



(REFERENCE COPY - Not for submission)

License To Cover for DTS Application

File Number: **0000116395** | Submit Date: **06/22/2020** | Call Sign: **KUSM-TV** | Facility ID: **43567** | FRN: **0007148174**
 State: **Montana** | City: **BOZEMAN**
 Service: **DTS** | Purpose: **License To Cover 0000107900** | Status: **Granted** | Status Date: **06/25/2020** | Expiration Date:
04/01/2022 | Filing Status: **Active**

General Information

Section	Question	Response
Attachments	Are attachments (other than associated schedules) being filed with this application?	Yes

Fees, Waivers, and Exemptions

Section	Question	Response
Waivers	Does this filing request a waiver of the Commission's rule(s)?	No
	Total number of rule sections involved in this waiver request:	
	Are the frequencies or parameters requested in this filing covered by grandfathered privileges, previously approved by waiver, or functionally integrated with an existing station?	No

Applicant Information

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
MONTANA STATE UNIVERSITY Doing Business As: MONTANA STATE UNIVERSITY	ROOM 183, VCB BOZEMAN, MT 59717 United States	+1 (406) 994-3437	aaron@montanapbs.org	Government Entity

Authorization Holder Name

Check box if the Authorization Holder name is being updated because of the sale (or transfer of control) of the Authorization(s) to another party and for which proper Commission approval has not been received or proper notification provided.

**Contact
Representatives
(3)**

Contact Name	Address	Phone	Email	Contact Type
DEAN G. LAWVER <i>DIRECTOR OF ENGINEERING MONTANA PBS</i>	VISUAL COMMUNICATIONS BUILDING 183 BOZEMAN, MT 59717 United States	+1 (406) 994-3437	dean_lawver@montanapbs. org	Technical Representative
Margaret L. Miller Gray Miller Persh LLP	2233 Wisconsin Avenue, NW Suite 226 Washington, DC 20007 United States	+1 (202) 776-2914	mmiller@graymillerpersh. com	Legal Representative
Derek Teslik Gray Miller Persh, LLP	2233 Wisconsin Ave Ste 226 Washington, DC 20007 United States	+1 (202) 559-7489	dteslik@graymillerpersh. com	Legal Representative

Alien Ownership

Question	Response
1) Is the applicant a foreign government or the representative of any foreign government as specified in Section 310(a) of the Communications Act?	No
2) Is the applicant an alien or the representative of an alien? (Section 310(b)(1))	No
3) Is the applicant a corporation, or non-corporate entity, that is organized under the laws of any foreign government? (Section 310(b)(2))	No
4) Is the applicant an entity of which more than one-fifth of the capital stock, or other equity or voting interest, is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any entity organized under the laws of a foreign country? (Section 310(b)(3))	No
5) Is the applicant directly or indirectly controlled by any other entity of which more than one-fourth of the capital stock, or other equity or voting interest, is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any entity organized under the laws of a foreign country? (Section 310(b)(4))	No
6) Has the applicant received a declaratory ruling(s) under Section 310(b)(4) of the Communications Act?	No
7) In connection with this application, is the applicant filing a foreign ownership Petition for Declaratory Ruling pursuant to Section 310(b)(4) of the Communications Act?	No

Basic Qualifying Questions

Section	Question	Response
Revoked Application	Has the Applicant or any party to this application had any FCC station Authorization revoked or had any application for an initial, modification or renewal of FCC station Authorization denied by the Commission?	No
State or Federal Convictions	Has the Applicant or any party to this application, or any party directly or indirectly controlling the Applicant, ever been convicted of a felony by any state or federal court?	No

**Channel and
Facility
Information**

Section	Question	Response
Proposed Community of License	Facility ID	43567
	State	Montana
	City	BOZEMAN
	DTS Channel	8
	Designated Market Area	BUTTE-BOZEMAN
Facility Type	Facility Type	Noncommercial Educational
	Station Type	Main
Zone	Zone	2

DTS Reference Point

Section	Question	Response
Construction Permit File Number and Facility ID	File Number for Current Authorized Service Area:	BLEDT-20050926ALC
	Facility ID	43567
Coordinates (NAD83)	Latitude	45° 40' 24.0" N+
	Longitude	110° 52' 05.0" W-

