

Broadcast Engineering Services of Bonny Doon, Inc.

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**Engineering Statement
Minor Change
To Translator K240BL Albuquerque, NM
BLFT-20040206AAX
Carl Brasher**

The licensee proposes to modify this translator by increasing effective radiated power and change the designated AM station being translated.

This minor change seeks to increase the effective radiated power to 250 watts (.25 KW), and increase the height of the transmit antenna from 5 meters to 6 meters above ground. The applicant also seeks to now operate as a fill-in translator for KIVA, Albuquerque, New Mexico (Facility 65257).

The attached allocation studies for Ch. 240 reveals no overlaps to existing or proposed stations, with the exception of nearly co-located 2nd adjacent KBZU (BLH-19870210KB) and 2nd adjacent KHFM Santa Fe (BMLH-20000920ABF). To the extent required, the applicant requests a waiver of the rules, as allowed by 74.1204(d), because there is no population inside the proposed 100 dbu 50/10 overlap contour.

According to 47 C.F.R. 1.1307(b)(1) Table 1, any "Part 74 – Subpart L" facility with an ERP greater than 100 watts, is subject to routine environmental evaluation. As the facility proposed in this application will operate with an ERP of 250 watts, an analysis of the predicted radiofrequency exposure has been conducted.

The existing and proposed antenna is located at the northern end of the Sandia Crest Electronic site. This site is restricted from public access by locked gates, and the site is posted with RF warning signs. Site access is limited to service personnel who are trained in RF procedures specific for this site. The existing and proposed transmitting antenna is a horizontally polarized Scala type CL-FM/HRM/50N. This antenna employs a log-periodic design that reduces radiation above, below and behind the antenna to a very low level. The antenna is mounted with its center of radiation at 6 meters above ground level, and is situated on a mountaintop site about five meters from a cliff, at which the ground level drops off vertically. Therefore, the only exposure possible to the public or personnel is from directly below the antenna to five meters from the main lobe of the antenna. The worst case calculated RFR level is 144.4 W/m² at 1.6 meters from the support structure, which is well below the occupied standard. Because this is a multi-user facility, the actual RFR level is calculated as follows:

K240BL (proposed): .250kW @ 6 meters AG	= 144.4 W/m ²
K255AU (CP): .099kW @30 meters AG	= 1.170 W/m ²
K288CX (License): .055kW @ 8 Meters AG	= <u>14.15 W/m²</u>
Total Calculated RFR:	159.72 W/m ²

Because the calculated RFR level is below the public standard of 200 W/m², and well below the occupied standard of 1000 W/m², the proposal appears to be compliant with FCC and ANSI limits.

The applicant will, in coordination with other users of the site, reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from Radiofrequency Electromagnetic fields in excess of FCC guidelines.

Respectfully submitted,

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

Donald E. Mussell Jr. NCE-CBT
Consulting Engineer
February 2, 2014

Broadcast Engineering Services of Bonny Doon, Inc.
Don Mussell NCE-CBT

K240BL Minor Modification

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REFERENCE
35 13 02.0 N.
106 27 06.0 W.

CH# 240D - 95.9 MHz, Pwr= 0.25 kW DA, HAAT= 1239.8 M, COR= 3249 M
Average Protected F(50-50)= 46.29 km
Standard Directional

