

**250 MILE AM WINDOW
APPLICATION TO MOVE
K262CJ TO SNOHOMISH, WA FOR
CLASS B AM STATION KKXA (#160891)**

K262CJ as modified to channel 266 (101.1) will rebroadcast class B AM facility KKXA (facility ID # 160891) at Snohomish, WA. The move is 236.3 miles from the licensed K262CJ site.

Distance between:

47 55 47. N Latitude, 122 14 52. W Longitude (Point 1)

As decimals: 47.9297222 Latitude, -122.2477778 Longitude

and

45 35 59. N Latitude, 118 36 16. W Longitude (Point 2)

As decimals: 45.5997222 Latitude, -118.6044444 Longitude

Distance = 380.199 km (236.245 miles)

via the method in Sections 73.208 and 73.611(d)

This method is only suitable for distances up to 475 km (295 miles).

Allocation discussion:

All exhibits utilize the FCC 30 second terrain database.

- E1 Channel study
- E1AA KMGP-LP plot
- E1AB KPWN-LP PLOT
- E1AC CFMI-FM plot
- E1AD Canada 34 dBu (50:10) clearance plot.
- E1A KKWF analysis
- E1B KPLZ-FM interference analysis
- E1C Aerial photograph of site and street view
- E1D DA and vertical elevation pattern
- E2 60 dBu and 2 mV/m contours
- E3 ASR

A channel study is included as E1 demonstrating compliance with §74.1204 with the exception of 2nd adjacent stations KKWF and KPLZ-FM. Clearance to these stations is demonstrated below.

E1AD demonstrates that the 34 dBu (50:10) does not cross the Canadian border and E1AC demonstrates that no interference will be caused to co-channel station CFMI-FM on Canadian soil. A plot of the proposed 60 dBu contour is provided as E2 showing that it is entirely contained within primary station KKXA(AM)'s 2 mV/m and 40 km radius.

The proposed facility will be located inside the protected contours of 2nd adjacent channel stations KKWF on 264C and KPLZ-FM on 268C0. Interference analyses have been conducted based on the U/D ratio of +40 dB at the proposed site and are included as E1A and E1B.

KKWF analysis (E1A):

KKWF places a 78.24dBu (50:50) dBu at the site resulting in an interference contour of 118.24 dBu (50:10) which clears the ground by at least 21.9 meters. The nearest buildings are all one story industrial and commercial structures (see E1C).

KPLZ-FM analysis (E1B):

KPLZ-FM places a 76.3 dBu at the site with a corresponding interference contour of 116.3 dBu. This contour clears the ground by at least 13.2 meters at 94 meters from the tower and greater amounts at other distances. A careful analysis using Google Street View demonstrates that there are only one story industrial buildings within the interference contour.

It is clear from E1A and E1C that the interference contours will not reach any occupied/populated area or any major highways. Based on this showing, a waiver of Section 74.1204 is requested in accordance with *Living Way Ministries, Inc.* (FCC 08-242).

RF Exposure Calculation:

The proposed facility will utilize a two bay PSI FML 5/8 wave spaced, circularly polarized antenna at 57 meters AGL. The RF contribution of the proposed translator was calculated using the formula included below and a worst case F factor of 1.0 to be 5.5 $\mu\text{Watts/cm}^2$ or 2.8% of the maximum permissible 200 microwatts/cm² exposure for general population/uncontrolled exposure, and below the 5% of that limit which requires consideration.

$$S \text{ (RF in } \mu\text{Watts/cm}^2\text{)} = \frac{33.4 (F^2 \text{ Vertical Factor}) X (H \text{ ERP} + V \text{ ERP in Watts})}{R^2 \text{ (distance to radiation center in meters} - 2 \text{ m)}}$$

Charles M. Anderson 7-24-2016

E1 CHANNEL STUDY

REFERENCE
47 55 47.0 N.
122 14 52.0 W.

CH# 266D - 101.1 MHz, Pwr= 0.25 kW DA, HAAT= 144.9 M, COR= 209 M
Average Protected F(50-50)= 15.57 km
Standard Directional

DISPLAY DATES
DATA 07-27-16
SEARCH 07-27-16

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*	
266C New Westminster	CFMIFM	PRO ?HY BC	342.2 161.7	167.07	49 21 29.0 122 57 09.0	75.000 686	215.5 1029	107.6	-66.6*	-4.3	(1)
266C New Westminster	R14375	VAC ____ BC	341.6 161.0	166.17	49 20 42.0 122 58 22.0	100.000 600	214.4 902	97.0	-66.3*	-5.2	(1)
266A Coupeville	AU9869388	VAC ____ WA	321.0 140.6	53.11 RM11037	48 18 00.0 122 42 00.0	6.000 100	88.8 117	29.7 Dana J. Puopolo	-54.4*	-35.6*	(2)
264C Seattle	KKWF	LIC DC_ WA	156.6 336.8	51.56 BLH20081120AFT	47 30 14.0 121 58 29.0	68.000 707	13.6 940	95.4 Entercom License, LLC	26.0	-44.5*	(3)
268C0 Seattle	KPLZ-FM	LIC _C_ WA	166.2 346.3	44.09 BLH20121220AAY	47 32 40.0 122 06 28.0	100.000 372	11.9 496	81.7 Sinclair Radio Of Seattle	20.7	-38.0*	(4)
266L1 Brinnon	KPWN-LP	CP ____ WA	240.9 60.4	58.56 BNPL20131114BNI	47 40 18.8 122 55 54.0	0.100 24			-11.9	3.2	
266C2 Leavenworth	KOHO-FM	LIC NC_ WA	105.0 286.3	134.95 BLH20010731ABM	47 36 07.0 120 30 32.0	0.950 623	123.0 1444	50.7 Icicle Broadcasting, Inc.	-4.3	31.8	
266L1 Magnuson Park	KMGP-LP	CP ____ WA	181.9 1.9	27.43 BNPL20131113BUJ	47 40 59.0 122 15 35.0	0.100 30			-0.3	3.1	
266AA River Jordan	AL0857	AL ____ BC	293.0 111.7	138.56	48 24 06.0 123 58 20.0	6.000 100	106.1 319	38.0	14.9	27.2	
212C3 Seattle	KEXP-FM	LIC DCX WA	187.3 7.3	35.15 BMLED20071030ABD	47 36 58.0 122 18 28.0	4.700 211	0.0 247	0.0 Friends Of Kexp	11.5R	23.7M	
266L1 Kent	NEW	CP ____ WA	177.4 357.4	60.25 BNPL20131114BDS	47 23 18.0 122 12 40.0	0.025 59			25.5	35.0	
							154	City Of Kent, Washington			

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 restricted contour.

