

**LONG FORM APPLICATION
CHIPPEWA FALLS, WI #157423
BNPFT-20030317KZJ**

This long form singleton application is submitted in response to the filing window announced in DA-13-1675. The translator will rebroadcast AM station WEAQ at Chippewa Falls, WI (facility ID #9865).

The proposed facility is not located within 39 km of any Appendix A market nor is it located in a county within a top 50 spectrum limited metro ARB market..

Allocation discussion:

All exhibits were developed utilizing the USGS 3 second terrain database.

Allocation exhibits are provided as follows:


- E1 Channel study
- E1A Interference plot to WHTL-FM
- E1B DA tabulation
- E2 60 dBu contours and WEAQ 2 mV/m
- E3 ASR/ NADCON

A channel study is included as E1 and an interference plot as E1A demonstrating compliance with 74.1204. A plot of the licensed and proposed 60 dBus and the primary station's 2 mV/m is provided as E2. The proposed 60 dBu overlaps the short form 60 dBu.

RF Exposure Calculation:

The RF contribution of the proposed translator was calculated using a worst case F factor of 1.0 for the PSI FMT1A single bay antenna mounted at 100 meters AGL using the formula provided below to be $1.74 \mu\text{Watts}/\text{cm}^2$ or 0.87% of the maximum permissible $200 \mu\text{Watts}/\text{cm}^2$ exposure for general population/uncontrolled exposure. This is less than the 5% required for consideration.

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


Charles M. Anderson August 3, 2013

E1 CHANNEL STUDY

REFERENCE
44 49 47.0 N.
91 26 48.0 W.

CH# 272D - 102.3 MHz, Pwr= 0.25 kW DA, HAAT= 0.0 M, COR= 371 M
Average Protected F(50-50)= 7.09 km
Standard Directional

DISPLAY DATES
DATA 08-03-13
SEARCH 08-03-13

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*
272D Chippewa Falls	1555960	APP DC_ WI	0.0 0.0	0.00 BNPFT20030317KZJ	44 49 47.0 91 26 48.0	0.250	41.3 371	12.0 David M. Stout	-53.4*	-53.4*
272A Whitehall	WHTL-FM	LIC _C_ WI	164.2 344.3	48.18 BLH19980630KB	44 24 45.0 91 16 53.0	1.550 122	68.8 418	22.1 The whtl Group, L.l.c.	-28.2*	1.1
269D Bloomer	1556091	APP DC_ WI	356.9 176.9	29.98 BNPFT20030317LTM	45 05 57.0 91 28 02.0	0.200	0.7 420	10.7 David M. Stout	16.8	18.2
271C St. Paul	KEEY-FM	LIC _CN MN	281.5 100.3	134.81 BLH19910814KJ	45 03 30.0 93 07 27.0	100.000 315	105.0 593	72.3 Amfm Broadcasting Licenses	17.4	44.3
272D Ladysmith	651152	APP _C_ WI	21.8 202.0	76.48 BNPFT20030317LUA	45 28 05.1 91 04 59.5	0.250 90	44.6 445	12.9 David M. Stout	19.3	19.9
273C3 Lake City	KMFX-FM	LIC _CN MN	231.1 50.5	96.99 BLH19930310KC	44 16 45.0 92 23 38.0	9.400 161	57.7 474	38.9 Cc Licenses, Llc	27.7	42.0
272D Black River Falls	DW272AC	LIC DHN WI	143.5 323.9	73.15 BLFT19800410IA	44 18 00.0 90 54 00.0	0.005 131	4.1 418	1.1 Shalom Translators, Inc.	60.7	48.1

