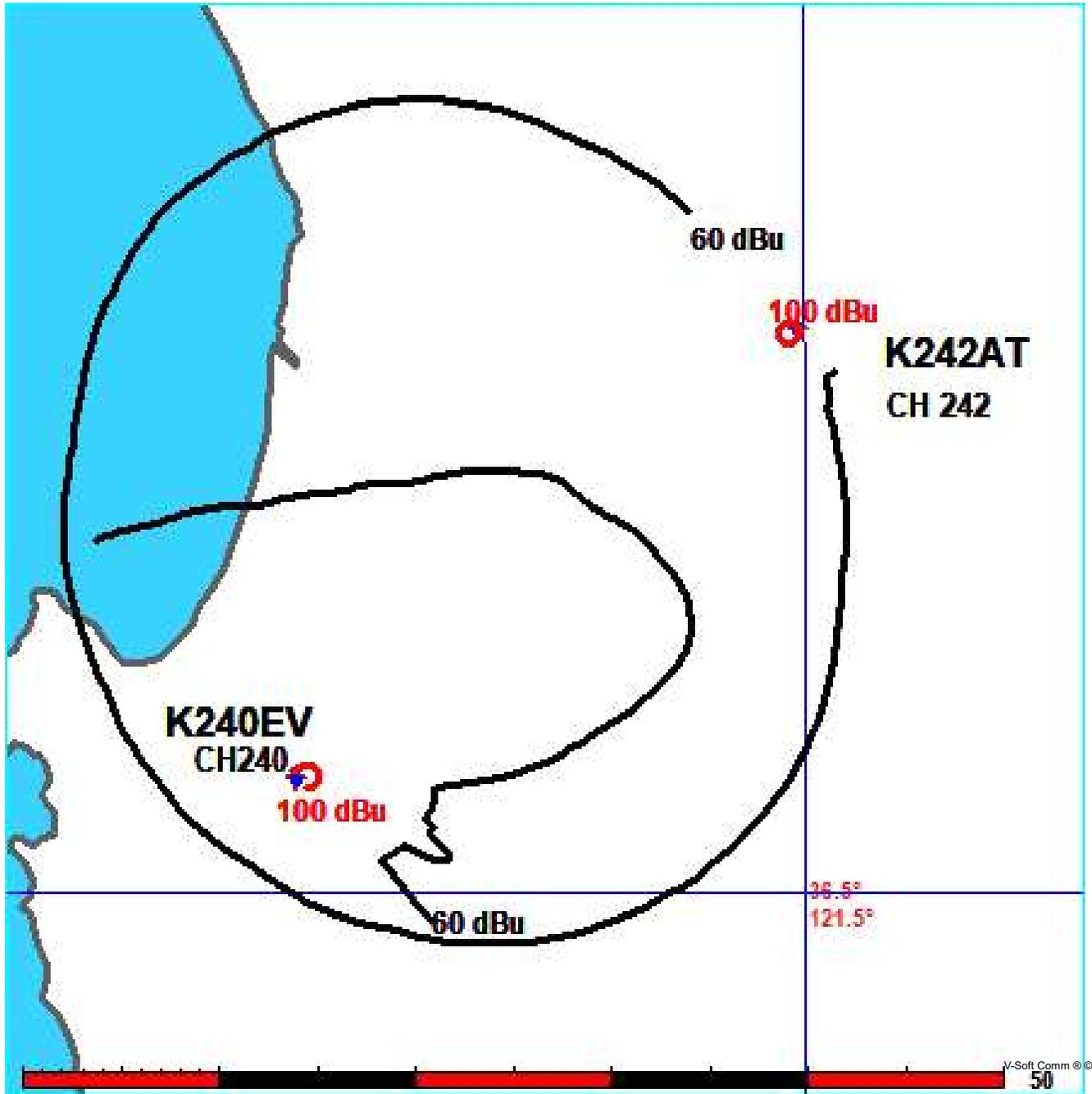


FMCommander Single Allocation Study - 08-08-2023 - GLOBE 30 Sec
K242AT's Overlaps (In= -6.1 km, Out= 12.21 km)

