

Educational Media Foundation
5700 West Oaks Boulevard
Rocklin, CA 95765

KAWR
Reliance, WY

Purpose of Application

The purpose of this instant application is to correct the KAWR geographic coordinates. No technical or physical changes are proposed. Since the coordinates differ by more than 3 seconds latitude and/or longitude, a construction permit application is required.

Channel Study

1. Compliance with 47 C.F.R. 73.207

The proposed facility meets all minimum distance separation requirements with regard to co-channel, first, second, or third adjacent channel stations, and those separated by 53/54 channels, except the licensed facilities of the following stations:

Station	Channel	City of License	Facility ID	Distance Short-Spaced
KIFX	253C2	Naples, UT	20023	5.9km

This application proposes contour protection (47 C.F.R. 73.215. 47 C.F.R. 73.215(e)) for KIFX.

The minimum separation requirement between a class C3 and a class C2 facility (KAWR.P and KIFX), which are first adjacent channels, is 106 km. Exhibit 1-A shows that KIFX is separated from the proposed facility by 110.57 km.

Therefore, the proposed facility is permitted to use contour protection toward the short-spaced facility (See Exhibit 2 for compliance with contour protection requirements).

KAWR Site Spacing

REFERENCE
41 29 47.90 N. CLASS = C3
109 20 45.70 W. Current Spacings to 3rd Adj.
----- Channel 254 - 98.7 MHz -----

DISPLAY DATES
DATA 01-23-23
SEARCH 02-01-23

Call	Channel	Location	Azi	Dist	FCC	Margin
KAWR	LIC-N 254C3	Reliance	WY 70.0	0.19	152.5	-152.3
KIFX	LIC 253C2	Naples	UT 195.7	110.57	116.5	-5.9
KBEE	LIC 254C	Salt Lake City	UT 248.2	256.33	236.5	19.8
AU9810924VAC	257C1	Marbleton	WY 319.1	122.44	75.5	46.9

All separation margins include rounding

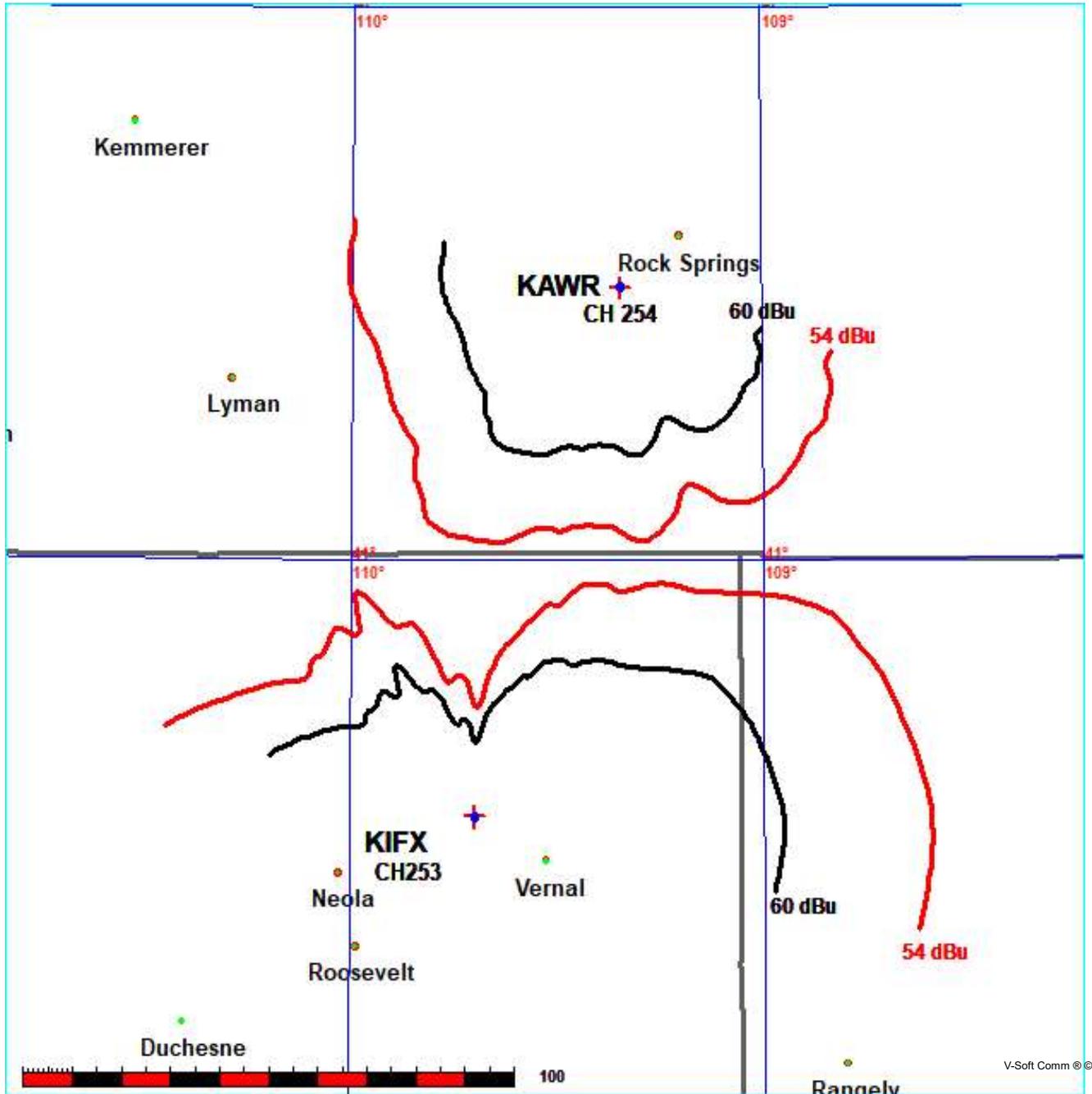
Exhibit 2 - Contour Protection towards KIFX