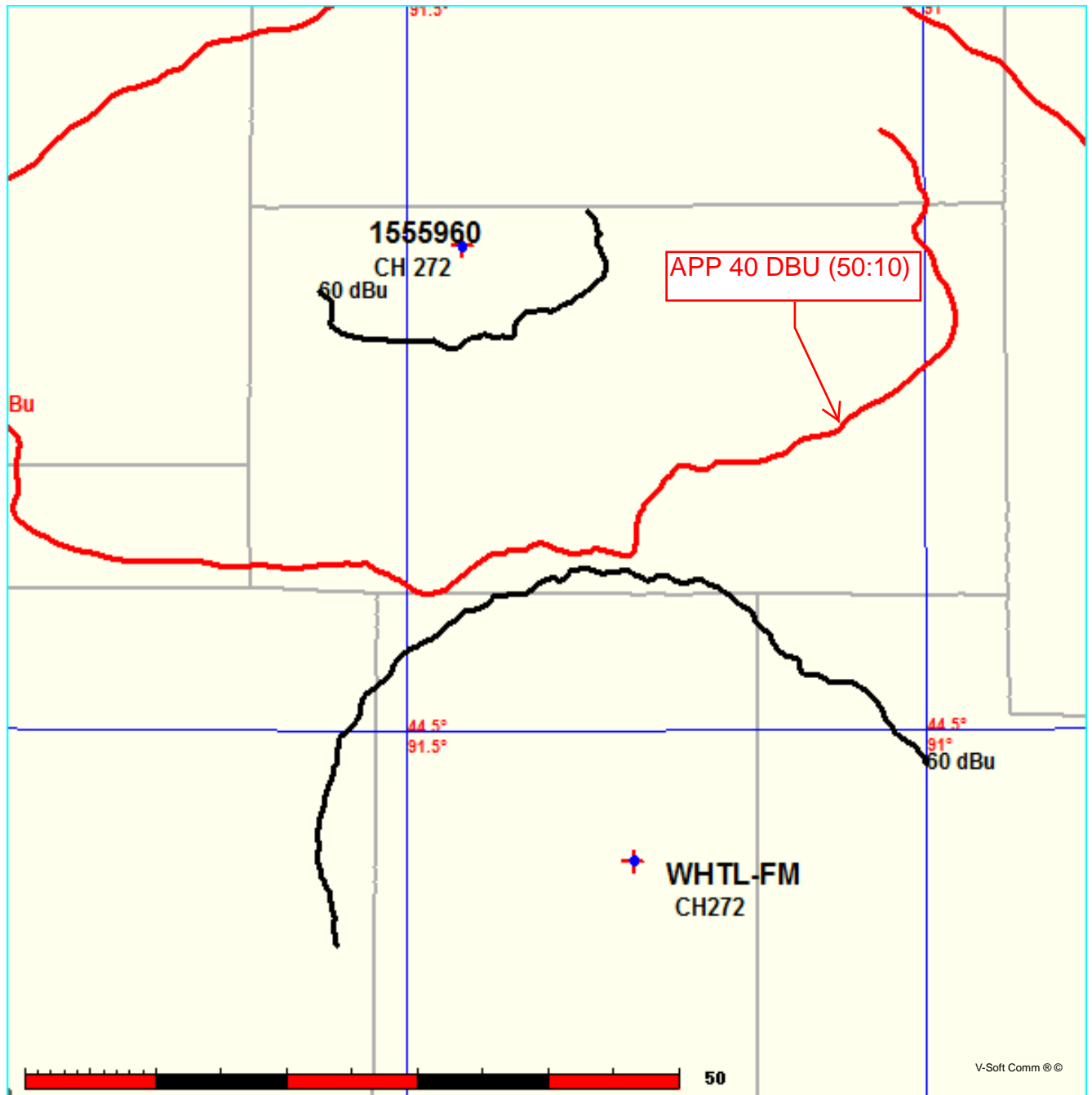
Terrain database is USGS 03 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding
Ant Column: (D= DA Standard, 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.
Reference station has protected zone issue:

E1A PROPOSED - WHTL-FM INTERFERENCE PLOT

FMCommander Single Allocation Study - 08-03-2013 - USGS 03 SEC
1555960's Overlaps (In= -28.21 km, Out= 1.13 km)

1555960 CH 272 D DA
Lat= 44 49 47.0, Lng= 91 26 48.0
0.25 kW 0 M HAAT, 371 M COR
Prot.= 60 dBu, Intef.= 40 dBu

WHTL-FM CH 272 A BLH19980630KB
Lat= 44 24 45.0, Lng= 91 16 53.0
1.55 kW 122 M HAAT, 418 M COR
Prot.= 60 dBu, Intef.= 40 dBu



