

TECHNICAL STATEMENT
K280FC WAIPAHU, HAWAII 280D
BEACH TIME BROADCAST, LLC
FCC FORM 349
DECEMBER 2015

This Technical Statement is in support of an FCC form 349 filed by Beach Time Broadcast, LLC for a minor change in the licensed facility of K280FC, facility ID 151517. It is proposing to relocate to an existing tower site located at N. $21^{\circ}-24'-17''$, W. $158^{\circ}-06'-03''$, NAD 27. It proposes to operate with an Effective Radiated Power of 99 watts (0.099 KW). K280FC will continue to utilize a Scala model CA-5-CP, one bay, directional yagi type antenna. The antenna will be mounted at the 12 meter level on a 15 meter overall tower, with a Center of Radiation at 829 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 KLUU Wahiawa, Hawaii, facility ID 164206, operating on channel 278C, 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 μ contour of both of these 2nd adjacent channel stations. Since the worse case interference contour to any second adjacent channel station would be 100 dB μ , this field strength was utilized.

Figure 2 shows the coverage area for the 100 dB μ interference contour F(50-10) and shows that there is no population in the area of interference. The applicant, Beach Time Broadcast, 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 gated access. The transmitter building is uninhabited and does not have indoor plumbing. The 100 dB μ interference contour will only extend 0.7 kilometers, and only in one azimuth, or 100 degrees.

K280FC will continue to be a “fill-in” for KUPA(AM) Pearl City, Hawaii, facility ID 26441, operating on 1370 Khz. Figure 3 shows a coverage map for the proposed K280FC, and the daytime 2 mv/m for KUPA, as well as a 25 mile (40 km) radius from the KUPA tower site.

Figure 4 is the directional antenna data for the proposed Scala antenna.

Figure 5 shows that the proposed operation of K280FC will 60 dB μ overlap with the current 60 dB μ contour of the licensed operation of K280FC as required.

Figure 6 is a tabulation of the distance to the pertinent contours for the proposed 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 CHANNEL INTERFERENCE STUDY

K280FC WAI PAHU, HAWAII, CH. 280D

REFERENCE
21 24 17.0 N.
158 06 03.0 W.

CH# 280D - 103.9 MHz, Pwr= 0.099 kW DA, HAAT= 683.7 M, COR= 829 M
Average Protected F(50-50)= 27.44 km
Standard Directional

DISPLAY DATES
DATA 12-30-15
SEARCH 12-30-15

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*
280C Paauilo	AL4472	RSV-A	HI	115.4 296.0	197.20 RMIn v-16	20 38 13.0 156 23 21.0	100.000 600	221.7 1008	105.0	-53.2*	5.9
282C Kaneohe	KPHW	LIC_CX	HI	103.0 283.1	36.63 BMLH20130125AEB	21 19 49.0 157 45 24.0	75.000 645	11.8 771	85.6 Sm-kphw, Lic	-4.9	-49.7*
278C Wahiawa	KLUU	LIC_DEX	HI	175.9 355.9	0.80 BLED20150715ABB	21 23 51.0 158 06 01.0	100.000 597	4.7 742	47.4 Educational Media Foundati	-11.9*	-46.7*
280D Wai pahu	K280FC	LIC_DC	HI	171.7 351.7	0.99 BLFT20120917AAD	21 23 45.0 158 05 58.0	0.099 581	23.5 708	6.8 Beach Time Broadcast, Lic	-30.4*	-42.8*
280C Paauilo	KNUQ	LIC_HX	HI	115.4 296.0	197.20 BLH20130304AAW	20 38 13.0 156 23 21.0	100.000 460	210.8 845	99.7 Visionary Related Entertai	-42.3*	11.2
278C2 Wahiawa	KLUU	LIC_ZEX	HI	175.9 355.9	0.80 BLED20070214ACB	21 23 51.0 158 06 01.0	2.200 597	0.7 742	17.2 Educational Media Foundati	-8.0*	-16.5*
280D Kahului	KNUQ-FM1	LIC_DH	HI	109.7 290.3	204.81 BLFTB20141118AAC	20 46 32.0 156 14 50.0	0.095	104.3 2093	38.3 Visionary Related Entertai	71.5	78.7
279L1 Hilo	KIHL-LP	LIC	HI	120.8 301.8	361.11 BLL20070117ACL	19 43 00.0 155 08 15.0	0.100	286	324.8 Calvary Chapel Hilo		312.8

