

**W295AP  
APPLICATION FOR MINOR CHANGE  
FILED IN A QUEUE BEHIND W293BA APPLICATION**

This technical report has been developed in support of an application for a minor modification to FM translator W295AP requesting a change in site. The translator will serve as a fill in for AM station WRNE at Gulf Breeze, FL (facility ID#410010).

Allocation exhibits are provided as required by FCC form 349 as follows:

- E1 Interference channel study**
  - E1A Interference plot to WRGV and W293BA application**
  - E1B Aerial photograph of interference area**
  - E1C Antenna horizontal and vertical patterns**
- E2 Service contour plots**
- E3 ASR**

Exhibit E1 demonstrates clearance to all facilities with the exception of 2<sup>nd</sup> adjacent channel station WRGV and translator application W293BA. Exhibit E2 shows that the proposed 60 dBu contour is contained within the AM station's 2 mV/m and 40 km radius, and that it overlaps the 60 dBu of the W295AP as constructed CP for which a form 350 has been filed. The FCC 30 second terrain database provided by V-Soft Communications has been used throughout this study.

The proposed W295AP facility will be located inside the protected contours of second adjacent channel station WRGV and translator application W293BA. Therefore, an interference analysis has been conducted based on the D/U ratio of +40 dB at the proposed site. The WRGV contour at that site is 78.5 dBu and the W293BA contour is 69 dBu. The lower contour has been studied based on the +40 dBu interference ratio. That interfering contour is 109 dBu or 393.5 meters. When the depression angle of 13.4 degrees based on the mounting height of 94 meters AGL is considered the ERP reduces to 0.163 kW yielding an interfering 109 dBu (50,10) contour of 317.7 meters..

This interference contour has been evaluated at 13 degrees and at subsequent five degree increments to establish the vertical clearance from the interfering contour to ground level. The minimum clearance tabulated below is 39 feet or 11.9 meters which is more than sufficient to clear the single story industrial buildings and other two story buildings identified in the aerial

photograph included as exhibit E1B. Based on this showing that the interfering contour will not reach a populated area, a waiver of Section 74.1204 is requested.

Vertical clearance is demonstrated in the following table.

<b>Depression Angle (Degree)</b>	<b>F</b>	<b>ERP X F<sup>2</sup> kW</b>	<b>109 dBu meters</b>	<b>Vertical Clearance to ground (meters)</b>
13.4	0.808	0.163	317.7	20.4
15	0.764	0.146	300.7	16.2
20	0.611	0.093	240.0	11.9
25	0.447	0.050	176.0	19.6
30	0.288	0.021	114.0	37.0
35	0.147	0.0054	57.8	60.8
40	0.033	0.0003	13.6	85.3
45	0.050	0.0006	19.3	80.4
50	0.104	0.0003	13.6	85.3
55	0.131	0.0043	51.6	51.7
60	0.138	0.0048	54.5	46.8
65	0.129	0.0042	51.0	47.8
70	0.110	0.0030	43.1	53.5
75	0.085	0.0020	35.2	60.0
80	0.058	0.0008	22.3	72.0
85	0.029	0.0002	11.1	82.9
90	0.001	0.0000	00.0	00.0

Depression angle is angle below radiation center.

F = vertical elevation factor at depression angle.

Vertical clearance is calculated by multiplying the interference contour X the sine of the depression angles – the radiation center height above ground level.

It is recognized that co-pending translator applications may not receive interference. Therefore, it is respectfully requested that the W295AP application be held in a queue behind the W293BA application until it is granted. At that point, the W295AP application may receive interference from W293BA and it has been demonstrated that the W295AP application will not cause interference to W293BA.

#### **Proposed site, antenna and RF calculation:**

The proposed facility will utilize a PSI three bay half wave spaced directional antenna. The RF contribution for the proposed facility at ASR#1066042 has been calculated to be 0.038  $\mu$ Watts/cm<sup>2</sup> using the formula provided below and a vertical factor of 0.138 at 60 degrees

depression angle. This is 0.02% of the maximum permissible 200 micro-Watts/cm<sup>2</sup> exposure for general population/uncontrolled exposure and less than the 5% of that level that is excluded from consideration.