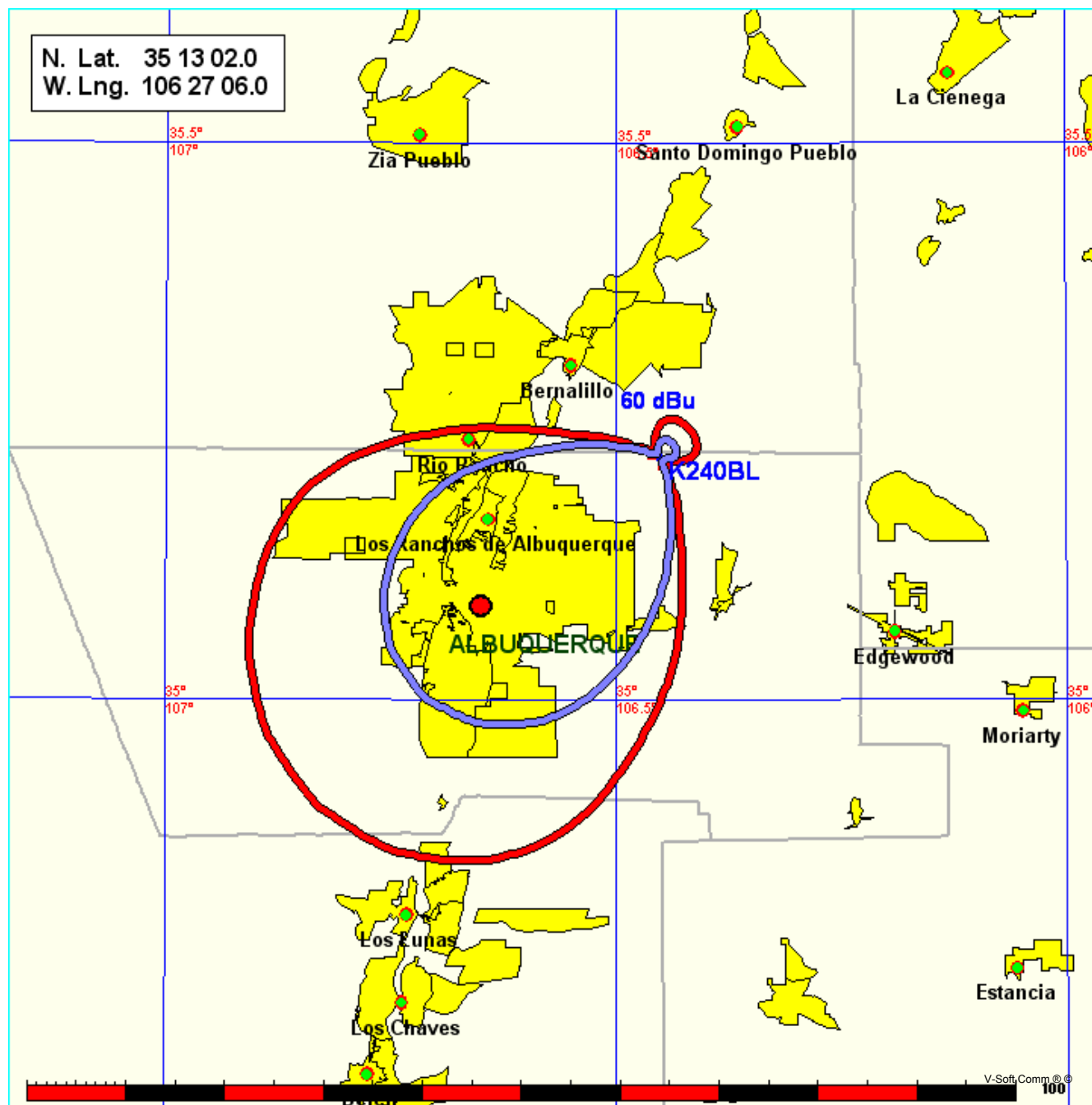
DISPLAY DATES
DATA 01-29-14
SEARCH 02-02-14