K242AT CH 242 D DA
Lat= 36 45 22.00, Lng= 121 30 10.00
0.25 kW 689.1 m HAAT, 978.5 m COR
Prot.= 60 dBu, Intef.= 100 dBu

K240EV CH 240 D DA BLFT20190523AAU
Lat= 36 33 08.90, Lng= 121 47 20.80
0.25 kW 0 m HAAT, 411 m COR
Prot.= 60 dBu, Intef.= 100 dBu



Compliance with C.F.R. 74.1204

The proposed FM Translator to operate on channel 242 is located within the protected 54dBu service contour of second adjacent station KWAV, 245B, Monterey, CA.

According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

The proposed ERP for K242AT.P:	250 watts
The proposed COR for K242AT.P:	44 meters
KWAV F(50/50) contour at proposed site:	86.4dBu
The F(50/10) contour of proposed K242AT.P:	126.4dBu

The predicted distance to the 126.4dbu interfering contour is 53.3 meters. Taking into account the vertical elevation pattern of the Scala CA2-CP single bay antenna and the height above ground of 44m, it has been determined that the interfering contour of 126.4dbu does not reach the ground. As seen in Exhibit 1-A2, the lowest elevation for this interfering contour is 19.6M above ground at a distance of 38m from the antenna.

The proposed tower is located in close proximity to several other towers. There are no potentially occupied structures near these communications towers which are tall enough to enter the 126.4dbu contour within the 53 meter radius from the base of the tower.

Therefore, Central Valley Broadcasting respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 1 - A2
 74.1204(d) Showing
 K242AT
 Salinas, CA

ERP (kw): 0.25
 Height of Antenna above Ground (m): 44
 Translator's IX Contour: 126.4
 Antenna Type: Scala CA2-CP/1

<u>Depression Angle from Horizon</u>	<u>Antenna Relative Field</u>	<u>ERP (kw) from the Antenna RF</u>	<u>Dist. To IX Contour (m)</u>	<u>Height IX Contour Above Ground (m)</u>
0	1.000	0.2500	53.0848	44.000
5	0.990	0.2450	52.5539	39.420
10	0.979	0.2396	51.9700	34.976
15	0.952	0.2266	50.5367	30.920
20	0.920	0.2116	48.8380	27.296
25	0.877	0.1923	46.5554	24.325
30	0.829	0.1718	44.0073	21.996
35	0.772	0.1490	40.9814	20.494
40	0.715	0.1278	37.9556	19.603
45	0.647	0.1047	34.3459	19.714
50	0.570	0.0812	30.2583	20.821
55	0.487	0.0593	25.8523	22.823
60	0.388	0.0376	20.5969	26.163
65	0.292	0.0213	15.5008	29.952
70	0.187	0.0087	9.9269	34.672
75	0.095	0.0023	5.0431	39.129
80	0.045	0.0005	2.3888	41.647
85	0.032	0.0003	1.6987	42.308
90	0.030	0.0002	1.5925	42.407

Human exposure to excess levels of radiofrequency radiation

The proposed facility will be built utilizing a single bay Scala CA2-CP circularly polarized antenna.

According to OET 65, “Applicants and licensees should be able to calculate, based on considerations of frequency, power and antenna characteristics the distance from their transmitter where their signal produces an RF field equal to, or greater than, the 5% threshold limit. The applicant or licensee then shares responsibility for compliance in any accessible area or areas within this 5% “contour” where the appropriate limits are found to be exceeded.”

Using the EPA Type 1 “worst case scenario” to analyze the potential RF density at the proposed facility results in a maximum contribution of $5.2\mu\text{W}/\text{cm}^2$ at a distance of 12 meters from the tower, which is 2.6% of the uncontrolled (public) exposure limit.

Therefore, because the proposed facility will not cause an RF field that is equal to or greater than 5% of the $200\mu\text{W}/\text{cm}^2$ limit for uncontrolled exposure at any point, the proposed facility complies with the requirements of OET 65.

Central Valley Broadcasting will fully cooperate with other site users to temporarily reduce power or cease broadcasting, as necessary, to protect workers and others having access to the site from excessive levels of RF Radiation.