

April 2024
KZJJ(FM) Channel 283A West Richland, WA
KPLP(FM) Channel 283C1 White Salmon, WA
Contingent Application Group Description

Contingent Application Group

The instant application is part of a related group of applications to make changes in facilities, filed pursuant to §73.3517(e) of the Commission's Rules, which permits the filing of up to four contingently related applications by FM licensees for minor modification of facilities. This contingent application group includes two applications for minor modification. The specifics of these proposals are:

- 1) ***KZJJ (Facility ID No. 203618):*** Noemy Rodriguea, dba Alcon Media, proposes to modify KZJJ from Channel 283C3 Mesa, Washington to Channel 283A West Richland, Washington. A change in transmitter site is proposed.

- 2) ***KPLP (Facility ID No. 198745):*** In order to accommodate the KZJJ modification, Walla Walla University proposes to modify KPLP to request §73.215 short-spaced status with respect to KZJJ, and to specify an allotment site which accommodates the KZJJ 283A West Richland allotment site. No modification of the licensed KPLP technical facility is otherwise proposed.

The licensees of KZJJ and KPLP have entered into a written agreement to jointly prosecute these applications. A copy of that written agreement is included as part of an attachment to this application. Both minor modification applications are being filed on the same date.

**April 2024
KZJJ(FM) Channel 283A
West Richland, WA
Allocation Study**

Allotment Site Spacing Study

The attached spacing study shows that the proposed Channel 283A allotment site meets the domestic co-channel and adjacent channel spacing requirements for Class A stations as prescribed in §73.207 of the Commission's Rules, provided that the KPLP allotment site is adjusted as proposed in the simultaneously-filed application by that station. (See discussion in Contingent Application Group Description section of this application.)

The proposed allotment site is located 16.1 km from the far side of West Richland. The standard 70 dBu contour distance for a Class A station is 16.2 kilometers. Therefore, and as demonstrated by the attached map exhibit, a 70 dBu contour will be provided to 100% of West Richland.

Transmitter Site Spacing Study

The attached spacing study shows that the proposed Channel 283A operation meets the co-channel and adjacent channel spacing requirements for Class A stations as prescribed in §73.207 of the Commission's Rules, with the exception of a short-spacing to the proposed §73.215 operation of KPLP on Channel 283C1 at White Salmon. Processing pursuant to §73.215 of the Commission's Rules is requested with respect to the proposed KPLP facility, and the attached allocation study map is included to demonstrate the lack of prohibited contour overlap with that facility.

