

**Broadcast Engineering Services of Bonny Doon, Inc.**

Donald E. Mussell Jr. NCE-CBT  
Consulting Engineer  
740 Front Street Suite 305  
Santa Cruz, Ca 95060

(831) 420-1571 Office  
(831) 588-9463 Cell  
dmsml@well.com  
www.well.com/user/dmsml

**Engineering Statement in support of a Minor Change  
K210DX, Honolulu, Hawaii  
BLFT-20051122AEZ**

The University of Hawaii (UH) is requesting a minor change to translator station K210DX. UH proposes to change the operating frequency to an I.F. Channel (264D, 100.7 mhz), this to avoid prohibited overlap with the construction permit for parent station KTUH, Honolulu (BPED-20101026AAL), which will place KTUH on first adjacent Ch. 211. No other changes are proposed.

An allocation study for Ch. 264D was performed to verify clearances to other authorized facilities surrounding the proposed site. The use of Ch. 264 causes no overlap with any other facility, with the exception of second adjacent KCCN-FM (BLH-19940331KA) and KORL-FM (BLH-20070706ACG). However, the 100 dbu overlap contour of this translator is limited to the transmitter site and surrounding mountain top. There is no permanent population at or surrounding the tower site. It is therefore compliant with 74.1204(e) of the FCC rules.

The existing and proposed antenna system is a Scala GP-FM, vertical polarization only. This antenna is currently mounted 4 meters above ground, and emits 10 watts vertical only. This creates less than 1% of the public limit, and is therefore compliant with the FCC rules concerning RFR both on and adjacent to the proposed tower location.

UH is ready to construct the facility with these specified changes. Once this modification is granted, construction will commence on the transmission facilities and will be completed well within the time limitations imposed by the construction permit.

Respectfully submitted,



Donald E. Mussell Jr. NCE-CBT  
Consulting Engineer  
August 30, 2012

Don Mussell Consulting Engineer  
Broadcast Engineering Services of Bonny Doon, Inc.

K210DX Minor change  
University Of Hawaii  
Average Protected F(50-50)= 14.47 km  
Omni-directional

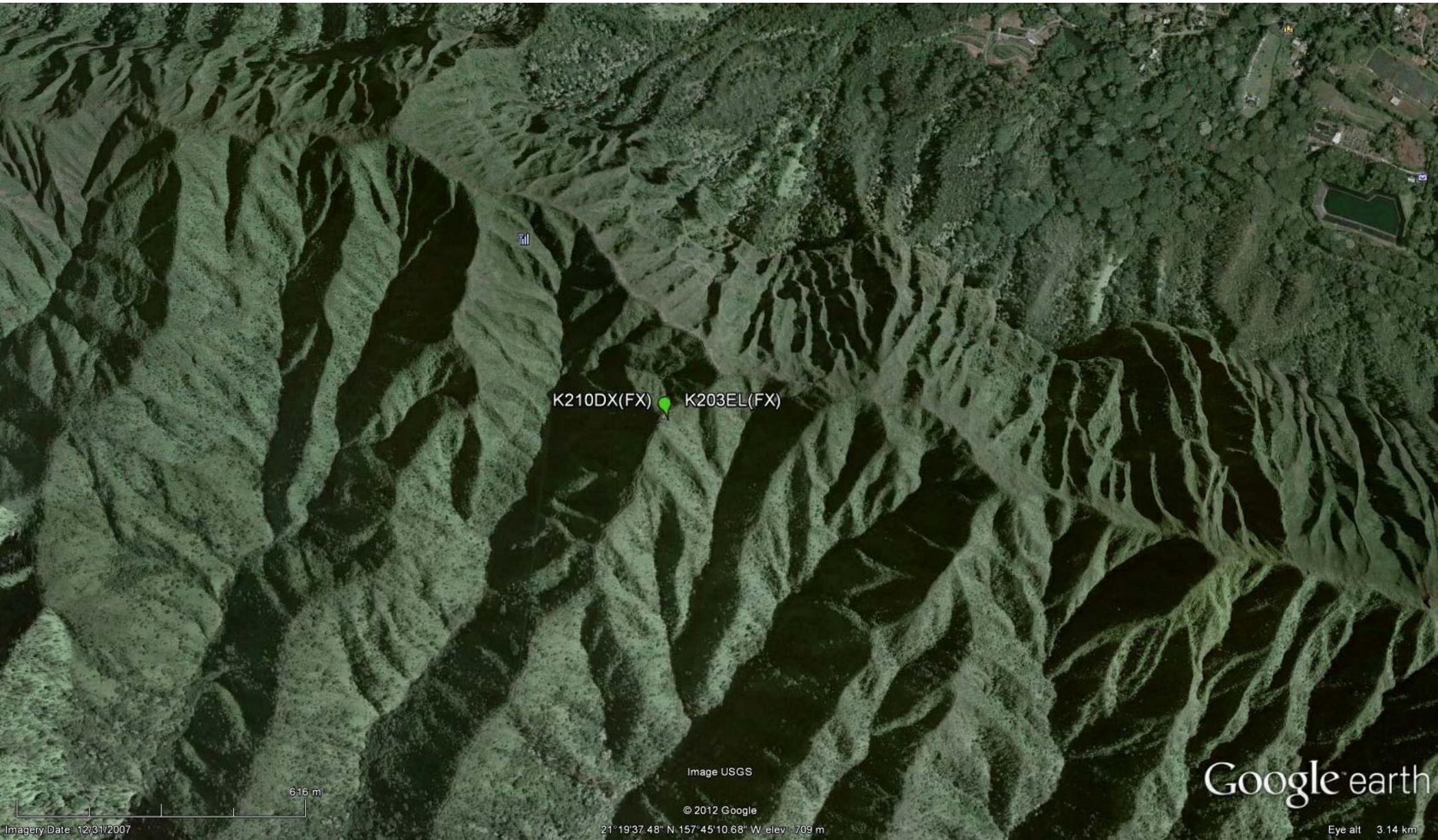
REFERENCE  
21 19 49.0 N.  
157 45 24.0 W.

