Worldwide Installations
Society of Broadcast Engineers Certified Member
National Association of Radio and Telecommunications Engineers No. 11-00619

Broadcast Engineering Services of Bonny Doon, Inc.
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Donald E. Mussell Jr. NCE-CBT
Consulting Engineer

Engineering Statement

in support of an application for a
New Non-commercial FM station
at Pahala, Hawaii

Background

Haola Inc. hereby submits an application for a new station to serve the community of Pahala, on the southeast cost of Hawaii Island, in the Hawaiian Islands.

Proposal

The applicant requests authorization to build a new station on an existing, unregistered tower at the following location:

19 11' 55" North
155 28' 55" West

The tower proposed to be used by the applicant is not a registered tower. The height of this structure is 10 meters. The applicant proposes to utilize a two-bay circularly polarized non-directional antenna, top mounted on the existing structure, with 1,000 watts effective radiated power on Channel 219 (91.7 mhz). This will provide a 60 dbu contour over the entire community of Pahala, while maintaining contour clearance to surrounding facilities, as outlined in the attachments to this engineering statement.

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.

The proposed new station has sufficient clearances to regional Channel six television facilities. There remains sufficient clearance to preclude any chance of overlap to the 47 dbu contour of KLEI-TV. Please refer to the FMTV6 map, attached to this engineering statement.

RF Statement

The applicant proposes to mount a two-bay, circularly polarized, .9 wave spaced Shively 6813-2-.9SS FM antenna with a center of radiation 9 meters above ground. This will produce an RFR level of 122.39 μw/sq. centimeter @ 4 meters from the base of the pole. This is just over 60% of the public limit, and complies with FCC and ANSI regulations and limitations concerning RF exposure to the general public.

Summary

Haola Inc. is ready to construct this new facility and begin service to the small, isolated community of Pahala, on the east side of Hawaii Island. With the grant of this application, Haola will be able to provide a unique, localized radio service for the residents of the area.

Respectfully submitted,

Consulting Engineer
October 7, 2007

Donald E. Mussell Jr. NCE CBT - Consulting Engineer
Broadcast Engineering Services of Bonny Doon, Inc.

New Pahala NCE FM
Haola, Inc.

REFERENCE CH# 219A - 91.7 MHz, Pwr= 1 kW, HAAT= -342.3 M, COR= 245 M
19 11 55.0 N. Average Protected F(50-50)= 10.16 km
155 28 55.0 W.

DISPLAY DATES
DATA 10-02-07
SEARCH 10-07-07

CH CALL CITY	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
06Z2C KLEI Kailua Kona	LI DHY HI	321.7 141.5	73.20 BLCT19880427KF	19 42 56.0 155 55 00.0	52.500 887	 1760	19.8 Aina'e Co., Ltd	158.5R	-85.3M
06Z2C KLEI Kailua Kona	CP DHN HI	321.7 141.5	73.95 BPCT20030207AAE	19 43 16.0 155 55 15.0	8.300 864	 1674	22.5 Aina'e Co., Ltd	158.5R	-84.5M
216C2 KANO Hilo	CP _CX HI	40.4 220.5	57.35 BPED20060125AAA	19 35 31.4 155 07 36.0	30.000 	2.4 536	23.6 Hawaii Public Radio, Inc.	44.81	32.11
216C2 KANO Hilo	LIC _C_ HI	40.9 221.0	57.25 BLED20001220ABT	19 35 18.0 155 07 25.0	26.000 46	2.3 539	22.9 Hawaii Public Radio, Inc.	44.79	32.77
221C1 KHWA Holualoa	CP _CX HI	321.7 141.5	73.95 BNPH20050103AIU	19 43 16.0 155 55 15.0	4.500 893	1.6 1689	14.6 Parrott Broadcasting Limit	62.18	57.74

Terrain database is NGDC 30 SEC
ERP and HAAT are on direct line to and from reference station.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)