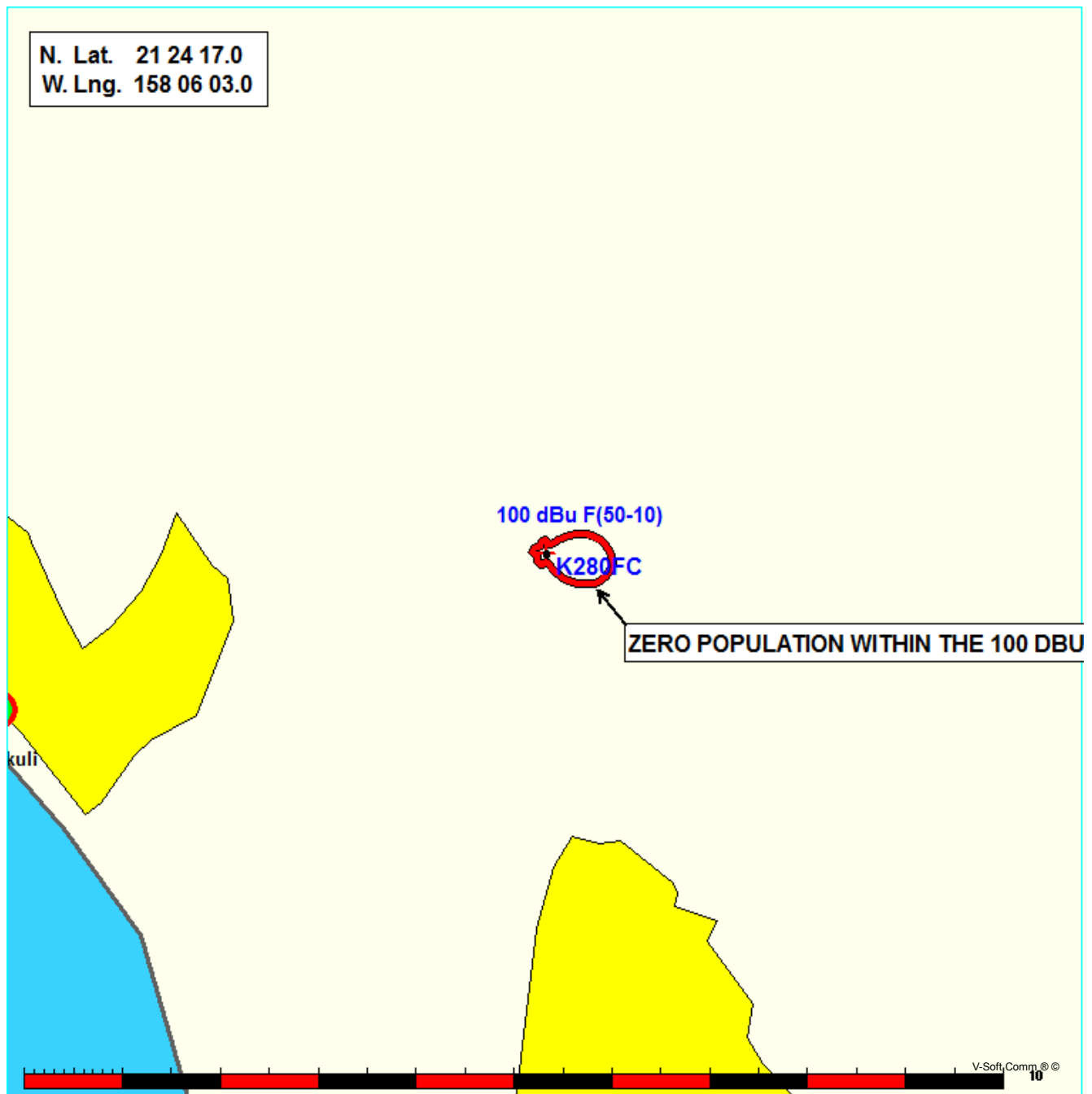
Terrain database is USGS 03 SEC, R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding.
Ant Column: (D= DA Standard, 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 restricted contour.

