

ENGINEERING EXHIBIT

Application for Modification of Construction Permit

prepared for

Mountain Licenses, L.P.
KBWU-LP Richland, Etc., Washington
Facility ID 58685
Ch. 36 50 kW

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FCC Form 346, Section III - Engineering

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This material supplies a "hard copy" of the engineering portions of this application as entered February 24, 2004 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.

SECTION III - ENGINEERING DATA**TECHNICAL SPECIFICATIONS**

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1.	Channel Number: 36																																																																																				
2.	Frequency Offset: <input type="radio"/> No offset <input checked="" type="radio"/> Zero offset <input type="radio"/> Plus offset <input type="radio"/> Minus offset																																																																																				
3.	Translator Input Channel No. :																																																																																				
4.	Primary station proposed to be rebroadcast: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Call Sign</td> <td style="width: 35%;">City</td> <td style="width: 20%;">State</td> <td style="width: 20%;">Channel</td> </tr> </table>	Call Sign	City	State	Channel																																																																																
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5.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 46 Minutes 6 Seconds 15 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 119 Minutes 7 Seconds 48 <input checked="" type="radio"/> West <input type="radio"/> East																																																																																				
6.	Antenna Structure Registration Number: <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA																																																																																				
7.	Antenna Location Site Elevation Above Mean Sea Level: 664.4 meters																																																																																				
8.	Overall Tower Height Above Ground Level: 14.9 meters																																																																																				
9.	Height of Radiation Center Above Ground Level: 12 meters																																																																																				
10.	Maximum Effective Radiated Power (ERP) Towards Radio Horizon: 50 kW																																																																																				
11.	Maximum ERP in any Horizontal and Vertical Angle: 50 kW																																																																																				
12.	Transmitting Antenna: Before selecting Directional "Off-the-Shelf", refer to "Search for Antenna Information" under CDBS Public Access (http://svartifoss2.fcc.gov/prod/cdbb/pubacc/prod/cdbb_pa.htm). Make sure that the Standard Pattern is marked Yes and that the relative field values shown match your values. Enter the Manufacturer (Make) and Model exactly as displayed in the Antenna Search. <input type="radio"/> Nondirectional <input type="radio"/> Directional "Off-the-shelf" <input checked="" type="radio"/> Directional composite Manufacturer AND Model ALP8M6-HSWR-36																																																																																				
Directional Antenna Relative Field Values: <input type="checkbox"/> N/A (Nondirectional or Directional "Off-the-shelf") Rotation (Degrees): <input checked="" type="checkbox"/> No Rotation																																																																																					
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th></tr> <tr> <td>0</td><td>0.95</td><td>10</td><td>0.944</td><td>20</td><td>0.934</td><td>30</td><td>0.94</td><td>40</td><td>0.961</td><td>50</td><td>0.986</td></tr> <tr> <td>60</td><td>1</td><td>70</td><td>0.988</td><td>80</td><td>0.942</td><td>90</td><td>0.87</td><td>100</td><td>0.785</td><td>110</td><td>0.697</td></tr> <tr> <td>120</td><td>0.612</td><td>130</td><td>0.521</td><td>140</td><td>0.412</td><td>150</td><td>0.272</td><td>160</td><td>0.148</td><td>170</td><td>0.112</td></tr> <tr> <td>180</td><td>0.111</td><td>190</td><td>0.112</td><td>200</td><td>0.148</td><td>210</td><td>0.272</td><td>220</td><td>0.412</td><td>230</td><td>0.521</td></tr> <tr> <td>240</td><td>0.612</td><td>250</td><td>0.697</td><td>260</td><td>0.785</td><td>270</td><td>0.87</td><td>280</td><td>0.942</td><td>290</td><td>0.988</td></tr> <tr> <td>300</td><td>1</td><td>310</td><td>0.986</td><td>320</td><td>0.961</td><td>330</td><td>0.94</td><td>340</td><td>0.934</td><td>350</td><td>0.944</td></tr> </table>		Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	0	0.95	10	0.944	20	0.934	30	0.94	40	0.961	50	0.986	60	1	70	0.988	80	0.942	90	0.87	100	0.785	110	0.697	120	0.612	130	0.521	140	0.412	150	0.272	160	0.148	170	0.112	180	0.111	190	0.112	200	0.148	210	0.272	220	0.412	230	0.521	240	0.612	250	0.697	260	0.785	270	0.87	280	0.942	290	0.988	300	1	310	0.986	320	0.961	330	0.94	340	0.934	350	0.944
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Additional Azimuths																																																																																					

Relative Field Polar Plot

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

CERTIFICATION

13.	Interference : The proposed facility complies with all of the following applicable rule sections.	<input checked="" type="radio"/> Yes <input type="radio"/> No
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Check all those that apply.