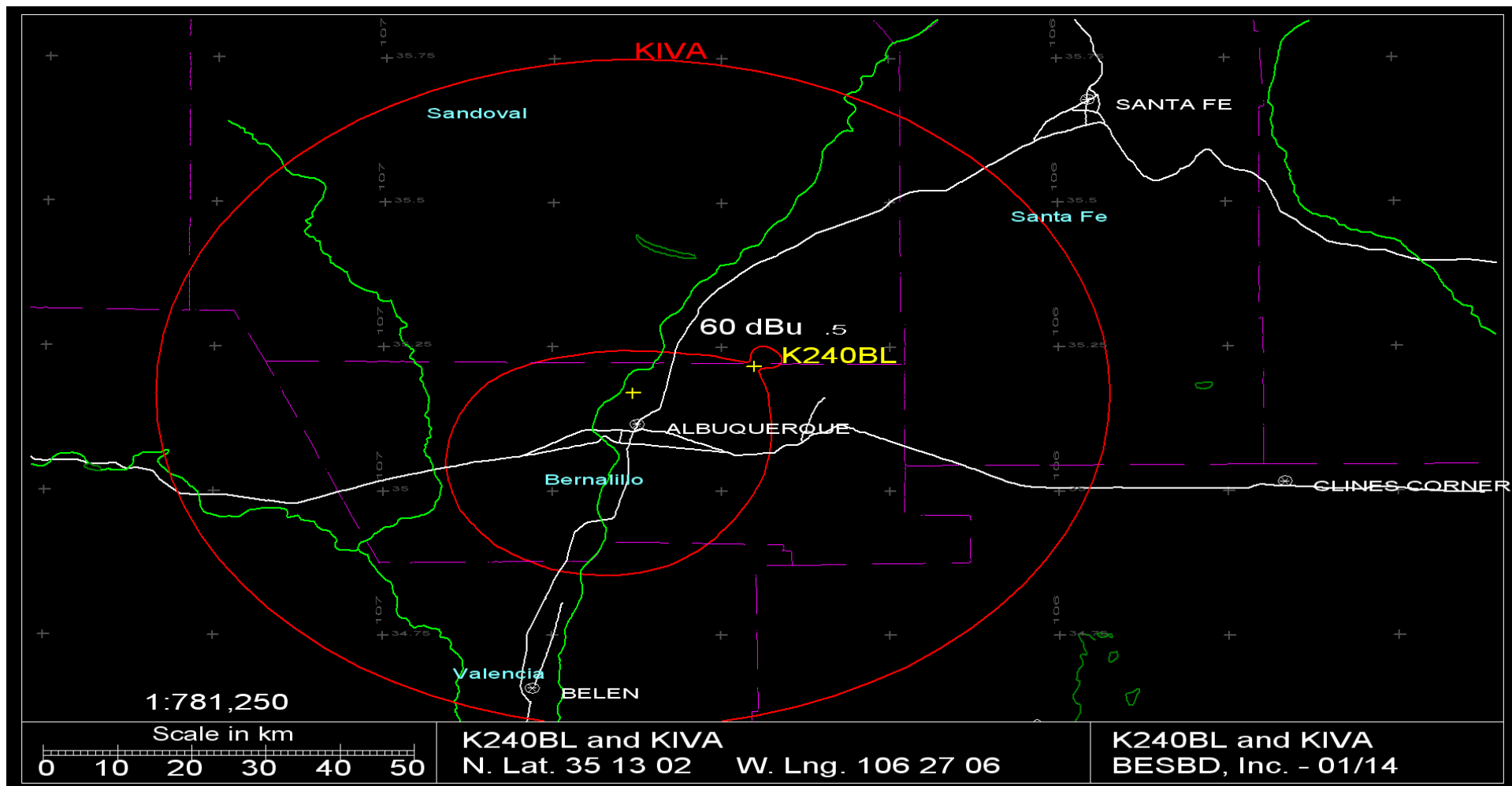
CH CITY	CALL	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
242C Albuquerque	KBZU	LIC _CY NM	160.1 340.1	0.59 BLH19870210KB	35 12 44.0 106 26 58.0	20.000 1260	9.1 3278	93.5 Radio License Holding Cbc,	-13.8*	-93.0*
240D Albuquerque	K240BL	LIC DH_ NM	0.0 0.0	0.00 BLFT20040206AAX	35 13 02.0 106 27 06.0	0.047 1248	12.4 3248	1.4 Carl G. Brasher	-15.6*	-27.7*
238C1 Santa Fe	KHFM	LIC _C_ NM	353.8 173.8	62.84 BMLH20000920ABF	35 46 49.0 106 31 37.0	19.000 546	8.0 3036	79.6 Agm Nevada, Llc	51.1	-16.8*
240D Santa Fe	K240EC	LIC _C_ NM	39.0 219.3	66.09 BLFT20130610ACH	35 40 43.0 105 59 27.8	0.070 22	43.7 2127	13.2 William R. Sims	18.3	21.4
294C0 Los Alamos	KAGM	LIC ZC_ NM	353.9 173.8	62.86 BLH20061218ABW	35 46 50.0 106 31 35.0	44.000 592	12.8 3078	58.8 Agm Nevada, Llc	25.0R	37.9M
240C2 Santa Rosa	KSSR-FM	LIC _CX NM	99.9 280.9	166.78 BLH20120703AAG	34 56 47.0 104 39 10.0	50.000 24	115.0 1492	26.5 Esquibel Llc	47.6	120.8

