

**PALM DESERTS, CA
BNPFT-20030312AQY
SHORT FORM AMENDMENT ELIMINATING
THE LAST CONFLICT IN MX GROUP # 84**

This is a unilateral technical short form amendment by Advance Ministries for its application BNPFT-20030312AQY (299APP hereafter) eliminating the conflict with application BNPFT-20030317BUT (297 APP hereafter) on channel 297 utilizing interference ratios. Other minor technical amendments are made including a change in site, directional antenna and heights AGL and HAAT. All other conflicts in MX group #84 have been eliminated by previously filed amendments.

There is no settlement agreement.

An LPFM preclusion study is included as E1 demonstrating that the amended application will not conflict with any LPFM channel point in the Palm Springs or Riverside-San Bernardino, CA 30X30 grids.

Allocation discussion:

All exhibits utilize the FCC 30 second terrain database.

- E1 Channel study
- E1A Interference plot to BNPFT-20030313AWL
- E1B Interference plot to BNPFT-200317BUT
- E1C Aerial photograph of interference area
- E1D DA
- E2 60 dBu
- E3 ASR-NADCON

A channel study is included as E1 demonstrating compliance with §74.1204 with the exception of 2nd adjacent channel application 297D which is analyzed below. A plot of the proposed 60 dBu is provided as E2 showing that it overlaps both the first amendment's 60 dBu and the original short form's 60 dBu. This is a non-fill in translator.

The proposed facility will be located inside the protected contour of second adjacent channel and co-pending 297AP translator application. Exhibit E1B demonstrates that the 297APP (BNPFT-20030317BUT) contour at the proposed 299APP site is 74 dBu. Therefore, an interference analysis has been conducted based on the U/D ratio of

Anderson Associates

+40 dB at the proposed site. The proposed interference contour is 114 dBu (+40) and based on the reduced ERP of 0.009 kW derived from the PSI FML-2 (0.75 wavelength spaced) antenna's F factor of 0.428 at a depression angle of 27 degrees, the distance to the contour is 42 meters. The vertical clearance of the interference contour has been evaluated at 27 degrees and every five degrees through 90.

Depression Angle (Deg.)	F	ERP X F² kW	Int = 114.0 dBu meters	Vertical Clearance AGL(m) (Int X sin Ang - 48 m)
27	0.428	0.009	42.0	28.9
30	0.331	0.0055	32.8	31.6
35	0.178	0.0016	17.7	37.8
40	0.043	0.0009	13.3	39.5
45	0.068	0.0002	6.3	43.5
50	0.149	0.001	14.0	37.3
55	0.202	0.002	19.8	31.8
60	0.227	0.003	24.2	27.0
65	0.226	0.0026	22.6	27.6
70	0.205	0.002	19.8	29.4
75	0.168	0.0014	16.6	32.0
80	0.118	0.0007	11.7	36.5
85	0.061	0.000	00.0	48.0
90	0.001	0.000	00.0	48.0

Clearly, these interference contours will not reach any populated area or major highways. An aerial view included as exhibit E1C shows that no buildings in the interference area exceed two stories or 6 meters. Based on this showing, a waiver of Section 74.1204 is requested in accordance with *Living Way Ministries, Inc.* (FCC 08-242).

Mexico analysis:


§74.1235(d)(2) requires that any translator located between 125 and 320 km from the Mexico border may operate with up to 250 Watts as long as the 60 dBu contour is located at least 116.3 km from that border. The proposed site is 134 km from the border

and the maximum 60 dBu contour is less than 5 km. Therefore, the 299APP is in compliance with the rules.

RF Exposure Calculation:

The proposed facility will utilize a PSI FML-2 two bay 0.75 wavelength spaced circularly polarized antenna with a center of radiation at 48 meters AGL. The RF contribution of the proposed translator was calculated using the formula below and a worst case F factor of 1.0 to be 1.6 $\mu\text{Watts}/\text{cm}^2$ or 0.8% of the general population exposure limit and less than the 5% requiring consideration. The proposed translator clearly complies with Commission RF radiation limits.

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


Charles M. Anderson, July 19, 2013

E1 CHANNEL STUDY

REFERENCE
33 48 07.0 N.
116 27 44.0 W.

