

CENTRAL COAST MEDIA EDUCATION FOUNDATION
KPCR-LP, FCC Facility ID 195593
PROPOSED MINOR CHANGE OF LOW POWER FM FACILITY

Channel	225	[Channel Change per §73.870(a)(1) -- see below]
New Location:	37 12 58.1 N, 121 57 37.1 W	
Antenna AGL	9 m	
Antenna Ground	245 m	
Antenna COR	254 m	
HAAT	-50 m	[Calculated from FCC website -- see below]
Power	100 w	

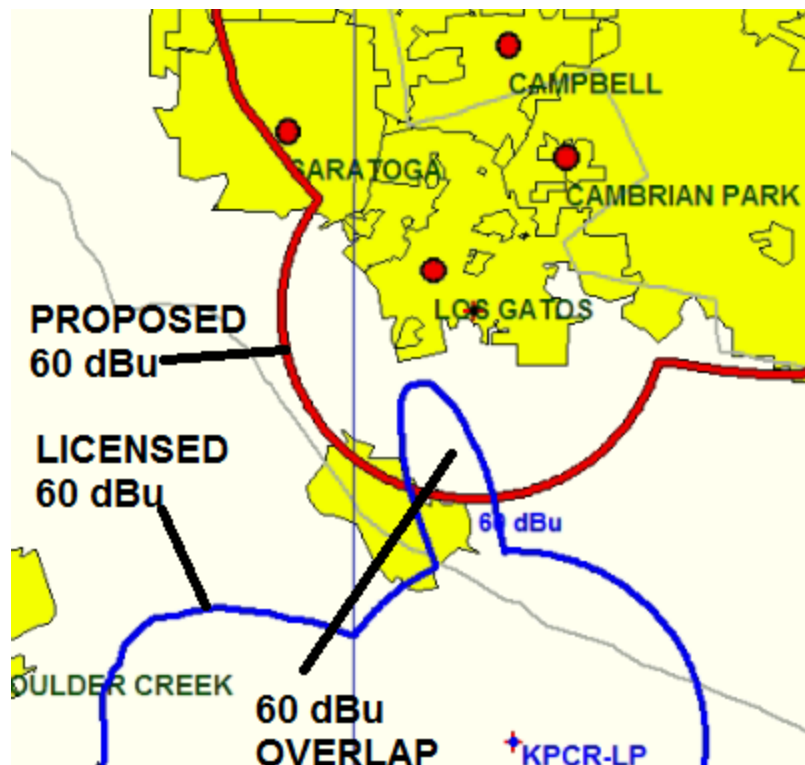


Figure 1: Proposed 60 dBu F(50,50) (RED) with licensed KPCR-LP 60 dBu (BLUE) Minor change move demonstrated.

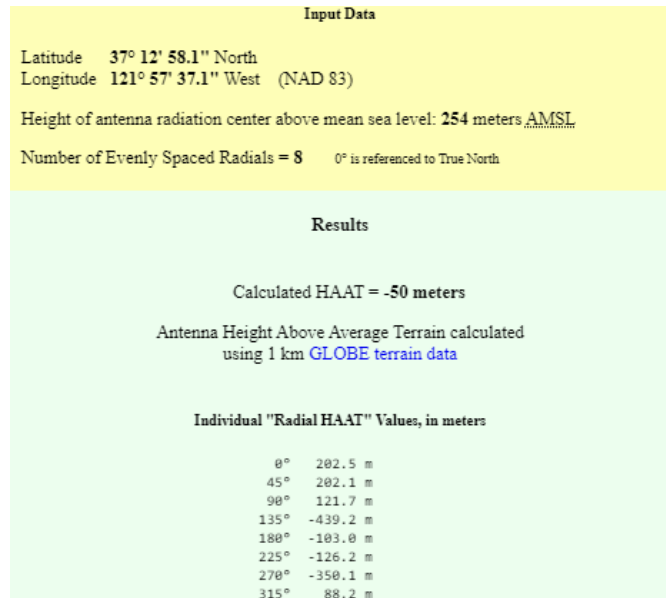


Figure 2: HAAT Calculation

REQUEST FOR REPLACEMENT CHANNEL

§73.870(a)(1) permits LPFM channel change "upon a technical showing of reduced interference, to any frequency". KPCR-LP is currently plagued by first-adjacent channel interference from first adjacent channel KCDU (FM). Figures 3 through 5 demonstrate interference of KPCR-LP on Channel 270.