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.
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.

K240BL Minor Modification
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Coverage Study - FCC NGDC 30 Sec
02-02-2014

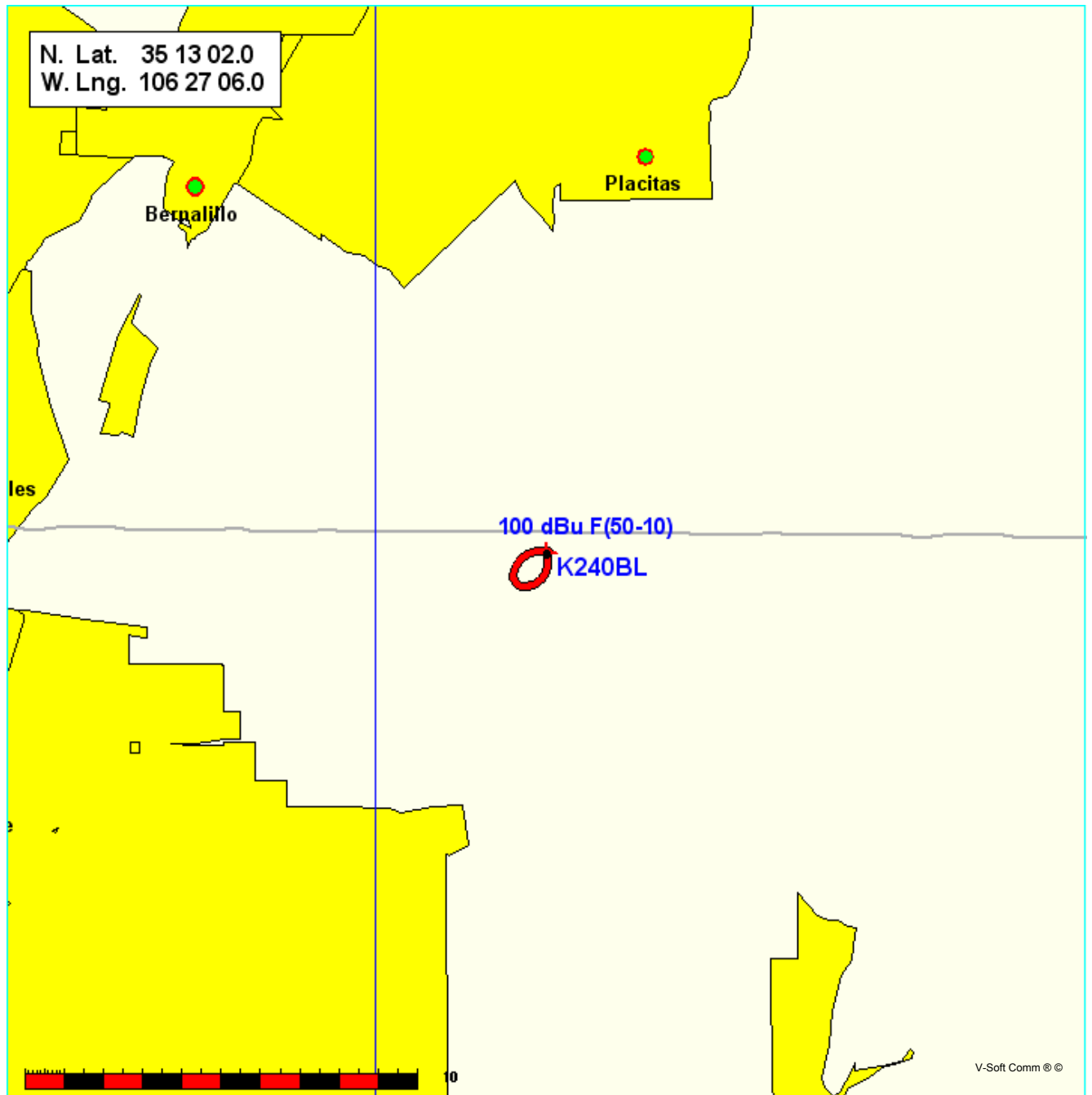




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Coverage Study - FCC NGDC 30 Sec
02-02-2014

K240BL CH240 D , 0.25 kW, 1239.8M HAAT, 3249.0M COR AMSL
Service Contour = 100 dBu. Population =