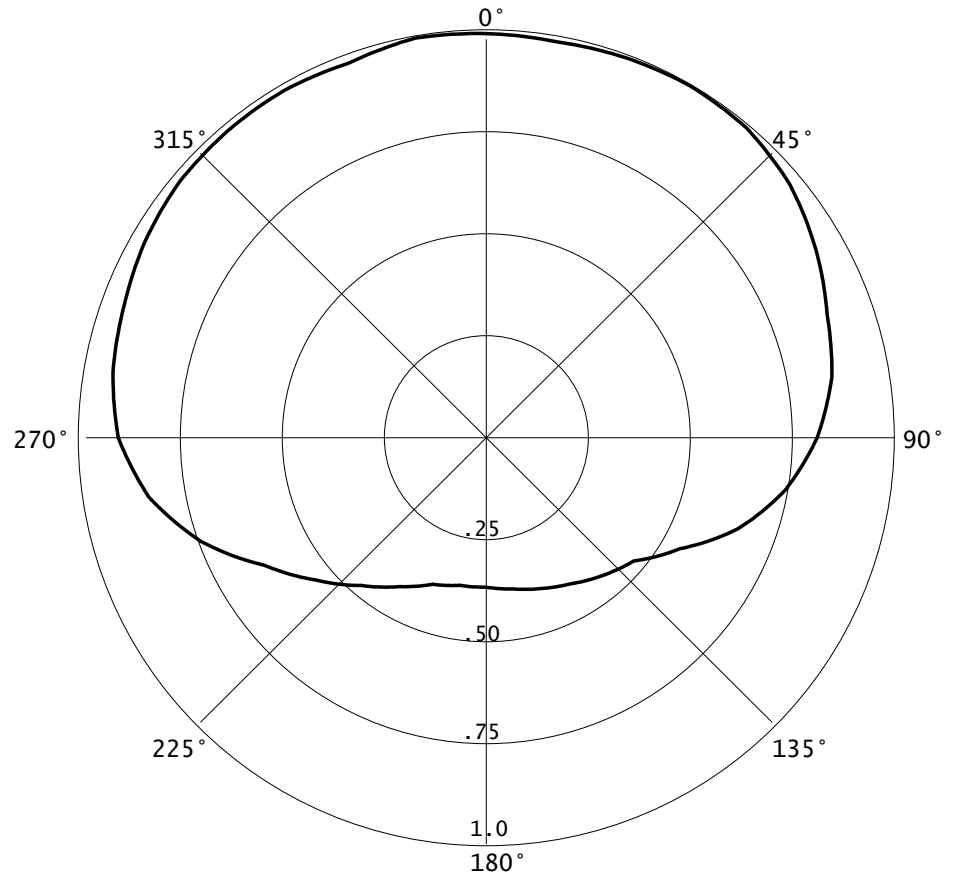
E1B DA

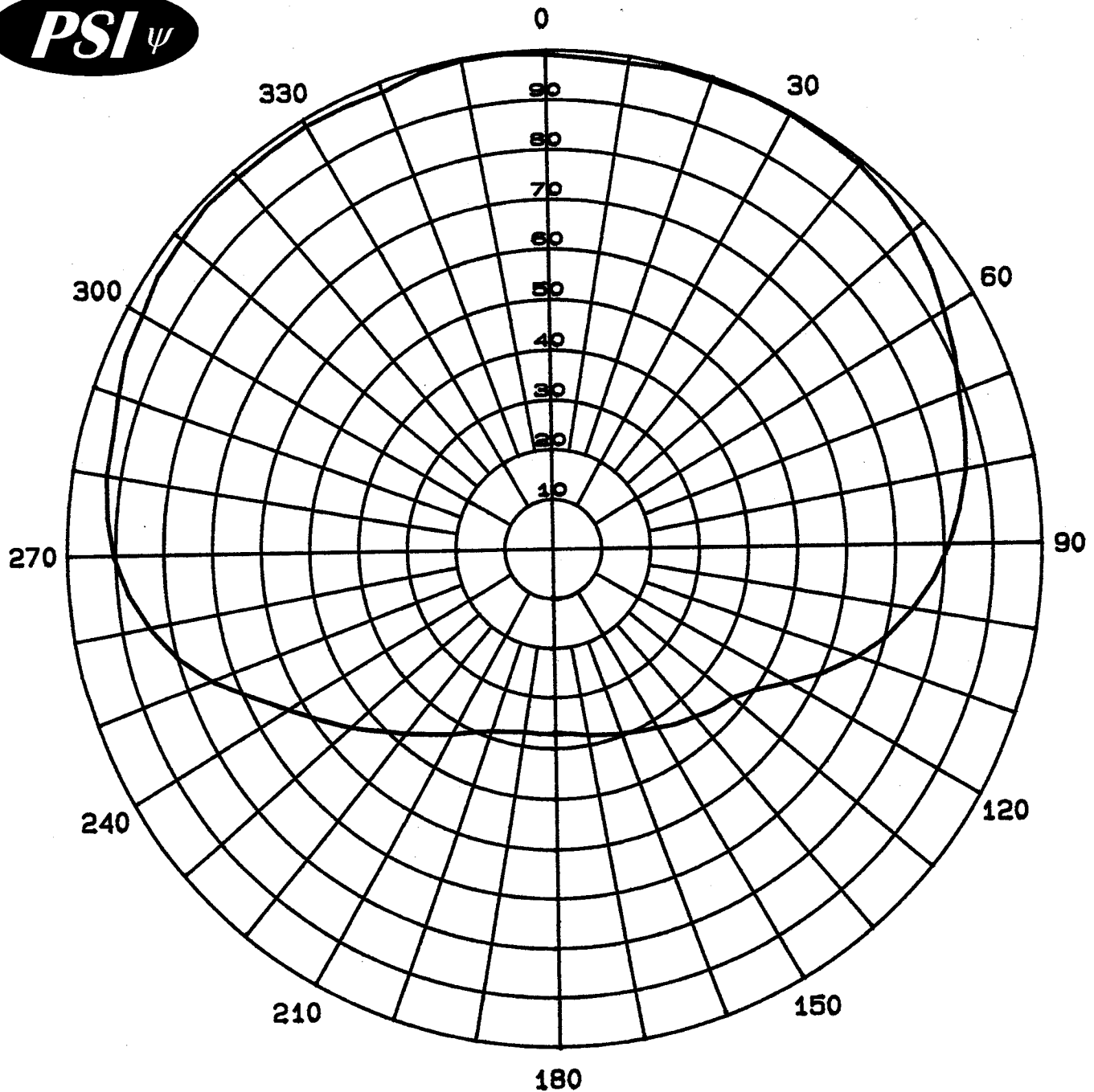
05-21-2013

RMS(V)= .786

Graph is Relative Field

Azi	Field	dBk	kw
000	0.995	-06.064	0.248
010	0.990	-06.108	0.245
020	0.996	-06.055	0.248
030	1.000	-06.021	0.250
040	0.994	-06.073	0.247
050	0.971	-06.276	0.236
060	0.932	-06.632	0.217
070	0.889	-07.043	0.198
080	0.860	-07.331	0.185
090	0.811	-07.840	0.164
100	0.744	-08.589	0.138
110	0.656	-09.683	0.108
120	0.547	-11.261	0.075
130	0.472	-12.542	0.056
140	0.443	-13.093	0.049
150	0.415	-13.660	0.043
160	0.395	-14.089	0.039
170	0.378	-14.471	0.036
180	0.368	-14.704	0.034
190	0.369	-14.680	0.034
200	0.384	-14.334	0.037
210	0.423	-13.494	0.045
220	0.475	-12.487	0.056
230	0.545	-11.293	0.074
240	0.628	-10.061	0.099
250	0.745	-08.577	0.139
260	0.840	-07.535	0.176
270	0.902	-06.916	0.203
280	0.929	-06.660	0.216
290	0.945	-06.512	0.223
300	0.966	-06.321	0.233
310	0.981	-06.187	0.241
320	0.986	-06.143	0.243
330	0.988	-06.125	0.244
340	0.982	-06.178	0.241
350	0.999	-06.029	0.250





Azimuth Plane Pattern
Composite Relative Field
Antenna Model: PSIFMT-1A-6DB
Type: Directional Translator
Polarization: Circular
Number of Bays: One
Gain: .82 (-.87 dB)
Date: 11-1-2011