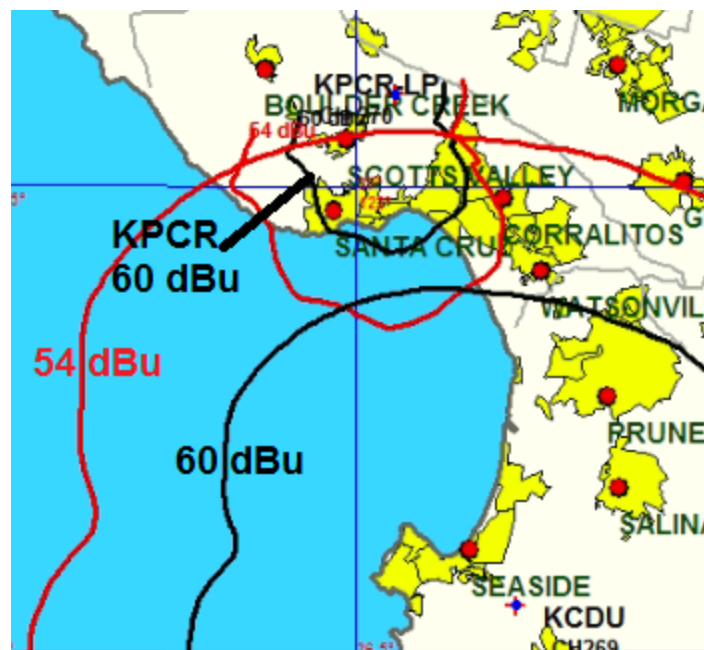


Figure 3: KPCR-LP vs KCDU (FM) 54 dBu interfering contour

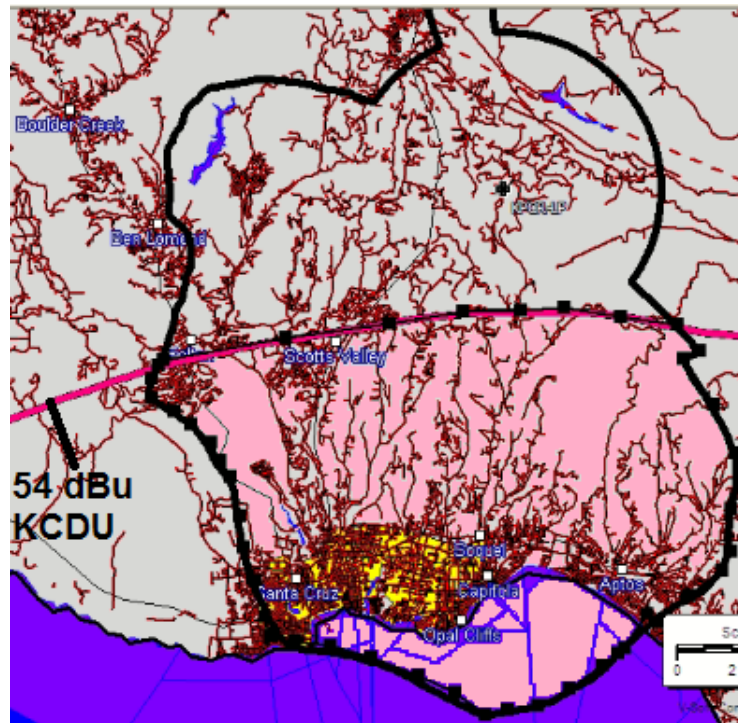


Figure 4: Licensed Facility: 56% of the KPCR-LP 60 dBu (87.8% of the population) is within the 54 dBu KCDU interference area (shaded pink above)