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SEARCH PARAMETERS

FM Database Date: 20240325

Channel: 283A 104.5 MHz

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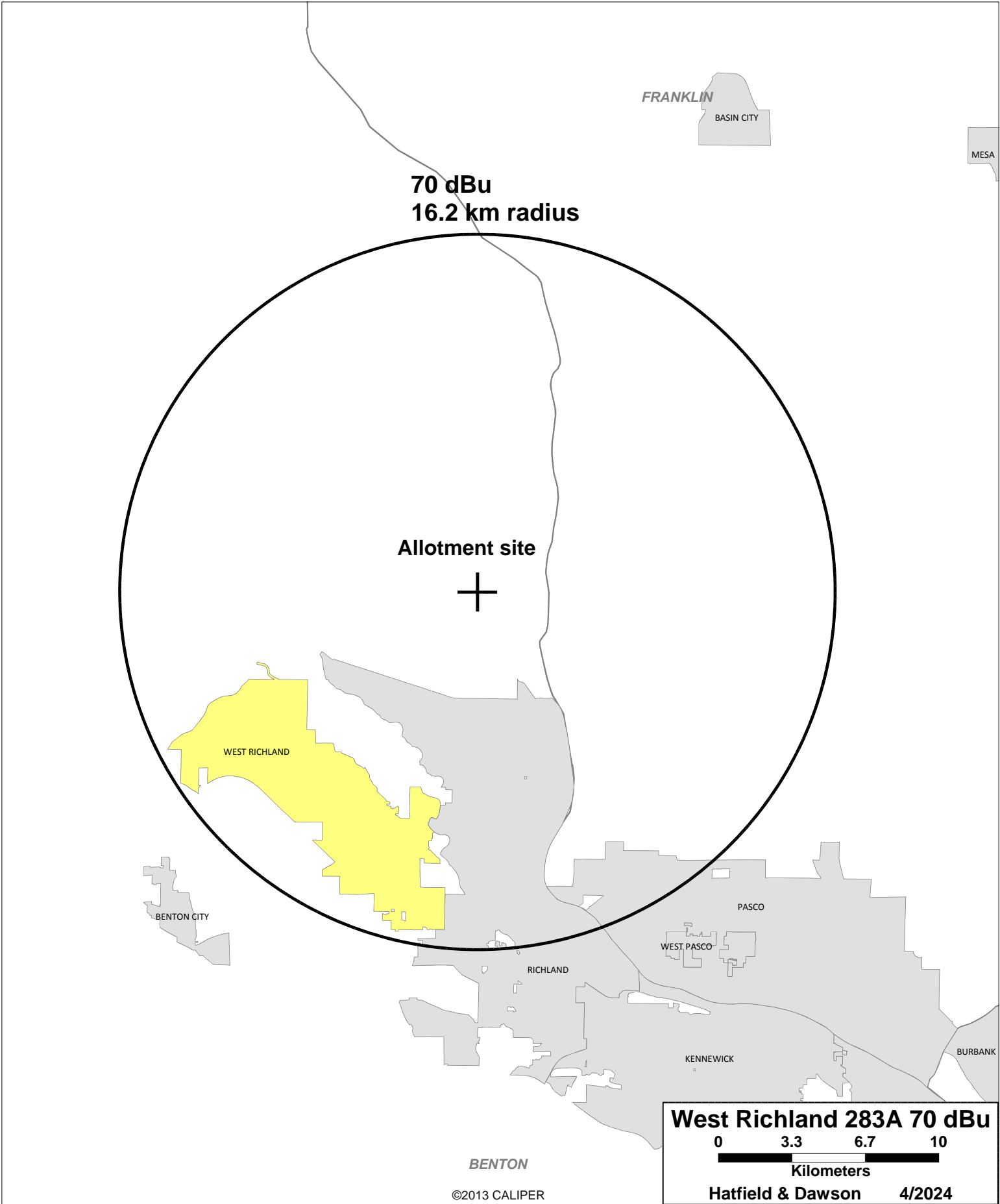
Latitude: 46 23 40.5 (NAD83)

Longitude: 119 18 26.0

Safety Zone: 32 km

Job Title: WEST RICHLAND 283A ALLOT SITE

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
K230BW LIC	KENNEWICK WA	0000185005	230D 93.9	0.080 0.0	46 14 7.4 119 19 17.0	183.5	17.73 0.00	0 TRANS
K280GI LIC	RICHLAND WA	BLFT-20150918ACM	280D 103.9	0.015 0.0	46 14 3.5 119 19 17.1	183.5	17.85 0.00	0 TRANS
KXDD LIC	YAKIMA WA	BLH-20020305AAX	281C1 104.1	100.000 245.0	46 30 47.5 120 24 9.2	279.3 SS	85.18 10.18	75 CLEAR
K282CI LIC	WALLA WALLA WA	0000228545	282D 104.3	0.250 0.0	46 4 1.7 118 24 8.7	117.3 SS	78.72 0.00	0 TRANS
K283BX LIC	WAPATO WA	BLFT-20150309AFO	283D 104.5	0.250 0.0	46 31 54.5 120 27 18.2	280.3	89.48 0.00	0 TRANS
KZJJ LIC	MESA WA	0000238108	283C3 104.5	19.000 83.0	46 25 24.8 119 4 56.0	79.3	17.60 -124.40	142 SHORT
KPLP LIC	WHITE SALMON WA	0000218588	283C1 104.5	18.000 433.0	45 31 14.4 121 28 51.2	240.7	194.50 -5.50	200 SHORT
NOTE: KPLP IS SIMULTANEOUSLY FILING AN APPLICATION TO SPECIFY AN ALLOTMENT SITE WHICH IS FULLY-SPACED TO THE WEST RICHLAND ALLOTMENT SITE								
KKRV LIC	WENATCHEE WA	BLH-20020205AAA	284C2 104.7	6.500 403.0	47 28 43.4 120 12 53.2	330.6	138.93 32.93	106 CLEAR
KCMB LIC	BAKER OR	BLH-19880719KB	284C 104.7	100.000 532.0	45 7 25.5 117 46 51.7	139.5	184.53 19.53	165 CLEAR
K285FN LIC	KENNEWICK WA	BLFT-20160201ANG	285D 104.9	0.250 0.0	46 6 14.4 119 7 52.0	157.2	35.04 0.00	0 TRANS
===== BEGINNING SEARCH OF SECONDARY DATABASE =====								
KPLP ALC	WHITE SALMON (ALC) WA		283C1 104.5	0.000 0.0	45 33 46.9 121 35 27.1	243.2	199.65 -0.35	200 SHORT
KZJJ ALC	WEST RICHLAND (ALC) WA		283A 104.5	0.000 0.0	46 23 40.5 119 18 26.0	0.0	0.00 -115.00	115 SHORT
===== END OF FM SPACING STUDY FOR CHANNEL 283 =====								



