst-case scenarios shown page 2 of 11)

Proposed station is OK toward AM broadcast stations

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Start of Interference Analysis

Channel	Call	City/State	ARN
13	KECI-DT	MISSOULA MT	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	KUID-TV	MOSCOW ID	227.9	LIC	BLEDT	-20060804AFK
12	KUID-TV	MOSCOW ID	227.9	PLN	DTVPLN	-DTVP0371
12	KTVH-DT	HELENA MT	176.2	CP	BPCDT	-20080619ADQ
12	KTVH	HELENA MT	176.2	PLN	DTVPLN	-DTVP0384
13	KTRV-TV	NAMPA ID	397.5	LIC	BLCDT	-20050516ATS
13	KTRV-TV	NAMPA ID	397.5	PLN	DTVPLN	-DTVP0431
13	KBZK	BOZEMAN MT	283.9	LIC	BLCDT	-20050825AAQ
13	KBZK	BOZEMAN MT	283.9	PLN	DTVPLN	-DTVP0448
13	KBAO	LEWISTOWN MT	339.3	CP	BPCDT	-20080619ACO
13	KBAO	LEWISTOWN MT	339.3	PLN	DTVPLN	-DTVP0449
13	KTVR	LA GRANDE OR	343.5	CP	BPEDT	-20080620AAW
13	KTVR	LA GRANDE OR	343.5	PLN	DTVPLN	-DTVP0466
13	KXLY-TV	SPOKANE WA	253.7	LIC	BLCDT	-19991104ABD
13	KXLY-TV	SPOKANE WA	253.7	PLN	DTVPLN	-DTVP0486
13	KXLY-TV	SPOKANE WA	233.4	APP	BPCDT	-20080619ACJ

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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
12	KUID-TV	MOSCOW ID	BLEDT	-20060804AFK

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
11	KUFM-TV	MISSOULA MT	228.7	APP	BPEDT	-20090617ABA
11	KUFM-TV	MISSOULA MT	228.7	PLN	DTVPLN	-DTVP0326
11	KUFM-TV	MISSOULA MT	228.7	CP MOD	BMPEDT	-20080611ACB
11	KFFX-TV	PENDLETON OR	132.3	CP MOD	BMPCDT	-20080617AEB
11	KFFX-TV	PENDLETON OR	132.3	PLN	DTVPLN	-DTVP0339
12	KTVH-DT	HELENA MT	400.9	CP	BPCDT	-20080619ADQ
12	KTVH	HELENA MT	400.9	PLN	DTVPLN	-DTVP0384
13	KECI-TV	MISSOULA MT	227.9	PLN	DTVPLN	-DTVP0450
13	KTVR	LA GRANDE OR	163.5	CP	BPEDT	-20080620AAW
13	KTVR	LA GRANDE OR	163.5	PLN	DTVPLN	-DTVP0466
13	KXLY-TV	SPOKANE WA	138.2	LIC	BLCDT	-19991104ABD
13	KXLY-TV	SPOKANE WA	138.2	PLN	DTVPLN	-DTVP0486
13	KXLY-TV	SPOKANE WA	108.7	APP	BPCDT	-20080619ACJ
13	KECI-DT	MISSOULA MT	227.9	APP	USERRECORD-01	

Proposed station is beyond the site to  
nearest cell evaluation distance

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**Table 1 KECI-TV STA OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 3 of 11)

Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application Ref. No.
12	KUID-TV	MOSCOW ID	DTVPLN -DTVP0371

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
11	KUFM-TV	MISSOULA MT	228.7	APP	BPEDT -20090617ABA
11	KUFM-TV	MISSOULA MT	228.7	PLN	DTVPLN -DTVP0326
11	KUFM-TV	MISSOULA MT	228.7	CP MOD	BMPEDT -20080611ACB
11	KFFX-TV	PENDLETON OR	132.3	CP MOD	BMPEDT -20080617AEB
11	KFFX-TV	PENDLETON OR	132.3	PLN	DTVPLN -DTVP0339
12	KTVH-DT	HELENA MT	400.9	CP	BPCDT -20080619ADQ
12	KTVH	HELENA MT	400.9	PLN	DTVPLN -DTVP0384
13	KECI-TV	MISSOULA MT	227.9	PLN	DTVPLN -DTVP0450
13	KTVR	LA GRANDE OR	163.5	CP	BPEDT -20080620AAW
13	KTVR	LA GRANDE OR	163.5	PLN	DTVPLN -DTVP0466
13	KXLY-TV	SPOKANE WA	138.2	LIC	BLCDT -19991104ABD
13	KXLY-TV	SPOKANE WA	138.2	PLN	DTVPLN -DTVP0486
13	KXLY-TV	SPOKANE WA	108.7	APP	BPCDT -20080619ACJ
13	KECI-DT	MISSOULA MT	227.9	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

