

March 2017
FM Translator K262AU
Crescent City, California Channel 294D
Allocation Study

250 Mile Window Application

This application is being filed as a modification of a “250 Mile Window” construction permit, which modified an authorized FM translator for use with an AM station.

AM Station Callsign: KPOD

AM Station Class: C

Translator Distance: 177 kilometers

This modification reduced height and ERP at the authorized location, in order to facilitate construction.

The translator applicant (Bicoastal Media Licenses III, LLC) is a sister entity of the licensee of the AM station (Bicoastal Media Licenses II, LLC). Out of an abundance of caution, it is expressly stated that the applicant has entered into a retransmission agreement with the primary station licensee.

Allocation Study

The attached spacing study shows the spacing between the proposed translator site and the location of cochannel and adjacent channel stations and proposals. This study was made with the Commission's Class A spacing requirements, and individual situations were examined to determine the lack of prohibited contour overlap per the requirements of §74.1204 of the Rules. There are no cochannel or adjacent channel facilities close enough to require detailed allocation study maps as a part of this application.

The attached spacing study demonstrates compliance with §73.207 of the Commission's Rules regarding spacing restrictions to stations which are 53 or 54 channels removed from the proposed operation.

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SEARCH PARAMETERS                      FM Database Date: 170322
Channel: 294A    106.7 MHz                      Page 1
Latitude: 41 45 35
Longitude: 124 11 28
Safety Zone: 50 km
Job Title: CC 294

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Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
K293AU LIC	YREKA CA	BLFT-60518ACX	293D 106.5	0.010 977.0	41-44-04 122-44-49	90.9	120.16 0.00	0 TRANS
K293AB LIC	CAVE JUNCTION OR	BLFT-921230TB	293D 106.5	0.010 795.0	42-15-31 123-39-43	38.1	70.66 0.00	0 TRANS
VAC	POWERS OR	RM-11088	293C2 106.5	0.000 0.0	42-53-01 124-04-19	4.4	125.23 19.23	106 CLEAR
K262AU CP	CRESCENT CITY CA	BPFT-60129AGX	294D 106.7	0.250 68.0	41-45-35 124-11-28	0.0	0.00 0.00	0 TRANS
K294AZ LIC	EUREKA CA	BLFT-50223ABW	294D 106.7	0.250 759.0	40-43-38 123-58-22	170.9	116.12 0.00	0 TRANS
K294AS LIC	ASHLAND OR	BLFT-40702ABX	294D 106.7	0.078 727.0	42-17-55 122-44-53	62.8	133.66 0.00	0 TRANS
KCGP-LP LIC	GRANTS PASS OR	BLL-21009ACO	294L1 106.7	0.070 -44.6	42-23-41 123-21-43	43.8	98.40 0.00	0 LPFM
KRDW-LP LIC	SMITH RIVER CA	BLL-21009AAB	297L1 107.3	0.100 -94.6	41-52-58 124-08-08	18.6	14.43 0.00	0 LPFM

===== END OF FM SPACING STUDY FOR CHANNEL 294 =====

March 2017
FM Translator K262AU
Crescent City, California Channel 294D
RF Exposure Study

Facilities Proposed

The proposed operation will be on Channel 294D (106.7 MHz) with an effective radiated power of 250 watts. Operation is proposed with an antenna to be mounted on a 30 foot tall tower attached to the transmitter building.

The proposed antenna support structure will not exceed 60.96 meters (200 feet) above ground and does not require notification to the Federal Aviation Administration. Therefore, this structure does not require an Antenna Structure Registration Number

The proposed site coordinates (in NAD27 datum rounded to the nearest whole second) match those of KPOD(AM) on ASR 1013617. But this is a separate structure, about 18 meters from the KPOD(AM) tower.

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.

$$S(\mu W / cm^2) = \frac{33.40981 \times AdjERP(Watts)}{D^2}$$

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 5 00 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 Jampro JLLP-2 antenna proposed for use. The highest calculated ground level power density occurs at a distance of 11 meters from the base of the antenna support structure. At this point the power density is calculated to be 48.8 $\mu W/cm^2$.