Propagation Systems Inc.
PO Box 113
Ebensburg, PA 15931



Composite Azimuth Pattern Tabulation

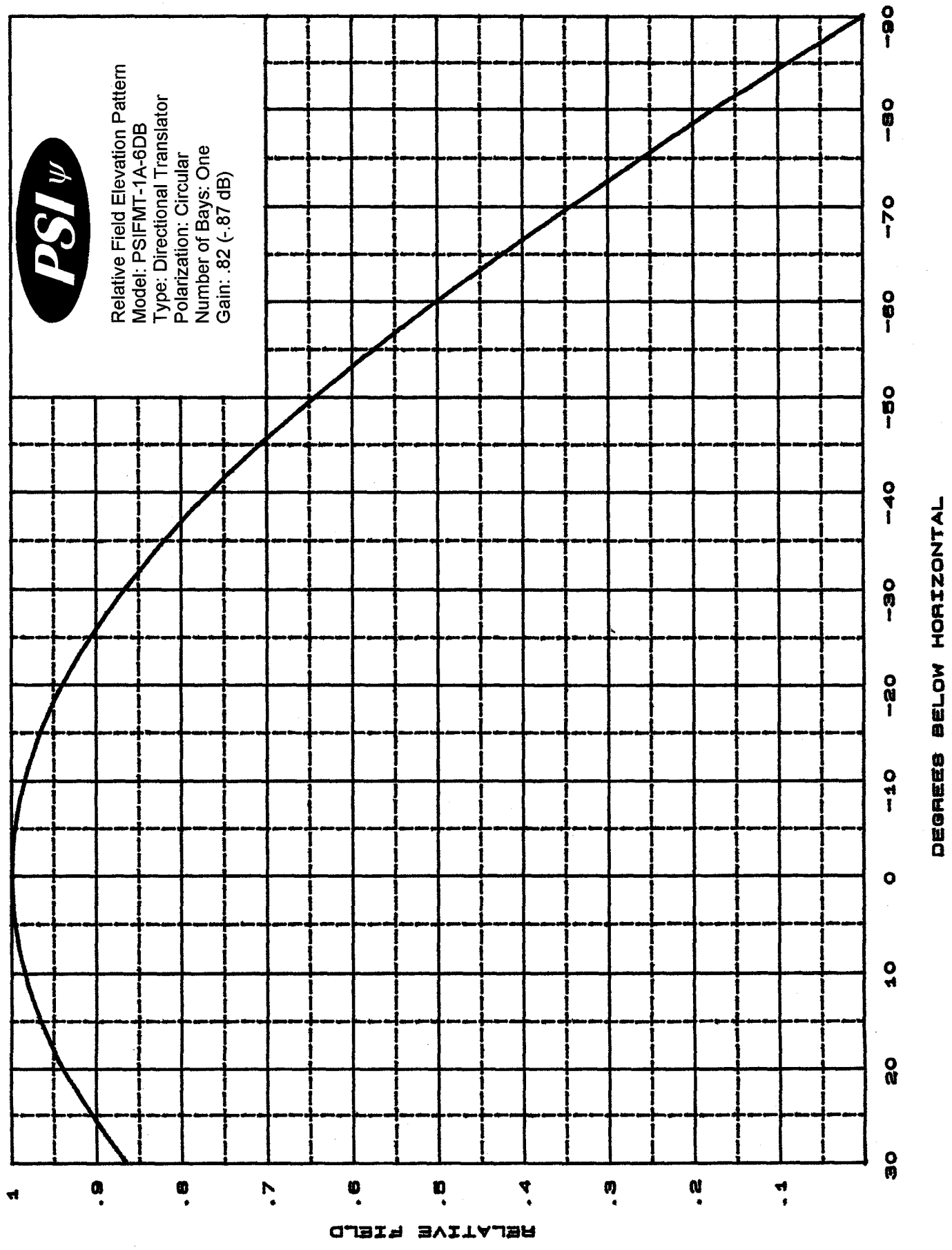
Antenna Model: PSIFMT-1A-6DB

Gain: .82 (-.87 dB)