* No actual interference will be caused to either second adjacent channel stations KPHW or KLUU since the worse case proposed 100 DBU interference contour will not cover any population. See the Technical Statement for more details.

FIGURE 2 - PREDICTED 100 DBU CONTOUR
K280FC WAIPAHU, HAWAII, CH. 280D

Coverage Study - USGS 03 SEC
12-30-2015

K280FC CH280 D , 0.099 kW, 683.7m HAAT, 829.0m COR AMSL
Interference Contour = 100 dBu. Population = 0



K280FC

BLFT20120917AAD

Latitude: 21-24-17 N

Longitude: 158-06-03 W

ERP: 0.099 kW

Channel: 280

Frequency: 103.9 MHz

AMSL Height: 829.0 m

Elevation: 762.19 m

Horiz. Pattern: Directional

Vert. Pattern: No

Prop Model:

FIGURE 3 - FILL-IN MAP WITH KUPA(AM)**KUPA 40 KM (25 Mile) Radius****K280FC PROPOSED 60 DBU****KUPA 2.0 MV/M DAYTIME**

Scale 1:750,000

0 10 20 30 km

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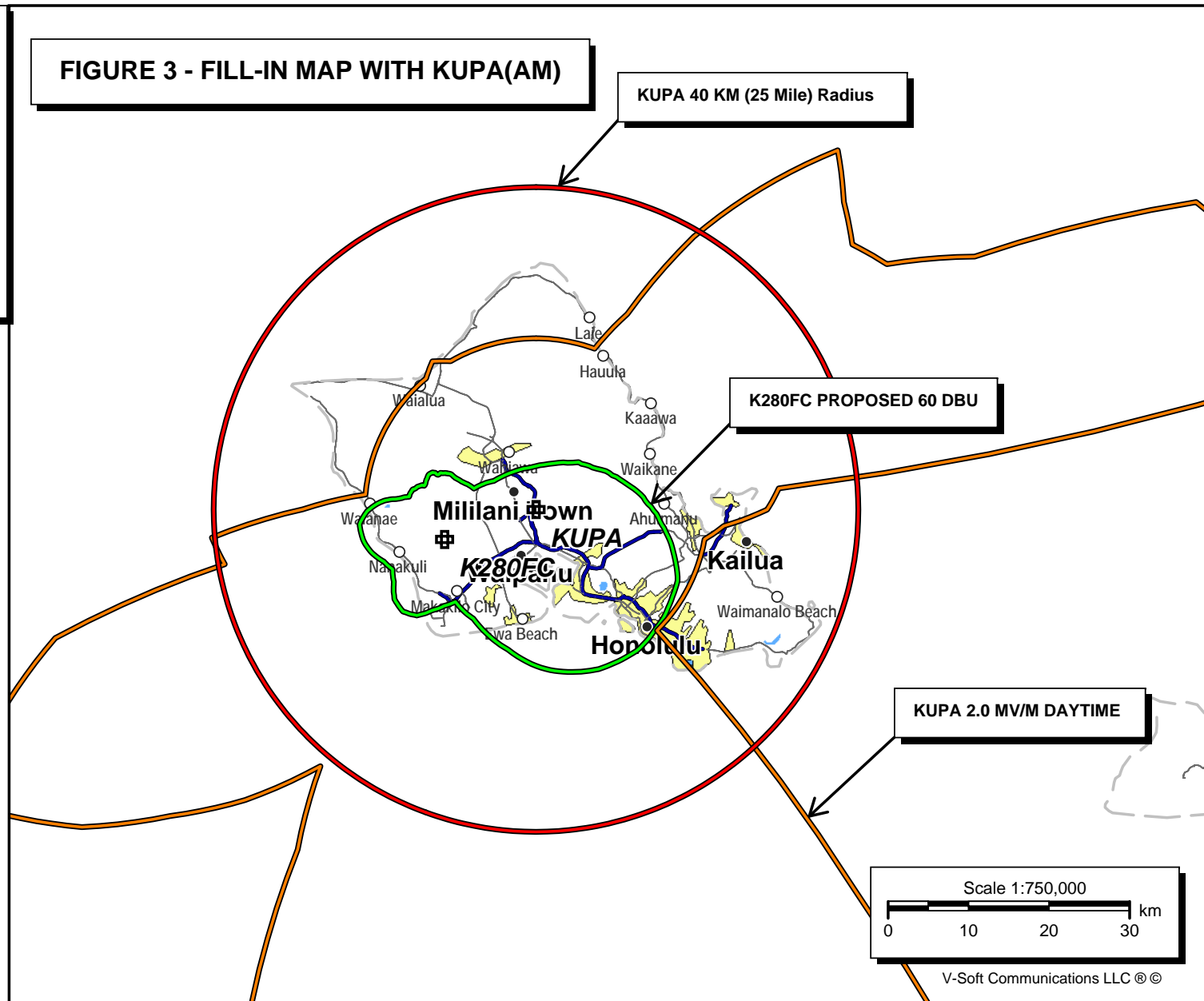