Analysis of current record

Channel	Call	City/State	Application Ref. No.
12	KTVH-DT	HELENA MT	BPCDT -20080619ADQ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
11	KUFM-TV	MISSOULA MT	172.2	APP	BPEDT -20090617ABA
11	KUFM-TV	MISSOULA MT	172.2	PLN	DTVPLN -DTVP0326
11	KUFM-TV	MISSOULA MT	172.2	CP MOD	BMPEDT -20080611ACB
12	KUID-TV	MOSCOW ID	400.9	LIC	BLEDT -20060804AFK
12	KUID-TV	MOSCOW ID	400.9	PLN	DTVPLN -DTVP0371
13	KBZK	BOZEMAN MT	143.6	LIC	BLCDT -20050825AAQ
13	KBZK	BOZEMAN MT	143.6	PLN	DTVPLN -DTVP0448
13	KBAO	LEWISTOWN MT	169.4	CP	BPCDT -20080619ACO
13	KBAO	LEWISTOWN MT	169.4	PLN	DTVPLN -DTVP0449
13	KECI-TV	MISSOULA MT	176.2	PLN	DTVPLN -DTVP0450
13	KECI-DT	MISSOULA MT	176.2	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 4

**Table 1 KECI-TV STA OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 4 of 11)

Analysis of current record

Channel	Call	City/State	Application Ref. No.
12	KTVH	HELENA MT	DTVPLN -DTVP0384

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
11	KUFM-TV	MISSOULA MT	172.2	APP	BPEDT -20090617ABA
11	KUFM-TV	MISSOULA MT	172.2	PLN	DTVPLN -DTVP0326
11	KUFM-TV	MISSOULA MT	172.2	CP MOD	BMPEDT -20080611ACB
12	KUID-TV	MOSCOW ID	400.9	LIC	BLEDT -20060804AFK
12	KUID-TV	MOSCOW ID	400.9	PLN	DTVPLN -DTVP0371
13	KBZK	BOZEMAN MT	143.6	LIC	BLCDT -20050825AAQ
13	KBZK	BOZEMAN MT	143.6	PLN	DTVPLN -DTVP0448
13	KBAO	LEWISTOWN MT	169.4	CP	BPCDT -20080619ACO
13	KBAO	LEWISTOWN MT	169.4	PLN	DTVPLN -DTVP0449
13	KECI-TV	MISSOULA MT	176.2	PLN	DTVPLN -DTVP0450
13	KECI-DT	MISSOULA MT	176.2	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	KTRV-TV	NAMPA ID	BLCDT -20050516ATS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
13	KECI-TV	MISSOULA MT	397.5	PLN	DTVPLN -DTVP0450
13	KTVR	LA GRANDE OR	215.9	CP	BPEDT -20080620AAW
13	KTVR	LA GRANDE OR	215.9	PLN	DTVPLN -DTVP0466
13	KECI-DT	MISSOULA MT	397.5	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	KTRV-TV	NAMPA ID	DTVPLN -DTVP0431

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
13	KECI-TV	MISSOULA MT	397.5	PLN	DTVPLN -DTVP0450
13	KTVR	LA GRANDE OR	215.9	CP	BPEDT -20080620AAW
13	KTVR	LA GRANDE OR	215.9	PLN	DTVPLN -DTVP0466
13	KECI-DT	MISSOULA MT	397.5	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 7

**Table 1 KECI-TV STA OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 5 of 11)

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	KBZK	BOZEMAN MT	BLCDDT -20050825AAQ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	KTVH-DT	HELENA MT	143.6	CP	BPCDDT -20080619ADQ
12	KTVH	HELENA MT	143.6	PLN	DTVPLN -DTVP0384
13	KBAO	LEWISTOWN MT	196.1	CP	BPCDDT -20080619ACO
13	KBAO	LEWISTOWN MT	196.1	PLN	DTVPLN -DTVP0449
13	KECI-TV	MISSOULA MT	283.9	PLN	DTVPLN -DTVP0450
13	KSGW-TV	SHERIDAN WY	316.4	LIC	BLCDDT -20051206AEI
13	KSGW-TV	SHERIDAN WY	316.4	PLN	DTVPLN -DTVP0491
13	KECI-DT	MISSOULA MT	283.9	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 8

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	KBZK	BOZEMAN MT	DTVPLN -DTVP0448

