ENGINEERING EXHIBIT

Application for Post-Transition Digital Television Station Construction Permit

prepared for

Mountain Licenses, L.P.
KAYU-DT Spokane, WA
Facility ID 58684
Ch. 28 91.4 kW 601 m

Mountain Licenses, L.P. ("MLLP") is the licensee of television station KAYU-TV, analog Channel 28 and digital Channel 30, Spokane, WA. *MLLP* herein proposes construction of the KAYU-DT post-transition digital facility on Channel 28. This channel was established in Appendix B of the Seventh Report and Order in MB Docket 87-278.

The instant proposal specifies an effective radiated power ("ERP") of 91.4 kW at 601 meters antenna height above average terrain ("HAAT"), with a nondirectional antenna. The proposed coverage contour extends slightly beyond that of the Appendix B parameters of 91.4 kW ERP and 601 meters HAAT. The Appendix B facility incorporates a theoretical directional antenna pattern due to the impact of non-uniform terrain and the differences in the F(50,50) and F(50,90) propagation curves.

The proposed digital Channel 28 operation will employ the existing non-directional antenna system licensed for KAYU-TV's analog Channel 28. The antenna is a horizontally polarized Andrew model ATW25H3-HTO-28. The antenna is top-mounted on the existing KAYU-TV antenna supporting structure, having FCC Antenna Structure Registration ("ASR") number 1033566. No change to the overall structure height and no tower work are required to carry out this proposal.

A map is supplied as **Figure 1,** which depicts the standard predicted coverage contours. This map includes the location of Spokane, KAYU-DT's principal community. As demonstrated thereon, the proposed facility complies with §73.625(a)(1), as the entire principal community will be encompassed by the 48 dBμ contour.

The proposed KAYU-DT facility's predicted service population provides a 100.1 percent match of the Appendix B facility, as detailed in the table below.

Post-Transition Population Summary

Population Summary (2000 Census) OET Bulletin 69 method	Appendix B	Proposed
Within Noise Limited Contour	681,105	681,473
Not affected by terrain losses	586,667	587,097
Lost to all interference	0	0
Net DTV Service	**586,667**	**587,097**
Match of Appendix B	---	**100.07%**

Freeze Waiver Request

A waiver of the Commission's August 3, 2004 "freeze" concerning expansion in service area[1] is requested. The proposal complies with the criteria for a freeze waiver request outlined in the Report and Order in the Third Periodic Review.[2] KAYU-DT will change channel for post-transition operation and will employ its existing analog antenna.

The map attached as **Figure 2** supplies a comparison of the 41 dBμ digital service contour corresponding to the proposed KAYU-DT facility and the Appendix B parameters. As shown thereon, the amount of contour extension does not exceed five miles at any azimuth.

Absent the waiver, the KAYU-DT non-directional ERP would have to be reduced to 83 kW to avoid a contour extension. At this power level, the resulting DTV service contour would fall short of covering all of the area presently within the KAYU-TV analog Grade B contour.

[1]Public Notice *"Freeze on the Filing of Certain TV and DTV Requests for Allotment or Service Area Changes,"* DA 04-2446, released August 3, 2004.

[2]*Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television,* MB Docket No. 07-91, FCC 07-228, released December 31, 2007.

A detailed interference study per OET Bulletin 69[3] shows that the proposal complies with the 0.5 percent limit of new interference caused to other stations' Appendix B facilities, as summarized below. Protection requirements towards authorized Class A stations are also satisfied.

Post-Transition Interference Analysis Summary

Ch	Call Sign	State/City Facility ID	Power (kW) HAAT (m)	Dist (km) Bear (°T)	Appendix B Baseline Population (2000 Census)	New Interference From Proposal Population	 Percent
--- no Appendix B stations within evaluation distances ---							

Other Allocation Considerations

The nearest FCC monitoring station is 419 km distant at Ferndale, WA. This exceeds by a large margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). There are no AM stations within 3.2 kilometers of the site, based on information contained within the Commission's database. The site location is within the Canadian coordination zone (158 km to the Canada border), thus further international coordination may be necessary for non-directional operation.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposal will involve use of an existing transmitting antenna. 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. No tower construction or change in structure height is proposed. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

[3]FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. 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.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Based on OET-65 equation (10), and considering 10 percent antenna relative field in downward elevations (pattern data shows less than 10 percent relative field at angles 15 to 90 degrees below the antenna), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 0.53 $\mu W/cm^2$, which is 0.14 percent of the general population/uncontrolled maximum permitted exposure limit. This is well 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 general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, 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.