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



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## E1 CHANNEL STUDY

REFERENCE 30 28 48.0 N. 87 14 56.0 W.		CH# 295D - 106.9 MHz, Pwr= 0.25 kW DA, HAAT= 115.2 M, COR= 132 M Average Protected F(50-50)= 13.79 km Standard Directional								DISPLAY DATES DATA 11-28-12 SEARCH 11-28-12	
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*
295D Bay Minette	W295AP	CP	DV_	310.8 130.7	24.68 BMPFT20120918AAV	30 37 30.0 87 26 39.0	0.250	66.6 314	22.1 Media One Communications,	-51.9*	-41.3
297C0 Pensacola	WRGV	LIC	NCX	293.1 112.9	37.30 BLH20080402AAB	30 36 40.0 87 36 27.0	50.000 488	10.2 520	79.2 Clear Channel Broadcasting	18.2	-42.3* (1)
293D Milton	W293BA	APP	DC_	151.4 331.4	5.94 BPFT20121113AON	30 25 59.0 87 13 09.0	0.250	0.7 131	9.8 Adx Communications Of Pens	-9.0*	-4.9* (2)
295D Bay Minette	W295AP	LIC	_V_	316.5 136.3	38.67 BLFT20111207AEO	30 43 55.1 87 31 39.2	0.250	23.8 37	7.1 Media One Communications,	4.0	-2.6
293D Milton	W293BA	LIC	_C_	42.9 223.0	27.33 BLFT20070928AAF	30 39 36.0 87 03 16.0	0.027 56	0.4 83	5.5 Adx Communications Of Pens	13.2	20.7
241C Mobile	WRKH«	LIC	_C_	292.8 112.5	60.38 BLH20050615ACP	30 41 20.0 87 49 49.0	77.000 535	11.3 569	8.0 Cc Licenses, Llc	28.5R	31.9M
295D Fairhope	W295BB	LIC	_V_	272.2 91.9	62.95 BLFT20071119AFL	30 30 00.0 87 54 20.0	0.010 28	10.2 38	3.2 Faith Broadcasting, Inc.	44.6	32.8
293C2 Daphne	WAVH	LIC	NCN	290.3 109.8	86.12 BMLH19960111BN	30 44 44.0 88 05 40.0	50.000 137	5.9 152	52.1 Bigler Broadcasting, Llc	71.4	33.7
294C Enterprise	WKMX	LIC	_CN	49.6 230.2	160.78 BLH19870105KB	31 24 41.0 85 57 32.0	100.000 326	107.6 422	74.1 Gulf South Communications,	39.4	65.8
292A Brewton	WKNU	LIC	_CX	17.1 197.2	73.51 BLH20050523AAY	31 06 42.0 87 01 17.0	3.800 127	2.6 186	27.9 wknu Radio Inc.	56.9	44.1
295A Lucedale	WRBE-FM	LIC	_CN	291.6 110.9	139.13 BLH19930421KA	30 55 58.0 88 36 21.0	6.000 79	81.7 131	24.4 Jdl Corporation	49.0	86.2

Terrain database is USGS 03 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, 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.  
« = Station meets FCC minimum distance spacing for its class.

**(1)(2) See technical report and exhibits for disproof of interference.**

**W295AP**

BLFT20111207AEO  
Latitude: 30-28-48 N  
Longitude: 087-14-56 W  
ERP: 0.163 kW  
Channel: 295  
Frequency: 106.9 MHz  
AMSL Height: 130.6 m  
Elevation: 36.6 m  
Horiz. Pattern: Directional

**E1A W295AP INTERFERENCE TO  
WRGV AND W293BA APPLICATION.**

WRGV 78.5 DBU

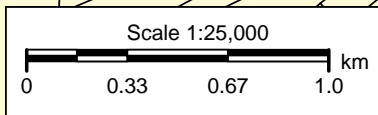
W295AP REDUCED ERP (0.163 kW) 109 DBU  
INTERFERING CONTOUR. SEE TECHNICAL REPORT  
FOR DISPORVAL OF INTERFERENCE.