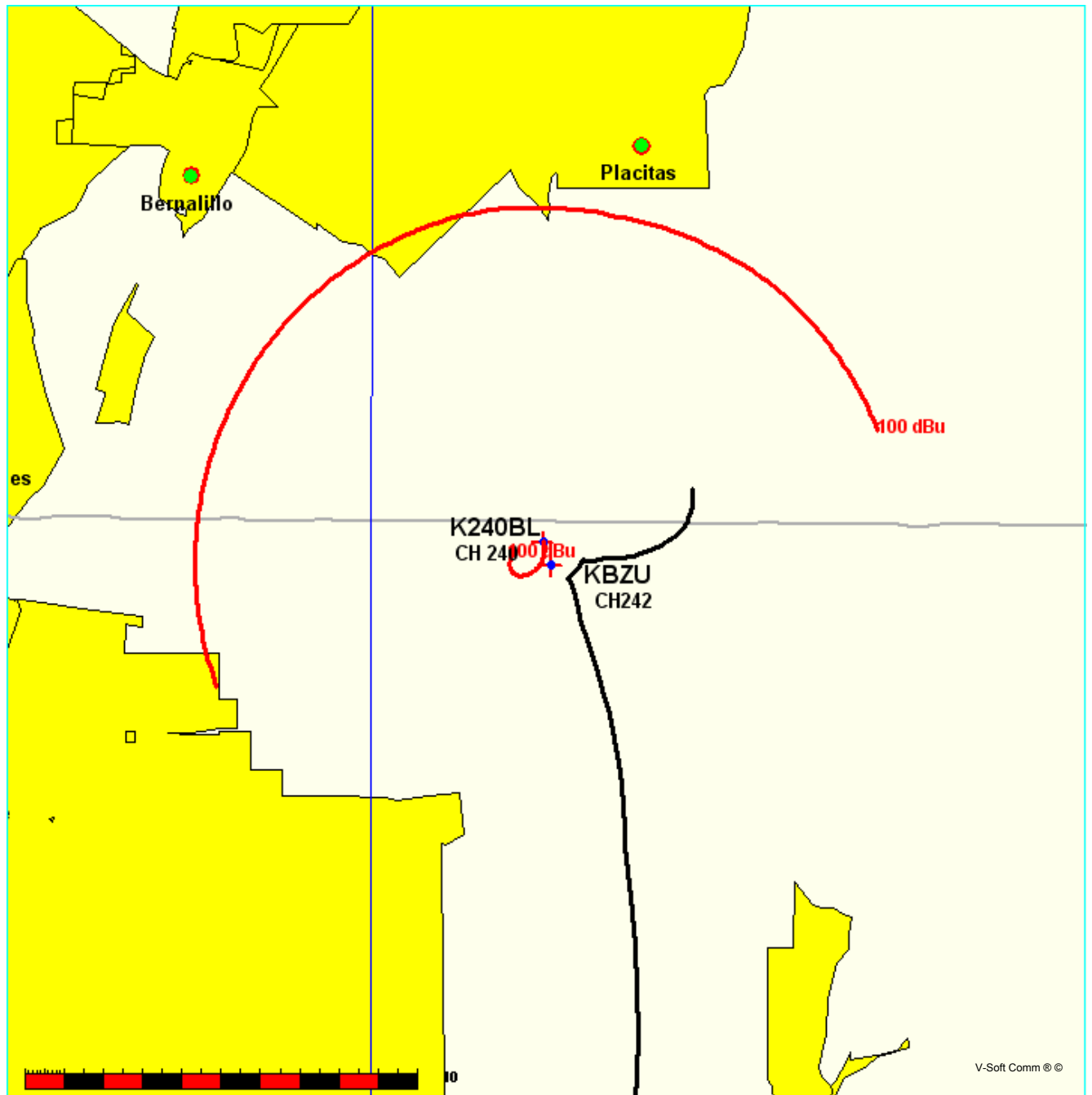


K240BL Minor Modification
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FMCommander Single Allocation Study - 02-02-2014 - FCC NGDC 30 Sec
K240BL's Overlaps (In= -13.83 km, Out= -92.99 km)

K240BL CH 240 D DA
Lat= 35 13 02.0, Lng= 106 27 06.0
0.25 kW 1239.8 M HAAT, 3249 M COR
Prot.= 60 dBu, Intef.= 100 dBu

KBZU CH 242 C BLH19870210KB
Lat= 35 12 44.0, Lng= 106 26 58.0
20.0 kW 1260 M HAAT, 3278 M COR
Prot.= 60 dBu, Intef.= 100 dBu

