

TECHNICAL STATEMENT  
K280FC WAIPAHU, HAWAII 280D  
KONA COAST RADIO, LLC  
FCC FORM 349  
FEBURARY 2011

This Technical Statement is in support of an FCC form 349 filed by Kona Coast Radio, LLC for a minor change in the licensed facility of K280FC, facility ID 151517. It is proposing to relocated to an existing tower site located at N.  $21^{\circ}-23'-45''$ , W.  $158^{\circ}-05'-58''$ , NAD 27. It proposes to operate with an Effective Radiated Power of 10 watts. K280FC will utilize a Nicom model BKG77/2L, two bay, non-directional antenna, with half (0.5) wavelength spacing. The antenna will be mounted at the 13 meter level on a 20 meter overall tower, with a Center of Radiation at 708 meters Above Mean Sea Level.

Figure 1 shows a detailed channel interference study conducted from the proposed site for K280FC. It shows that the proposed operation of K280FC on channel 280D, will not cause any prohibited outgoing interference to any licensed or proposed FM services, with the exception of KHAI Wahiawa, Hawaii, facility ID 164206, operating on channel 278C2, and KPHW Kaneohe, Hawaii, facility ID 27424, operating on channel 282C. The proposed operation of K280FC on 280D is located within the protected 60 dB $\mu$  contour of both of these 2nd adjacent channel stations. Figure 2 shows the predicted F(50-50) field strength of KHAI at the proposed K280FC transmitter site is 114.8 dB $\mu$ . Therefore, the respective predicted interfering contour F(50-10) generated by the proposed K280FC on channel 280D is an additional 40 dB $\mu$  or 154.8 dB $\mu$ . Figure 3 shows the predicted F(50-50) field strength of KPHW at the proposed K280FC transmitter site is 81.9 dB $\mu$ . Therefore, the respective predicted interfering contour F(50-10) generated by the

proposed K280FC on channel 280D is 121.9 dB $\mu$ . Since the worse case interference contour to any second adjacent channel station would be 100 dB $\mu$ , this lower field strength was used for further study. Figure 4 shows the coverage area for the 100 dB $\mu$  interference contour F(50-10) and shows that there is no population in the area of interference. It should be noted that KHAI has a pending application to upgrade from a class C2 to a Class C facility at its current tower site. This would obviously have a higher field strength level at the proposed K280FC tower site, thus only the current lower licensed class C2 operation for KHAI was studied.

The applicant, Kona Coast Radio, LLC, respectfully requests a waiver of C.F.R. 74.1204(d) of the Commission's rules based on the fact that there is no population within the area of predicted interference. There are no homes nearby the proposed existing tower site, which is a privately owned remote mountain area, with private access. The transmitter building is uninhabited and does not have indoor plumbing. The 100 dB $\mu$  interference contour will only extend 220 meters.

Figure 5 shows that the proposed operation of K280FC will 60 dB $\mu$  overlap with the current 60 dB $\mu$  contour of the licensed operation of K280FC.

It was concluded that the new proposed operation of K280FC Waipahu, Hawaii on channel 280D will not cause any harmful interference to any existing stations, and will be in full compliance with the commission's rules.

FIGURE 1, DETAILED INTEFERENCE STUDY  
K280FC WAIPAHU, HAWAII, CHANNEL 280D  
Average Protected F(50-50)= 13.42 km  
Omni-directional

REFERENCE  
21 23 45.0 N.  
158 05 58.0 W.

