



## Broadcast Engineering Services of Bonny Doon, Inc.

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Bonny Doon, California 95060  
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Donald E. Mussell Jr. NCE-CBT  
Consulting Engineer

### **Engineering Statement New Translator for KPFA BNPFT-20030313AAO Santa Cruz, California**

The Pacifica Foundation requests a construction permit for BNPFT-20030313AAO. The translator is proposed to operate on Channel 248D, from an established electronic site on the UCSC campus in the mountains above Santa Cruz, the proposed city of license.

The applicant proposes to utilize an existing 7 meter support pole directly adjacent to an existing 34 meter tower at this electronic site. The proposed antenna location is within an established electronic site, but the site is not located within 8 Km. of any airport, and none of the structures on this site exceed 61 meters, so there are no tower registrations listed or required. A non-directional antenna, along with a power of 10 watts ERP is proposed. The signal of KPFA will be received directly using a log periodic receive antenna. There is adequate signal from KPFA for this purpose.

This location, antenna and power level combination is clear of any prohibited overlap to any existing or proposed stations, with the exception of third adjacent KQAV Monterey (BMLH-20041028AIK). However, the proposed translator's 94 dbu contour does not overlap any populated area. The maximum distance to the extent of the overlap contour is 97.5 meters, and the closest permanent residence or public road is over 150 meters distant from the proposed antenna location. An extensive search of this location included an on-site survey, personally conducted by this consulting engineer. The on-site survey revealed no structures or population inside the proposed 94 dbu contour area. This site is located in the woodland above the UCSC campus, and was originally surveyed and designated by this consulting engineer for use by the campus radio station, and was chosen because of its geographic isolation and line of sight to the city of license.

The applicant is confident that this site will adequately serve the city of Santa Cruz while avoiding any interference to any populated areas.