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SEARCH PARAMETERS

FM Database Date: 20240325

Channel: 283A 104.5 MHz

Page 1

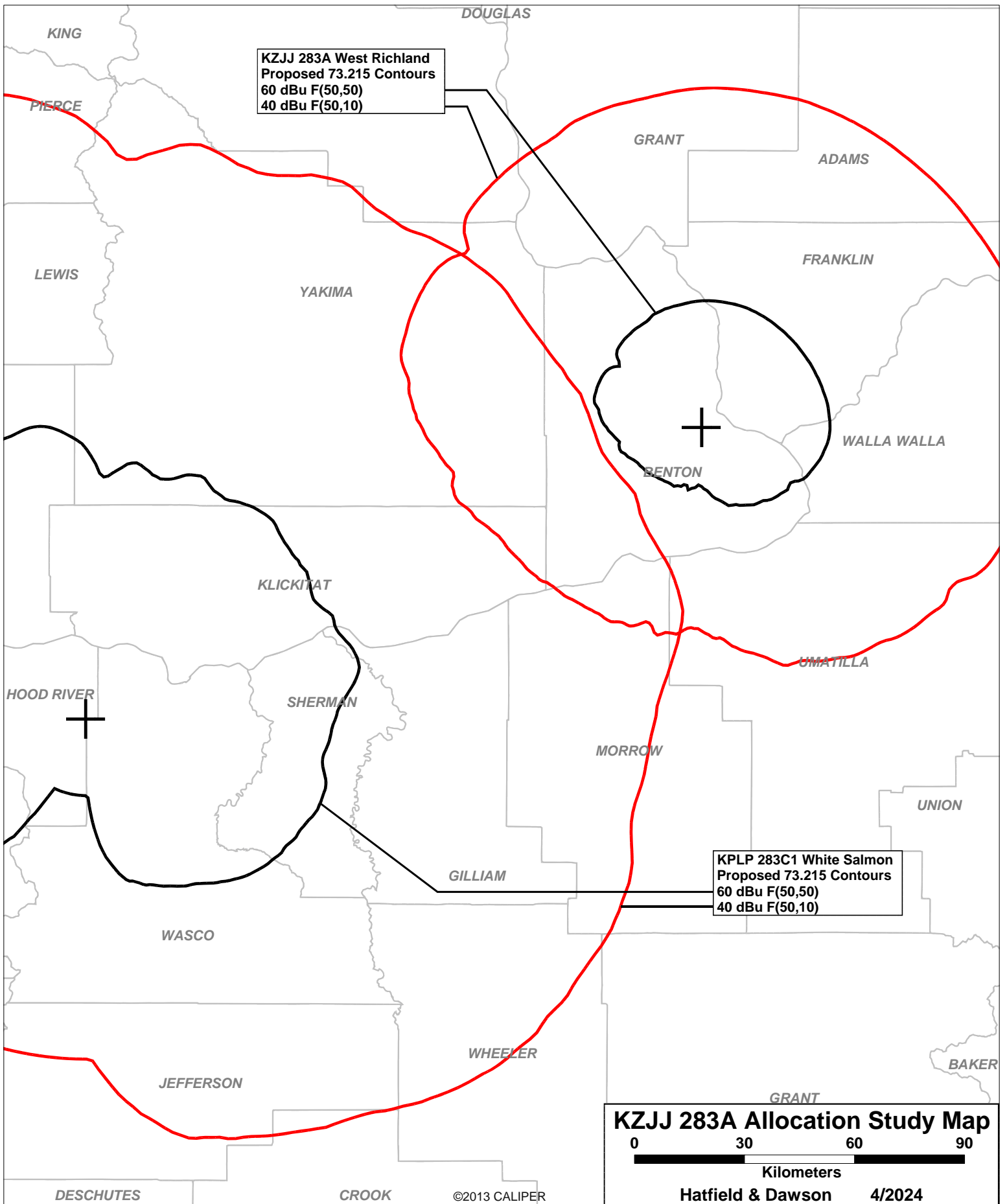
Latitude: 46 14 3.6 (NAD83)