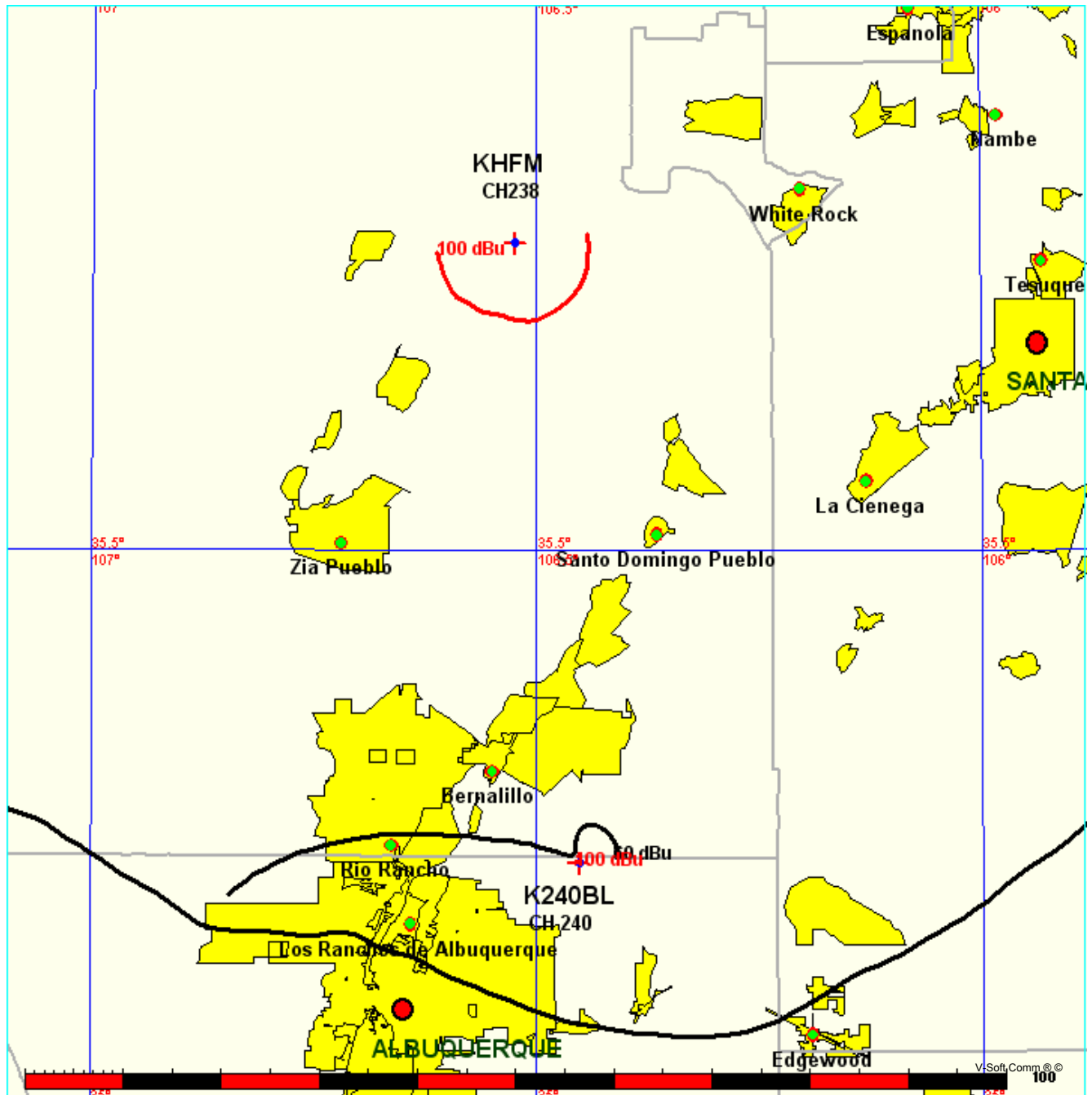


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FMCommander Single Allocation Study - 02-02-2014 - FCC NGDC 30 Sec
K240BL's Overlaps (In= 51.14 km, Out= -16.8 km)

K240BL CH 240 D DA
Lat= 35 13 02.0, Lng= 106 27 06.0
0.25 kW 1239.8 M HAAT, 3249 M COR
Prot.= 60 dBu, Intef.= 100 dBu

KHFM CH 238 C1 BMLH20000920ABF
Lat= 35 46 49.0, Lng= 106 31 37.0
19.0 kW 546 M HAAT, 3036 M COR
Prot.= 60 dBu, Intef.= 100 dBu