CH# 280D - 103.9 MHz, Pwr= 0.01 kW, HAAT= 577.8 M, COR= 708 M  
Average Protected F(50-50)= 13.42 km  
Omni-directional

DISPLAY DATES  
DATA 02-19-11  
SEARCH 02-21-11

CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap in km)	*OUT*
280D Waipahu	K280FC *	LIC _V_	HI	82.0 262.1	9.6 BLFT20070820AAD	21 24 28.0 158 00 27.0	0.010 78	10.2	3.2 Kona Coast Radio, Llc	-14.3	-46.4 *
278C Wahiawa	KHAI **	RSV-A ____	HI	334.9 154.9	0.2	21 23 51.0 158 06 01.0	100.000 600	14.7 736	95.1 Educational Media Foundati	-24.7	-95.1 **
278C Wahiawa	KHAI **	APP DCX	HI	334.9 154.9	0.2 BPED20070525AHV	21 23 51.0 158 06 01.0	53.000 597	6.4 742	72.4 Educational Media Foundati	-16.4	-72.5 **
282C Kaneohe	KPHW **	LIC _CY	HI	101.5 281.7	36.3 BLH19971010KG	21 19 49.0 157 45 24.0	75.000 645	12.0 771	86.7 Cox Radio, Inc.	9.3	-50.6 **
280C Paauilo	R11944	ADD ____	HI	115.0 295.6	197.1	20 38 18.0 156 23 01.0	100.000 600	222.5 1040	105.3 Educational Media Foundati	-39.9	38.3
278C2 Wahiawa	KHAI **	LIC ZEX	HI	334.9 154.9	0.2 BLED20070214ACB	21 23 51.0 158 06 01.0	2.200 597	1.1 742	35.1 Educational Media Foundati	-11.1	-35.2 **
279C Paauilo	R11944	DEL ____	HI	115.0 295.6	197.1	20 38 18.0 156 23 01.0	100.000 600	152.3 1040	105.3 Educational Media Foundati	30.2	68.5
279C Paauilo	KNUQ	CP _HX	HI	115.1 295.7	196.7 BPH20080620AJL	20 38 13.0 156 23 21.0	100.000 460	146.0 845	99.7 Visionary Related Entertai	36.1	73.6
279C Paauilo	KNUQ	LIC _CN	HI	115.0 295.6	197.1 BLH19900425KB	20 38 18.0 156 23 01.0	100.000 369	144.5 828	98.3 Visionary Related Entertai	38.1	75.5
277C1 Kekaha	KSHK	LIC DC_	HI	293.6 113.1	151.6 BLH20000825AGV	21 56 11.0 159 26 43.0	51.000 280	9.8 452	62.7 Ohana Broadcast Company Ll	127.4	88.7
277C1 Kekaha	R11944	DEL ____	HI	293.6 113.1	151.6	21 56 11.0 159 26 43.0	100.000 299	11.8 446	80.8 Educational Media Foundati	125.4	151.4
279D Kahului	KNUQ-FM1	LIC _CN	HI	108.3 288.9	176.3 BLFTB19960523TC	20 53 28.0 156 29 23.0	0.550 -301	12.3 49	8.7 Visionary Related Entertai	149.5	144.4

Terrain database is USGS 03 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM  
In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
\*\*"affixed to 'IN' or 'OUT' values = site inside protected contour.

\* Translator being modified by this application.

\*\* No real life interference to these second adjacent channel stations since the proposed 100 DBU interference contour for K280FC will not cover any population. See the technical statement for more details.

FIGURE 2, KHAI 114.8 DBU PREDICTED CONTOUR AT SITE  
K280FC WAIPAHU, HAWAII, CHANNEL 280D

Coverage Study - USGS 03 SEC  
02-21-2011

KHAI CH278 C2, 2.2 kW, 597.0M HAAT, 742.0M COR AMSL  
Service Contour = 115 dBu. Population =