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FMCommander Single Allocation Study - 02-01-2023 - FCC NGDC 30 Sec
KAWR's Overlaps (In= 0.0 km, Out= 0.0 km)

KAWR CH 254 C3 73.215 N
Lat= 41 29 47.90, Lng= 109 20 45.70
1.3 kW 325.4 m HAAT, 2344 m COR
Prot.= 60 dBu, Intef.= 54 dBu

KIFX CH 253 C2 BLH20170109ABO
Lat= 40 32 15.80, Lng= 109 41 59.50
3.2 kW 515 m HAAT, 2645 m COR
Prot.= 60 dBu, Intef.= 54 dBu



Community of License Coverage

Introduction

Educational Media Foundation (“EMF”) desires to show coverage of its community of license of Reliance, WY, with a supplemental showing since the standard model does not show adequate coverage of the community of license.

Discussion

Using the standard FCC model, the predicted 70 dBu F(50/50) contour does not cover the community of license as required by 47 C.F.R. Section 73.315(a). The standard FCC contours are seen in Exhibit 3-A. Note the 70dbu(F50-50) contour partially extends over the community of license and the 60dbu(F50-50) contour extends beyond the entire community of license, thus qualifying for an alternate means of coverage. The use of an alternate propagation method is warranted since the contour distance of the radials over the community of license between the FCC calculated contours and the Longley Rice calculated contours depart widely (more than 10%).

The following parameters were used in determining the Longley/Rice 70 dBu coverage for the community of license:

Conductivity:	0.005
Dielectric Constant:	15
Refractivity:	311
Climate Zone:	Continental Temperate
Receiver Height:	9 m AGL
Receiver Gain:	0
Time Variability:	50
Situation Variability:	50
Terrain Database:	FCC 30 Second Terrain

The pertinent radials that extend over the community of license are the 27 through 38 degree radials. Examining these 12 radials, the FCC standard F(50/50) 70dBu contour has an average distance of 22.75 km toward the community of license. Using the Longley/Rice model, these same radials have an average distance of 29.67 km. This is an increase in distance of 30.4% over the community of license (see Exhibit 3-C). Thus, the area covered by the supplemental method is more than 10% greater than the standard contour prediction method.

Exhibit 3-B shows the FCC 70dbu(F50-50) contour along with the Longley/Rice model 70dBu contour (first occurrence). The Longley/Rice coverage is also shown with gradient color shading.