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

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.

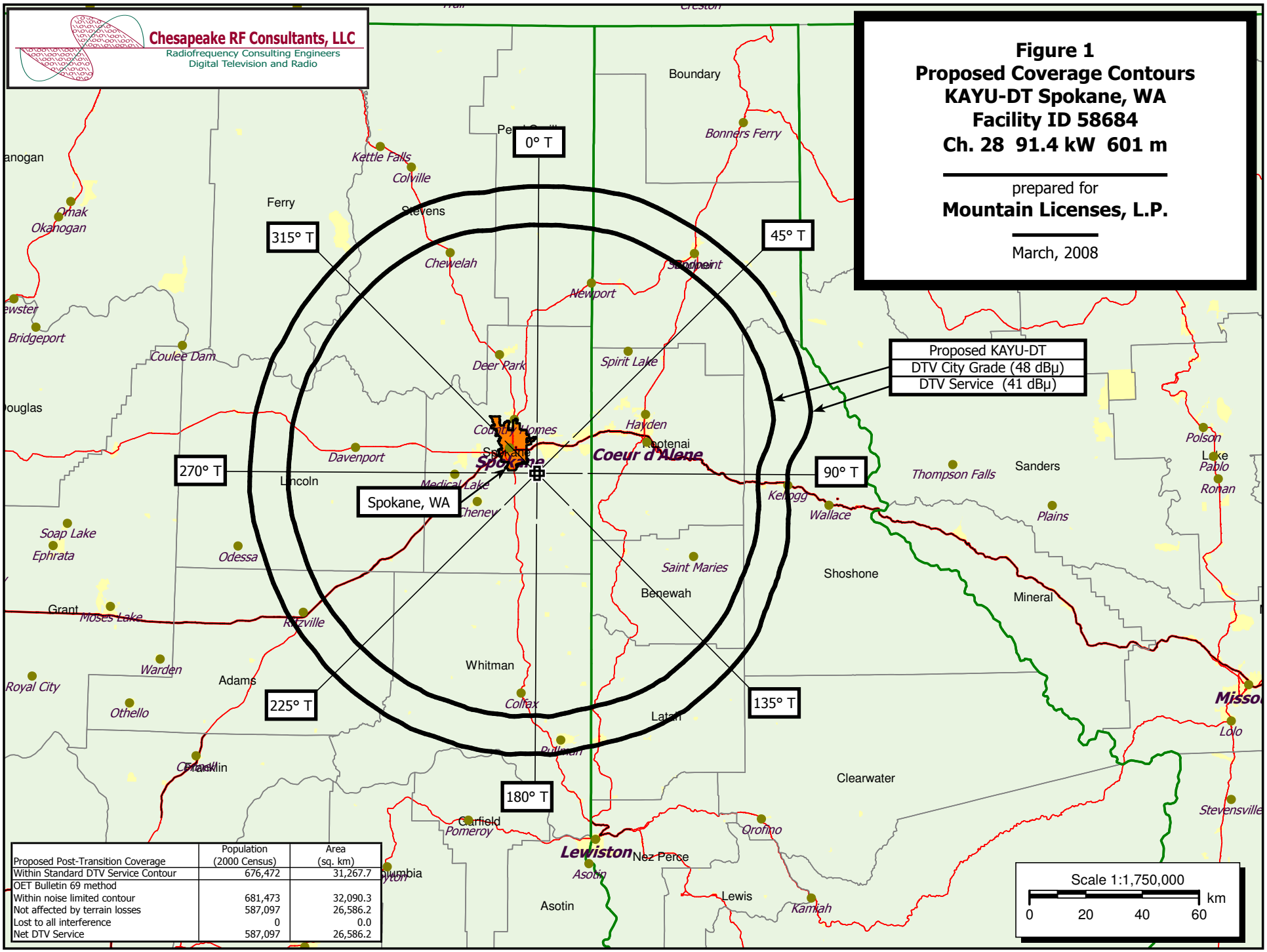
Joseph M. Davis, P.E.
March 29, 2008

Chesapeake RF Consultants, LLC
11993 Kahns Road
Manassas, VA 20112
703-650-9600

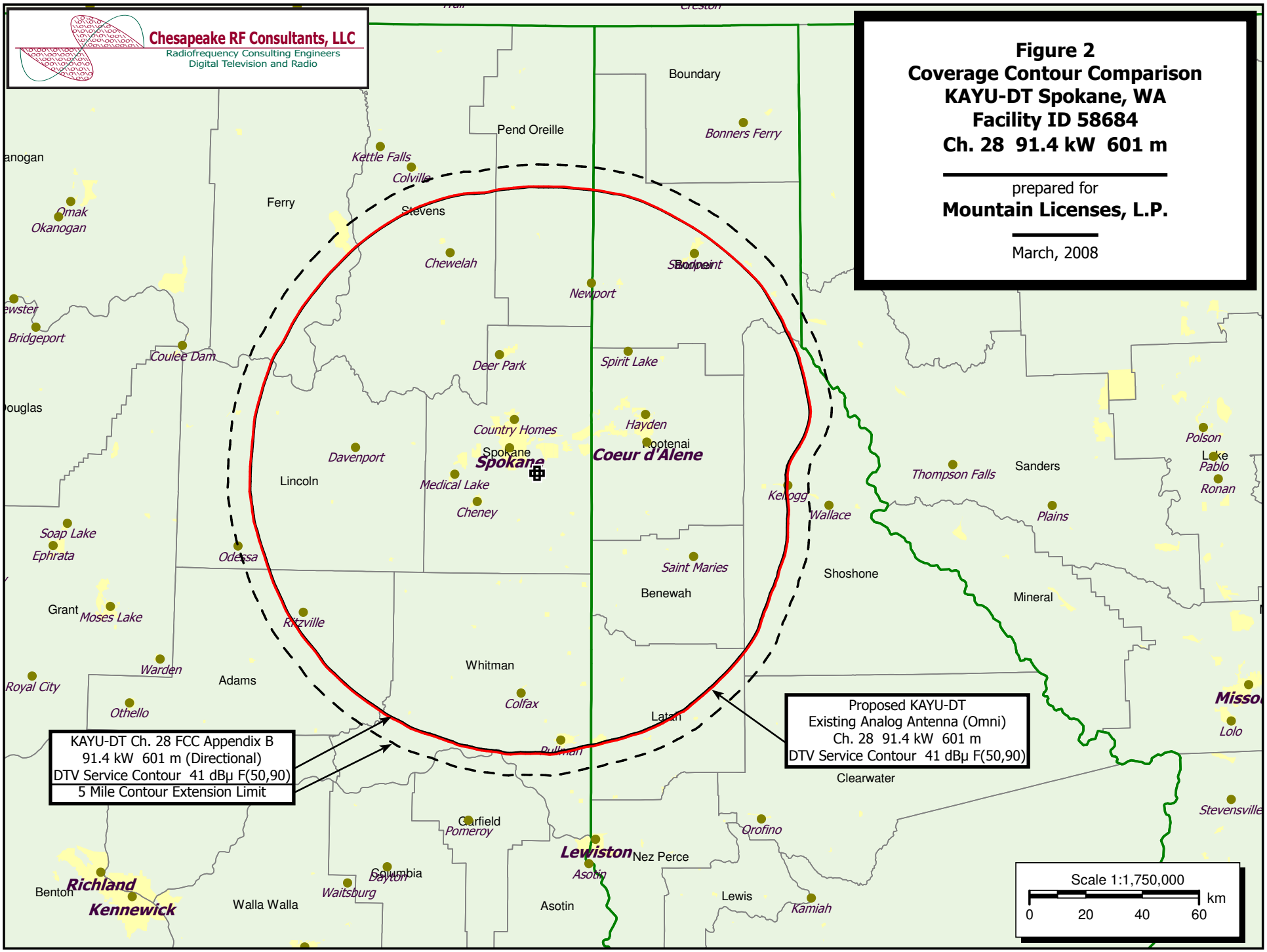
List of Attachments

Figure 1	Proposed Coverage Contours
Figure 2	Coverage Contour Comparison
Form 301	Saved Version of Engineering Sections from FCC Form at Time of Upload

This material was entered March 29, 2008 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.