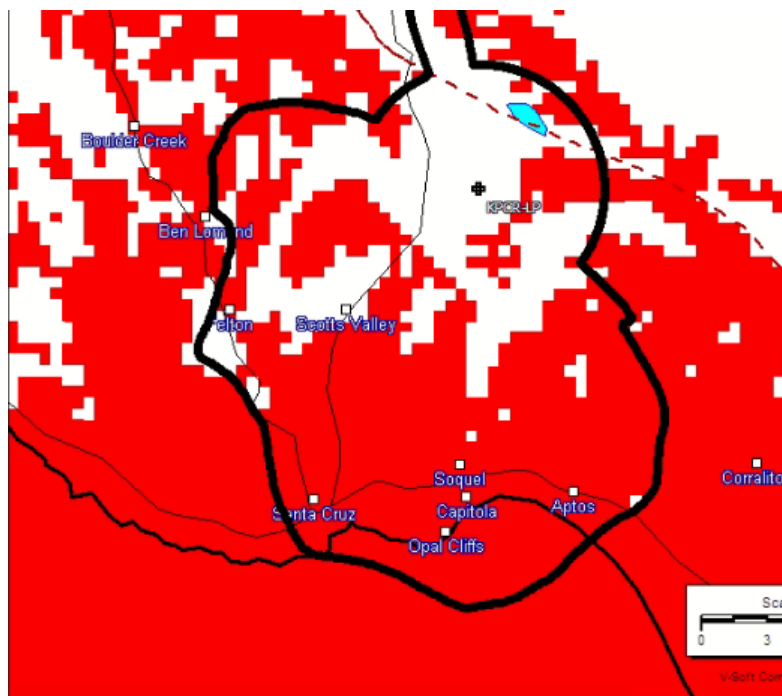


Figure 5: Licensed Facility: KPCR-LP 60 dBu FCC contour and Longley-Rice first adjacent interference (red) from KCDU (using standard FCC ratios)

KPCR-LP proposes moving to Channel 225. Figures 6 and 7 demonstrate interference on Channel 225 is less than current channel.

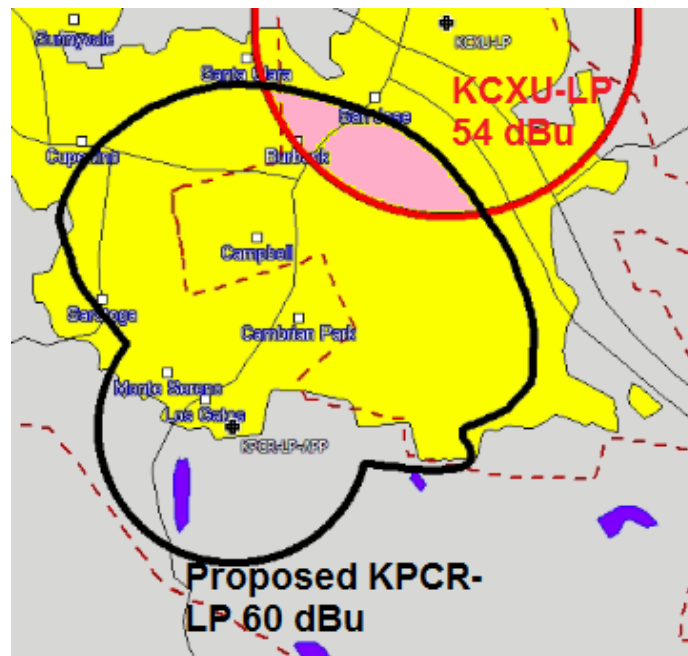


Figure 6: Above - Proposed KPCR-LP: KPCR 60 dBu with 8.5% of its 60 dBu area (12.1% population) receiving first adjacent interference from within KCTXU-LP's 54 dBu.