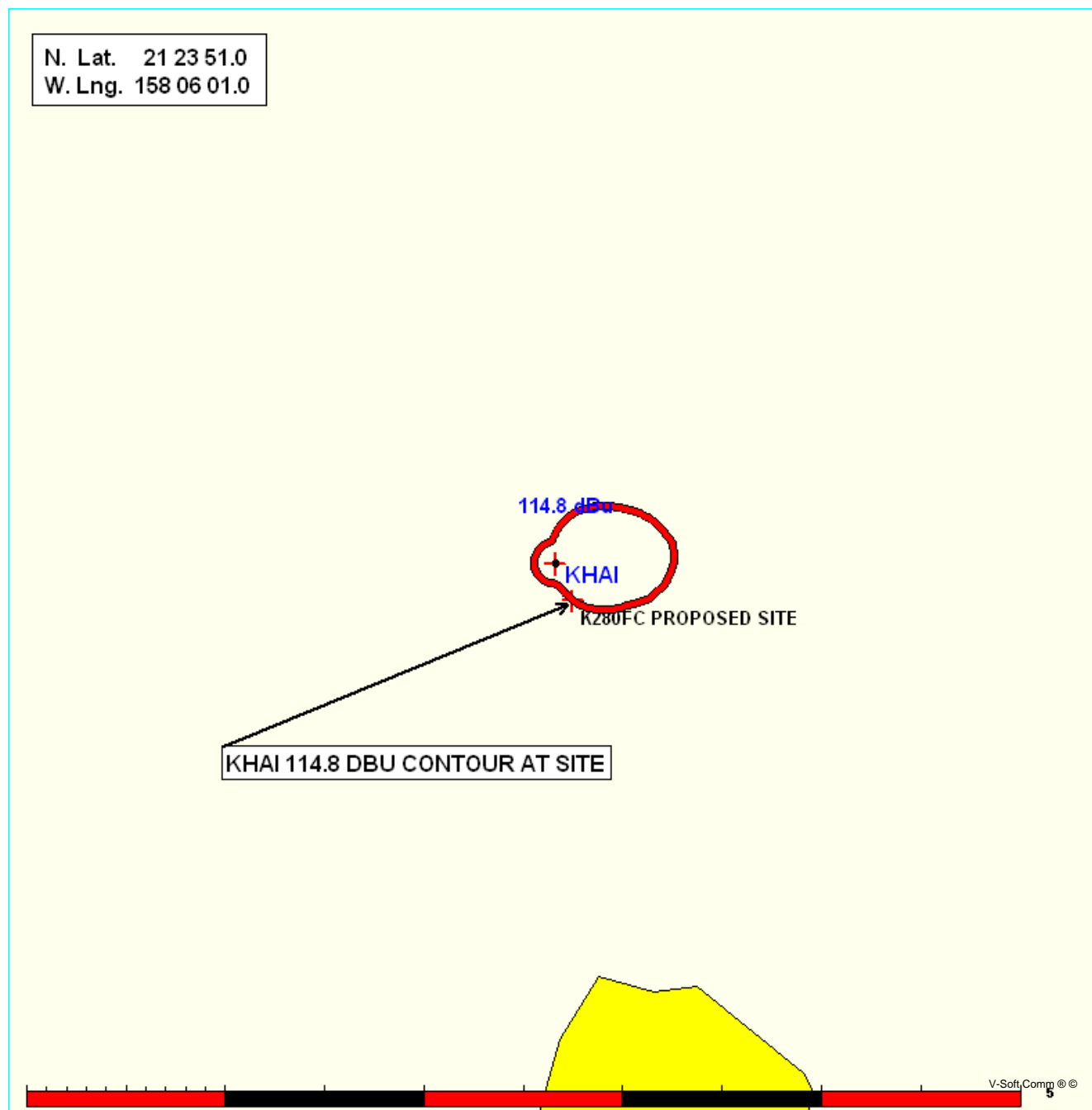


FIGURE 3, KPHW 81.9 DBU PREDICTED CONTOUR AT SITE  
K280FC WAIPAHU, HAWAII, CHANNEL 280D

Coverage Study - USGS 03 SEC  
02-21-2011

KPHW CH282 C , 75.0 kW, 645.0M HAAT, 771.0M COR AMSL  
Service Contour = 82 dBu. Population = 750,877