W295AP

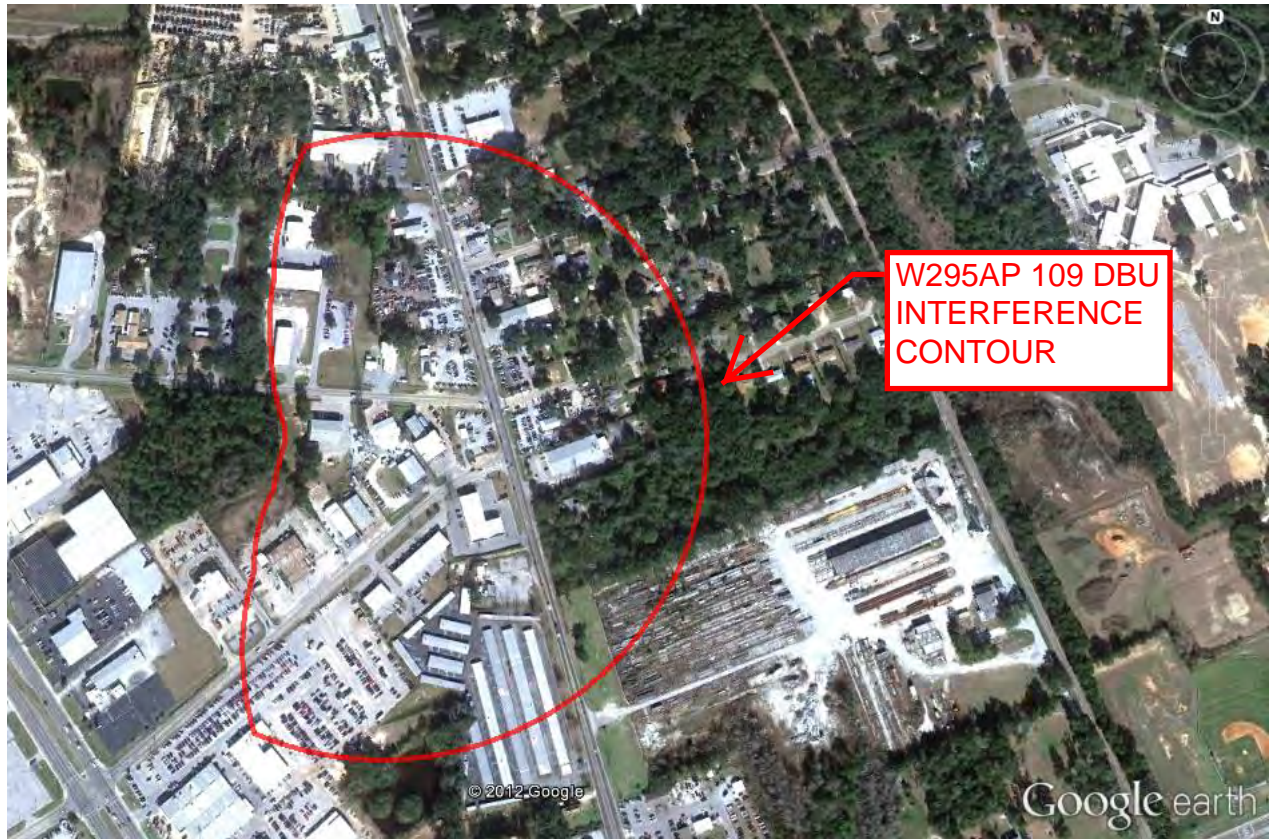
W293AP 69 DBU CONTOUR

Brent

ANDERSON ASSOCIATES



**EIB AERIAL PHOTOGRAPH OF  
W295AP INTERFERENCE CONTOUR**



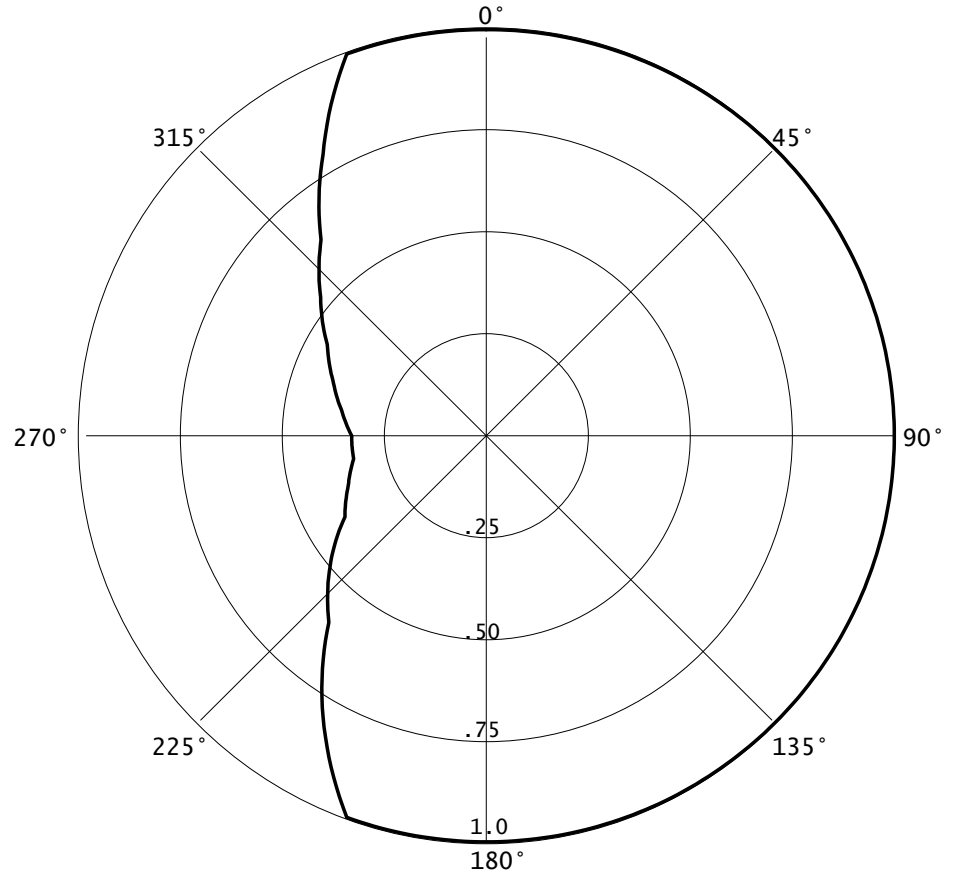
# E1C W295AP DA

11-29-2012

RMS(V)= .859

Graph is Relative Field

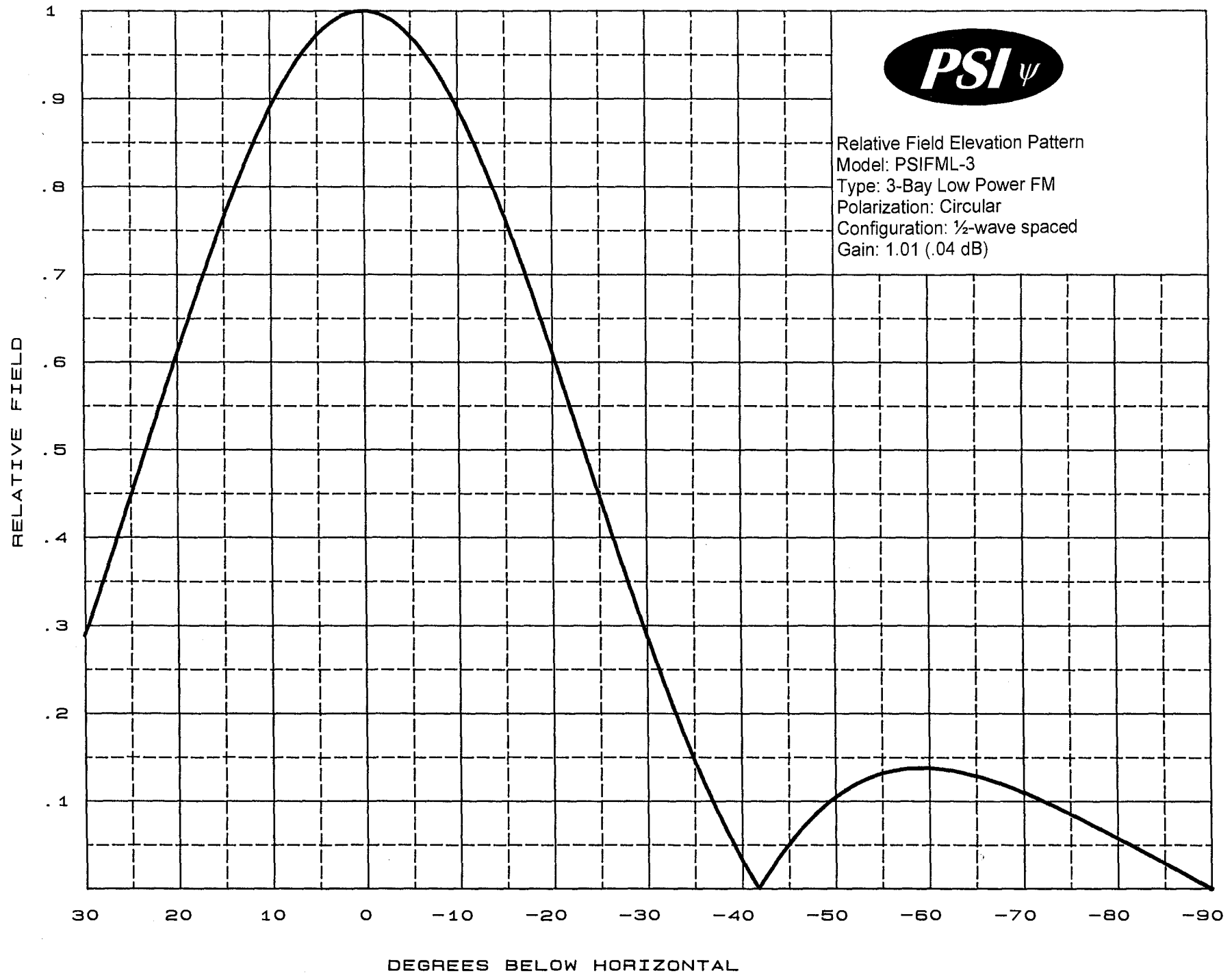
Azi	Field	dBk	kw
000	1.000	-06.021	0.250
010	1.000	-06.021	0.250
020	1.000	-06.021	0.250
030	1.000	-06.021	0.250
040	1.000	-06.021	0.250
050	1.000	-06.021	0.250
060	1.000	-06.021	0.250
070	1.000	-06.021	0.250
080	1.000	-06.021	0.250
090	1.000	-06.021	0.250
100	1.000	-06.021	0.250
110	1.000	-06.021	0.250
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	1.000	-06.021	0.250
170	1.000	-06.021	0.250
180	1.000	-06.021	0.250
190	1.000	-06.021	0.250
200	1.000	-06.021	0.250
210	0.800	-07.959	0.160
220	0.600	-10.458	0.090
230	0.500	-12.041	0.063
240	0.400	-13.979	0.040
250	0.360	-14.895	0.032
260	0.330	-15.650	0.027
270	0.330	-15.650	0.027
280	0.360	-14.895	0.032
290	0.400	-13.979	0.040
300	0.450	-12.956	0.051
310	0.530	-11.535	0.070
320	0.630	-10.034	0.099
330	0.800	-07.959	0.160
340	1.000	-06.021	0.250
350	1.000	-06.021	0.250