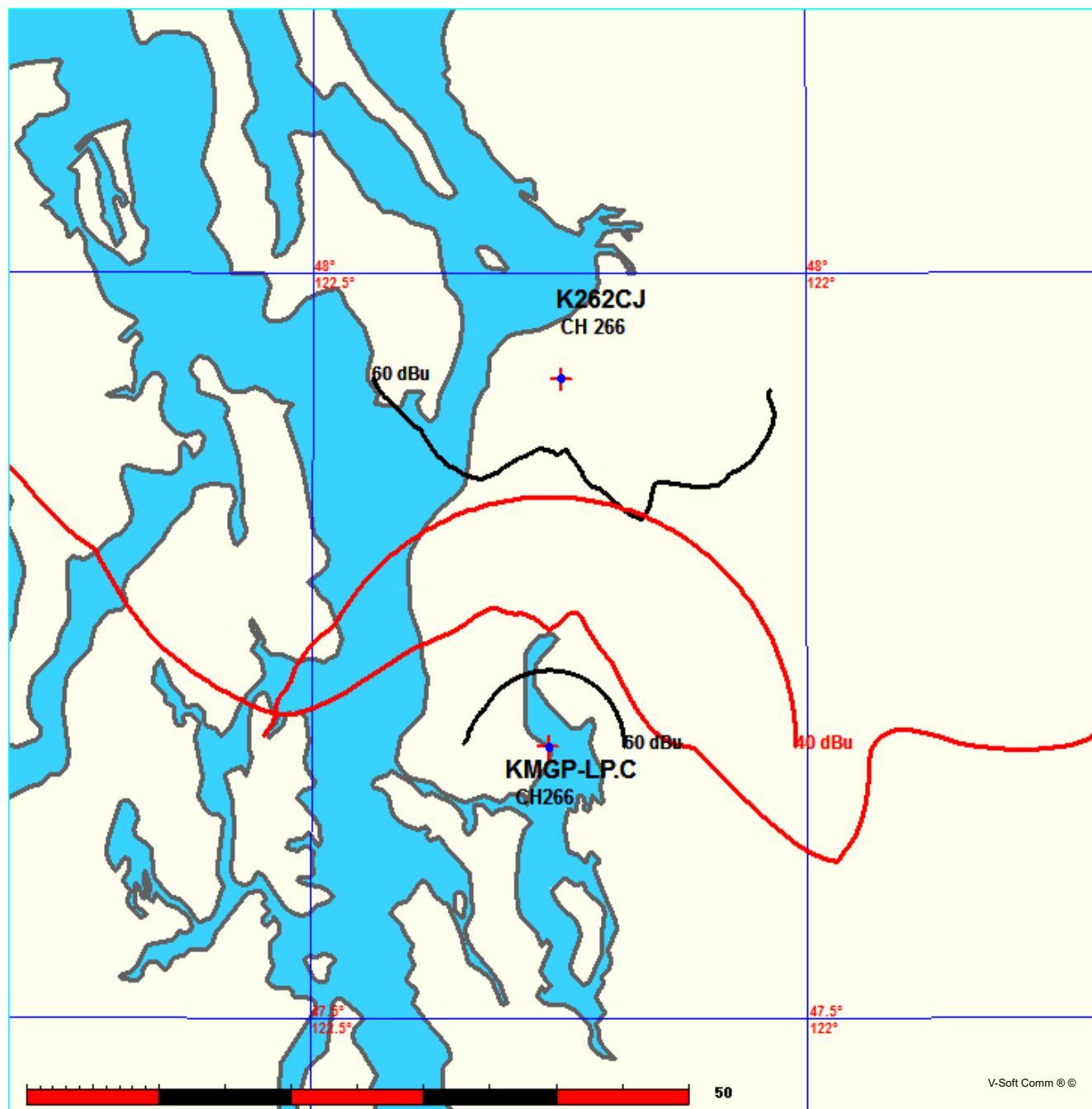
- (1) See E1AC. No interference on Canadian soil.
- (2) US VACANT allotment does not require protection.
- (3) See E1A and E1C for disproval of interference.
- (4) See E1B and E1C for disproval of interference.

E1AA K262CJ - KMGP-LP CP PLOT

FMCommander Single Allocation Study - 07-27-2016 - FCC NGDC 30 Sec
K262CJ's Overlaps (In= -0.33 km, Out= 3.1 km)

K262CJ CH 266 D DA
Lat= 47 55 47.0, Lng= 122 14 52.0
0.25 kW 144.9 m HAAT, 209 m COR
Prot.= 60 dBu, Intef.= 40 dBu

KMGP-LP CH 266 L1 BNPL20131113BUJ
Lat= 47 40 59.0, Lng= 122 15 35.0
0.1 kW 30 m HAAT, 77.9 m COR
Prot.= 60 dBu, Intef.= 40 dBu
LPFM AT MAXIMUM CLASS