Angle	Relative Field	Power Gain	Gain (dBd)
0	0.995	0.81	-0.91
10	0.990	0.80	-0.95
20	0.996	0.81	-0.90
30	1.000	0.82	-0.86
40	0.994	0.81	-0.91
50	0.971	0.77	-1.12
60	0.932	0.71	-1.47
70	0.889	0.65	-1.88
80	0.860	0.61	-2.17
90	0.811	0.54	-2.68
100	0.744	0.45	-3.43
110	0.656	0.35	-4.52
120	0.547	0.25	-6.10
130	0.472	0.18	-7.38
140	0.443	0.16	-7.93
150	0.415	0.14	-8.50
160	0.395	0.13	-8.93
170	0.378	0.12	-9.31
180	0.368	0.11	-9.54
190	0.369	0.11	-9.52
200	0.384	0.12	-9.18
210	0.423	0.15	-8.34
220	0.475	0.19	-7.33
230	0.545	0.24	-6.13
240	0.628	0.32	-4.90
250	0.745	0.46	-3.42
260	0.840	0.58	-2.38
270	0.902	0.67	-1.76
280	0.929	0.71	-1.50
290	0.945	0.73	-1.35
300	0.966	0.77	-1.16
310	0.981	0.79	-1.03
320	0.986	0.80	-0.98
330	0.988	0.80	-0.97
340	0.982	0.79	-1.02
350	0.999	0.82	-0.87



Relative Field Elevation Pattern
Model: PSIFMT-1A-6DB
Type: Directional Translator
Polarization: Circular
Number of Bays: One
Gain: .82 (-.87 dB)





Propagation Systems Inc.
Elevation Pattern Tabulation
Antenna Model: PSIFMT-1A-6DB

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.0	0.001	-60.000	-50.0	0.643	-3.839	-10.0	0.985	-0.134
-89.0	0.017	-35.177	-49.0	0.656	-3.663	-9.0	0.988	-0.109
-88.0	0.035	-29.156	-48.0	0.669	-3.490	-8.0	0.990	-0.086
-87.0	0.052	-25.634	-47.0	0.682	-3.325	-7.0	0.992	-0.066
-86.0	0.070	-23.136	-46.0	0.695	-3.166	-6.0	0.994	-0.049
-85.0	0.087	-21.198	-45.0	0.707	-3.012	-5.0	0.996	-0.034
-84.0	0.104	-19.626	-44.0	0.719	-2.862	-4.0	0.997	-0.022
-83.0	0.122	-18.286	-43.0	0.731	-2.719	-3.0	0.998	-0.013
-82.0	0.139	-17.134	-42.0	0.743	-2.580	-2.0	0.999	-0.007
-81.0	0.156	-16.117	-41.0	0.755	-2.445	-1.0	1.000	-0.003
-80.0	0.174	-15.207	-40.0	0.766	-2.316	0.0	1.000	0.000
-79.0	0.191	-14.390	-39.0	0.777	-2.190	1.0	1.000	-0.003
-78.0	0.208	-13.644	-38.0	0.788	-2.071	2.0	0.999	-0.007
-77.0	0.225	-12.962	-37.0	0.798	-1.955	3.0	0.998	-0.013
-76.0	0.242	-12.330	-36.0	0.809	-1.842	4.0	0.997	-0.022
-75.0	0.259	-11.741	-35.0	0.819	-1.733	5.0	0.996	-0.034
-74.0	0.276	-11.194	-34.0	0.829	-1.630	6.0	0.994	-0.049
-73.0	0.292	-10.684	-33.0	0.839	-1.529	7.0	0.992	-0.066
-72.0	0.309	-10.203	-32.0	0.848	-1.432	8.0	0.990	-0.086
-71.0	0.325	-9.750	-31.0	0.857	-1.339	9.0	0.988	-0.109
-70.0	0.342	-9.320	-30.0	0.866	-1.251	10.0	0.985	-0.134
-69.0	0.358	-8.914	-29.0	0.875	-1.164	11.0	0.982	-0.162
-68.0	0.375	-8.530	-28.0	0.883	-1.082	12.0	0.978	-0.193
-67.0	0.391	-8.165	-27.0	0.891	-1.003	13.0	0.974	-0.227
-66.0	0.407	-7.815	-26.0	0.899	-0.928	14.0	0.970	-0.263
-65.0	0.423	-7.482	-25.0	0.906	-0.855	15.0	0.966	-0.301
-64.0	0.438	-7.164	-24.0	0.913	-0.786	16.0	0.961	-0.344
-63.0	0.454	-6.860	-23.0	0.920	-0.720	17.0	0.956	-0.389
-62.0	0.469	-6.569	-22.0	0.927	-0.657	18.0	0.951	-0.436
-61.0	0.485	-6.291	-21.0	0.933	-0.598	19.0	0.945	-0.487
-60.0	0.500	-6.023	-20.0	0.940	-0.542	20.0	0.940	-0.540
-59.0	0.515	-5.764	-19.0	0.945	-0.487	21.0	0.933	-0.598
-58.0	0.530	-5.517	-18.0	0.951	-0.437	22.0	0.927	-0.657
-57.0	0.545	-5.279	-17.0	0.956	-0.389	23.0	0.920	-0.720
-56.0	0.559	-5.050	-16.0	0.961	-0.344	24.0	0.913	-0.786
-55.0	0.573	-4.830	-15.0	0.966	-0.301	25.0	0.906	-0.855
-54.0	0.588	-4.616	-14.0	0.970	-0.263	26.0	0.899	-0.927
-53.0	0.602	-4.413	-13.0	0.974	-0.227	27.0	0.891	-1.003
-52.0	0.616	-4.214	-12.0	0.978	-0.193	28.0	0.883	-1.082
-51.0	0.629	-4.024	-11.0	0.982	-0.162	29.0	0.875	-1.164