CH# 264D - 100.7 MHz, Pwr= 0.01 kw, HAAT= 667.9 M, COR= 748 M

DISPLAY DATES  
DATA 08-24-12  
SEARCH 08-29-12

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*
266C Waianae	AL9254	RSV-A	___	281.9 101.8	36.40 RM10623	21 23 51.0 158 06 01.0	100.000 600	15.1 736	95.5	7.9	-59.3*
266C Waianae	KORL-FM	LIC DEX	HI	281.7 101.5	36.28 BLH20070706ACG	21 23 45.0 158 05 58.0	100.000 592	14.6 734	95.3 Hochman Hawaii-three, Inc.	8.4	-59.2*
262C Honolulu	KCCN-FM	LIC DEN	HI	281.9 101.8	36.40 BLH19940331KA	21 23 51.0 158 06 01.0	100.000 599	14.0 742	94.1 Cox Radio, Inc.	9.3	-57.9*
264C1 Kihei One Step Application	KKHI	CP _CX	HI	111.2 291.8	168.47 BNPH20110630AEE	20 46 32.0 156 14 50.0	2.200 905	155.6 2102	70.7 Future Modulation Broadcas	-1.5	45.1

Terrain database is FCC NGDC 30 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 protected contour.



K210DX(FX) K203EL(FX)