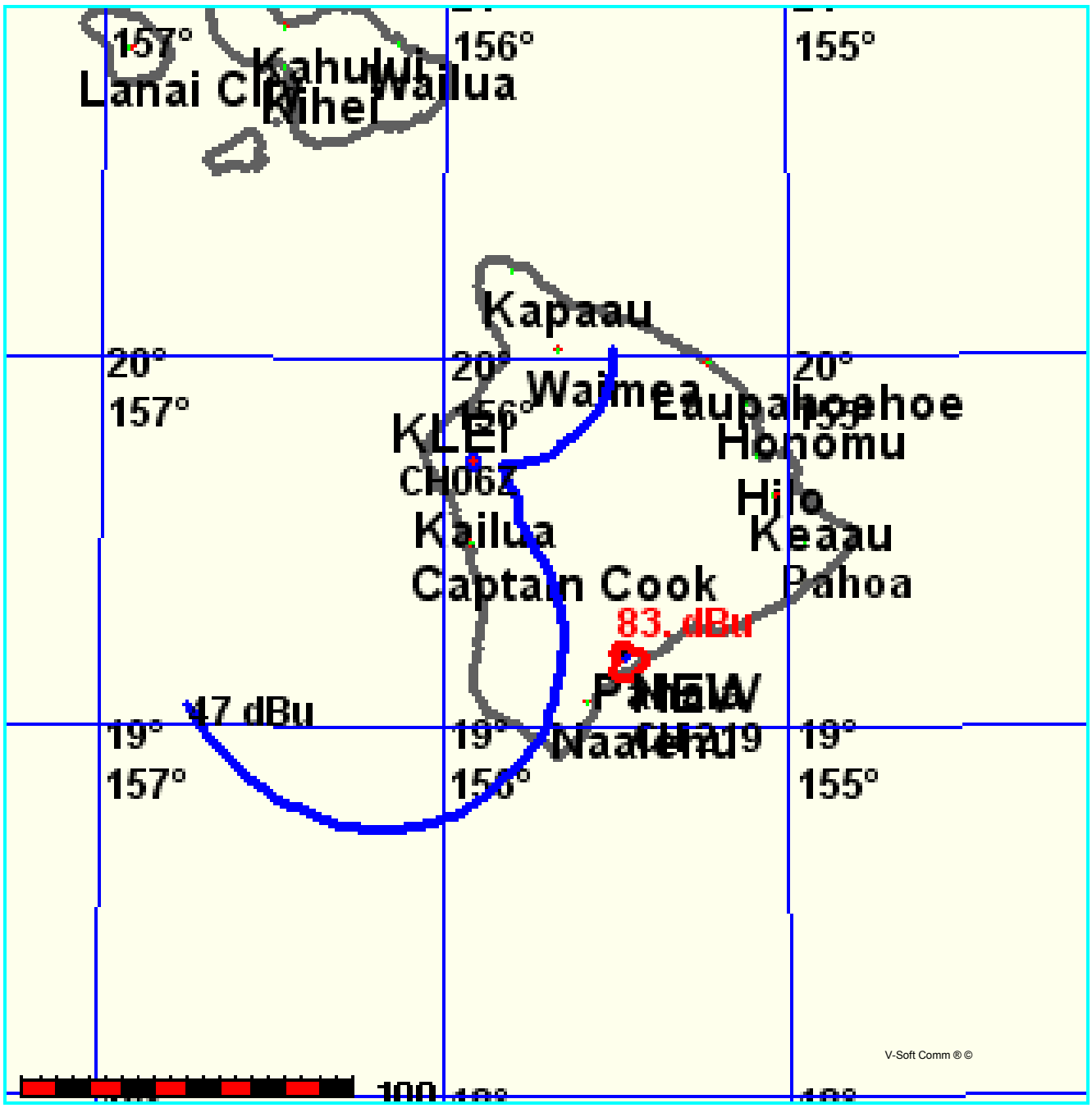
New Pahala NCE FM Haola, Inc.
KLEI-TV - NEW