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

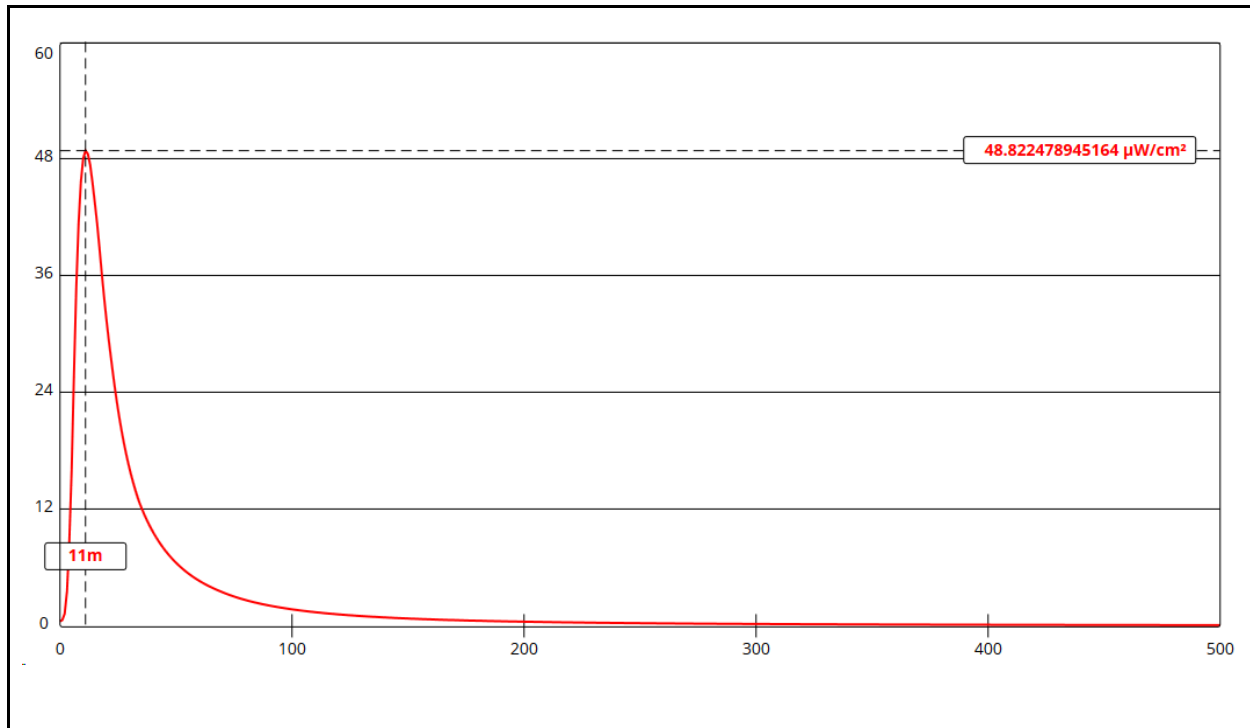
Call	Avg or Peak ERP Antenna Model	Relative Field	Height AGL	Calculated Max Exposure	Gen Pub FCC Limit	% of Limit
K262AU Ch 294D	0.250 kW H 0.250 kW V JAM JLLP-2 half wave	FMMModel Type 2	8 m	48.8 $\mu\text{W}/\text{cm}^2$	200 $\mu\text{W}/\text{cm}^2$	24.4%
KHSR 220A	4.5 kW H 4.5 kW V ERI FMXL-3E-HW half wave	FMMModel Type 3	70 m	2.8 $\mu\text{W}/\text{cm}^2$	200 $\mu\text{W}/\text{cm}^2$	1.4%
KCRE-FM 232C3	25 kW H 25 kW V JAM JHPC-3 full wave	FMMModel Type 2	82 m	40.6 $\mu\text{W}/\text{cm}^2$	200 $\mu\text{W}/\text{cm}^2$	20.3%
KPOD-FM 250A	6 kW H 6 kW V JAM JCP-3 half wave	FMMModel Type 2	90 m	8.0 $\mu\text{W}/\text{cm}^2$	200 $\mu\text{W}/\text{cm}^2$	4.0%

These calculations show that the maximum calculated power density produced at two meters above ground level by the proposed operation and the present operation of the other stations at this site (were their maxima to coincide, which they do not) is $100.2 \mu\text{W}/\text{cm}^2$, which is 50.1% of $200 \mu\text{W}/\text{cm}^2$ (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.

AM Station KPOD

The translator antenna will be installed on a structure which is adjacent to the tower used by AM station KPOD 1240 kHz. KPOD operates with 1000 watts nondirectional fulltime. The tower is 140.7 electrical degrees tall, or 39% of the station wavelength. Using Tables 1-4 in OET Bulletin No. 65, the fencing distance requirement for this station is 2 meters from the tower base. The tower is fenced to at least this distance.



Ground-Level RF Exposure

OET FMModel

Crescent City 294D

Antenna Type: Jampro JLLP-2 (Type 2)
No. of Elements: 2
Element Spacing: 0.5 wavelength

Distance: 500 meters
Horizontal ERP: 250 watts
Vertical ERP: 250 watts

Antenna Height: 8 meters AGL

Maximum Calculated Power Density is 48.8 $\mu\text{W}/\text{cm}^2$ at 11 meters from the antenna structure.