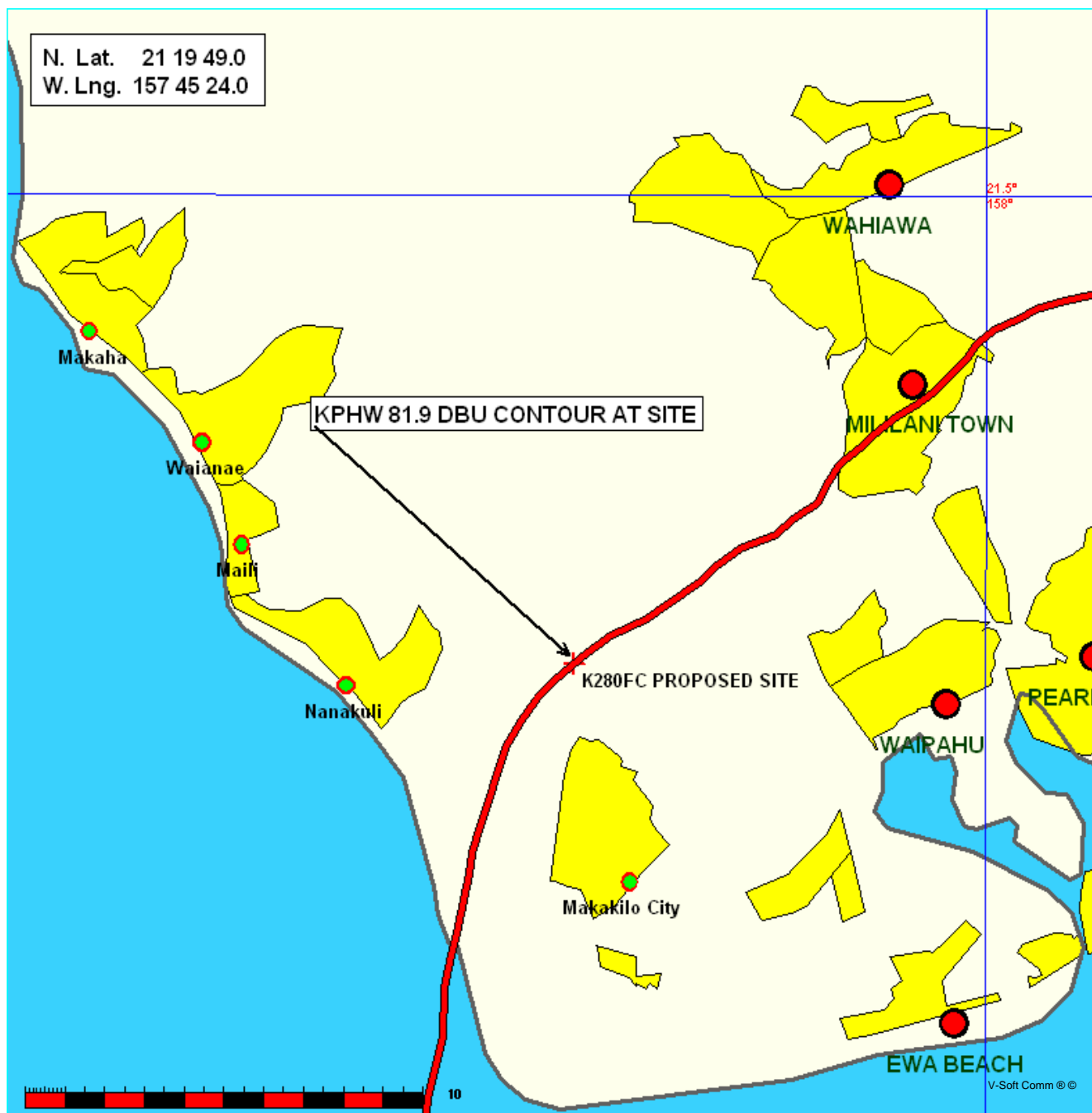
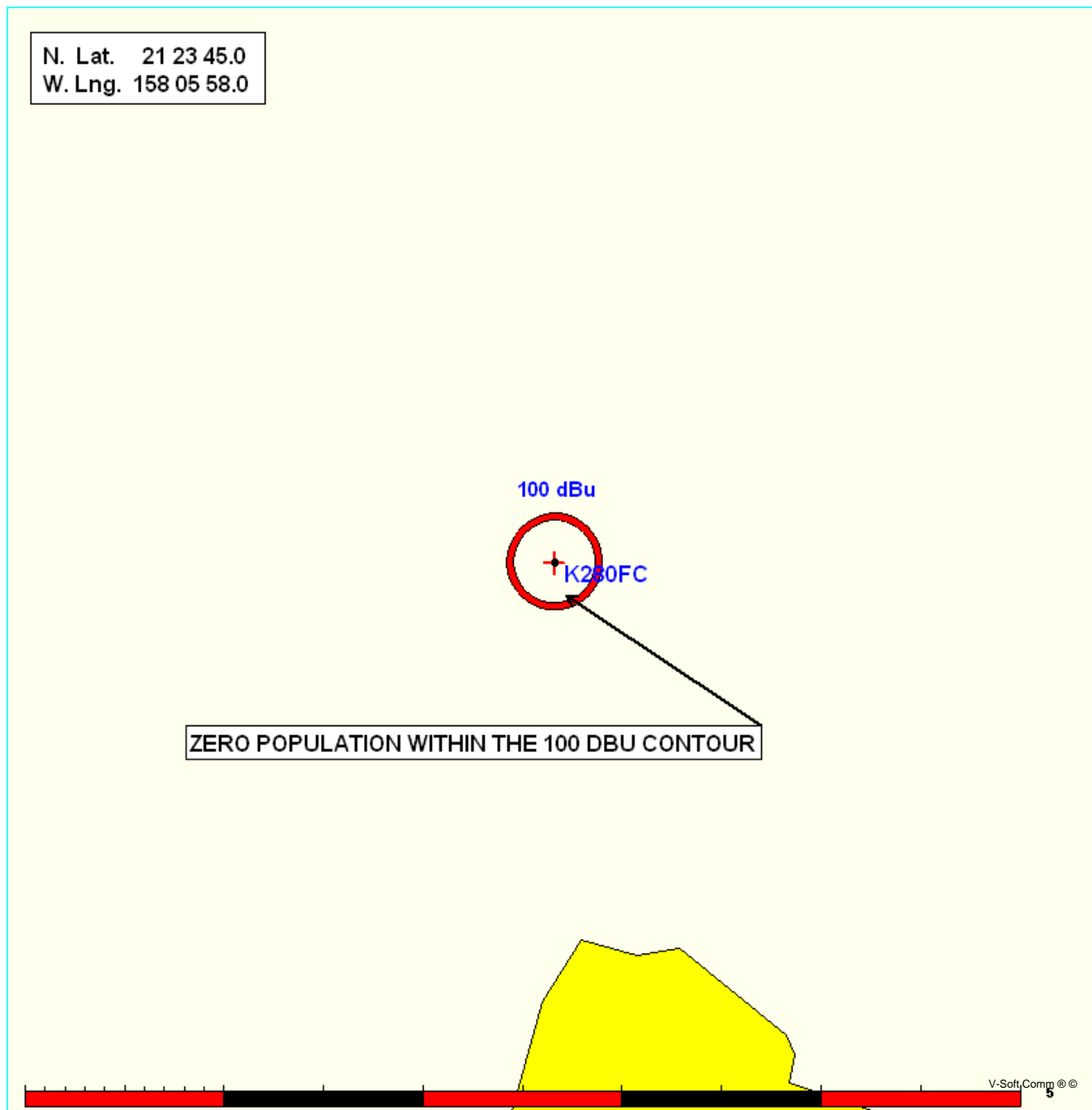


FIGURE 4, PREDICTED 100 DBU CONTOUR  
K280FC WAIPAHU, HAWAII, CHANNEL 280D

Coverage Study - USGS 03 SEC  
02-21-2011

K280FC CH280 D , 0.01 kW, 577.8M HAAT, 708.0M COR AMSL  
Interference Contour = 100 dBu. Population = 0



Coverage Study - USGS 03 SEC  
02-21-2011