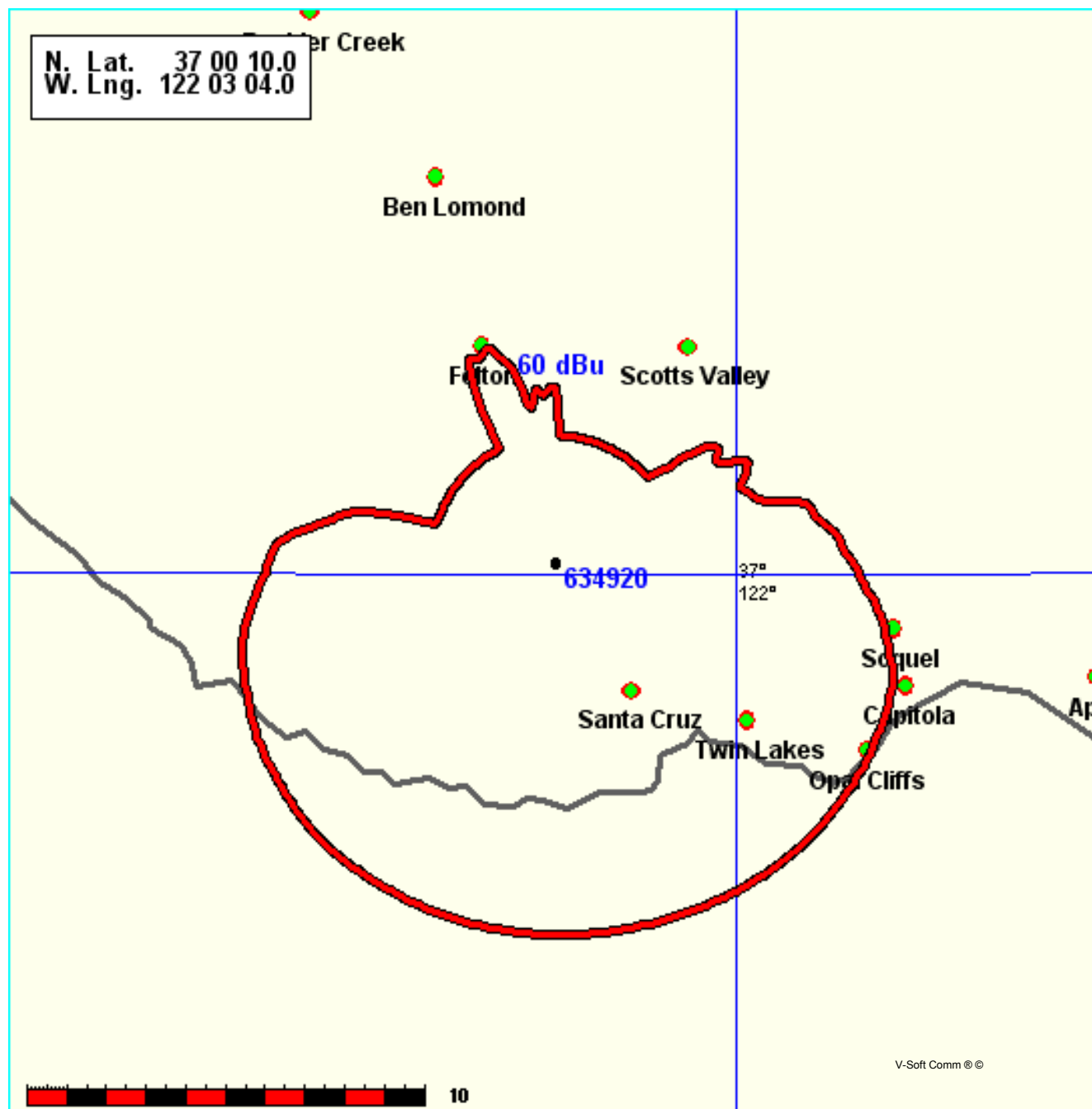
Respectfully submitted,

Donald E. Mussell Jr. NCE-CBT  
Consulting Engineer  
May 22, 2008

Pacifica Foundation, Inc.  
Santa Cruz Translator 60 dbu contour

Coverage Study  
05-21-2008

634920 CH248 D 0.01 kW 260M COR  
Prot. = 60 dBu.



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Don Mussell, Consulting Engineer

Pacifica Foundation, Inc.

Allocation Study

REFERENCE CH# 248D - 97.5 MHz, Pwr= 0.01 kw, HAAT= 0.0 M, COR= 260 M  
37 00 10.0 N.  
122 03 04.0 W.  
Average Protected F(50-50)= 3.15 km

DISPLAY DATES  
DATA 05-17-08  
SEARCH 05-19-08

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*
248D Santa Cruz	634920	APP CA	_C_	0.0 0.0	0.00 BNPFT20030313AAO	37 00 10.0 122 03 04.0	0.005	11.6 260	3.6 Pacifica Foundation, Inc.	-15.90*	-17.26*
245B Monterey	KWAV	LIC CA	_CX	143.5 323.7	64.62 BMLH20041028AIK	36 32 05.0 121 37 14.0	18.000 747	8.1 1071	97.2 Buckley Broadcasting Of Mo	47.18	-33.04*<
247B San Francisco Grandfathered at 82KW @ 309M	KLLC	LIC CA	_CN	337.5 157.2	102.08 BLH19950321KB	37 51 03.0 122 29 51.0	82.000 309	101.2 368	83.5 Cbs Radio East Inc.	-4.61<	7.66
249A Los Altos	KFFG	LIC CA	_CX	353.5 173.5	34.04 BLH20070810AAY	37 18 27.0 122 05 41.0	3.300 136	20.0 405	13.5 Kffg Lico, Inc.	9.63	14.40
250A Salinas Section 73.215 applicant	KYZZ	LIC CA	NCN	127.9 308.3	59.60 BLH19970527KB	36 40 20.0 121 31 28.0	2.900 146	3.2 422	42.4 Buckley Broadcasting Corpo	47.05	16.99
251B San Francisco	KISQ	LIC CA	_CX	337.5 157.2	102.10 BLH20040315ACA	37 51 04.0 122 29 50.0	75.000 310	9.2 369	82.7 Amfm Broadcasting Licenses	87.35	18.95
248B Merced	KABX-FM	LIC CA	DC_	73.2 254.3	176.28 BLH20000103ABD	37 26 44.0 120 08 37.0	8.800 354	147.5 748	79.2 Mapleton License Of Merced	23.43	72.09
247D San Ramon, Etc.	KLLC-FM1	LIC CA	_HN	3.5 183.6	81.79 BLFTB19851118TA	37 44 18.0 121 59 38.0	0.040	21.6 564	14.4 Cbs Radio East Inc.	57.06	62.91
245D San Francisco	640185	APP CA	_C_	336.1 155.9	83.32 BNPFT20030317CMU	37 41 17.0 122 26 07.0	0.009	0.2 435	11.1 Broadcast Towers, Inc.	77.73	71.98
251D Pleasanton	KISQ-FM2	LIC CA	DHN	14.5 194.6	75.49 BLFTB19890622TA	37 39 40.0 121 50 12.0	10.000 -52	0.1 179	1.8 Amfm Broadcasting Licenses	72.27	73.45