CH# 299D - 107.7 MHz, Pwr= 0.05 kW DA, HAAT= -194.5 M, COR= 150 M
Average Protected F(50-50)= 4.71 km
Standard Directional

DISPLAY DATES
DATA 07-19-13
SEARCH 07-19-13

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*
299B1 Twentynine Palms	KCDZ	LIC NCN CA		31.9 212.0	46.10 BLH19971231KD	34 09 15.0 116 11 50.0	6.700 93	71.0 971	19.5 Morongo Basin Broadcasting	-26.5*	20.4
299D Palm Desert	1556539	APP _C_ CA		121.7 301.7	8.94 BNPFT20030312AQY	33 45 35.0 116 22 48.0	0.055	15.5 94	4.8 Advance Ministries, Inc. D	-13.3*	-19.4
297D Palm Springs	1556612	APP DC_ CA		20.0 200.0	7.57 BNPFT20030317BUT	33 51 58.0 116 26 03.0	0.250	0.7 494	17.6 Redwood Empire Stereocaste	5.2	-10.0* (1)
300D Dos Palmas Corners	631976	APP DC_ CA		20.1 200.1	7.58 BNPFT20030313AWL	33 51 58.0 116 26 02.0	0.015 172	5.3 484	3.1 Gulf-california Broadcast	0.7	1.7
300D Indio	1559538	APP DV_ CA		106.3 286.4	26.96 BNPFT20030317IWS	33 44 02.0 116 10 58.0	0.250	10.1 46	7.1 Radio Desafio Network, Inc	10.5	13.1
300B San Clemente	KWVE-FM	LIC ZC_ CA		264.5 83.9	99.62 BLH20000711AAY	33 42 40.0 117 31 55.0	0.530 1156	77.8 1774	66.1 Calvary Chapel of Costa Me	17.1	24.2
298B Los Angeles	KLVE	LIC _CN CA		288.2 107.3	155.63 BMLH19950612KB	34 13 44.0 118 04 02.0	29.500 914	129.5 1811	104.3 Klve-fm License Corp.	22.0	43.2
299B1 Tijuana	R11853	VAC ____ BN		200.8 20.5	156.57	32 29 02.0 117 03 17.0	25.000 100	117.7 213	45.0	34.2	92.9
296A Fallbrook	KSSD	LIC _CN CA		235.6 55.2	81.87 BLH19850508KA	33 23 01.0 117 11 20.0	3.000 91	1.6 358	13.2 Entravision Holdings, LLC	75.6	65.0

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= East Zone 2A, 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 protected contour.
Reference station has protected zone issue:

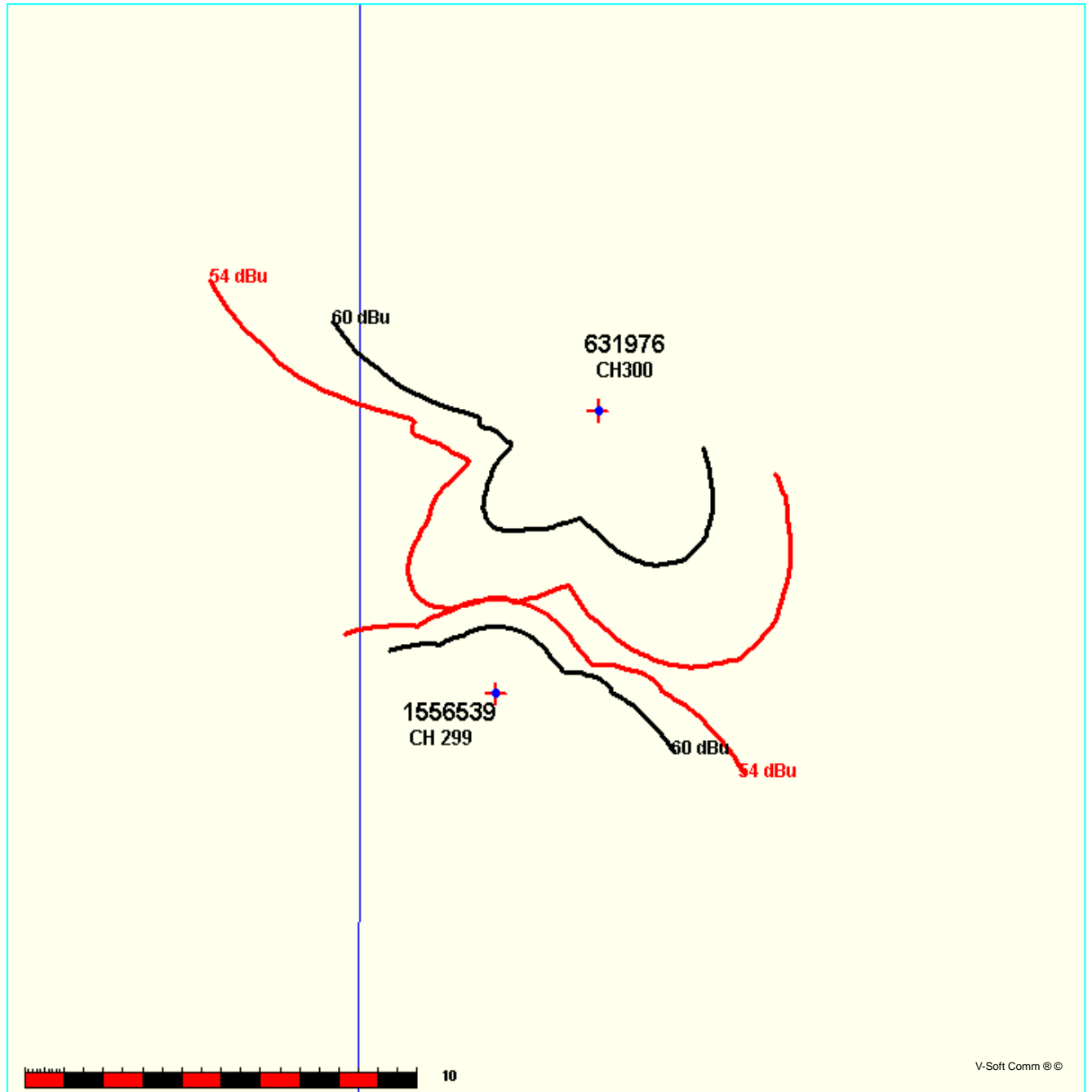
(1) See Technical Report for disproval of interference.