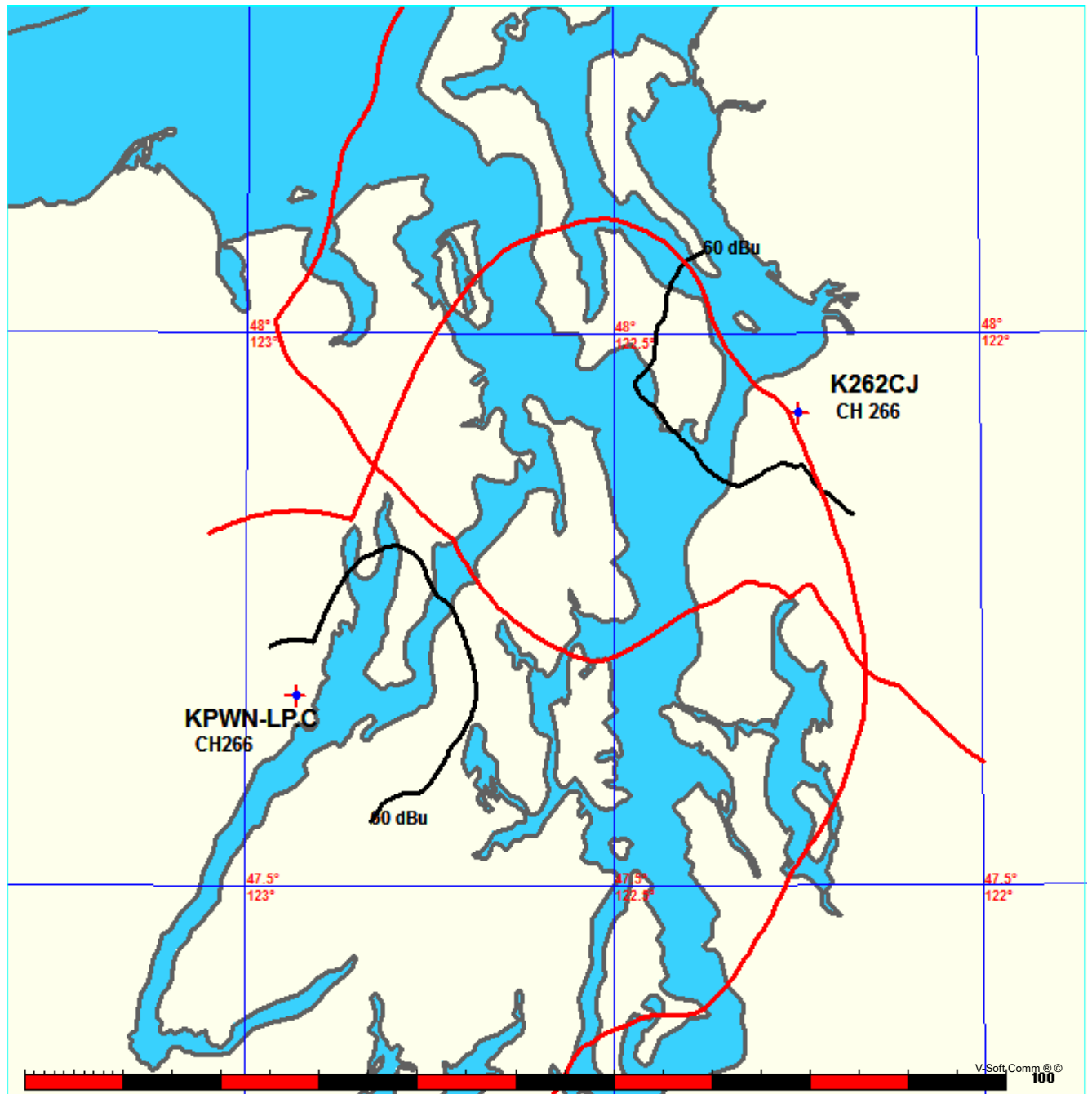


E1AB K262CG - KPWN-LP PLOT

FMCommander Single Allocation Study - 07-27-2016 - FCC NGDC 30 Sec
K262CJ's Overlaps (In= -10.41 km, Out= 3.68 km)

K262CJ CH 266 D DA
Lat= 47 55 47.0, Lng= 122 14 52.0
0.25 kW 144.9 m HAAT, 209 m COR
Prot.= 60 dBu, Intef.= 40 dBu

KPWN-LP CH 266 L1 BNPL20131114BNI
Lat= 47 40 18.8, Lng= 122 55 54.0
0.1 kW 30 m HAAT, 323.9 m COR
Prot.= 60 dBu, Intef.= 40 dBu
LPFM AT MAXIMUM CLASS