NEW 272

BNPFT20030317KZJ

Latitude: 44-49-47 N

Longitude: 091-26-48 W

ERP: 0.25 kW

Channel: 272

Frequency: 102.3 MHz

AMSL Height: 371.0 m

Elevation: 271.0 m

Horiz. Pattern: Directional

ANDERSON ASSOCIATES

EXHIBIT E2

WEAQ(AM) 2 MV/M

SHORT FORM 60 DBU

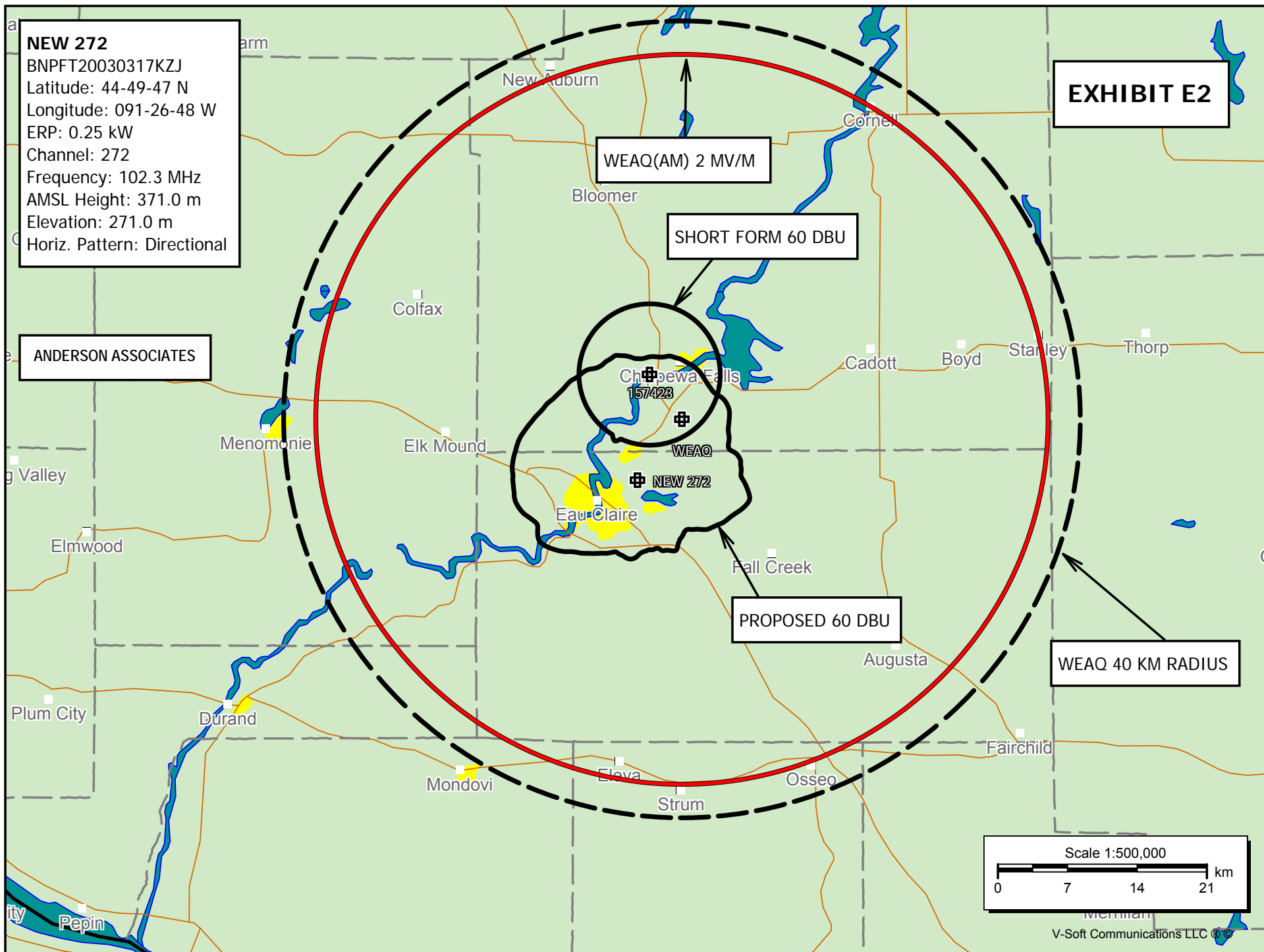
PROPOSED 60 DBU

WEAQ 40 KM RADIUS

Scale 1:500,000

0 7 14 21 km

V-Soft Communications LLC ©



E3 Registration 1034800

 [Map Registration](#)

Registration Detail

Reg Number	1034800	Status	Constructed
File Number	A0388389	Constructed	01/01/1981
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type 3TA1 - Antenna Tower Array - 1st N = # towers 2nd N =

Location (in NAD83 Coordinates)

Lat/Long	44-49-47.0 N 091-26-49.0 W	Address	TWR 1 - 1.7 MI E OF USH 53 ALONG CTH Q
City, State	EAU CLAIRE , WI		
Zip	54703	County	EAU CLAIRE
Center of AM Array	44-49-51.0 N 091-26-57.0 W	Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
271.3	140.0
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
411.3	138.8

Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 13
Paint and Light in Accordance with FAA Circular Number 70/7460-1J

FAA Notification