Longitude: 119 19 17.4

Safety Zone: 32 km

Job Title: KZJJ 283A TRANSMIT SITE

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
KQFM LIC	HERMISTON OR	BLH-20160310AAS	229A 93.7	5.300 94.0	45 51 56.5 119 18 46.1	179.1	40.98 30.98	10 CLEAR
K230BW LIC	KENNEWICK WA	0000185005	230D 93.9	0.080 0.0	DA 46 14 7.4 119 19 17.0	4.2	0.12 0.00	0 TRANS
K280GI LIC	RICHLAND WA	BLFT-20150918ACM	280D 103.9	0.015 0.0	46 14 3.5 119 19 17.1	115.7	0.01 0.00	0 TRANS
KXDD LIC	YAKIMA WA	BLH-20020305AAX	281C1 104.1	100.000 245.0	DA 46 30 47.5 120 24 9.2	290.9 SS	88.77 13.77	75 CLEAR
K282CI LIC	WALLA WALLA WA	0000228545	282D 104.3	0.250 0.0	46 4 1.7 118 24 8.7	104.4 SS	73.40 0.00	0 TRANS
K283BX LIC	WAPATO WA	BLFT-20150309AFO	283D 104.5	0.250 0.0	46 31 54.5 120 27 18.2	291.2	93.26 0.00	0 TRANS
KZJJ LIC	MESA WA	0000238108	283C3 104.5	19.000 83.0	46 25 24.8 119 4 56.0	41.0	27.96 -114.04	142 SHORT
KPLP LIC	WHITE SALMON WA	0000218588	283C1 104.5	18.000 433.0	45 31 14.4 121 28 51.2	245.4	185.47 -14.53	200 SHORT
ABSOLUTE MINIMUM 73.215 SPACING = 178 KM								
KCMB LIC	BAKER OR	BLH-19880719KB	284C 104.7	100.000 532.0	45 7 25.5 117 46 51.7	135.3	172.17 7.17	165 CLOSE
K285FN LIC	KENNEWICK WA	BLFT-20160201ANG	285D 104.9	0.250 0.0	46 6 14.4 119 7 52.0	134.6	20.64 0.00	0 TRANS
===== BEGINNING SEARCH OF SECONDARY DATABASE =====								
KPLP APP	WHITE SALMON (XMIT) WA		283C1 104.5	0.000 0.0	45 31 14.4 121 28 51.2	245.4	185.47 -14.53	200 SHORT
ABSOLUTE MINIMUM 73.215 SPACING = 178 KM								
KZJJ APP	WEST RICHLAND (XMIT) WA		283A 104.5	0.000 0.0	46 14 3.6 119 19 17.4	0.0	0.00 -115.00	115 SHORT
===== END OF FM SPACING STUDY FOR CHANNEL 283 =====								



**April 2024
KZJJ(FM) Channel 283A
West Richland, WA
RF Exposure Study**

Facilities Proposed

The proposed operation will be on Channel 283A (104.5 MHz) with an effective radiated power of 0.92 kilowatts. Operation is proposed with a 1-element circularly-polarized omni-directional antenna. The antenna will be side-mounted on an existing tower on Badger Mountain, with FCC Antenna Structure Registration Number 1028315.