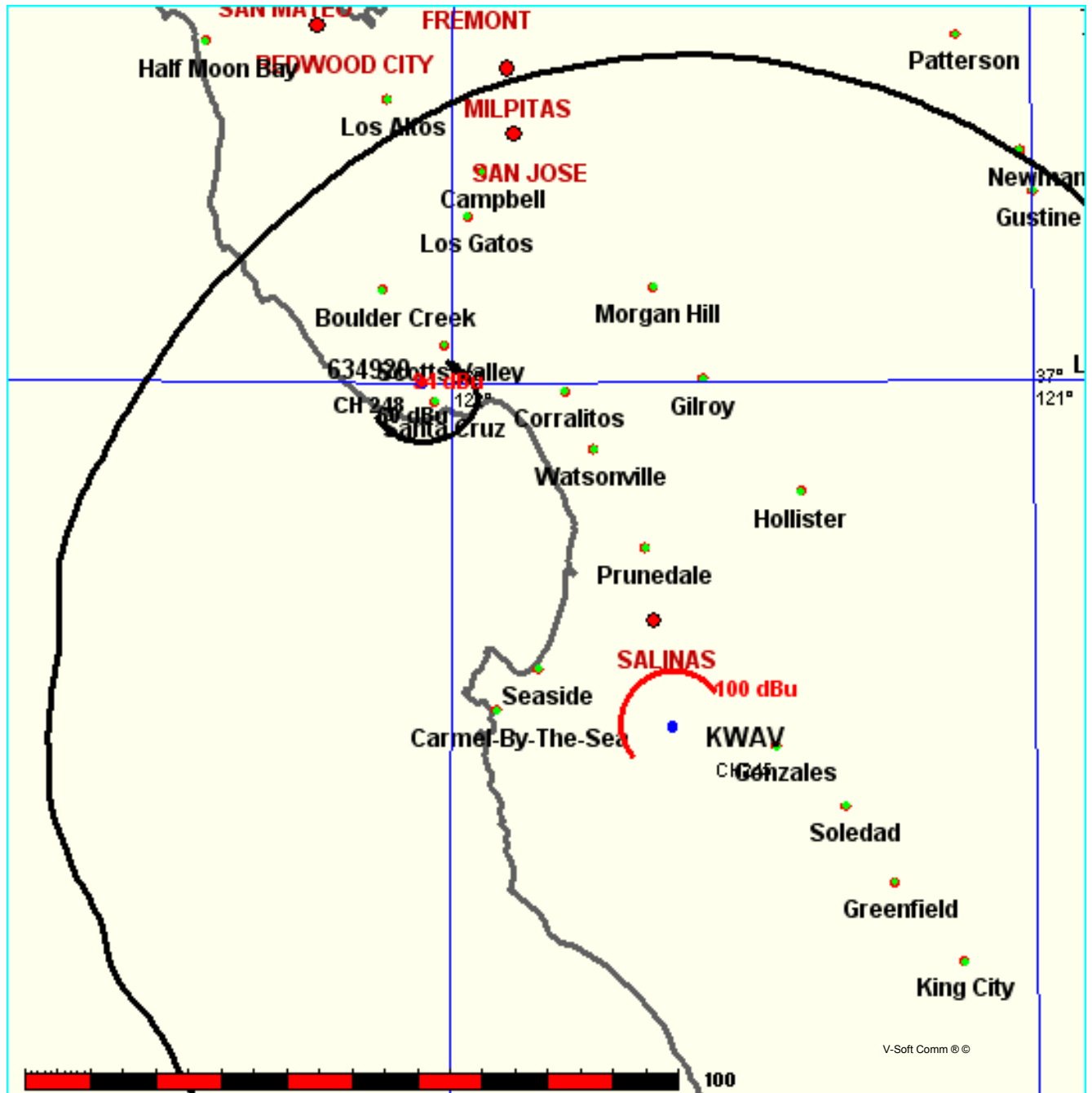
Terrain database is NGDC 30 SEC Distance + R = 73.215 or FCC Spacings in KM, Distance + M = Margin in KM  
Contour distances are on direct line to and from reference station. Reference zone = . with 3rd Adj Channels.  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization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

