



Broadcast Engineering Services of Bonny Doon, Inc.

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Consulting Engineer

Engineering Statement in support of an application for Minor Change to KHPH BNPED-20071018ANP Facility ID 172436

Background

Hawaii Public Radio hereby submits an application for a minor change to the construction permit for KHPH, Hana, Hawaii. The applicant is proposing a change to horizontal polarization. This will also correct the antenna location to ASRN 1000676, adjacent to the currently designated tower site. This will place the RCAMSL at 229.9 meters. No other changes are proposed.

Proposal

The applicant requests to modify the construction permit of KHPH to an existing support pole within an existing, registered tower compound (ASRN 1000676) above Hana town. The ASRN geographic coordinates are:

20 45' 3.5" North
156 00' 17.1" West

The structure proposed to be used by the applicant is mounted to an existing building. The overall height of this structure within the ASR compound is 9 meters above ground. The applicant proposes to utilize a one-bay horizontally polarized non-directional antenna, top mounted on the existing structure, with 250 watts effective radiated power on Channel 202 (88.3 mhz). This will provide a 60 dbu contour over the entire community of Hana, while maintaining sufficient clearance to all surrounding existing and proposed facilities.

Contour clearances to and from the proposed new facility clear all surrounding existing and proposed stations. The attached contour maps for each facility show the relevant contours and clearances.

RF Statement

The applicant proposes to mount a one-bay, horizontally polarized FM antenna with a center of radiation 9 meters above ground. This will produce a calculated maximum RFR level of 37.14 $\mu\text{w}/\text{sq. centimeter}$ @ 7 meters from the base of the pole. This is well below the public limit, and complies with FCC and ANSI regulations and limitations concerning RF exposure to the general public.

Summary

Hawaii Public Radio is ready to modify this new facility and begin service to the community of Hana. With the grant of this minor change application, the applicant will be able to provide a unique broadcast service for the residents of this isolated area of east Maui.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'D. O. A.', written in a cursive style.

Consulting Engineer
September 14, 2010

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

Hawaii Public Radio, Inc.

Minor change to KHPH CP

REFERENCE
20 45 03.5 N.
156 00 17.1 W.

CH# 202A - 88.3 MHz, Pwr= 0.25 kw, HAAT= -41.7 M, COR= 229.9 M
Average Protected F(50-50)= 7.09 km
Omni-directional

DISPLAY DATES
DATA 09-14-10
SEARCH 09-14-10

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
202A Hana	KHPH	CP HI	_CX	10.6 190.6	0.2 BNPED20071018ANP	20 45 09.0 156 00 16.0	0.250 -63	49.2 212	14.7 Hawaii Public Radio, Inc.	-68.8*	-75.6*
203L1 Kahului	KAKU-LP	LIC HI	___	287.9 107.8	49.6 BLL20050318ACL	20 53 15.0 156 27 30.0	0.100 -169	8.0 12	5.6 Maui County Community Tele	34.5	33.8
204C1 Kailua	KIPH	CP HI	_HX	175.6 355.6	114.3 BMPED20100630BYS	19 43 16.0 155 55 15.0	5.000 893	4.6 1689	78.0 Hawaii Public Radio, Inc.	90.8	35.3
205C3 Lahaina	1355562	APP HI	_CX	282.1 101.8	72.1 BNPED20071022ATS	20 53 07.0 156 40 58.0	20.000 -147	2.2 23	21.5 Wren Communications, Inc.	62.9	49.5