The antenna HAAT was calculated using terrain data extracted from the 3-second terrain database, using 12 equally-spaced radials.

RF Exposure Calculations

The power density calculations shown below were made using the techniques outlined in OET Bulletin No. 65. "Ground level" calculations in this report have been made at a reference height of 2 meters above ground to provide a worst-case estimate of exposure for persons standing on the ground in the vicinity of the tower. The equation shown below was used to calculate the ground level power density figures from each antenna.

$$S(\mu W / cm^2) = \frac{33.4 \times AdjERP(Watts)}{D^2}$$

Where: *AdjERP(Watts)* is the maximum lobe effective radiated power times the element pattern factor times the array pattern factor.

D is the distance in meters from the center of radiation to the calculation point.

Ground level power densities have been calculated for locations extending from the base of the tower to a distance of 500 meters. Values past this point are increasingly negligible.

Calculations of the power density produced by the proposed antenna system assume a Type 2 element pattern, which is the element pattern for the antenna proposed for use. The highest calculated ground level power density occurs at a distance of 17 meters from the base of the antenna support structure. At this point the power density is calculated to be 63.6 $\mu W/cm^2$.

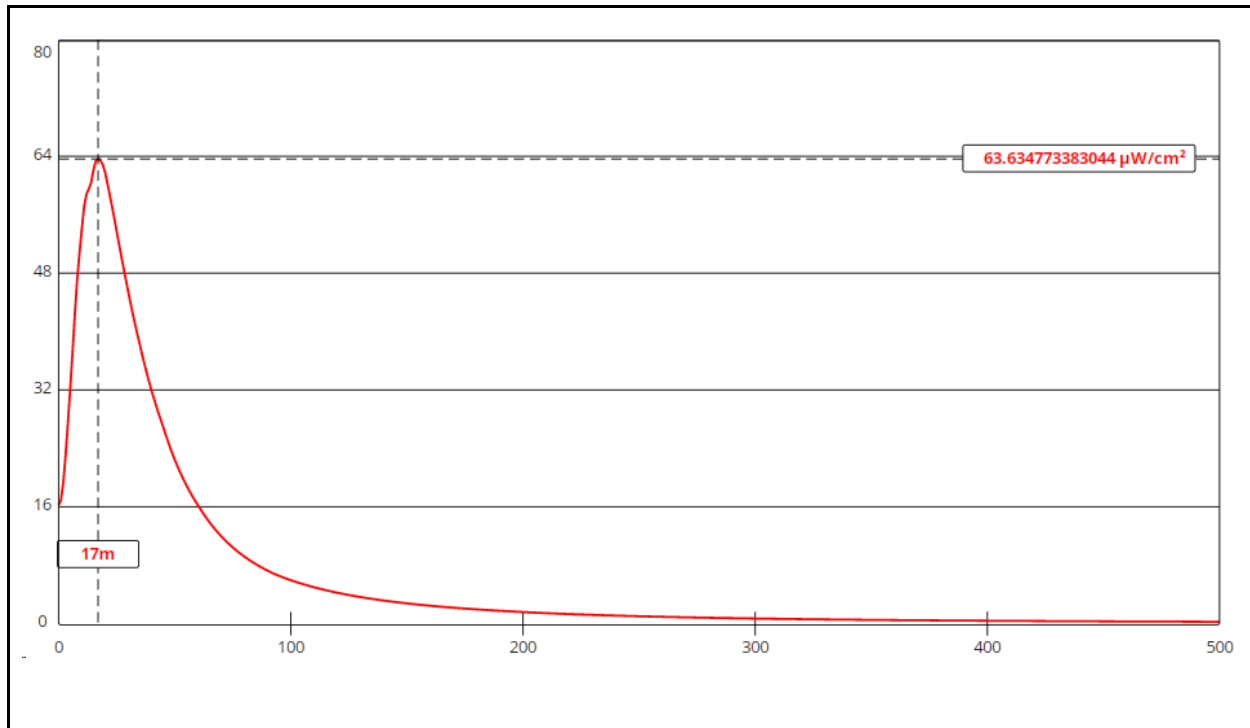
Calculations of the power density produced by KZJJ and the other stations at this transmitter site are summarized in the following table:

Call	ERP Antenna Model	Relative Field	Height AGL	Calculated Exposure	Gen Pop FCC Limit	% of Limit
KZJJ 283A	0.920 kW H 0.920 kW V 1-bay	FMMModel Type 2	18.3 m	63.6 $\mu\text{W}/\text{cm}^2$	200 $\mu\text{W}/\text{cm}^2$	31.8%
K280GI	0.016 kW H 0.016 kW V SHI SLV-1	FMMModel Type 4	40 m	0.2 $\mu\text{W}/\text{cm}^2$	200 $\mu\text{W}/\text{cm}^2$	0.1%
KMMG 244A	0.820 kW H 0.820 kW V ERI LPX-2E	FMMModel Type 3	41 m	5.2 $\mu\text{W}/\text{cm}^2$	200 $\mu\text{W}/\text{cm}^2$	2.6%
K276EU	0.015 kW H 0.015 kW V RFS CPF500	FMMModel Type 1	24 m	1.2 $\mu\text{W}/\text{cm}^2$	200 $\mu\text{W}/\text{cm}^2$	0.6%
K230BW	0.008 kW V SHI 6020-1	FMMModel Type 1	8 m	7.0 $\mu\text{W}/\text{cm}^2$	200 $\mu\text{W}/\text{cm}^2$	3.5%
K291BW	0.250 kW V SHI 6020-1	FMMModel Type 1	35 m	7.3 $\mu\text{W}/\text{cm}^2$	200 $\mu\text{W}/\text{cm}^2$	3.7%
K31KW-D	6.01 kW H JASSFULLCARDI OD-8	Manf Pattern	27 m	19.1 $\mu\text{W}/\text{cm}^2$	381.3 $\mu\text{W}/\text{cm}^2$	5.0%
K20KG-D	1.0 kW H SCA SL-8	Manf Pattern	45 m	0.9 $\mu\text{W}/\text{cm}^2$	337.3 $\mu\text{W}/\text{cm}^2$	0.3%
KRLB-LD Ch29	4.9 kW H model unknown	Manf Pattern	36 m	8.4 $\mu\text{W}/\text{cm}^2$	373.3 $\mu\text{W}/\text{cm}^2$	2.3%
Total						49.9%

(The KRLB-LD antenna model is specified only as “ODD880620NM”. Since no further information is provided, we have assumed a typical 8-slot UHF antenna. There is sufficient margin between the summed maxima and the FCC MPE that even if a different antenna model is used by KRLB-LD there should be no issue regarding compliance.)

These calculations show that the maximum calculated power density produced at two meters above ground level by the proposed operation of KZJJ and the present operation of the other stations at this site (were their maxima to coincide, which they do not) is 49.9% of the FCC standard for uncontrolled environments.

The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency exposure in excess of FCC guidelines.



Ground-Level RF Exposure

OET FMModel

KZJJ 283A

Antenna Type: Type 2
No. of Elements: 1
Element Spacing: 1.0 wavelength

Distance: 500 meters
Horizontal ERP: 0.92 kW
Vertical ERP: 0.92 kW

Antenna Height: 18.3 meters AGL

Maximum Calculated Power Density is 63.6 $\mu\text{W}/\text{cm}^2$ at 17 meters from the antenna structure.

GRANT

ADAMS

CONNELL

BASIN CITY

FRANKLIN

MESA

60 dBu

70 dBu

RICHLAND

WEST RICHLAND

BENTON CITY

WEST PASCO

PASCO

KENNEWICK

FINLEY

BURBANK

WALLA WALLA

WALLULA

BENTON

PROSSER

IRRIGON

UMATILLA

UMATILLA

BOARDMAN

MORROW

HERMISTON

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KZJJ 283A Contour Map

0 5 10 15
Kilometers

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