Relative Field Elevation Pattern  
Model: PSIFML-3  
Type: 3-Bay Low Power FM  
Polarization: Circular  
Configuration:  $\frac{1}{2}$ -wave spaced  
Gain: 1.01 (.04 dB)







# **Propagation Systems Inc.**

Elevation Pattern Tabulation

Antenna: PSIFML-3 Special

Bay spacing: 1/2 wave

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.0	0.001	-60.000	-50.0	0.104	-19.664	-10.0	0.889	-1.020
-89.0	0.006	-44.795	-49.0	0.095	-20.404	-9.0	0.910	-0.824
-88.0	0.012	-38.775	-48.0	0.086	-21.319	-8.0	0.928	-0.649
-87.0	0.017	-35.177	-47.0	0.075	-22.481	-7.0	0.945	-0.496
-86.0	0.023	-32.697	-46.0	0.063	-23.967	-6.0	0.959	-0.364
-85.0	0.029	-30.770	-45.0	0.050	-25.994	-5.0	0.971	-0.252
-84.0	0.035	-29.194	-44.0	0.036	-28.896	-4.0	0.982	-0.162
-83.0	0.040	-27.861	-43.0	0.020	-33.784	-3.0	0.990	-0.091
-82.0	0.046	-26.705	-42.0	0.004	-48.432	-2.0	0.995	-0.041
-81.0	0.052	-25.685	-41.0	0.014	-37.021	-1.0	0.999	-0.011
-80.0	0.058	-24.772	-40.0	0.033	-29.542	0.0	1.000	0.000
-79.0	0.063	-23.967	-39.0	0.054	-25.411	1.0	0.999	-0.011
-78.0	0.069	-23.231	-38.0	0.075	-22.464	2.0	0.995	-0.041
-77.0	0.074	-22.569	-37.0	0.098	-20.159	3.0	0.990	-0.091
-76.0	0.080	-21.955	-36.0	0.122	-18.264	4.0	0.982	-0.162
-75.0	0.085	-21.381	-35.0	0.147	-16.638	5.0	0.971	-0.252
-74.0	0.090	-20.871	-34.0	0.173	-15.215	6.0	0.959	-0.364
-73.0	0.096	-20.390	-33.0	0.201	-13.947	7.0	0.945	-0.496
-72.0	0.101	-19.948	-32.0	0.229	-12.806	8.0	0.928	-0.649
-71.0	0.105	-19.551	-31.0	0.258	-11.761	9.0	0.910	-0.824
-70.0	0.110	-19.184	-30.0	0.288	-10.811	10.0	0.889	-1.018
-69.0	0.114	-18.843	-29.0	0.319	-9.930	11.0	0.867	-1.235
-68.0	0.118	-18.538	-28.0	0.350	-9.115	12.0	0.844	-1.475
-67.0	0.122	-18.264	-27.0	0.382	-8.359	13.0	0.819	-1.738
-66.0	0.126	-18.020	-26.0	0.414	-7.652	14.0	0.792	-2.024
-65.0	0.129	-17.803	-25.0	0.447	-6.994	15.0	0.764	-2.335
-64.0	0.132	-17.620	-24.0	0.480	-6.378	16.0	0.735	-2.671
-63.0	0.134	-17.472	-23.0	0.513	-5.800	17.0	0.705	-3.031
-62.0	0.136	-17.354	-22.0	0.546	-5.258	18.0	0.675	-3.418
-61.0	0.137	-17.268	-21.0	0.579	-4.752	19.0	0.643	-3.833
-60.0	0.138	-17.220	-20.0	0.611	-4.278	20.0	0.611	-4.276
-59.0	0.138	-17.210	-19.0	0.643	-3.833	21.0	0.579	-4.752
-58.0	0.137	-17.248	-18.0	0.675	-3.418	22.0	0.546	-5.258
-57.0	0.136	-17.325	-17.0	0.705	-3.031	23.0	0.513	-5.800
-56.0	0.134	-17.452	-16.0	0.735	-2.671	24.0	0.480	-6.375
-55.0	0.131	-17.630	-15.0	0.764	-2.335	25.0	0.447	-6.991
-54.0	0.128	-17.874	-14.0	0.792	-2.026	26.0	0.414	-7.652
-53.0	0.123	-18.189	-13.0	0.818	-1.740	27.0	0.382	-8.356
-52.0	0.118	-18.582	-12.0	0.844	-1.477	28.0	0.350	-9.115
-51.0	0.111	-19.065	-11.0	0.867	-1.237	29.0	0.319	-9.930
						30.0	0.288	-10.807

file: FML 3-bay elevation tabulation

revision: A

Date: 1/28/08

## E3 Registration 1066042

 [Map Registration](#)

### Registration Detail

Reg Number	1066042	Status	Constructed
File Number	A0138186	Constructed	07/30/2000
EMI	No	Dismantled	
NEPA	No		

### Antenna Structure

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

#### Location (in NAD83 Coordinates)

Lat/Long	30-28-49.0 N 087-14-56.0 W	Address	29 STUMPFIELD RD
City, State	PENSACOLA , FL		
Zip	32503	County	ESCAMBIA
Center of AM Array		Position of Tower in Array	

### Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
36.6	97.5
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
134.1	97.5

### Painting and Lightings Specifications

FAA Chapters 4, 8, 13

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

### FAA Notification

FAA Study	99-ASO-0749-OE	FAA Issue Date	06/09/1999
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### Owner & Contact Information

FRN	0006139737	Owner Entity Type
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#### Owner

JOHNSON , JOHN M  
5800 NORTH W ST STE 9  
PENSACOLA , FL 32505

P: (850)478-2110  
F:  
E: MJOHNSON@SPYDEE.NET

#### Contact

P:  
F:  
E:

### Last Action Status

Status	Constructed	Received	08/25/2000
Purpose	Notification	Entered	08/30/2000
Mode	Mail In (Manual)		

**Related Applications**<http://wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistration.jsp?regKey=...>

# Output from NADCON for station

North American Datum Conversion

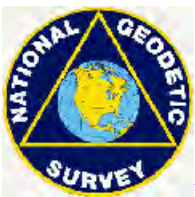
NAD 83 to NAD 27

NADCON Program Version 2.11

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Transformation #: 1                      Region: Conus

	Latitude	Longitude
NAD 27 datum values:	30 28 48.29243	87 14 56.10077
NAD 83 datum values:	30 28 49.00000	87 14 56.00000
NAD 27 - NAD 83 shift values:	-0.70757	0.10077 (secs.)
	-21.789	2.688 (meters)
Magnitude of total shift:		21.954 (meters)



[NGS HOME PAGE](#)