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	KTVH-DT	HELENA MT	143.6	CP	BPCDDT -20080619ADQ
12	KTVH	HELENA MT	143.6	PLN	DTVPLN -DTVP0384
13	KBAO	LEWISTOWN MT	196.1	CP	BPCDDT -20080619ACO
13	KBAO	LEWISTOWN MT	196.1	PLN	DTVPLN -DTVP0449
13	KECI-TV	MISSOULA MT	283.9	PLN	DTVPLN -DTVP0450
13	KSGW-TV	SHERIDAN WY	316.4	LIC	BLCDDT -20051206AEI
13	KSGW-TV	SHERIDAN WY	316.4	PLN	DTVPLN -DTVP0491
13	KECI-DT	MISSOULA MT	283.9	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 9

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	KBAO	LEWISTOWN MT	BPCDDT -20080619ACO

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	KTVH-DT	HELENA MT	169.4	CP	BPCDDT -20080619ADQ
12	KTVH	HELENA MT	169.4	PLN	DTVPLN -DTVP0384
13	KBZK	BOZEMAN MT	196.1	LIC	BLCDDT -20050825AAQ
13	KBZK	BOZEMAN MT	196.1	PLN	DTVPLN -DTVP0448
13	KECI-TV	MISSOULA MT	339.3	PLN	DTVPLN -DTVP0450
13	KSGW-TV	SHERIDAN WY	340.2	LIC	BLCDDT -20051206AEI
13	KSGW-TV	SHERIDAN WY	340.2	PLN	DTVPLN -DTVP0491

**Table 1 KECI-TV STA OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 6 of 11)

13	KECI-DT	MISSOULA MT	339.3	APP	USERRECORD-01
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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.
13	KBAO	LEWISTOWN MT	DTVPLN -DTVP0449

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	KTVH-DT	HELENA MT	169.4	CP	BPCDDT -20080619ADQ
12	KTVH	HELENA MT	169.4	PLN	DTVPLN -DTVP0384
13	KBZK	BOZEMAN MT	196.1	LIC	BLCDDT -20050825AAQ
13	KBZK	BOZEMAN MT	196.1	PLN	DTVPLN -DTVP0448
13	KECI-TV	MISSOULA MT	339.3	PLN	DTVPLN -DTVP0450
13	KSGW-TV	SHERIDAN WY	340.2	LIC	BLCDDT -20051206AEI
13	KSGW-TV	SHERIDAN WY	340.2	PLN	DTVPLN -DTVP0491
13	KECI-DT	MISSOULA MT	339.3	APP	USERRECORD-01

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.
13	KTVR	LA GRANDE OR	BPEDT -20080620AAW

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	KUID-TV	MOSCOW ID	163.5	LIC	BLEDT -20060804AFK
12	KUID-TV	MOSCOW ID	163.5	PLN	DTVPLN -DTVP0371
13	KTRV-TV	NAMPA ID	215.9	LIC	BLCDDT -20050516ATS
13	KTRV-TV	NAMPA ID	215.9	PLN	DTVPLN -DTVP0431
13	KECI-TV	MISSOULA MT	343.5	PLN	DTVPLN -DTVP0450
13	KXLY-TV	SPOKANE WA	294.2	LIC	BLCDDT -19991104ABD
13	KXLY-TV	SPOKANE WA	294.2	PLN	DTVPLN -DTVP0486
13	KXLY-TV	SPOKANE WA	267.8	APP	BPCDDT -20080619ACJ
13	KECI-DT	MISSOULA MT	343.5	APP	USERRECORD-01

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.
13	KTVR	LA GRANDE OR	DTVPLN -DTVP0466

Stations Potentially Affecting This Station



**Table 1 KECI-TV STA OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 7 of 11)

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	KUID-TV	MOSCOW ID	163.5	LIC	BLEDT -20060804AFK
12	KUID-TV	MOSCOW ID	163.5	PLN	DTVPLN -DTVP0371
13	KTRV-TV	NAMPA ID	215.9	LIC	BLCDDT -20050516ATS
13	KTRV-TV	NAMPA ID	215.9	PLN	DTVPLN -DTVP0431
13	KECI-TV	MISSOULA MT	343.5	PLN	DTVPLN -DTVP0450
13	KXLY-TV	SPOKANE WA	294.2	LIC	BLCDDT -19991104ABD
13	KXLY-TV	SPOKANE WA	294.2	PLN	DTVPLN -DTVP0486
13	KXLY-TV	SPOKANE WA	267.8	APP	BPCDDT -20080619ACJ
13	KECI-DT	MISSOULA MT	343.5	APP	USERRECORD-01