E1AC CFMI-FM PLOT

FMCommander Single Allocation Study - 07-24-2016 - FCC NGDC 30 Sec

K262CJ CH 266 D DA

Lat= 47 55 47.0, Lng= 122 14 52.0

0.25 kW 144.9 m HAAT, 209 m COR

Prot.= 60 dBu, Intef.= 34 dBu

CFMI-FM CH 266 C DA 3858

Lat= 49 20 42.0, Lng= 122 58 22.0

100.0 kW 368.4 m HAAT, 650.9 m COR

Prot.= 58 dBu, Intef.= 40 dBu

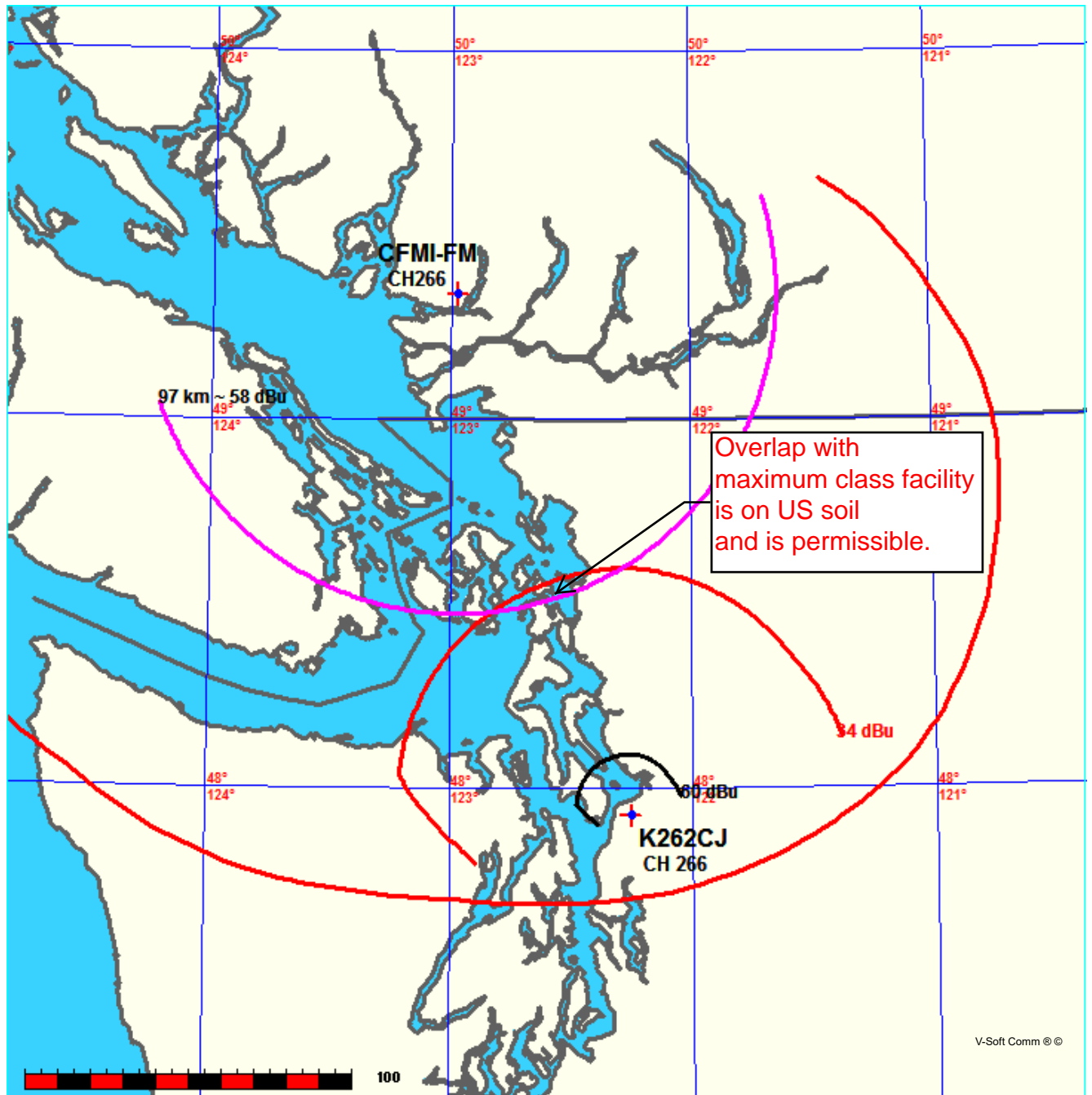


EXHIBIT E1AD
CANADA - 34 DBU (50:10)

K262CJ

Latitude: 47-55-47 N
Longitude: 122-14-52 W
ERP: 0.25 kW
Channel: 266
Frequency: 101.1 MHz
AMSL Height: 209.0 m
Elevation: 152.0 m
Horiz. Pattern: Directional