As can be seen in Exhibit 3-B, the 70dBu calculated contour using the Longley/Rice propagation model, provides more than adequate coverage for the community of license.

Exhibit 3-A
KAWR Reliance WY - Community of License Coverage
FCC Contours - Reliance, WY

KAWR.C
0000112369
Latitude: 41-29-47.90 N
Longitude: 109-20-45.70 W
ERP: 1.30 kW
Channel: 254
Frequency: 98.7 MHz
AMSL Height: 2344.0 m
Elevation: 2327.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

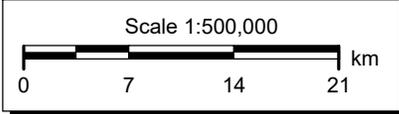
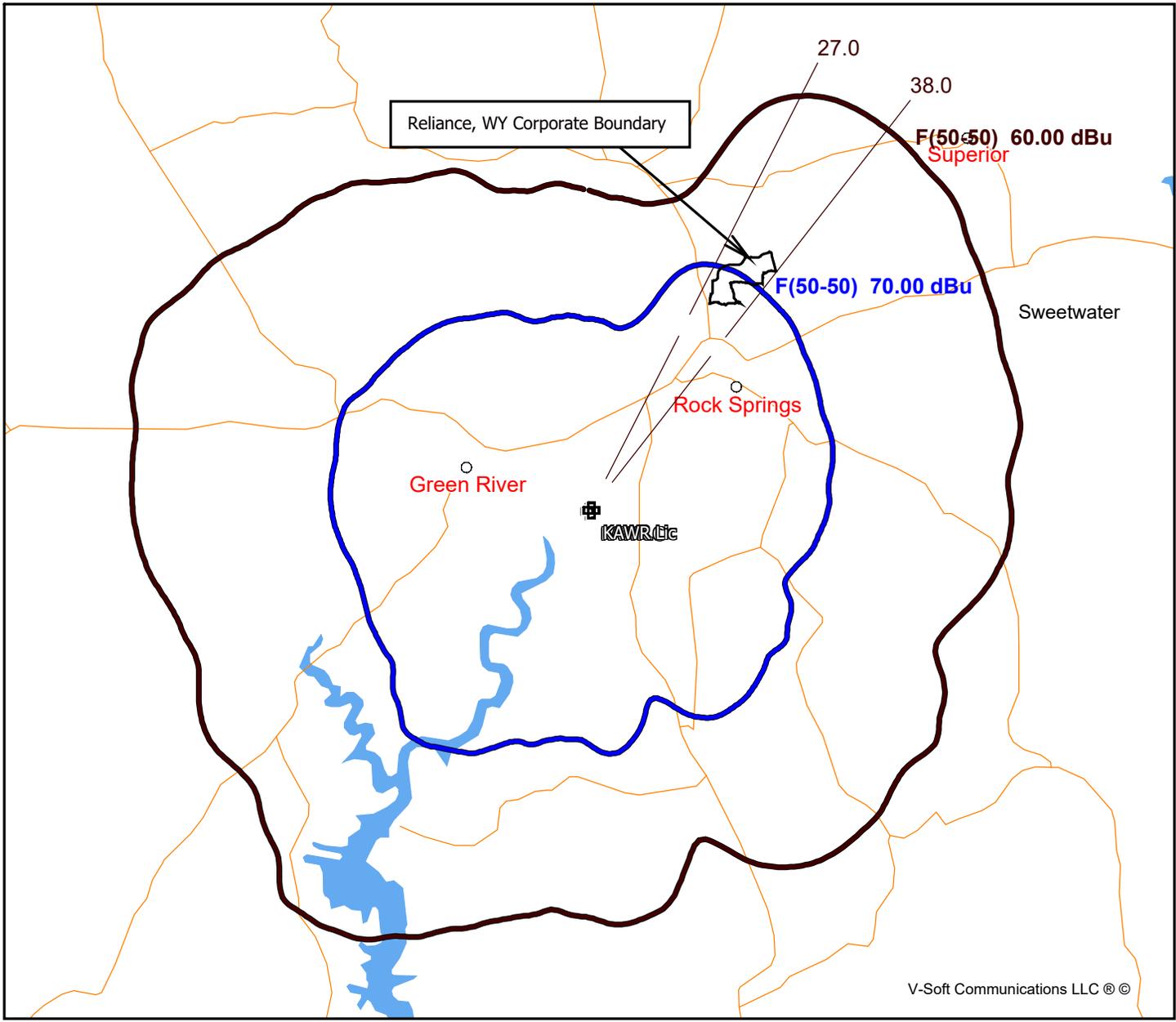
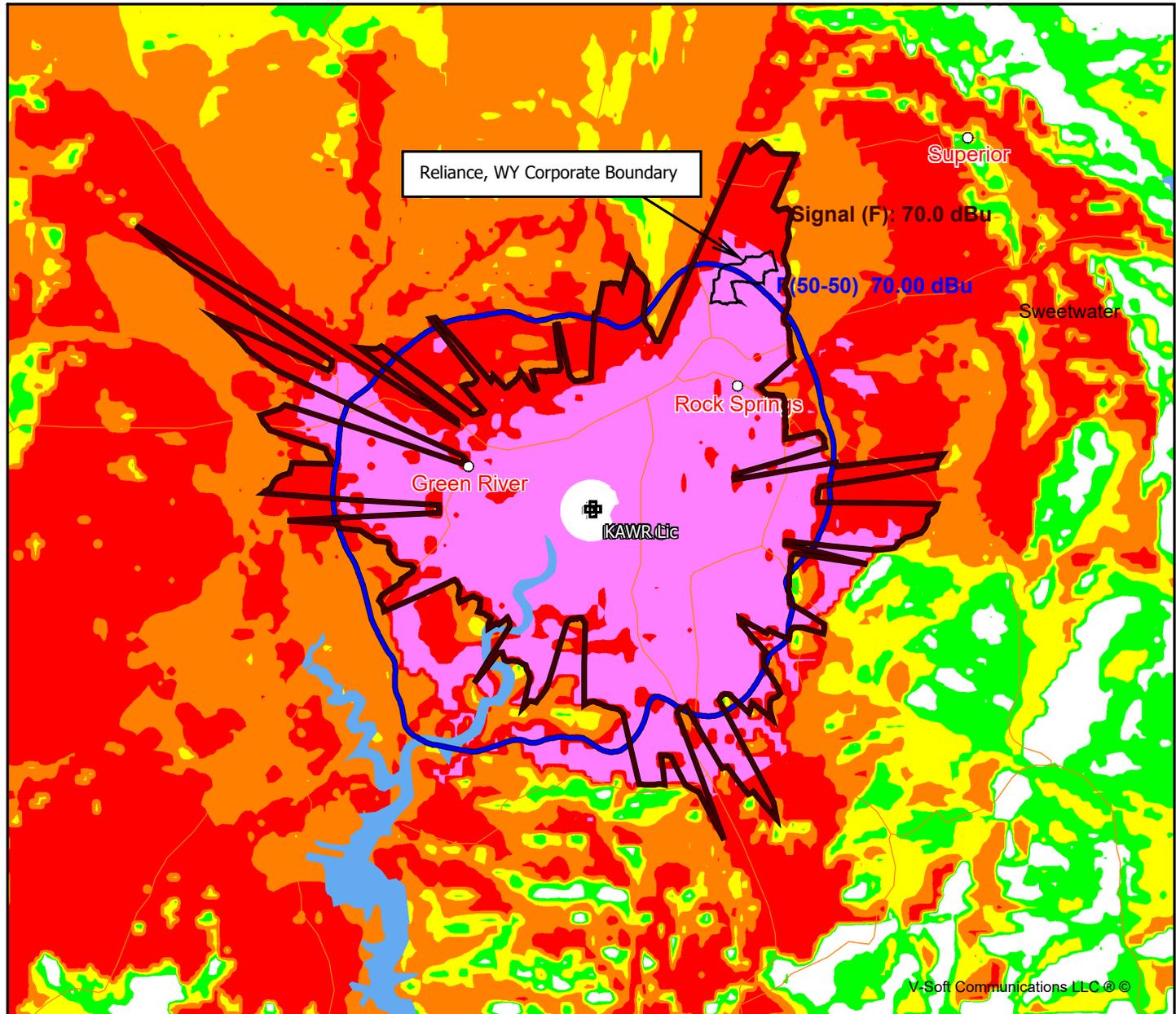
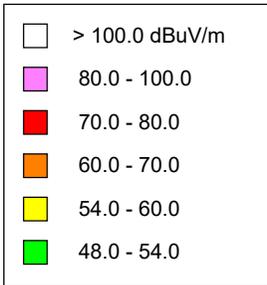