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.
13	KXLY-TV	SPOKANE WA	BLCDDT -19991104ABD

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	KUID-TV	MOSCOW ID	138.2	LIC	BLEDT -20060804AFK
12	KUID-TV	MOSCOW ID	138.2	PLN	DTVPLN -DTVP0371
13	KECI-TV	MISSOULA MT	253.7	PLN	DTVPLN -DTVP0450
13	KTVR	LA GRANDE OR	294.2	CP	BPEDT -20080620AAW
13	KTVR	LA GRANDE OR	294.2	PLN	DTVPLN -DTVP0466
13	KCPQ	TACOMA WA	427.5	CP MOD	BMPCDDT -20080619AFY
13	KCPQ	TACOMA WA	427.5	PLN	DTVPLN -DTVP0487
13	KECI-DT	MISSOULA MT	253.7	APP	USERRECORD-01

Total scenarios = 4

Result key: 1

Scenario 1 Affected station 13  
Before Analysis

Results for: 13A WA SPOKANE BLCDDT 19991104ABD LIC  
HAAT 936.0 m, ATV ERP 23.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	692731	52899.9
not affected by terrain losses	656720	46555.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1708	467.3
lost to ATV IX only	1708	467.3
lost to all IX	1708	467.3

Potential Interfering Stations Included in above Scenario 1

12A ID MOSCOW	BLEDT	20060804AFK	LIC
13A OR LA GRANDE	BPEDT	20080620AAW	CP
13A MT MISSOULA	DTVPLN	DTVP0450	PLN

After Analysis

Results for: 13A WA SPOKANE BLCDDT 19991104ABD LIC  
HAAT 936.0 m, ATV ERP 23.3 kW  
POPULATION AREA (sq km)

**Table 1 KECI-TV STA OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 8 of 11)

within Noise Limited Contour	692731	52899.9
not affected by terrain losses	656720	46555.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1745	487.4
lost to ATV IX only	1745	487.4
lost to all IX	1745	487.4

Potential Interfering Stations Included in above Scenario 1

12A ID MOSCOW	BLEDT	20060804AFK	LIC
13A OR LA GRANDE	BPEDT	20080620AAW	CP
13A MT MISSOULA	USERRECORD01		APP

Percent new IX = 0.0056%

Worst case new IX 0.0056% Scenario 1

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Analysis of Interference to Affected Station 14

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	KXLY-TV	SPOKANE WA	DTVPLN -DTVP0486

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	KUID-TV	MOSCOW ID	138.2	LIC	BLEDT -20060804AFK
12	KUID-TV	MOSCOW ID	138.2	PLN	DTVPLN -DTVP0371
13	KECI-TV	MISSOULA MT	253.7	PLN	DTVPLN -DTVP0450
13	KTVR	LA GRANDE OR	294.2	CP	BPEDT -20080620AAW
13	KTVR	LA GRANDE OR	294.2	PLN	DTVPLN -DTVP0466
13	KCPQ	TACOMA WA	427.5	CP MOD	BMPCDDT -20080619AFY
13	KCPQ	TACOMA WA	427.5	PLN	DTVPLN -DTVP0487
13	KECI-DT	MISSOULA MT	253.7	APP	USERRECORD-01

Total scenarios = 4

Result key: 5

Scenario 1 Affected station 14  
Before Analysis

Results for: 13A WA SPOKANE DTVPLN DTVP0486 PLN  
HAAT 936.0 m, ATV ERP 23.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	692731	52899.9
not affected by terrain losses	656720	46555.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1708	467.3
lost to ATV IX only	1708	467.3
lost to all IX	1708	467.3

Potential Interfering Stations Included in above Scenario 1

12A ID MOSCOW	BLEDT	20060804AFK	LIC
13A OR LA GRANDE	BPEDT	20080620AAW	CP
13A MT MISSOULA	DTVPLN	DTVP0450	PLN

**Table 1 KECI-TV STA OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 9 of 11)

After Analysis

Results for: 13A WA SPOKANE DTVPLN DTVP0486 PLN  
HAAT 936.0 m, ATV ERP 23.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	692731	52899.9
not affected by terrain losses	656720	46555.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1745	487.4
lost to ATV IX only	1745	487.4
lost to all IX	1745	487.4

Potential Interfering Stations Included in above Scenario 1

12A ID MOSCOW	BLEDT	20060804AFK	LIC
13A OR LA GRANDE	BPEDT	20080620AAW	CP
13A MT MISSOULA	USERRECORD01		APP

Percent new IX = 0.0056%

Worst case new IX 0.0056% Scenario 1

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Analysis of Interference to Affected Station 15