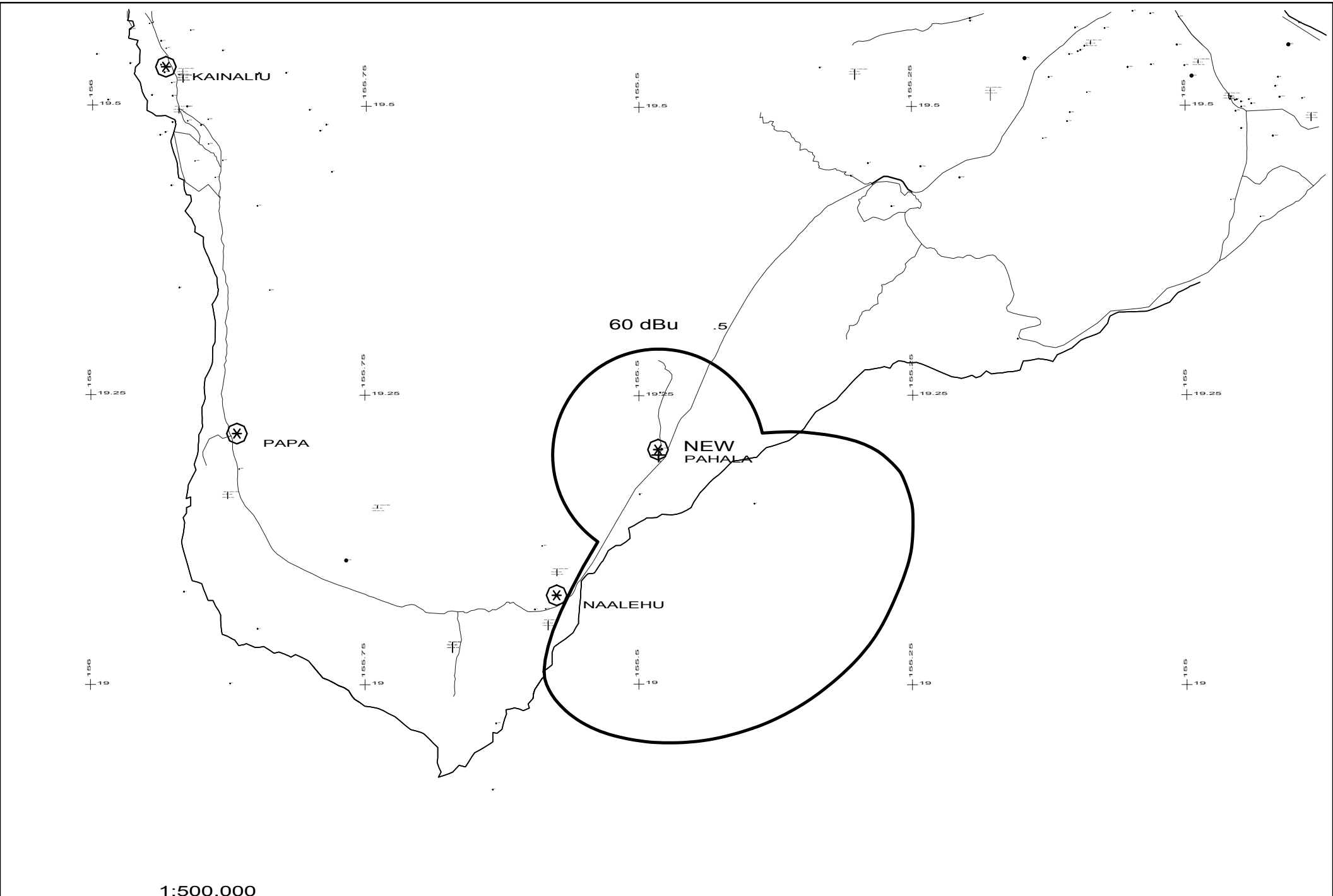
FMCommander Single Allocation Study
10-07-2007

NEW CH 219 A
1.0 kW 245 M COR
Intef. = 83.0 dBu

KLEI CH 06Z 2C BPCT20030207AAE
8.3 kW, 1674 M COR DA
Prot. = 47 dBu

Scale = 1:3,000,000




KAINALIU
PAPA
NEW
PAHALA
NAALEHU
60 dBu
1:500,000
Scale in km
0
10
20
30
40
New Pahala NCE FM
N. Lat. 19 11 55 W. Lng. 155 28 55
NEW Pahala NCE FM
Don Mussell NCE-CB

AFFIDAVIT AND QUALIFICATIONS OF
DONALD E. MUSSELL JR.

State of California)
Bonny Doon)
County of Santa Cruz)

Donald E. Mussell Jr. affirms that he is a consulting radio and electronics engineer; that he is Certified as a Broadcast Engineer, Class 1, by the National Association of Radio and Telecommunications Engineers, Inc., License #E1-00619, issued in 1985;

That he is recognized as a Broadcast Technologist by the Society of Broadcast Engineers, License # 22301, and a member of the Society of Broadcast Engineers since 1980;

That he held a First Class Radiotelephone License from 1975 until 1985, when it was replaced by a lifetime General Class Radiotelephone license (PG-12-20588), issued by the Federal Communications Commission in January of 1985;

That he has submitted many applications to the Federal Communications Commission for broadcast and auxiliary broadcast construction permits and licenses, and that his experience in Radio and Television broadcast engineering extends over three decades;.

That he declares, under penalty of perjury, that the foregoing engineering exhibits were prepared by him or under his direction and supervision; and that the statements contained therein are true and correct to the best of his belief and knowledge.

Donald E. Mussell Jr. NCE-CBT
Consulting Engineer
October 7, 2007