See Explanation in
[Exhibit 6]

TV broadcast analog system protection.

a. ☒ 47 C.F.R. Section 74.705

Digital TV station protection.

b. ☒ 47 C.F.R. Section 74.706

Low Power TV and TV translator station protection.

c. ☒ 47 C.F.R. Section 74.707

14. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance, an **Exhibit is required.**

☒ Yes ☐ No

See Explanation in
[Exhibit 7]

By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

PREPARERS CERTIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED.

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name ROBERT J. CLINTON		Relationship to Applicant (e.g., Consulting Engineer) CONSULTANT	
Signature		Date 2/24/2004	
Mailing Address CAVELL, MERTZ, & DAVIS, INC. 7839 ASHTON AVENUE			
City MANASSAS	State or Country (if foreign address) VA		Zip Code 20109 - 2883
Telephone Number (include area code) 7033929090		E-Mail Address (if available) 7033929559	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

Exhibits

Exhibit 6

Description: EXHIBIT 6 - STATEMENT A - ALLOCATION

EXHIBIT 6 - STATEMENT A - ALLOCATION CONSIDERATIONS

Attachment 6

Description
EXHIBIT 6 - STATEMENT A - ALLOCATION

Exhibit 7

Description: EXHIBIT 7 - STATEMENT B - ENVIRONMENTAL

EXHIBIT 7 - STATEMENT B - ENVIRONMENTAL CONSIDERATIONS

Attachment 7

Description
EXHIBIT 7 - STATEMENT B - ENVIRONMENTAL

Exhibit 7 - Statement B
ENVIRONMENTAL CONSIDERATIONS
prepared for
Mountain Licenses, L.P.
KBWU-LP Richland, Etc., Washington
Facility ID 58685
Ch. 36 50 kW

The instant proposal is not believed to have a significant environmental impact as defined under Section 1.1306 of the Commission's Rules. Consequently, preparation of an Environmental Assessment is not required.

Nature of The Proposal

Mountain Licenses, L.P., ("MLLP") proposes herein a minor modification under the LPTV displacement Rules for KBWU-LP, Channel 66, Pasco, Etc., Washington (file number BLTTL-19920508IE). The instant proposal herein seeks a minor modification to specify a different operating frequency, a different antenna system, a slightly higher overall structure height, and a higher effective radiated power ("ERP") than that presently licensed.

The proposed KBWU-LP antenna will be side mounted on an existing structure at a "tower farm" area atop "Jump Off Joe" Butte. A slight increase in the overall antenna supporting structure height is proposed because of the length of the antenna, with a new overall height of 14.9 meters. This height passes the FCC's TOWAIR program for the proposed transmitter site, thus the structure will not be registered, and no change in lighting or marking is anticipated.

The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. Additionally, Note 3 of §1.1306 indicates that construction of a support structure in an established "antenna farm" may be excluded from environmental processing (see below for RF exposure analysis). Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

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ENVIRONMENTAL CONSIDERATIONS
(page 2 of 3)

Human Exposure to Radiofrequency Radiation

Jump Off Joe Butte is a remote area atop a mountain. Each existing transmitter site is fenced, and RF exposure warning signs are posted. The applicant believes that because the location is remote and is not likely to be visited by the general public, that the antenna farm area qualifies as an “occupational/controlled” environment according to the guidelines in OET-65. Therefore, calculations and measurements of RF electromagnetic fields will be performed based on the occupational/controlled limits.

MLLP will participate in a radiofrequency (“RF”) electromagnetic field exposure safety program, along with other broadcasters and FCC licensees that utilize the Jump Off Joe antenna farm. Following construction of the proposed facility, *MLLP* will commission RF exposure measurements (and/or detailed calculations) to evaluate the level of RF exposure resulting from the KBWU-LP facility. As necessary, based on these results and considering all emitters, appropriate exposure abatement procedures will be established and followed, in order to comply with the Commission’s exposure limits. Such abatement procedures may involve the restriction of access to certain areas and/or facility modifications to reduce RF levels.

Considering the post-construction measurement and an appropriate abatement program, workers will not be exposed to RF levels in excess of the Commission’s guidelines. Site access by the general public is considered by the applicant to be unlikely due to the site’s remote location. RF exposure warning signs will continue to be posted.

Safety of Tower Workers and the General Public

With respect to worker safety, authorized personnel will be trained and/or supervised as necessary for access to any “controlled” areas. A site exposure policy will be employed protecting maintenance workers from excessive exposure when work must be performed on the tower in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in

Exhibit 7 - Statement B
ENVIRONMENTAL CONSIDERATIONS
(page 3 of 3)

areas where the exposure guidelines will be exceeded. RF exposure measurements may also be undertaken to establish the bounds of safe working areas. *MLLP* will coordinate exposure procedures with all pertinent stations.

Conclusion

Based on the preceding, it is believed that the instant proposal may be categorically excluded from environmental processing under Section 1.1306 of the Rules, hence preparation of an Environmental Assessment is not required.