**PROPOSED 34 DBU (50:10) DOES
NOT CROSS THE CANADIAN BORDER**

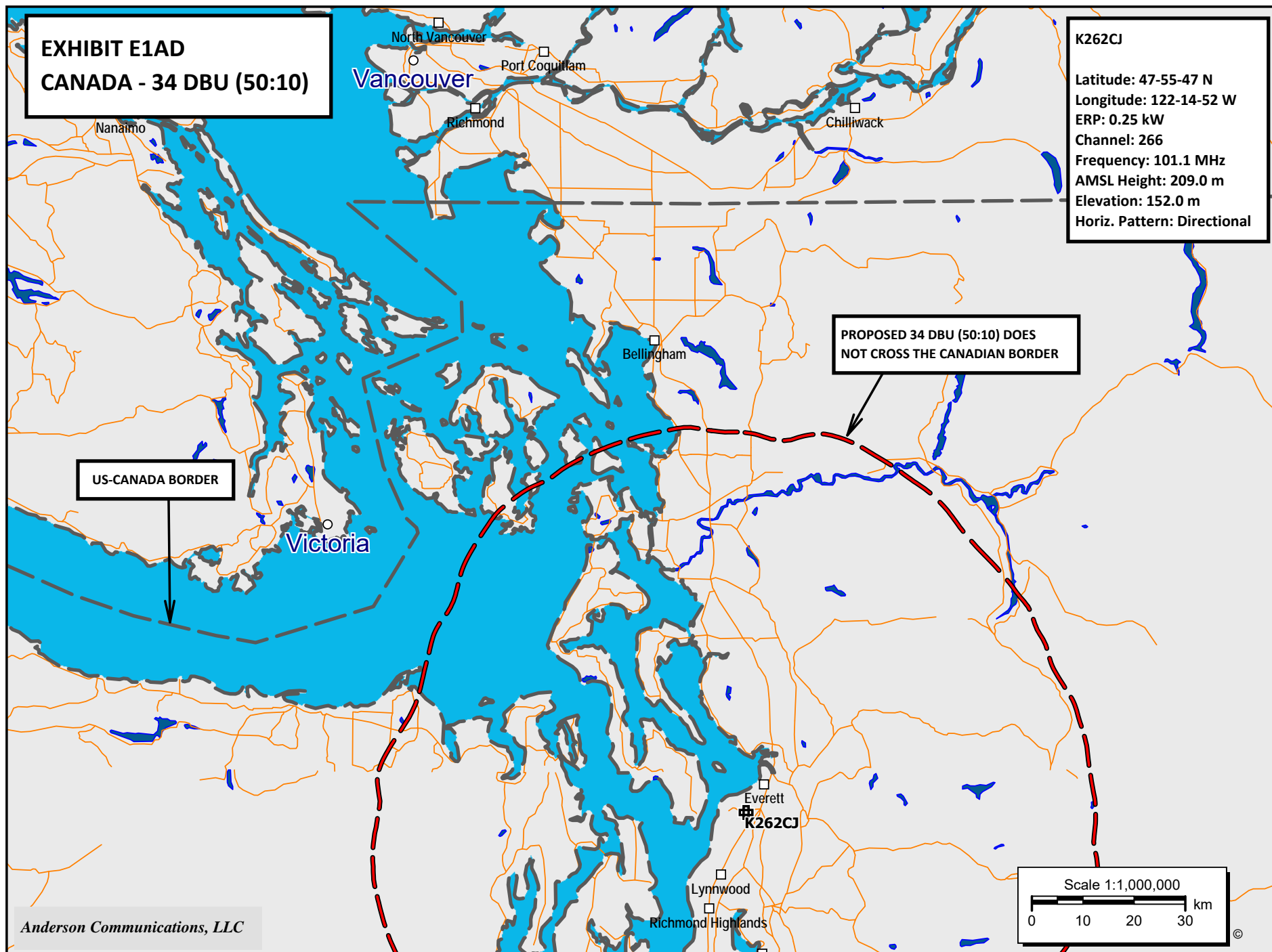
US-CANADA BORDER

Anderson Communications, LLC

Scale 1:1,000,000

0 10 20 30 km

©



E1A KKWF ANALYSIS

K262CJ EVERETT, WA
 74.1204(d) Showing
 Translator or LPFM Maximum Licensed ERP = 0.25
 Translator or LPFM Antenna Height AG = 57 Meters
 NEW Antenna Model = PSI FML 2 BAY 5/8 WAVE SPACED

Protected Station's Contour = 78.23997 dBu
 Translator's or LPFM's full Interference contour 118.23997

Review Azimuth = 0 Degrees True
 Relative Field on the horizon at Review Azimuth = 1.000
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.25 kW
 Distance between stations = 51.6 km
 Protected Station= KKWF, 68 kW, 940 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.00	1.0	0.2500	135.8224	135.8224	057.000
05.00	0.982	1.0	0.2411	133.3776	132.8701	045.375
10.00	0.928	1.0	0.2153	126.0432	124.1283	035.113
15.00	0.844	1.0	0.1781	114.6341	110.7281	027.331
20.00	0.736	1.0	0.1354	099.9653	093.9367	022.810
25.00	0.612	1.0	0.0936	083.1233	075.3353	021.871
30.00	0.481	1.0	0.0578	065.3306	056.5780	024.335
35.00	0.352	1.0	0.0310	047.8095	039.1632	029.578
40.00	0.233	1.0	0.0136	031.6466	024.2427	036.658
45.00	0.128	1.0	0.0041	017.3853	012.2932	044.707
50.00	0.043	1.0	0.0005	005.8404	003.7541	052.526
55.00	0.021	1.0	0.0001	002.8523	001.6360	054.664
60.00	0.064	1.0	0.0010	008.6926	004.3463	049.472
65.00	0.087	1.0	0.0019	011.8166	004.9939	046.291
70.00	0.092	1.0	0.0021	012.4957	004.2738	045.258
75.00	0.083	1.0	0.0017	011.2733	002.9177	046.111
80.00	0.062	1.0	0.0010	008.4210	001.4623	048.707
85.00	0.033	1.0	0.0003	004.4821	000.3906	052.535
90.00	0.001	1.0	0.0000	000.1358	000.0000	056.864

(1)

(1) All buildings within the interference contour are single story industrial.

X-Field™ By V-Soft

Communications®LLC

E1B KPLZ-FM ANALYSIS

K262CJ EVERETT, WA

74.1204(d) Showing

Translator or LPFM Maximum Licensed ERP = 0.25

Translator or LPFM Antenna Height AG = 57 Meters

NEW Antenna Model = PSIFML-2- 5/8 WAVE SPACED

Protected Station's Contour = 76.33842 dBu

Translator's or LPFM's full Interference contour 116.33842

Review Azimuth = 0 Degrees True

Relative Field on the horizon at Review Azimuth = 1.000

Translator/LPFM ERP on the horizon at Review Azimuth = 0.25 kW

Distance between stations = 44.1 km

Protected Station= KPLZ-F, 100 kW, 496 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.2500	169.0632	169.0632	057.000
05.00	0.982	1.0	0.2411	166.0200	165.3883	042.530
10.00	0.928	1.0	0.2153	156.8906	154.5071	029.756
15.00	0.844	1.0	0.1781	142.6893	137.8273	020.069
20.00	0.736	1.0	0.1354	124.4305	116.9264	014.442
25.00	0.612	1.0	0.0936	103.4667	093.7726	013.273
30.00	0.481	1.0	0.0578	081.3194	070.4247	016.340
35.00	0.352	1.0	0.0310	059.5102	048.7479	022.866
40.00	0.233	1.0	0.0136	039.3917	030.1758	031.679
45.00	0.128	1.0	0.0041	021.6401	015.3019	041.698
50.00	0.043	1.0	0.0005	007.2697	004.6729	051.431
55.00	0.021	1.0	0.0001	003.5503	002.0364	054.092
60.00	0.064	1.0	0.0010	010.8200	005.4100	047.630
65.00	0.087	1.0	0.0019	014.7085	006.2161	043.670
70.00	0.092	1.0	0.0021	015.5538	005.3197	042.384
75.00	0.083	1.0	0.0017	014.0322	003.6318	043.446
80.00	0.062	1.0	0.0010	010.4819	001.8202	046.677
85.00	0.033	1.0	0.0003	005.5791	000.4862	051.442
90.00	0.001	1.0	0.0000	000.1691	000.0000	056.831

(1)

(1) All buildings within contour are single story industrial.