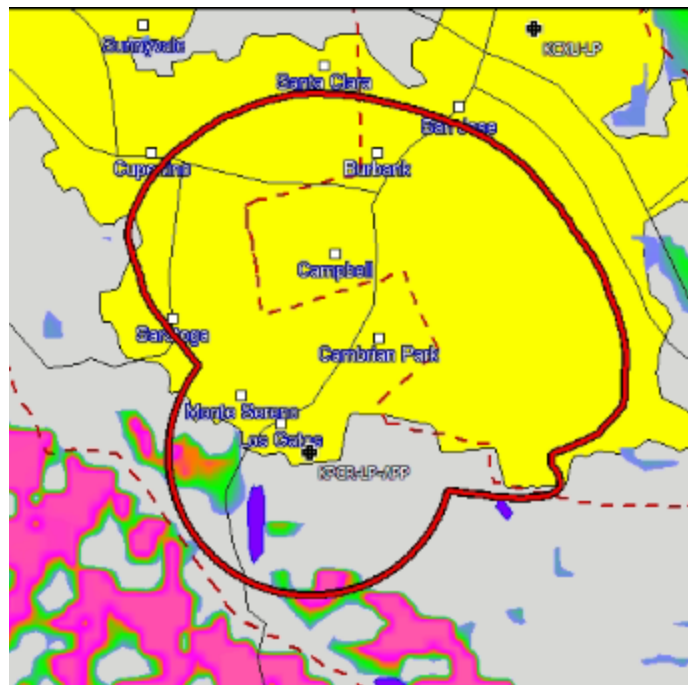


Figure 7: Above: Proposed KPCR-LP: KPCR-LP 60 dBu FCC contour with Longley-Rice plot of signal from first-adjacent channel KTOM-FM (pink is >60 dBu, red > 54 dBu, green >47 dBu). Interference is de minimis due to mountain-terrain blocking of KTOM-FM.

Conclusion: There is significantly less interference on the proposed Channel 225 compared to the current Channel 270, qualifying for channel change under §73.870(a)(1).

SPACING

Central Coast Media Education Foundation									
REFERENCE						DISPLAY DATES			
37 12 58.10 N.			CLASS = L1			DATA 09-10-21			
121 57 37.10 W.			Current Spacings to 2nd Adj.			SEARCH 09-25-21			
----- Channel 225 - 92.9 MHz -----									
Call		Channel	Location		Azi	Dist	FCC	Margin	

(*1)DKQEK-LP	CP	225L1	Cupertino	CA	308.7	12.29	23.5	-11.2	
(*2)DK226CQ	APP-D	226D	Gilmore	CA	137.1	24.02	27.5	-3.5	
KRZZ	LIC	227B	San Francisco	CA	321.5	67.05	66.5	0.55	
KCXU-LP	APP	224L1	San Jose	CA	27.0	14.37	13.5	0.9	
KCXU-LP	CP	224L1	San Jose	CA	27.0	14.37	13.5	0.9	
KTOM-FM	LIC	224B1	Marina	CA	168.3	75.21	73.5	1.7	
KCXU-LP	LIC	224L1	San Jose	CA	27.5	18.89	13.5	5.4	
K225CX	CP -D	225D	Palo Alto	CA	332.6	33.57	25.5	8.1	
KREV	APP-Z	224A	Alameda	CA	325.5	67.50	55.5	12.0	
KREV	LIC-Z	224A	Alameda	CA	325.5	67.50	55.5	12.0	
K225CK	LIC-D	225D	Union City	CA	356.8	40.99	25.5	15.5	
KOSO	LIC	225A	Patterson	CA	61.5	91.91	66.5	25.4	
KXSM	LIC-N	226A	Chualar	CA	144.9	102.58	55.5	47.1	

All separation margins include rounding

(*1) Application for license (File No. BLL-20150518APL) dismissed/Petition for reconsideration concerning dismissal of modification application (File No. BMPL-20180705AAQ) dismissed as moot. call letters deleted by 3/28/2019 letter 1800B-IB. Subsequent contests by licensee were dismissed. FCC sent licensee cease operation order 1800B3-IB 4/16/2020.