FIGURE 4 - DIRECTIONAL ANTENNA DATA

K280FC

12-30-2015

RMS(V) = .432

SCALA CA-5-CP

Graph is Relative Field

Azi	Field	dBk	kW
000	0.181	-24.890	0.003
010	0.157	-26.126	0.002
020	0.142	-26.998	0.002
030	0.134	-27.502	0.002
040	0.190	-24.469	0.004
050	0.329	-19.700	0.011
060	0.528	-15.591	0.028
070	0.718	-12.921	0.051
080	0.866	-11.293	0.074
090	0.952	-10.471	0.090
100	1.000	-10.044	0.099
110	0.952	-10.471	0.090
120	0.866	-11.293	0.074
130	0.718	-12.921	0.051
140	0.528	-15.591	0.028
150	0.329	-19.700	0.011
160	0.190	-24.469	0.004
170	0.134	-27.502	0.002
180	0.142	-26.998	0.002
190	0.157	-26.126	0.002
200	0.181	-24.890	0.003
210	0.187	-24.607	0.003
220	0.171	-25.384	0.003
230	0.140	-27.121	0.002
240	0.123	-28.246	0.001
250	0.135	-27.437	0.002
260	0.160	-25.961	0.003
270	0.182	-24.842	0.003
280	0.193	-24.333	0.004
290	0.182	-24.842	0.003
300	0.160	-25.961	0.003
310	0.135	-27.437	0.002
320	0.123	-28.246	0.001
330	0.140	-27.121	0.002
340	0.171	-25.384	0.003
350	0.187	-24.607	0.003