X-Field™ By V-Soft

Communications®LLC

E1C AERIAL VIEW OF 116.3 DBU (50:10) INTERFERENCE CONTOUR

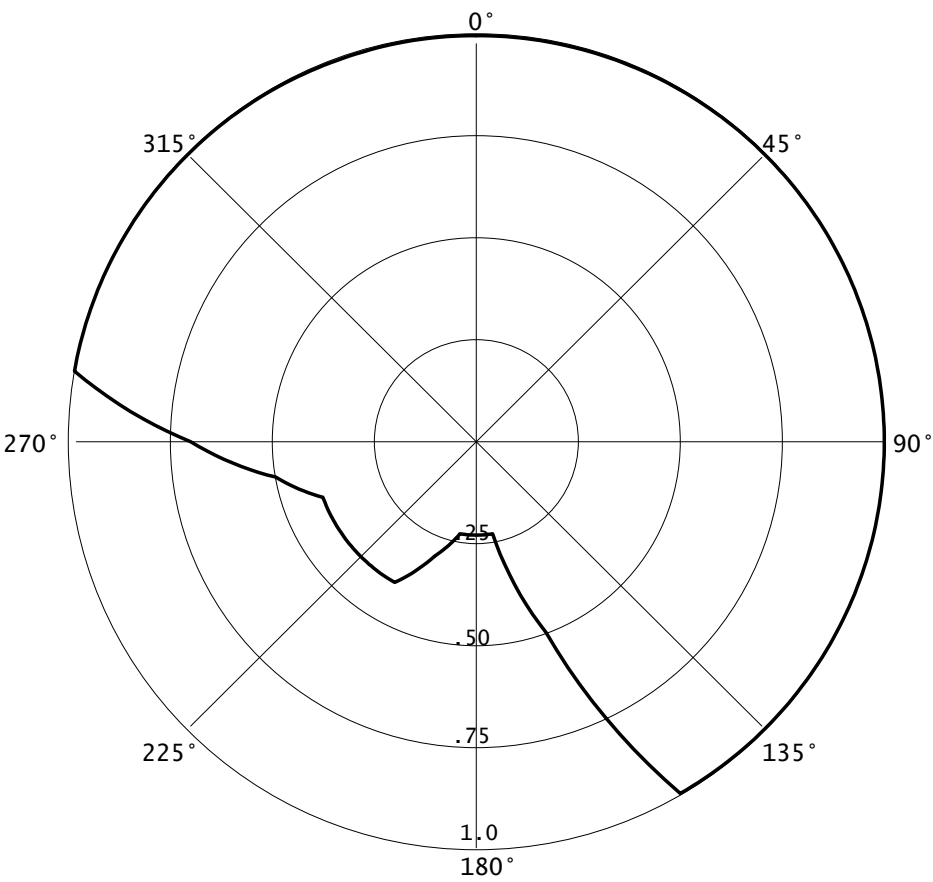


E1C STREET VIEW OF CLOSEST COMMERCIAL AND RETAIL BUILDINGS

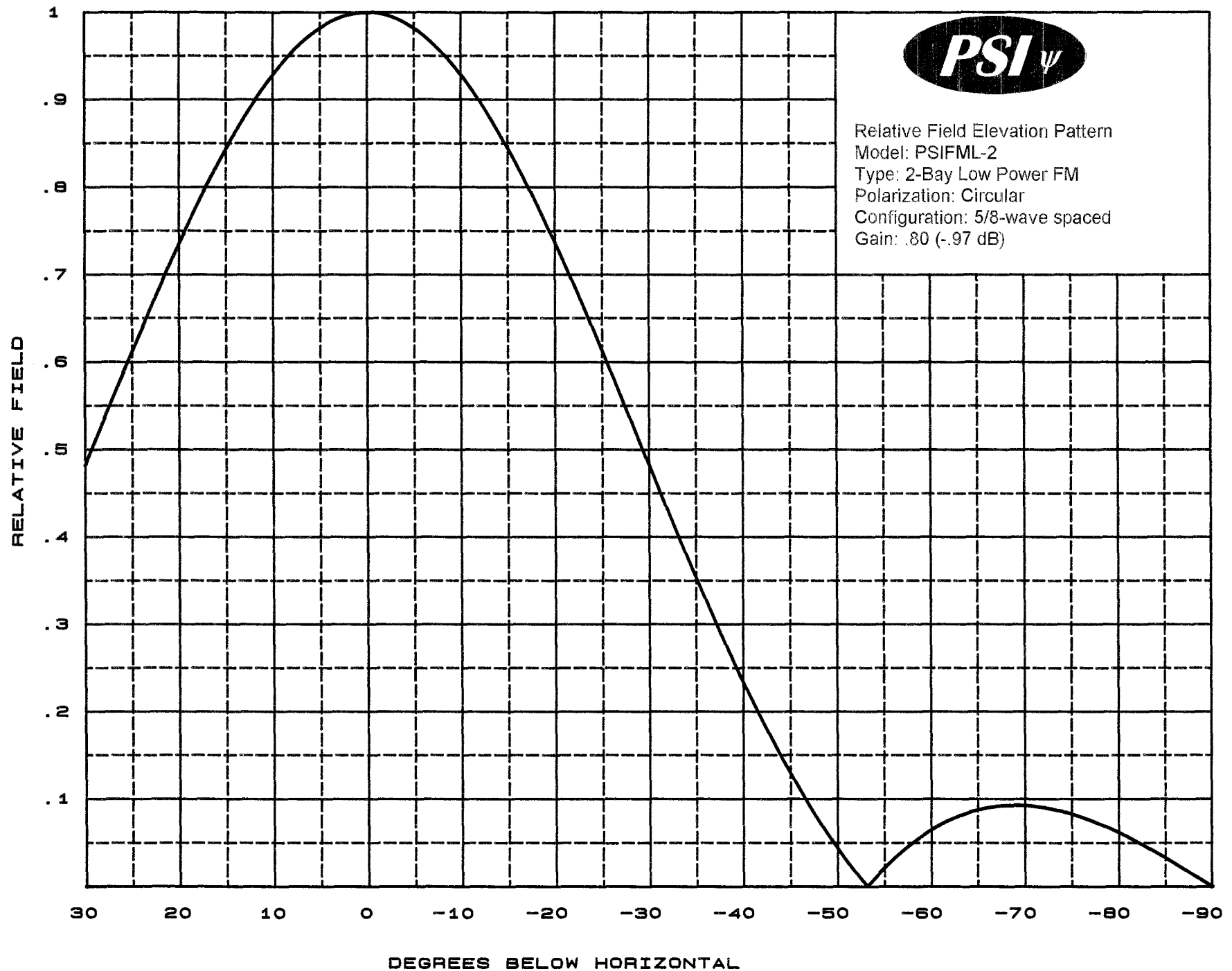


Graph is Relative Field

Azi	Field	dBk	kw
000	1.000	-06.021	0.250
010	1.000	-06.021	0.250
020	1.000	-06.021	0.250
030	1.000	-06.021	0.250
040	1.000	-06.021	0.250
050	1.000	-06.021	0.250
060	1.000	-06.021	0.250
070	1.000	-06.021	0.250
080	1.000	-06.021	0.250
090	1.000	-06.021	0.250
100	1.000	-06.021	0.250
110	1.000	-06.021	0.250
120	1.000	-06.021	0.250
130	1.000	-06.021	0.250
140	1.000	-06.021	0.250
150	1.000	-06.021	0.250
160	0.500	-12.041	0.063
170	0.230	-18.786	0.013
180	0.230	-18.786	0.013
190	0.230	-18.786	0.013
200	0.300	-16.478	0.023
210	0.400	-13.979	0.040
220	0.400	-13.979	0.040
230	0.400	-13.979	0.040
240	0.400	-13.979	0.040
250	0.400	-13.979	0.040
260	0.500	-12.041	0.063
270	0.700	-09.119	0.122
280	1.000	-06.021	0.250
290	1.000	-06.021	0.250
300	1.000	-06.021	0.250
310	1.000	-06.021	0.250
320	1.000	-06.021	0.250
330	1.000	-06.021	0.250
340	0.999	-06.029	0.250
350	1.000	-06.021	0.250



E1D VERTICAL ELEVATION PATTERN





Propagation Systems Inc.

Elevation Pattern Tabulation

Antenna: PSIFML-2 Special

Bay spacing: 5/8 wave

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.0	0.001	-60.000	-50.0	0.043	-27.325	-10.0	0.928	-0.649
-89.0	0.007	-43.722	-49.0	0.058	-24.659	-9.0	0.941	-0.525
-88.0	0.013	-37.600	-48.0	0.075	-22.534	-8.0	0.953	-0.414
-87.0	0.020	-34.045	-47.0	0.092	-20.741	-7.0	0.964	-0.316
-86.0	0.026	-31.630	-46.0	0.110	-19.196	-6.0	0.974	-0.232
-85.0	0.033	-29.742	-45.0	0.128	-17.833	-5.0	0.982	-0.162
-84.0	0.039	-28.226	-44.0	0.148	-16.602	-4.0	0.988	-0.103
-83.0	0.045	-26.965	-43.0	0.168	-15.492	-3.0	0.993	-0.058
-82.0	0.051	-25.916	-42.0	0.189	-14.474	-2.0	0.997	-0.026
-81.0	0.056	-25.003	-41.0	0.211	-13.531	-1.0	0.999	-0.007
-80.0	0.062	-24.220	-40.0	0.233	-12.657	0.0	1.000	0.000