Proposed Post-Transition Coverage	Population (2000 Census)	Area (sq. km)
Within Standard DTV Service Contour	676,472	31,267.7
OET Bulletin 69 method		
Within noise limited contour	681,473	32,090.3
Not affected by terrain losses	587,097	26,586.2
Lost to all interference	0	0.0
Net DTV Service	587,097	26,586.2


Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio
Figure 2
Coverage Contour Comparison
KAYU-DT Spokane, WA
Facility ID 58684
Ch. 28 91.4 kW 601 m
prepared for
Mountain Licenses, L.P.
March, 2008
Boundary
Pend Oreille
Bonners Ferry
Kettle Falls
Colville
Ferry
Stevens
Omak
Okanogan
Chewelah
Newport
Bridgeport
Coulee Dam
Deer Park
Spirit Lake
Country Homes
Hayden
Spokane
Coeur d'Alene
Davenport
Lincoln
Medical Lake
Cheney
Thompson Falls
Sanders
Polson
Lake Pablo
Ronan
Kellogg
Wallace
Plains
Soap Lake
Ephrata
Odessa
Saint Maries
Benewah
Shoshone
Mineral
Grant
Moses Lake
Ritzville
Warden
Whitman
Adams
Royal City
Othello
Colfax
Latah
Pullman
Clearwater
Lolo
Stevensville
Garfield
Pomeroy
Orofino
Lewiston
Nez Perce
Asotin
Richland
Kennewick
Benton
Walla Walla
Waitsburg
Dayton
Columbia
Lewis
Kamiah
KAYU-DT Ch. 28 FCC Appendix B
91.4 kW 601 m (Directional)
DTV Service Contour 41 dBµ F(50,90)
5 Mile Contour Extension Limit
Proposed KAYU-DT
Existing Analog Antenna (Omni)
Ch. 28 91.4 kW 601 m
DTV Service Contour 41 dBµ F(50,90)
Scale 1:1,750,000
0 20 40 60 km

SECTION III-D - DTV Engineering

Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.

Pre-Transition Certification Checklist: An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction permit application to change pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

Post-Transition Expedited Processing. An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.

1.	The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:	
	(a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622.	(●) Yes ( ) No
	(b) It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622.	( ) Yes ( ) No
	(c) It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622.	( ) Yes ( ) No
	(d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B").	( ) Yes (●) No ( ) N/A
	(e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B.	(●) Yes ( ) No ( ) N/A
2.	The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. Applicant must **submit the Exhibit** called for in Item 13.	(●) Yes ( ) No
3.	Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community.	(●) Yes ( ) No
4.	The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable.	(●) Yes ( ) No
5.	The antenna structure to be used by this facility has been registered by the Commission and will not require registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.	(●) Yes ( ) No

SECTION III-D - DTV Engineering

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: DTV 28 Analog TV, if any 28	
2.	Zone: ( ) I (●) II ( ) III	
3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 47 Minutes 34 Seconds 44 (●) North ( ) South Longitude: Degrees 117 Minutes 17 Seconds 46 (●) West ( ) East	
4.	Antenna Structure Registration Number: 1033566 ☐ Not Applicable ☐ Notification filed with FAA	
5.	Antenna Location Site Elevation Above Mean Sea Level:	1090 meters
6.	Overall Tower Height Above Ground Level:	250.9 meters
7.	Height of Radiation Center Above Ground Level:	242.4 meters
8.	Height of Radiation Center Above Average Terrain :	601 meters
9.	Maximum Effective Radiated Power (average power):	91.4 kW
10.	Antenna Specifications:	

a. Manufacturer AND Model ATW25H3-HTO-28

b. Electrical Beam Tilt:
0.75 degrees ☐ Not Applicable

c. Mechanical Beam Tilt:
degrees toward azimuth
degrees True ☑ Not Applicable
Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). [Exhibit 42]

d. Polorization:
◉ Horizontal ○ Circular ○ Elliptical

e. Directional Antenna Relative Field Values: ☑ Not applicable (Nondirectional)

[For a composite directional (not off-the-shelf) antenna, press the following button to fill in the relative field values subform.]
[Relative Field Values]

If a directional antenna is proposed, the requirements of 47 C.F.R. Sections 73.625(c) must be satisfied. **Exhibit required.** [Exhibit 43]

11.	Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616? If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.	◉ Yes ○ No [Exhibit 44]
12.	If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** item 3 is answered "No.")	[Exhibit 45]
13.	**Environmental Protection Act. Submit in an Exhibit** the following: If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site. By checking "Yes" to **Certification Checklist** Item 2, 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. If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R Section 1.1311.	[Exhibit 46]

PREPARERS CERTIFICATION ON SECTION III 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 JOSEPH M. DAVIS, P.E.	Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature	Date 3/29/2008	
Mailing Address CHESAPEAKE RF CONSULTANTS, LLC 11993 KAHNS ROAD		
City MANASSAS	State or Country (if foreign address) VA	Zip Code 20112 -
Telephone Number (include area code) 7036509600	E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM	

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).