MAIN LOBE 100 DEGREES

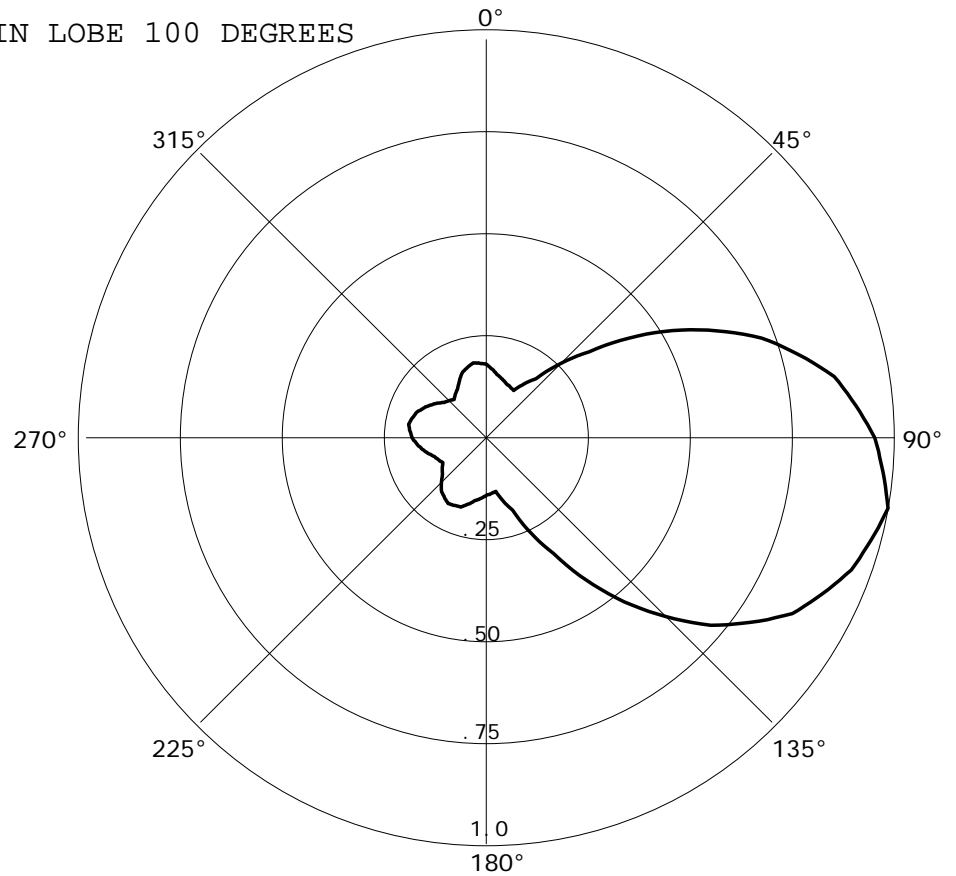
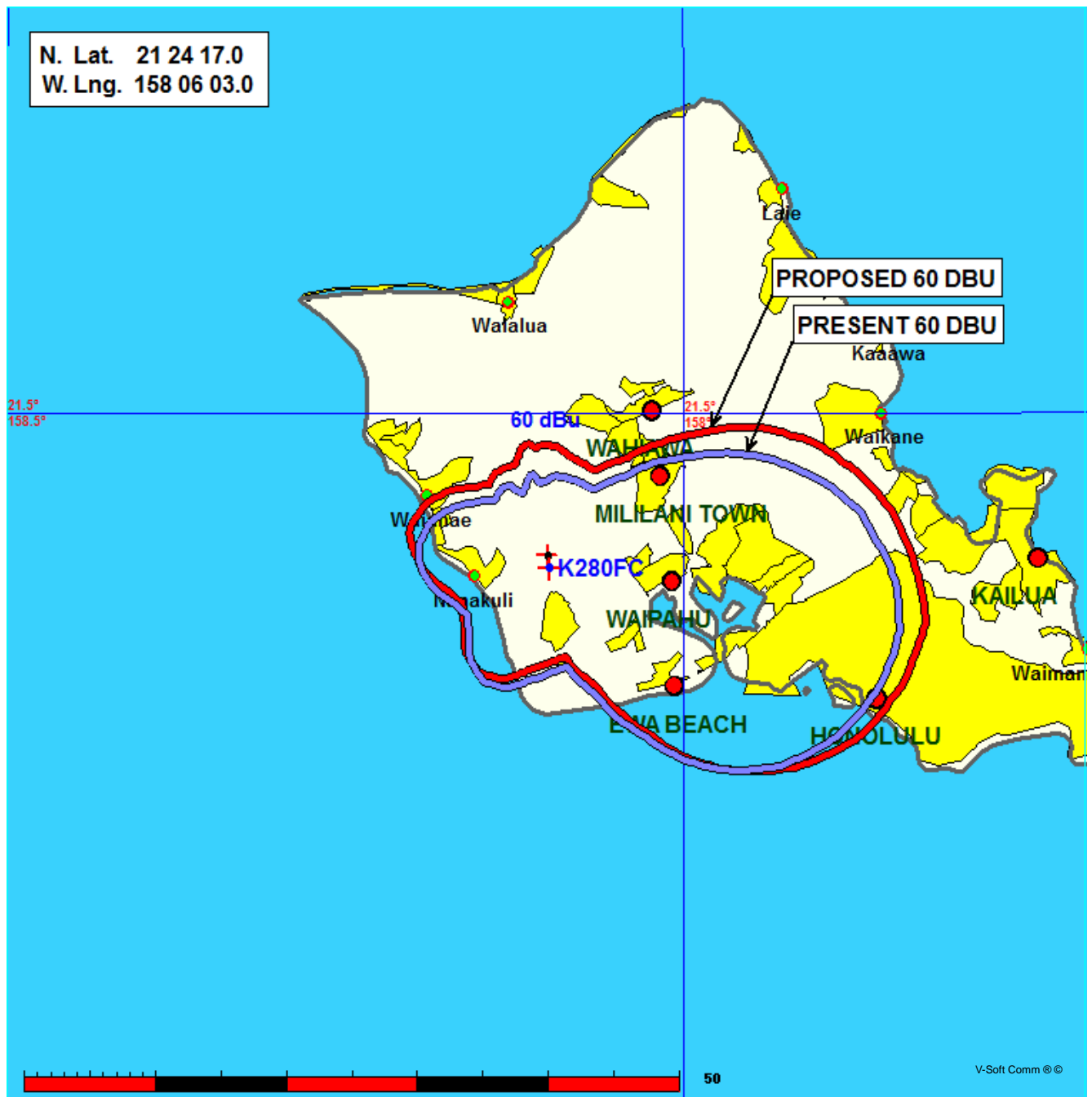