-79.0	0.067	-23.542	-39.0	0.256	-11.843	1.0	0.999	-0.007
-78.0	0.071	-22.967	-38.0	0.279	-11.085	2.0	0.997	-0.026
-77.0	0.075	-22.464	-37.0	0.303	-10.366	3.0	0.993	-0.058
-76.0	0.079	-22.021	-36.0	0.328	-9.694	4.0	0.988	-0.103
-75.0	0.083	-21.663	-35.0	0.352	-9.059	5.0	0.982	-0.162
-74.0	0.086	-21.350	-34.0	0.378	-8.460	6.0	0.974	-0.232
-73.0	0.088	-21.092	-33.0	0.403	-7.890	7.0	0.964	-0.316
-72.0	0.090	-20.901	-32.0	0.429	-7.349	8.0	0.953	-0.414
-71.0	0.092	-20.770	-31.0	0.455	-6.840	9.0	0.941	-0.525
-70.0	0.092	-20.684	-30.0	0.481	-6.353	10.0	0.928	-0.649
-69.0	0.093	-20.656	-29.0	0.507	-5.893	11.0	0.913	-0.786
-68.0	0.092	-20.699	-28.0	0.534	-5.455	12.0	0.898	-0.937
-67.0	0.091	-20.785	-27.0	0.560	-5.039	13.0	0.881	-1.101
-66.0	0.090	-20.944	-26.0	0.586	-4.643	14.0	0.863	-1.281
-65.0	0.087	-21.182	-25.0	0.612	-4.268	15.0	0.844	-1.475
-64.0	0.084	-21.489	-24.0	0.637	-3.911	16.0	0.824	-1.682
-63.0	0.080	-21.889	-23.0	0.663	-3.573	17.0	0.803	-1.905
-62.0	0.076	-22.394	-22.0	0.687	-3.256	18.0	0.781	-2.143
-61.0	0.070	-23.042	-21.0	0.712	-2.953	19.0	0.759	-2.398
-60.0	0.064	-23.823	-20.0	0.736	-2.667	20.0	0.736	-2.667
-59.0	0.057	-24.818	-19.0	0.759	-2.398	21.0	0.712	-2.953
-58.0	0.050	-26.073	-18.0	0.781	-2.145	22.0	0.688	-3.254
-57.0	0.041	-27.731	-17.0	0.803	-1.905	23.0	0.663	-3.573
-56.0	0.032	-30.030	-16.0	0.824	-1.684	24.0	0.637	-3.911
-55.0	0.021	-33.468	-15.0	0.844	-1.475	25.0	0.612	-4.268
-54.0	0.010	-39.869	-14.0	0.863	-1.281	26.0	0.586	-4.641
-53.0	0.002	-54.807	-13.0	0.881	-1.103	27.0	0.560	-5.036
-52.0	0.015	-36.655	-12.0	0.898	-0.937	28.0	0.534	-5.453
-51.0	0.028	-30.954	-11.0	0.913	-0.786	29.0	0.507	-5.893
						30.0	0.481	-6.353

file: FML 2-bay elevation tabulation

revision: A

Date: 1/28/08

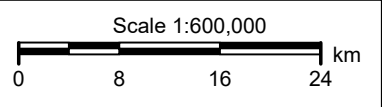
EXHIBIT E2

K262CJ
Latitude: 47-55-47 N
Longitude: 122-14-52 W
ERP: 0.25 kW
Channel: 266
Frequency: 101.1 MHz
AMSL Height: 209.0 m
Elevation: 152.0 m
Horiz. Pattern: Directional