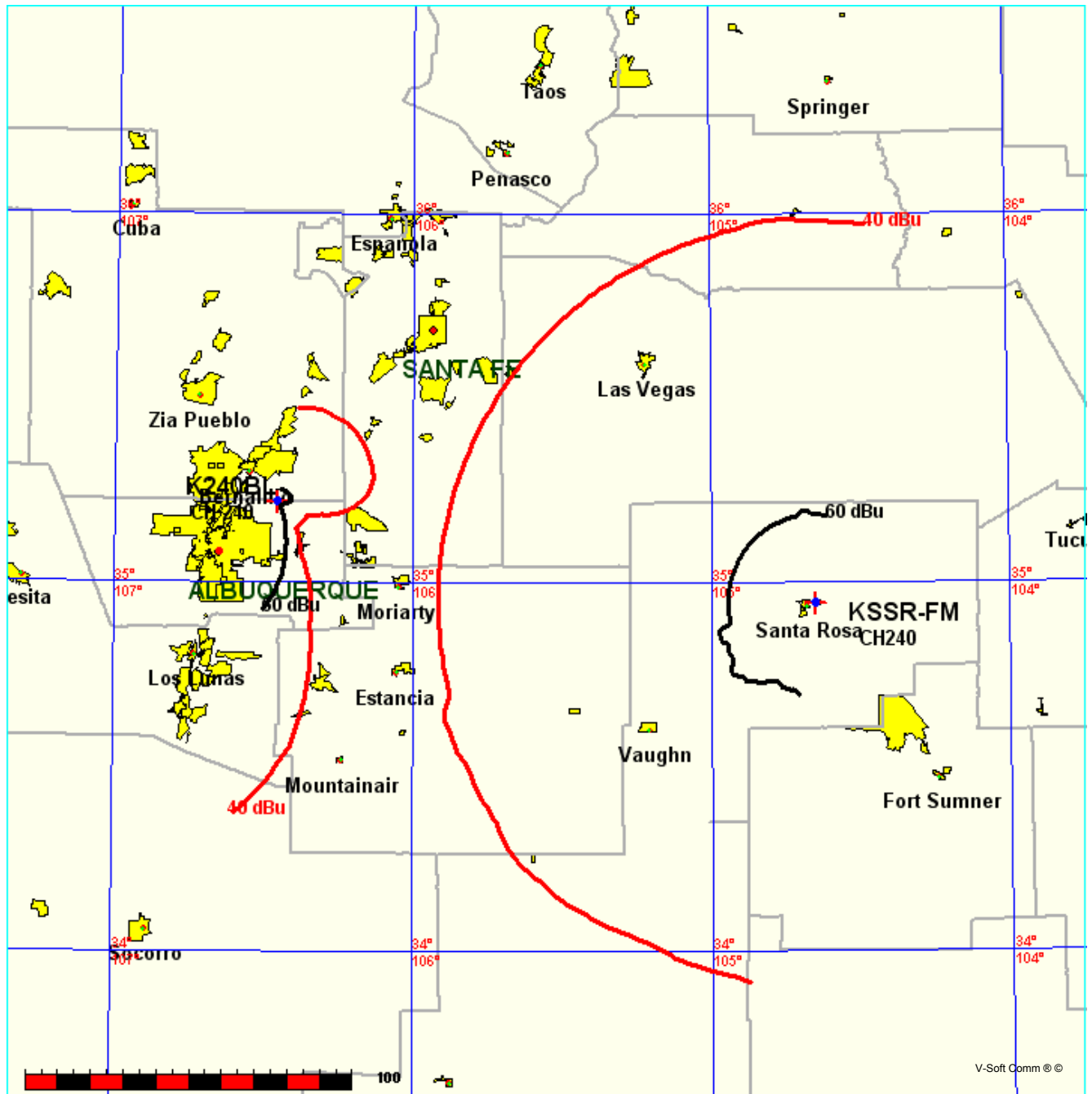


K240BL Minor Modification
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FMCommander Single Allocation Study - 02-02-2014 - FCC NGDC 30 Sec
K240BL's Overlaps (In= 47.56 km, Out= 120.81 km)

K240BL CH 240 D DA
Lat= 35 13 02.0, Lng= 106 27 06.0
0.25 kW 1239.8 M HAAT, 3249 M COR
Prot.= 60 dBu, Intef.= 40 dBu

KSSR-FM CH 240 C2 BLH20120703AAG
Lat= 34 56 47.0, Lng= 104 39 10.0
50.0 kW 24 M HAAT, 1492 M COR
Prot.= 60 dBu, Intef.= 40 dBu



State of Hawaii)
Kilauea)
County of Kauai)

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
February 2, 2014