E1A PROPOSED - BNPFT-20030313AWL INTERFERENCE PLOT

FMCommander Single Allocation Study - 07-19-2013 - FCC NGDC 30 Sec
1556539's Overlaps (In= 0.7 km, Out= 1.73 km)

1556539 CH 299 D DA
Lat= 33 48 07.0, Lng= 116 27 44.0
0.05 kW -194.5 M HAAT, 150 M COR
Prot.= 60 dBu, Intef.= 54 dBu

631976 CH 300 D DA BNPFT20030313AWL
Lat= 33 51 58.0, Lng= 116 26 02.0
0.015 kW 171.9 M HAAT, 484 M COR
Prot.= 60 dBu, Intef.= 54 dBu



BNFT-20030312AQY
BNPFT20030312AQY
Latitude: 33-48-07 N
Longitude: 116-27-44 W
ERP: 0.009 kW
Channel: 299
Frequency: 107.7 MHz
AMSL Height: 150.0 m
Elevation: 102.0 m
Horiz. Pattern: Directional

EXHIBIT E1B INTERFERENCE TO REDWOOD EMPIRE BNPFT- 20030317BUT

BNPFT-20030317 - 297 APP 74 DBU

BNFT-20030312AQY

BNPFT 20030312AQY 114 DBU
FOR REDUCED ERP OF 0.009KW.
SEE TECHNICAL REPORT FOR
DISPROVAL OF INTERFERENCE.