Pacifica Foundation, Inc.  
Proposed - KWAV

FMCommander Single Allocation Study  
05-21-2008

634920 CH 248 D  
0.01 kW 260 M COR  
Prot. = 60 dBu  
Intef. = 94 dBu

KWAV CH 245 B BMLH20041028AIK  
18.0 kW, 1071 M COR  
Prot. = 54 dBu  
Intef. = 100 dBu

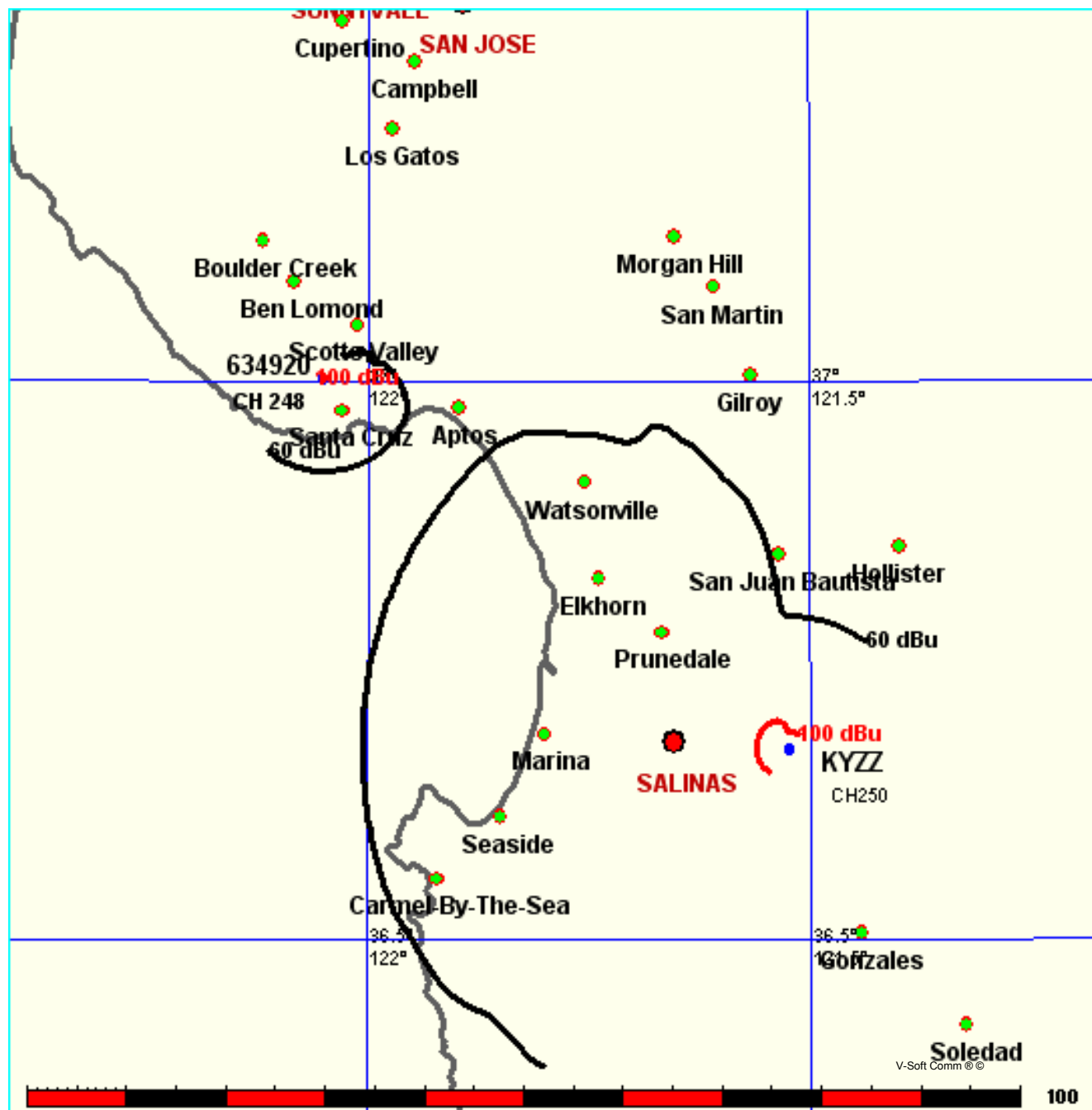


Pacifica Foundation, Inc.  
Proposed - KYZZ

FMCommander Single Allocation Study  
05-21-2008

634920 CH 248 D  