FAA Study	97-AGL-5356-OE	FAA Issue Date	12/22/1997
-----------	----------------	----------------	------------

Owner & Contact Information

FRN	0009380577	Owner Entity Type	
Assignor FRN	0002703973	Assignor ID	L00084406

Owner

Maverick Media of Eau Claire License LLC Attention To: Gary S. Rozynek 136 Main Street, Suite 202 Westport , CT 06880	P: (203)227-2800 F: E:
--	------------------------------

Contact

Trent , John C Esq 200 S. Church Street Woodstock , VA 22664	P: (540)459-7646 F: E: fccman3@shentel.net
--	--

Last Action Status

Status	Constructed	Received	07/27/2004
Purpose	Change Owner	Entered	07/27/2004
Mode	Interactive		

Output from NADCON for station NEW

North American Datum Conversion

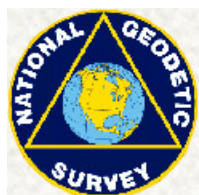
NAD 83 to NAD 27

NADCON Program Version 2.11

=====

Transformation #: 1 Region: Conus

	Latitude	Longitude
NAD 27 datum values:	44 49 47.14281	91 26 48.42656
NAD 83 datum values:	44 49 47.00000	91 26 49.00000
NAD 27 - NAD 83 shift values:	0.14281	-0.57344(secs.)
	4.408	-12.597 (meters)
Magnitude of total shift:		13.346(meters)



[NGS HOME PAGE](http://www.ngs.noaa.gov/cgi-bin/nadcon.prl)http://www.ngs.noaa.gov/cgi-bin/nadcon.prl