Exhibit 3-B
KAWR Reliance WY - Community of License Coverage
Alternate Signal Coverage for Reliance, WY

KAWR.C
 0000112369
 Latitude: 41-29-47.90 N
 Longitude: 109-20-45.70 W
 ERP: 1.30 kW
 Channel: 254
 Frequency: 98.7 MHz
 AMSL Height: 2344.0 m
 Elevation: 2327.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: Longley-Rice
 Climate: Cont temperate
 Conductivity: 0.0050
 Dielec Const: 15.0
 Refractivity: 311.0
 Receiver Ht AG: 9.0 m
 Receiver Gain: 0 dB
 Time Variability: 50.0%
 Sit. Variability: 50.0%
 ITM Mode: Broadcast



V-Soft Communications LLC ©

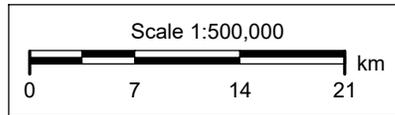


Exhibit 3-C
Distance to Contour Report

Transmitter Information:

Call Letters: KAWR.C
File Number: 0000112369
Latitude: 41-29-47.90 N
Longitude: 109-20-45.70 W
ERP: 1.30 kW
Channel: 254
Frequency: 98.7 MHz
AMSL Height: 2344.0 m
Elevation: 2327.0 m
Horiz. Antenna Pattern: Omni
Vert. Elevation Pattern: No

Type of contour: FCC

Location Variability: 50.0 %
Time Variability: 50.0 %
of Radials Calculated: 360
FCC Matching HAAT Calculation Used
Field Strength: 70.00 dBuV/m

Primary Terrain: FCC 30 Second US Database

Azimuth (deg)	Distance (km)	
-----	-----	
27.0	22.47	
28.0	22.58	
29.0	22.67	
30.0	22.75	
31.0	22.81	
32.0	22.85	
33.0	22.87	
34.0	22.87	432.1
35.0	22.84	431.1
36.0	22.81	429.9
37.0	22.78	428.8
38.0	22.76	427.8

273.06/12 = 22.75

Average Distance to Contour: 22.75km

Distance to Contour Report

Type of contour: Signal Calculated

of Radials Calculated: 360

Using the first occurrence method at 70.0 dBu

Transmitter Information:

Call Letters: KAWR.C

File Number: 0000112369

Latitude: 41-29-47.90 N

Longitude: 109-20-45.70 W

ERP: 1.30 kW

Channel: 254

Frequency: 98.7 MHz

AMSL Height: 2344.0 m

Elevation: 2327.0 m

Horiz. Antenna Pattern: Omni

Vert. Elevation Pattern: No

Azimuth (deg)	Distance (km)
-----	-----
27.0	32.70
28.0	32.90
29.0	33.20
30.0	33.50
31.0	28.90
32.0	28.80
33.0	29.40
34.0	29.30
35.0	28.00
36.0	27.50
37.0	26.10
38.0	25.70

Average Distance to Contour: 29.67km

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Exhibit 3
Reliance, WY

Conclusion

Based on the above exhibits the residents of Reliance, WY will continue to be more than adequately served with a 70dBu or greater signal strength. EMF respectfully requests that the Commission permit this supplemental showing and grant its application.

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Exhibit 4
Reliance, WY

Environmental Protection

RF Measurements were recently made around the KAWR transmit location. These measurements were submitted in a previous KAWR license filing. Since no technical or physical changes are proposed with this instant application, these measurements will be verified and submitted along with the license to cover application once a construction permit is granted.

EMF will continue to cooperate with other site users to reduce power or cease broadcasting as necessary to protect workers and others having access to the site from excessive levels of RF Radiation.