Scale 1:2,500

0 0.03 0.07 0.1 km

EXHIBIT E1C
AERIAL VIEW OF INTERFERENCE AREA



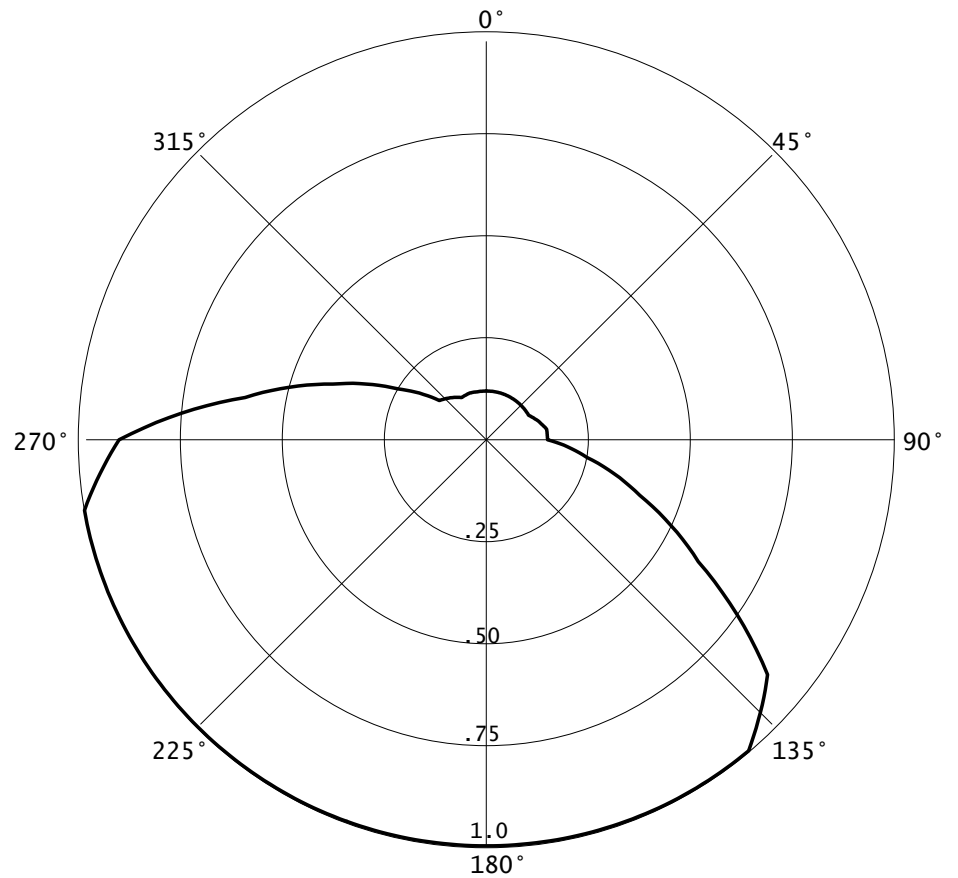
E1D DA

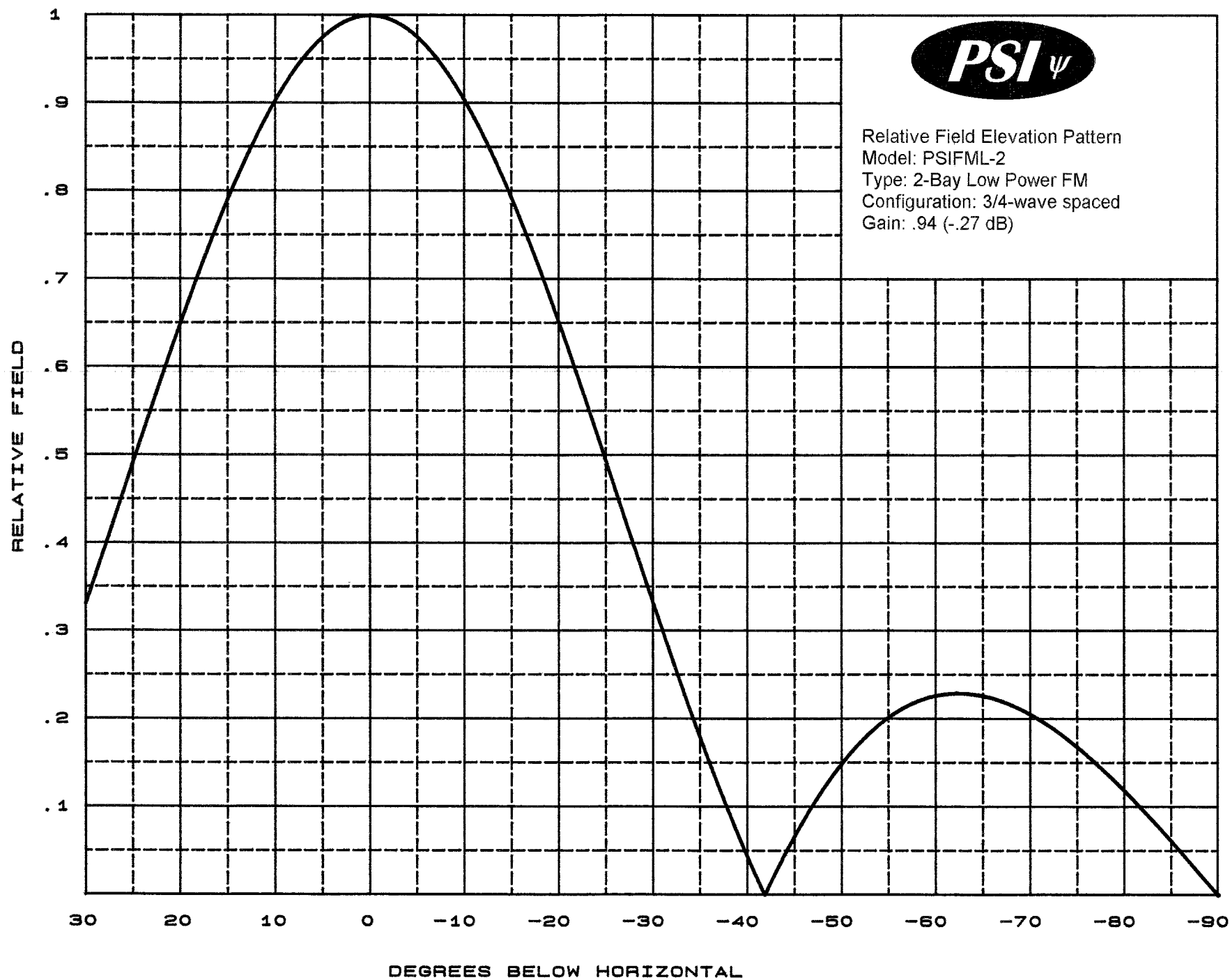
07-19-2013

RMS(V)= .666

Graph is Relative Field

Azi	Field	dBk	kw
000	0.120	-31.427	0.001
010	0.120	-31.427	0.001
020	0.120	-31.427	0.001
030	0.120	-31.427	0.001
040	0.120	-31.427	0.001
050	0.120	-31.427	0.001
060	0.120	-31.427	0.001
070	0.135	-30.404	0.001
080	0.150	-29.488	0.001
090	0.150	-29.488	0.001
100	0.250	-25.051	0.003
110	0.400	-20.969	0.008
120	0.600	-17.447	0.018
130	0.900	-13.925	0.040
140	1.000	-13.010	0.050
150	1.000	-13.010	0.050
160	1.000	-13.010	0.050
170	1.000	-13.010	0.050
180	1.000	-13.010	0.050
190	1.000	-13.010	0.050
200	1.000	-13.010	0.050
210	1.000	-13.010	0.050
220	1.000	-13.010	0.050
230	1.000	-13.010	0.050
240	1.000	-13.010	0.050
250	1.000	-13.010	0.050
260	1.000	-13.010	0.050
270	0.900	-13.925	0.040
280	0.600	-17.447	0.018
290	0.400	-20.969	0.008
300	0.250	-25.051	0.003
310	0.150	-29.488	0.001
320	0.135	-30.404	0.001
330	0.120	-31.427	0.001
340	0.120	-31.283	0.001
350	0.120	-31.427	0.001







Propagation Systems Inc.