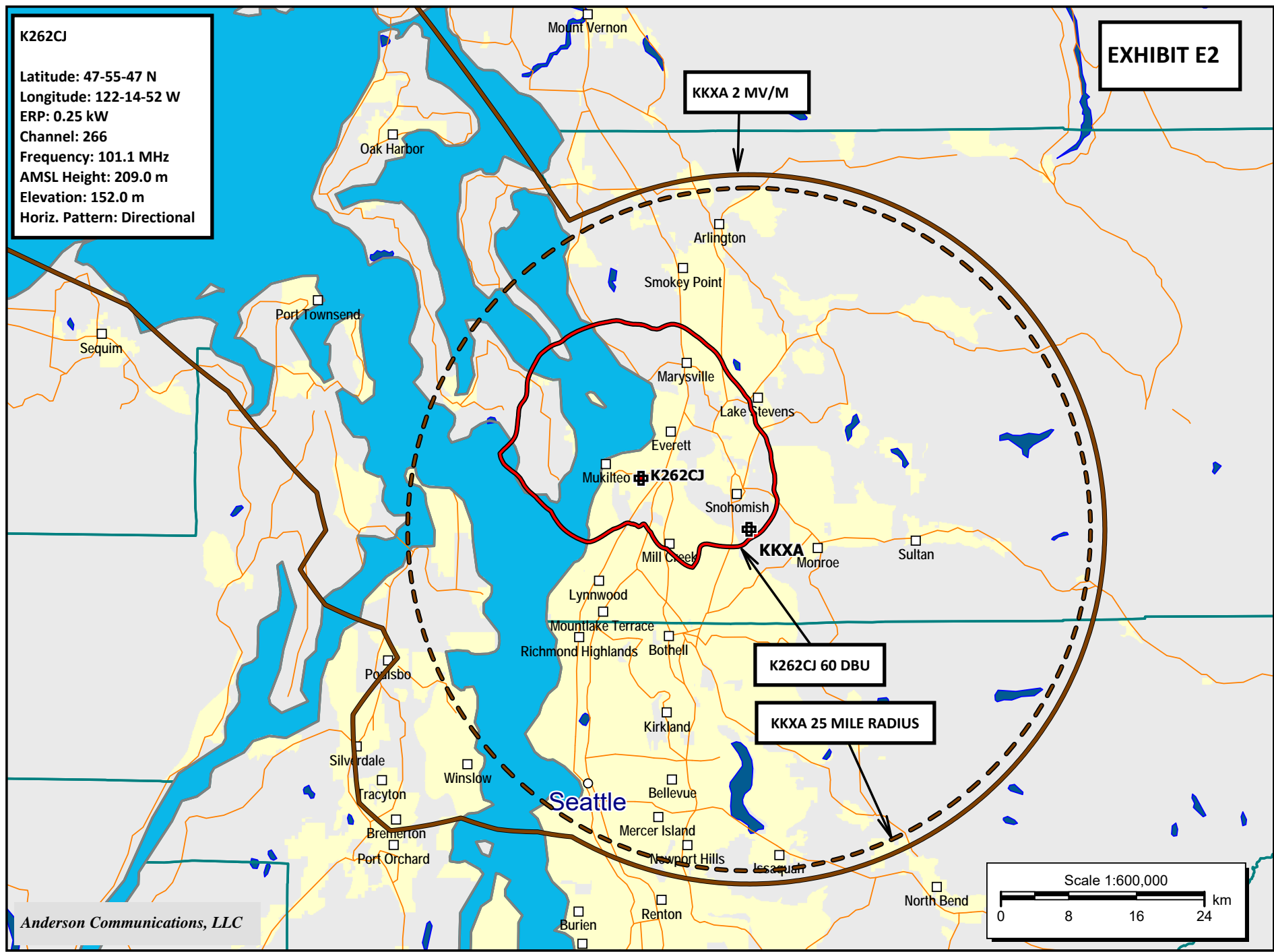
KKXA 2 MV/M

K262CJ 60 DBU

KKXA 25 MILE RADIUS



Anderson Communications, LLC



**Registration Detail**

Reg Number	1239952	Status	Constructed
File Number	A0553614	Constructed	06/30/2007
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

Location (in NAD83 Coordinates)

Lat/Long	47-55-46.2 N 122-14-56.5 W	Address	NW corner of Hardeson Rd. and 75th St. SW
City, State	Everett , WA		
Zip	98203	County	SNOHOMISH
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
152.4	76.2
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
228.6	76.2

Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 12

Paint and Light in Accordance with FAA Circular Number 70/7460-1K

FAA Notification

FAA Study	2002-ANM-2136-OE	FAA Issue Date	01/03/2003
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Owner & Contact Information

FRN	0009309667	Owner Entity Type
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Owner

JACOTOWER, INC.
Attention To: Ronald Jacobs
244 Heather Rd.
Everett , WA 98203

P: (425)776-8835
F:
E: ronj@berryneonsigns.com

Contact

Wills , Eric A
16689 SE 59th Street
Bellevue , WA 98006

P: (425)643-5000
F:
E: fcc@wacorp.net

Last Action Status

Status	Constructed	Received	07/06/2007
Purpose	Notification	Entered	07/09/2007
Mode	Mail In (Manual)		

Output from NADCON for station

North American Datum Conversion

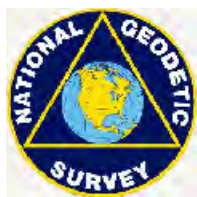
NAD 83 to NAD 27

NADCON Program Version 2.11

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Transformation #: 1 Region: Conus

	Latitude	Longitude
NAD 27 datum values:	47 55 46.85506	122 14 52.01666
NAD 83 datum values:	47 55 46.20000	122 14 56.50000
NAD 27 - NAD 83 shift values:	0.65506	-4.48334 (secs.)
	20.232	-93.063 (meters)
Magnitude of total shift:		95.237 (meters)



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