0.01 kW 260 M COR  
Prot. = 60 dBu  
Intef. = 100 dBu

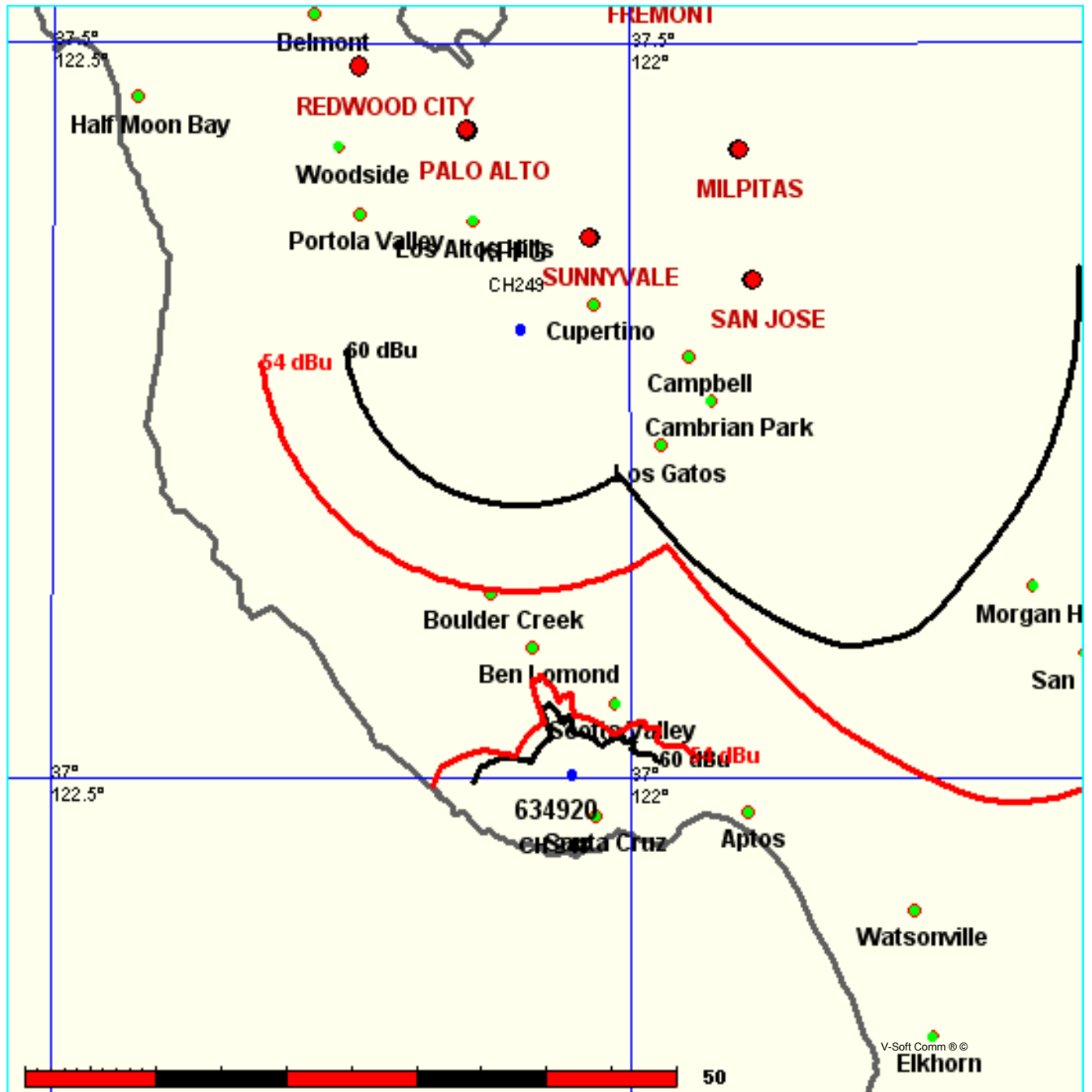
KYZZ CH 250 A BLH19970527KB  
2.9 kW, 422 M COR  
Prot. = 60 dBu  
Intef. = 100 dBu



Pacifica Foundation, Inc.  
Proposed - KFFG

FMCommander Single Allocation Study  
05-21-2008

634920	CH 248 D	KFFG	CH 249 A	BLH20070810AAAY
0.01 kW	260 M COR	3.3 kW	405.1 M COR	
Prot. = 60 dBu		Prot. = 60 dBu		
Intef. = 54 dBu		Intef. = 54 dBu		