Elevation Pattern Tabulation

Antenna: PSIFML-2 Special

Bay spacing: 3/4 wave

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.0	0.001	-60.000	-50.0	0.149	-16.513	-10.0	0.903	-0.883
-89.0	0.012	-38.221	-49.0	0.135	-17.364	-9.0	0.921	-0.713
-88.0	0.025	-32.201	-48.0	0.120	-18.405	-8.0	0.937	-0.561
-87.0	0.037	-28.679	-47.0	0.104	-19.677	-7.0	0.952	-0.429
-86.0	0.049	-26.207	-46.0	0.086	-21.289	-6.0	0.964	-0.315
-85.0	0.061	-24.285	-45.0	0.068	-23.404	-5.0	0.975	-0.219
-84.0	0.073	-22.748	-44.0	0.048	-26.425	-4.0	0.984	-0.139
-83.0	0.085	-21.443	-43.0	0.027	-31.481	-3.0	0.991	-0.079
-82.0	0.096	-20.349	-42.0	0.005	-46.848	-2.0	0.996	-0.036
-81.0	0.107	-19.378	-41.0	0.018	-34.664	-1.0	0.999	-0.009
-80.0	0.118	-18.538	-40.0	0.043	-27.417	0.0	1.000	0.000
-79.0	0.129	-17.792	-39.0	0.068	-23.365	1.0	0.999	-0.009
-78.0	0.139	-17.125	-38.0	0.094	-20.529	2.0	0.996	-0.036
-77.0	0.149	-16.522	-37.0	0.121	-18.329	3.0	0.991	-0.079
-76.0	0.159	-15.984	-36.0	0.149	-16.531	4.0	0.984	-0.139
-75.0	0.168	-15.508	-35.0	0.178	-14.998	5.0	0.975	-0.219
-74.0	0.176	-15.072	-34.0	0.207	-13.669	6.0	0.964	-0.315
-73.0	0.184	-14.685	-33.0	0.237	-12.489	7.0	0.952	-0.429
-72.0	0.192	-14.335	-32.0	0.268	-11.431	8.0	0.937	-0.561
-71.0	0.199	-14.026	-31.0	0.299	-10.475	9.0	0.921	-0.713
-70.0	0.205	-13.752	-30.0	0.331	-9.602	10.0	0.903	-0.882
-69.0	0.211	-13.518	-29.0	0.363	-8.801	11.0	0.884	-1.072
-68.0	0.216	-13.315	-28.0	0.395	-8.061	12.0	0.863	-1.279
-67.0	0.220	-13.146	-27.0	0.428	-7.377	13.0	0.841	-1.508
-66.0	0.224	-13.009	-26.0	0.460	-6.742	14.0	0.817	-1.757
-65.0	0.226	-12.904	-25.0	0.493	-6.151	15.0	0.792	-2.029
-64.0	0.228	-12.834	-24.0	0.525	-5.599	16.0	0.765	-2.322
-63.0	0.229	-12.800	-23.0	0.557	-5.083	17.0	0.738	-2.639
-62.0	0.229	-12.794	-22.0	0.589	-4.603	18.0	0.710	-2.979
-61.0	0.228	-12.829	-21.0	0.620	-4.154	19.0	0.680	-3.344
-60.0	0.227	-12.898	-20.0	0.650	-3.736	20.0	0.650	-3.736
-59.0	0.224	-13.009	-19.0	0.680	-3.344	21.0	0.620	-4.154
-58.0	0.220	-13.158	-18.0	0.710	-2.979	22.0	0.589	-4.603
-57.0	0.215	-13.351	-17.0	0.738	-2.639	23.0	0.557	-5.083
-56.0	0.209	-13.600	-16.0	0.765	-2.323	24.0	0.525	-5.599
-55.0	0.202	-13.894	-15.0	0.792	-2.029	25.0	0.493	-6.151
-54.0	0.194	-14.260	-14.0	0.817	-1.759	26.0	0.460	-6.742
-53.0	0.184	-14.685	-13.0	0.840	-1.510	27.0	0.428	-7.377
-52.0	0.174	-15.192	-12.0	0.863	-1.281	28.0	0.395	-8.061
-51.0	0.162	-15.795	-11.0	0.884	-1.072	29.0	0.363	-8.801
						30.0	0.331	-9.602