**Site 1: Antenna
Location Data**

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	No
	ASR Number	
Coordinates (NAD83)	Latitude	45° 38' 15.1" N+
	Longitude	111° 16' 07.0" W-
	Structure Type	UTOWER-Unguyed - Free Standing Tower
	Overall Structure Height	60.7 meters
	Support Structure Height	49.9 meters
	Ground Elevation (AMSL)	1717.7 meters
Antenna Data	Height of Radiation Center Above Ground Level	44.8 meters
	Height of Radiation Center Above Average Terrain	212.8 meters
	Height of Radiation Center Above Mean Sea Level	1762.5 meters
	Effective Radiated Power	17.9 kW

**Site 1: Antenna
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	Yes
	Antenna ID	1006553
Antenna Manufacturer and Model	Manufacturer:	ERI
	Model	ATW4V5-ESWCX-8H
	Electrical Beam Tilt	1.25
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Elliptical
DTV and DTS: Elevation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	
	Rotation	0 degrees
	Uploaded file for elevation antenna (or radiation) pattern data	

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	1	90	0.874	180	0.624	270	0.874
10	0.996	100	0.845	190	0.628	280	0.896
20	0.986	110	0.811	200	0.641	290	0.912
30	0.971	120	0.771	210	0.663	300	0.926
40	0.955	130	0.731	220	0.694	310	0.94
50	0.94	140	0.694	230	0.731	320	0.955
60	0.926	150	0.663	240	0.771	330	0.971
70	0.912	160	0.641	250	0.811	340	0.986
80	0.896	170	0.628	260	0.845	350	0.996

Additional Azimuths

Degree	V _A
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Site 1: Operating Constants

Section	Question	Response
Transmitter and Transmission Line	Transmitter Power Output (TPO): <i>(average power at input to transmission line, after any filter attached to the transmitter, if used)</i>	6.34 dBk 4.31 kW
	Transmission Line Loss (LL):	0.36 dB
	Antenna Input Power (AIP):	5.98 dBk
	Max. Antenna Power Gain (AG)	6.55 dB
	Effective Radiated Power (ERP) <i>(Average Power)</i>	12.53 dBk 17.9 kW

Site 2: Antenna Location Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	No
	ASR Number	
Coordinates (NAD83)	Latitude	45° 41' 47.3" N+
	Longitude	110° 46' 07.1" W-
	Structure Type	UTOWER-Unguyed - Free Standing Tower
	Overall Structure Height	7.9 meters
	Support Structure Height	7.9 meters
	Ground Elevation (AMSL)	2211.9 meters
Antenna Data	Height of Radiation Center Above Ground Level	5.5 meters
	Height of Radiation Center Above Average Terrain	371 meters
	Height of Radiation Center Above Mean Sea Level	2217.4 meters
	Effective Radiated Power	0.15 kW

**Site 2: Antenna
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	Yes
	Antenna ID	1006552
Antenna Manufacturer and Model	Manufacturer:	Scala
	Model	CL-713
	Electrical Beam Tilt	Not Applicable
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Horizontal
DTV and DTS: Elevation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	
	Rotation	90 degrees
	Uploaded file for elevation antenna (or radiation) pattern data	

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	1	90	0.01	180	0.03	270	0.01
10	0.945	100	0.01	190	0.03	280	0.01
20	0.805	110	0.01	200	0.03	290	0.01
30	0.598	120	0.01	210	0.025	300	0.01
40	0.352	130	0.01	220	0.02	310	0.03
50	0.03	140	0.02	230	0.01	320	0.352
60	0.01	150	0.025	240	0.01	330	0.598
70	0.01	160	0.03	250	0.01	340	0.805
80	0.01	170	0.03	260	0.01	350	0.945

Additional Azimuths

Degree	V _A
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Site 2: Operating Constants

Section	Question	Response
Transmitter and Transmission Line	Transmitter Power Output (TPO): <i>(average power at input to transmission line, after any filter attached to the transmitter, if used)</i>	-16.99 dBk 0.02 kW
	Transmission Line Loss (LL):	0.19 dB
	Antenna Input Power (AIP):	-17.18 dBk
	Max. Antenna Power Gain (AG)	8.94 dB
	Effective Radiated Power (ERP) <i>(Average Power)</i>	-8.24 dBk 0.15 kW

**Parties to the
Application (0)**

Information not provided.