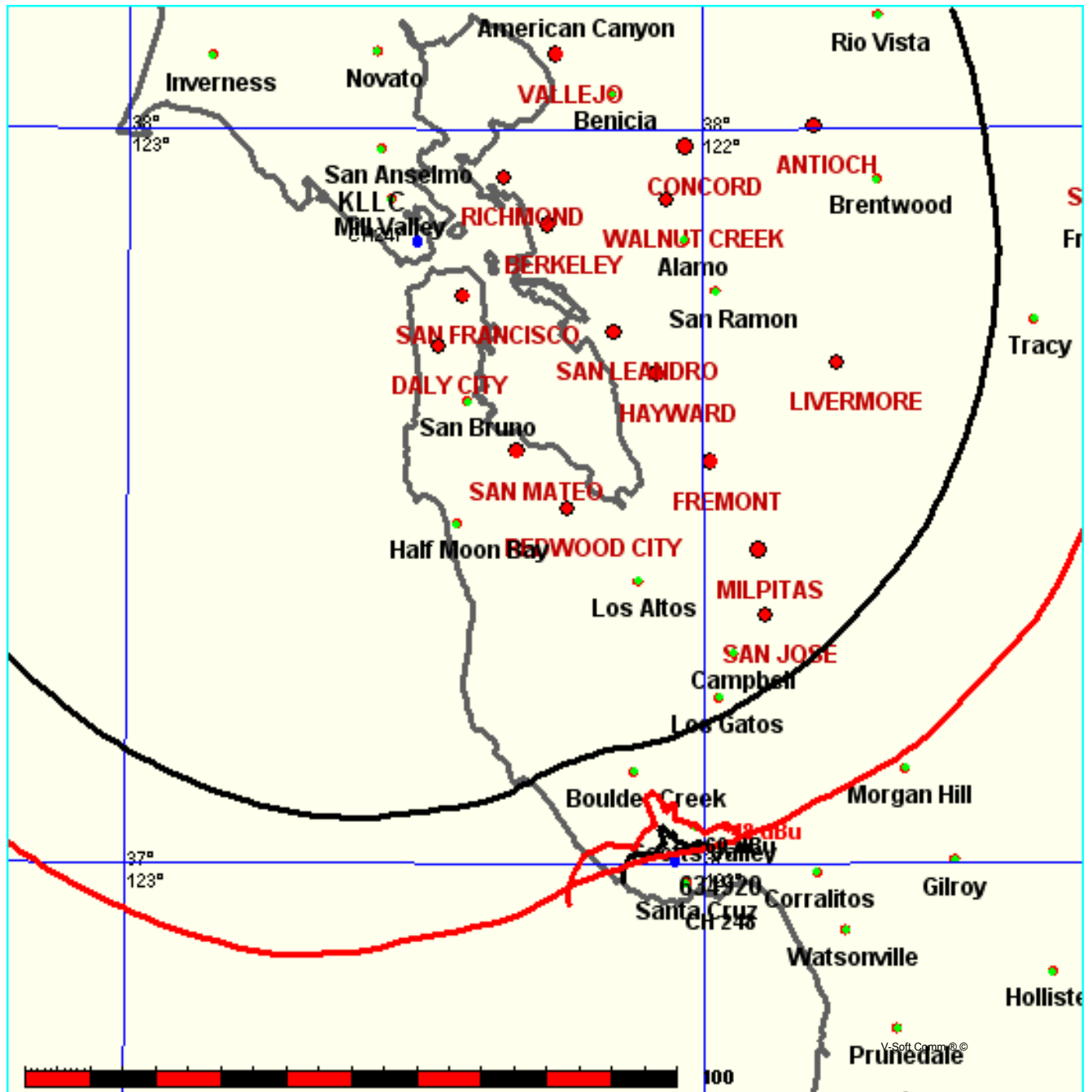


Pacifica Foundation, Inc.  
Proposed - KLLC

FMCommander Single Allocation Study  
05-21-2008

634920 CH 248 D  
0.01 kW 260 M COR  
Prot. = 60 dBu  
Intef. = 48 dBu

KLLC CH 247 B BLH19950321KB  
82.0 kW, 368 M COR  
Prot. = 54 dBu  
Intef. = 54 dBu



**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.

A handwritten signature in black ink, appearing to read 'D. E. Mussell Jr.', with a stylized, cursive script.

Donald E. Mussell Jr. NCE-CBT  
Consulting Engineer  
May 22, 2008