Image USGS

© 2012 Google

21°19'37.48" N 157°45'10.68" W elev 709 m

Google earth

Eye alt 3.14 km

616 m

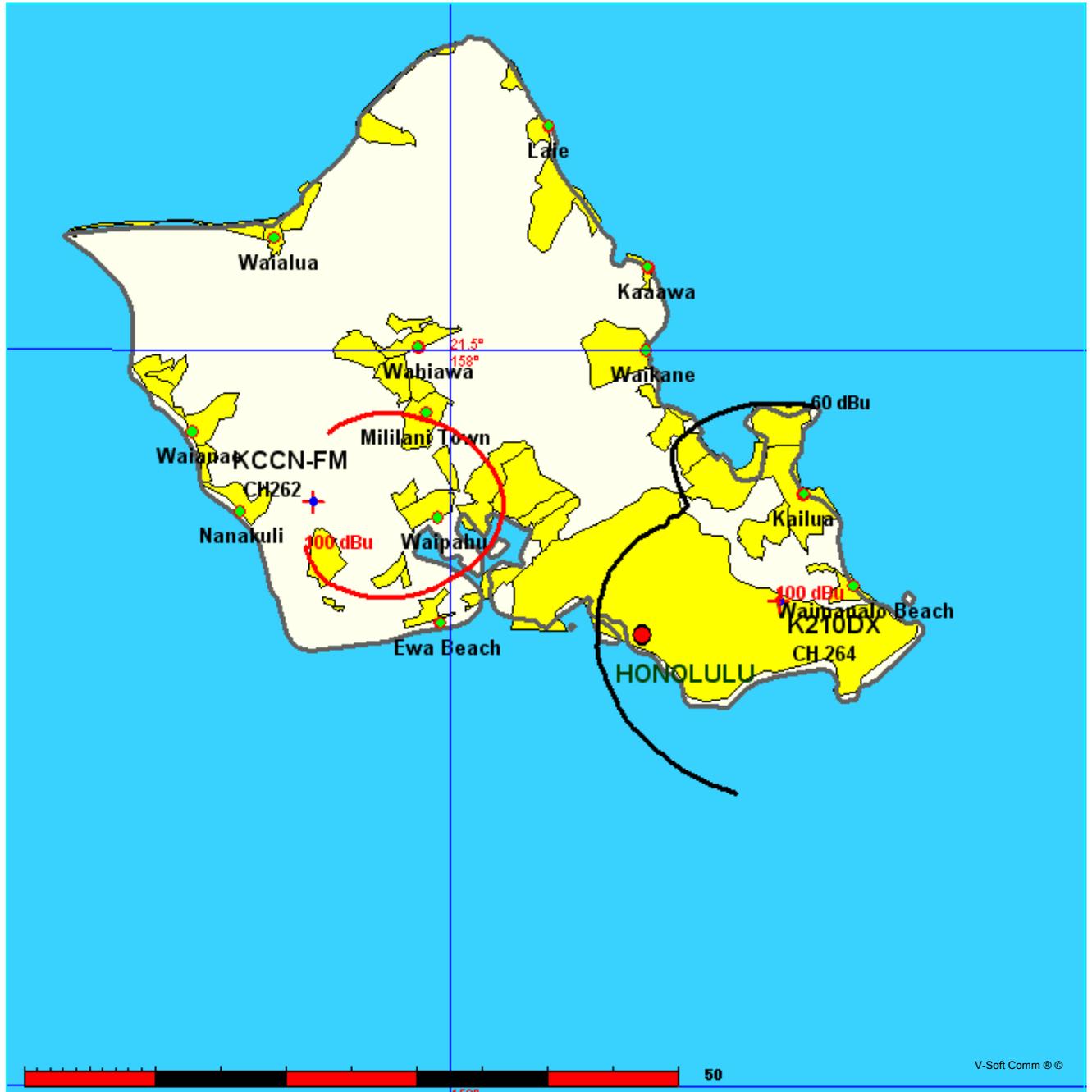
Imagery Date: 12/31/2007

K210DX - KCCN-FM  
University Of Hawaii

FMCommander Single Allocation Study - 08-29-2012 - FCC NGDC 30 Sec  
K210DX's Overlaps (In= 9.34 km, Out= -57.87 km)

K210DX CH 264 D  
Lat= 21 19 49.0, Lng= 157 45 24.0  
0.01 kW 667.9 M HAAT, 748 M COR  
Prot.= 60 dBu, Intef.= 100 dBu

KCCN-FM CH 262 C DA BLH19940331KA  
Lat= 21 23 51.0, Lng= 158 06 01.0  
100.0 kW 599 M HAAT, 742 M COR  
Prot.= 60 dBu, Intef.= 100 dBu



K210DX - KORL  
University Of Hawaii

FMCommander Single Allocation Study - 08-29-2012 - FCC NGDC 30 Sec  
K210DX's Overlaps (In= 8.37 km, Out= -59.19 km)

K210DX CH 264 D  
Lat= 21 19 49.0, Lng= 157 45 24.0  
0.01 kW 667.9 M HAAT, 748 M COR  
Prot.= 60 dBu, Intef.= 100 dBu

KORL-FM CH 266 C DA BLH20070706ACG  
Lat= 21 23 45.0, Lng= 158 05 58.0  
100.0 kW 592 M HAAT, 734 M COR  
Prot.= 60 dBu, Intef.= 100 dBu