(*2) Construction permit BNPFT-20171220ABI for new FM translator station K226CQ expired 07/30/2021 without being constructed even with extension; with 58 days elapsed any reconsideration has expired. Regardless, the translator construction permit contours did not conflict with the proposed LPFM (see Figure 8 below), and by any chance the translator permit can be reconsidered a waiver is requested in the public interest due to no FCC interference.

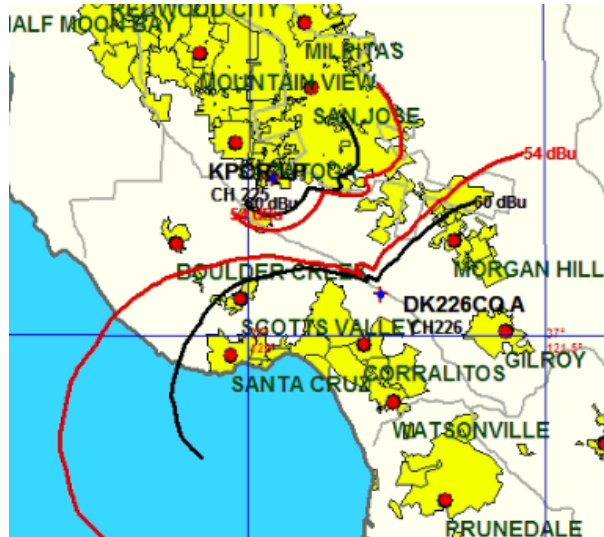
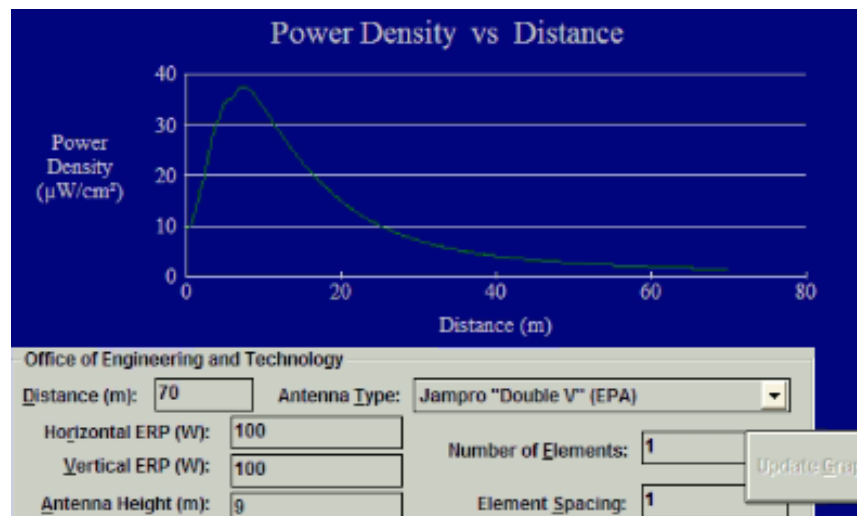


Figure 8

NIER ANALYSIS



Power for the proposed will be 100 watts mounted on a tree. The OET program FM Model was used to determine the maximum predicted RF exposure.

The settings used were:

Antenna: Jampro Double V
 Horizontal ERP (W): 100
 Vertical ERP (W): 100
 Antenna Height (m): 9

Number of Elements: 1

Element Spacing: 0

Using these settings, the maximum predicted RF exposure for a human standing on the ground would be $35.7 \mu\text{W}/\text{cm}^2$ at 7.1 m. This represents 18% of the Maximum Permissible Exposure (MPE) of $200 \mu\text{W}/\text{cm}^2$ for uncontrolled environments. There are no significant other sources of RF energy on the structure (other broadcasters).

The site will have a sign regarding RF exposure hazards to tower climbers posted. If any work needs to be done around the structure the RF power will be temporarily shut off.