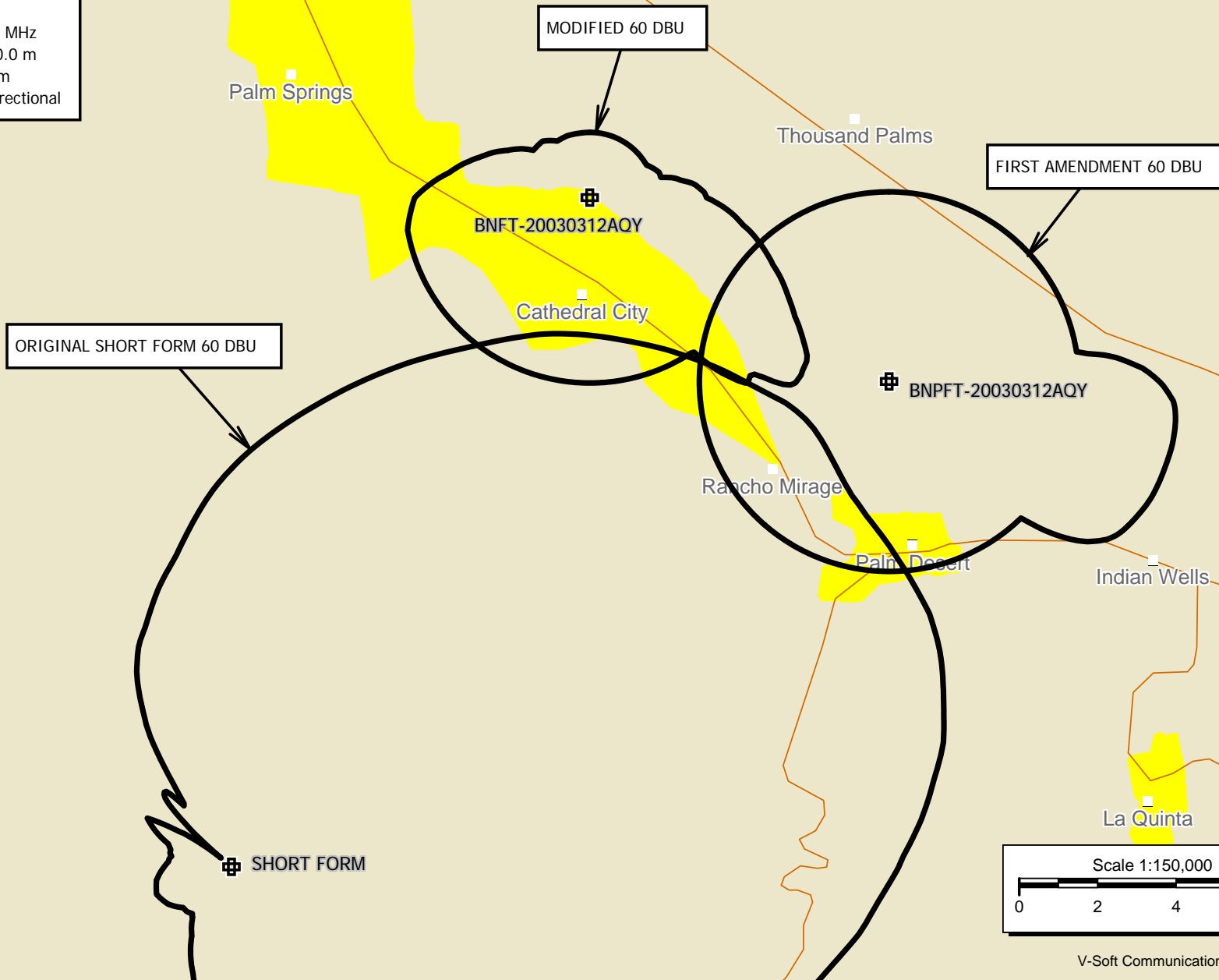
file: FML 2-bay elevation tabulation

revision: A

Date: 1/28/08

BNFT-20030312AQY
BNPFT20030312AQY
Latitude: 33-48-07 N
Longitude: 116-27-44 W
ERP: 0.05 kW
Channel: 299
Frequency: 107.7 MHz
AMSL Height: 150.0 m
Elevation: 102.0 m
Horiz. Pattern: Directional

EXHIBIT E2



E3 Registration 1036022

 [Map Registration](#)

Registration Detail

Reg Number	1036022	Status	Constructed
File Number	A0842012	Constructed	01/28/1996
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type GTOWER - Guyed Structure Used for Communication Purposes

Location (in NAD83 Coordinates)

Lat/Long	33-48-07.0 N 116-27-47.0 W	Address	68700 DINAH SHORE DR (274442 / CATHEDRAL CITY CA)
City, State	CATHEDRAL CITY , CA		
Zip	92234	County	RIVERSIDE
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
102.4	56.4
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
158.8	51.8

Painting and Lighting Specifications

None

FAA Notification

FAA Study	2011-AWP-899-OE	FAA Issue Date	03/03/2011
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Owner & Contact Information

FRN	0011498342	Owner Entity	Limited Liability Company
		Type	

Owner

American Towers, LLC.	P: (678)265-6730
Attention To: Regulatory Compliance FAA FCC	F:
10 Presidential Way	E: faa-fcc@americantower.com
Woburn , MA 01801	

Contact

Attention To: Regulatory Compliance FAA FCC	P: (678)265-6730
10 Presidential Way	F:
Woburn , MA 01801	E: faa-fcc@americantower.com

Output from NADCON for station NEW

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:	33 48 6.92997	116 27 43.95304
NAD 83 datum values:	33 48 7.00000	116 27 47.00000
NAD 27 - NAD 83 shift values:	-0.07003	-3.04696(secs
	-2.158	-78.374 (mete
Magnitude of total shift:		78.403(meters)



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