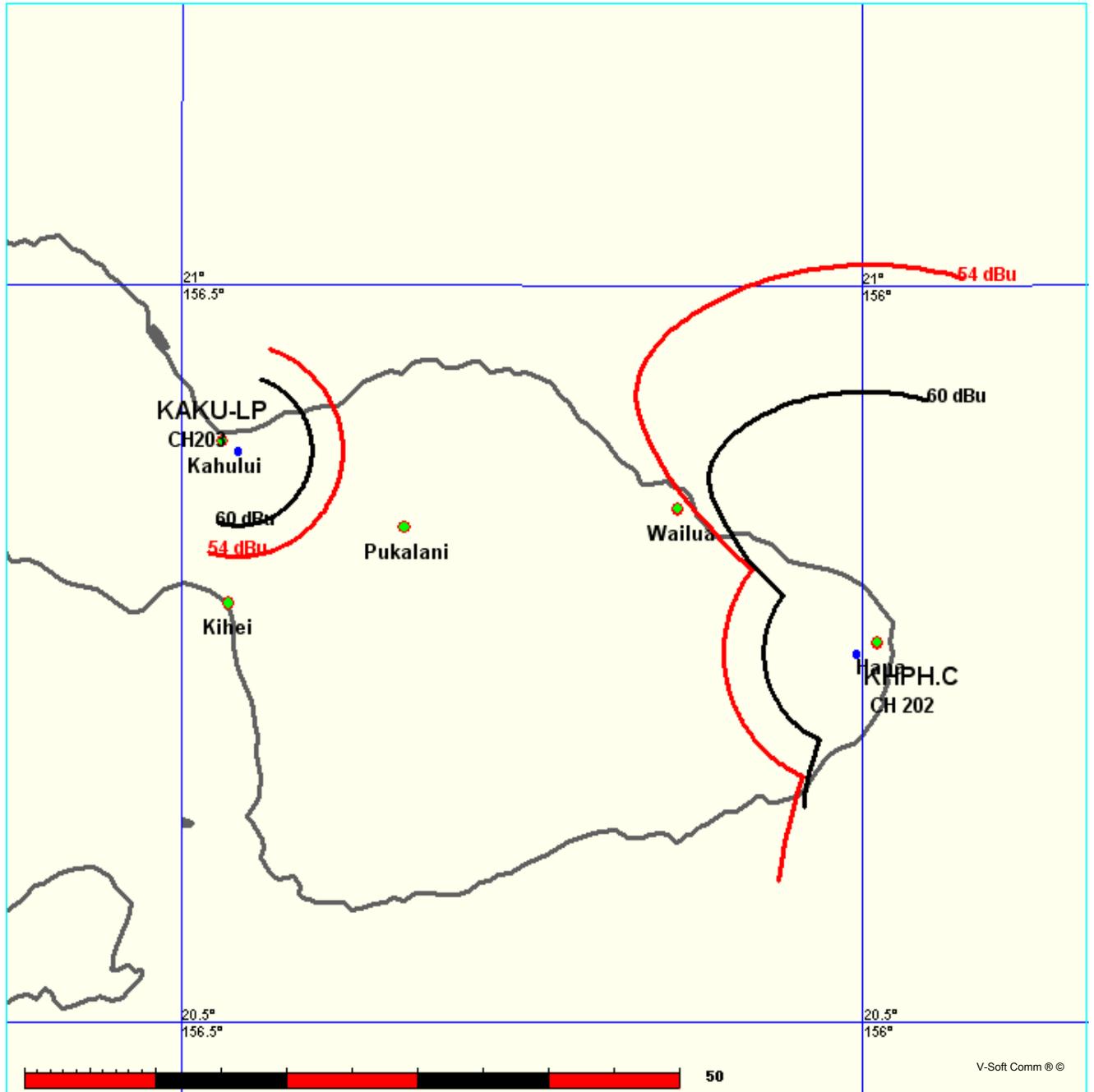
Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference zone = , Co to 3rd adjacent.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.

Hawaii Public Radio, Inc.
Minor change to KHPH - KAKU contour

FMCommander Single Allocation Study - 09-14-2010 -
KHPH.C's Overlaps (In= 34.5 km, Out= 33.79 km)

KHPH.C CH 202 A
Lat= 20 45 03.5, Lng= 156 00 17.1
0.25 kW -41.7 M HAAT, 229.9 M COR
Prot.= 60 dBu, Intef.= 54 dBu

KAKU-LP CH 203 L1 BLL20050318ACL
Lat= 20 53 15.0, Lng= 156 27 30.0
0.1 kW -169 M HAAT, 12 M COR
Prot.= 60 dBu, Intef.= 54 dBu



Hawaii Public Radio, Inc.
Minor change to KHPH - KIPH contour

FMCommander Single Allocation Study - 09-14-2010 -
KHPH.C's Overlaps (In= 90.83 km, Out= 35.27 km)

KHPH.C CH 202 A
Lat= 20 45 03.5, Lng= 156 00 17.1
0.25 kW -41.7 M HAAT, 229.9 M COR
Prot.= 60 dBu, Intef.= 100 dBu

KIPH.C CH 204 C1 BMPED20100630BYS
Lat= 19 43 16.0, Lng= 155 55 15.0
5.0 kW 893 M HAAT, 1689 M COR
Prot.= 60 dBu, Intef.= 100 dBu