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	KXLY-TV	SPOKANE WA	BPCDT -20080619ACJ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	KUID-TV	MOSCOW ID	108.7	LIC	BLEDT -20060804AFK
12	KUID-TV	MOSCOW ID	108.7	PLN	DTVPLN -DTV0371
13	KECI-TV	MISSOULA MT	233.4	PLN	DTVPLN -DTV0450
13	KTVR	LA GRANDE OR	267.8	CP	BPEDT -20080620AAW
13	KTVR	LA GRANDE OR	267.8	PLN	DTVPLN -DTV0466
13	KECI-DT	MISSOULA MT	233.4	APP	USERRECORD-01

Total scenarios = 4

Result key: 10

Scenario 2 Affected station 15

Before Analysis

Results for: 13A WA SPOKANE BPCDT 20080619ACJ APP  
HAAT 675.0 m, ATV ERP 35.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	722388	46338.1
not affected by terrain losses	665628	38869.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	18113	595.7
lost to ATV IX only	18113	595.7
lost to all IX	18113	595.7

Potential Interfering Stations Included in above Scenario 2

12A ID MOSCOW	BLEDT	20060804AFK	LIC
13A OR LA GRANDE	DTVPLN	DTV0466	PLN

**Table 1 KECI-TV STA OET Bulletin 69 Interference Study**  
(worst-case scenarios shown page 10 of 11)

13A MT MISSOULA DTVPLN DTVP0450 PLN

After Analysis

Results for: 13A WA SPOKANE BPCDT 20080619ACJ APP  
HAAT 675.0 m, ATV ERP 35.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	722388	46338.1
not affected by terrain losses	665628	38869.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	18447	643.7
lost to ATV IX only	18447	643.7
lost to all IX	18447	643.7

Potential Interfering Stations Included in above Scenario 2

12A ID MOSCOW	BLEDT	20060804AFK	LIC
13A OR LA GRANDE	DTVPLN	DTV0466	PLN
13A MT MISSOULA	USERRECORD01		APP

Percent new IX = 0.0516%

Worst case new IX 0.0516% Scenario 2

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Analysis of Interference to Affected Station 16

Analysis of current record

Channel	Call	City/State	Application Ref. No.
13	KECI-DT	MISSOULA MT	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
12	KUID-TV	MOSCOW ID	227.9	LIC	BLEDT -20060804AFK
12	KUID-TV	MOSCOW ID	227.9	PLN	DTVPLN -DTV0371
12	KTVH-DT	HELENA MT	176.2	CP	BPCDT -20080619ADQ
12	KTVH	HELENA MT	176.2	PLN	DTVPLN -DTV0384
13	KTRV-TV	NAMPA ID	397.5	LIC	BLCDT -20050516ATS
13	KTRV-TV	NAMPA ID	397.5	PLN	DTVPLN -DTV0431
13	KBZK	BOZEMAN MT	283.9	LIC	BLCDT -20050825AAQ
13	KBZK	BOZEMAN MT	283.9	PLN	DTVPLN -DTV0448
13	KBAO	LEWISTOWN MT	339.3	CP	BPCDT -20080619ACO
13	KBAO	LEWISTOWN MT	339.3	PLN	DTVPLN -DTV0449
13	KTVR	LA GRANDE OR	343.5	CP	BPEDT -20080620AAW
13	KTVR	LA GRANDE OR	343.5	PLN	DTVPLN -DTV0466
13	KXLY-TV	SPOKANE WA	253.7	LIC	BLCDT -19991104ABD
13	KXLY-TV	SPOKANE WA	253.7	PLN	DTVPLN -DTV0486
13	KXLY-TV	SPOKANE WA	233.4	APP	BPCDT -20080619ACJ

Total scenarios = 6

Result key: 13

Scenario 1 Affected station 16

Before Analysis

Results for: 13A MT MISSOULA USERRECORD01 APP  
HAAT 650.0 m, ATV ERP 41.3 kW

**Table 1    KECI-TV STA OET Bulletin 69 Interference Study**  
(worst-case scenarios shown    page 11 of 11)

	POPULATION	AREA (sq km)
within Noise Limited Contour	207562	48359.9
not affected by terrain losses	175845	40149.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	138	429.6
lost to ATV IX only	138	429.6
lost to all IX	138	429.6
Potential Interfering Stations Included in above Scenario	1	
13A MT BOZEMAN	BLCDT	20050825AAQ LIC
13A WA SPOKANE	BLCDT	19991104ABD LIC
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