Attributable Interest

Section	Question	Response
Equity and Financial Interests	Applicant certifies that equity and financial interests not set forth by the applicant parties are non-attributable.	
Other Authorizations	Does the applicant or any party to the application have an attributable interest in any other broadcast station(s).	

**License
Certifications**

Section	Question	Response
Main Studio Location	The main studio location complies with 47 C.F.R. Section 73.1125.	Yes
	Country	US
	PO Box	
	Address Line 1	183 VCB
	Address Line 2	
	City	Bozeman
	State	MT
	Zip Code	59717
	Phone	
Constructed Facility	The facility constructed as authorized in the underlying construction permit.	Yes
Special Operating Conditions	The facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit. An exhibit may be required. Review the underlying construction permit.	Yes
Transmitter	The transmitter complies with 47 C.F.R. Section 73.1660.	Yes
Changing Transmitter Power Output	Is this application being filed to authorize a change in transmitter power output caused by the replacement of an omnidirectional antenna with another omnidirectional antenna or an alteration of the transmission line system? See 47 C.F.R. Sections 73.1690(c)(1) and (c)(10).	No
Replacing a Directional Antenna	Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(3) to replace a directional antenna with another directional antenna?	No
	The proposed theoretical antenna pattern complies with 47 C.F.R. Section 73.1690(c)(3).	
Use a formerly licensed main facility as an auxiliary facility	Is this application being filed pursuant to 47 C.F.R. Section 73.1675(c)(1) to request authorization to use a formerly licensed main facility as an auxiliary facility and/or change the ERP of the proposed auxiliary facility?	No
	The proposed auxiliary facility complies with 47 C.F.R. Section 73.1675(a).	
	Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? (See 47 C.F.R. Section 1.1306)	

**Legal
Certifications**

Section	Question	Response
Obligations	Licensee/Permittee certifies that all terms, conditions, and obligations set forth in the underlying construction permit have been fully met.	Yes
	Licensee/Permittee certifies that, apart from changes already reported, no cause or circumstance has arisen since the grant of the underlying construction permit which would result in any statement or representation contained in the construction permit application to be now incorrect.	Yes
Character Issues	Applicant certifies that neither applicant nor any party to the application has or had any interest in, or connection with: (a) any broadcast application in any proceeding where character issues were left in unresolved or were resolved adversely against the applicant or party to the application; or (b) any pending broadcast application in which character issues have been raised.	Yes
Adverse Findings	Has the Applicant or any party to this application had an adverse finding or an adverse final action taken by any court or administrative body in a civil or criminal proceeding brought under any law related to the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?	No

Certification

Section	Question	Response
<p>General Certification Statements</p>	<p>The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by authorization or otherwise, and requests an Authorization in accordance with this application (See Section 304 of the Communications Act of 1934, as amended.).</p>	
	<p>The Applicant certifies that neither the Applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to §5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. §862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under §1.2002(c) of the rules, 47 CFR . See §1.2002(b) of the rules, 47 CFR §1.2002(b), for the definition of "party to the application" as used in this certification §1.2002 (c). The Applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.</p>	
<p>Authorized Party to Sign</p>	<p>FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID</p> <p>Upon grant of this application, the Authorization Holder may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in automatic cancellation of the Authorization. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of Authorization requested in this application.</p> <p>WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503).</p>	
	<p>I certify that this application includes all required and relevant attachments.</p>	<p>Yes</p>
	<p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p>	<p>Aaron Pruitt <i>Director and General Manager</i></p> <p>06/22/2020</p>

Attachments

File Name	Uploaded By	Attachment Type	Description
KUSM License Request June.pdf	Applicant	All Purpose	Information regarding DTS Site 1