FIGURE 5 - PRESENT AND PROPOSED 60 DBU CONTOURS
K280FC WAIPAHU, HAWAII, CH. 280D

Coverage Study - USGS 03 SEC
12-30-2015



Contour.out

N. Lat. = 212417.0 W. Lng. = 1580603.0
 HAAT and Distance to Contour,
 FCC, FM 2-10 Mi, 51 pts Method - USGS 03 SEC

FIGURE 6 - TABULATION OF DISTANCE TO CONTOURS

Azi.	AV EL	HAAT	dBk	60-F5	40-F1	100-F1
000	431.0	398.0	-24.89	8.26	29.46	0.13
010	372.3	456.7	-26.13	7.82	29.64	0.11
020	336.6	492.4	-27.00	7.40	29.21	0.10
030	294.8	534.2	-27.50	7.27	29.64	0.09
040	272.1	556.9	-24.47	9.48	37.04	0.13
050	235.2	593.8	-19.70	13.92	50.98	0.23
060	203.0	626.0	-15.59	19.10	63.84	0.37
070	178.6	650.4	-12.92	22.84	73.24	0.50
080	137.5	691.5	-11.29	25.76	80.44	0.60
090	88.8	740.2	-10.47	27.89	85.23	0.66
100	47.5	781.5	-10.04	29.40	88.29	0.70
110	38.7	790.3	-10.47	28.85	87.29	0.66
120	34.4	794.6	-11.29	27.59	84.86	0.60
130	45.5	783.5	-12.92	24.96	79.20	0.50
140	51.5	777.5	-15.59	21.21	70.14	0.37
150	61.1	767.9	-19.70	15.77	57.22	0.23
160	64.4	764.6	-24.47	10.44	44.21	0.13
170	74.8	754.2	-27.50	7.84	36.85	0.09
180	73.9	755.1	-27.00	8.23	37.99	0.10
190	76.2	752.8	-26.13	8.93	39.92	0.11
200	70.4	758.6	-24.89	10.03	43.00	0.13
210	62.8	766.2	-24.61	10.32	43.92	0.13
220	56.0	773.0	-25.38	9.63	42.21	0.12
230	31.9	797.1	-27.12	8.22	38.74	0.10
240	5.2	823.8	-28.25	7.43	36.80	0.09
250	11.4	817.6	-27.44	8.01	38.50	0.09
260	27.9	801.1	-25.96	9.20	41.56	0.11
270	66.0	763.0	-24.84	10.09	43.24	0.13
280	27.4	801.6	-24.33	10.70	45.64	0.13
290	28.7	800.3	-24.84	10.21	44.29	0.13
300	31.7	797.3	-25.96	9.19	41.46	0.11
310	136.3	692.7	-27.44	7.74	35.35	0.09
320	287.0	542.0	-28.25	6.85	28.56	0.09
330	363.7	465.3	-27.12	7.19	28.20	0.10
340	519.2	309.8	-25.38	7.19	25.07	0.12
350	427.1	401.9	-24.61	8.47	30.13	0.13

Ave EI = 146.41 M HAAT= 682.59 M AMSL= 829