TECHNICAL STATEMENT
IN SUPPORT OF A REQUEST FOR
SPECIAL TEMPORARY AUTHORIZATION
WPTA 477 KW-DA 153.1 M HAAT CH. 24
FORT WAYNE, INDIANA

INTRODUCTION

WPTA License, LLC (the "Applicant"), the licensee of digital television station WPTA Channel 24, Facility ID No. 73905, requests special temporary authorization (STA) for WPTA to operate using a different antenna with parameters at variance from those specified in the station's license.[1] An STA grant for WPTA will facilitate the post-auction construction of co-owned station WISE-TV, Facility ID No. 13960, which is a reassigned station that is co-located with WPTA and utilizes the same antenna. Because the shared antenna is being relocated to a replacement tower, both stations need to operate in the interim from a different antenna. This temporary antenna is side mounted on the new tower structure at an elevation that is significantly less than the authorized antenna height. The technical operating parameters for the proposed STA facility are described in greater detail below.

STA ANTENNA AND OPERATING PARAMETERS

As state above, an STA for WPTA will facilitate the post-auction construction of reassigned station WISE-TV. The antenna to be employed is a directional Dielectric Model TFU-16WB-1-R S230 with 0.55 degrees electrical beam tilt. This antenna is horizontally polarized and the effective radiated power (ERP) will be 477 kW. As with WPTA's main antenna, the STA antenna will be shared with WISE-TV.

The height of the antenna radiation center will be 152.4 meters above ground level (AGL) or 401.1 meters above mean sea level (AMSL). Although the Applicant seeks to operate the STA facility at a higher power level than the current station license authorizes, the noise-limited contours depicted in Figure 1 show that there will be no extension of the authorized coverage area in any direction. The *TVStudy* summary report provided in Figure 2

[1] FCC File No. BLCDT-20031031AGU authorizes a nondirectional ERP of 335 kW at an antenna radiation HAAT of 224.4 meters. The licensed site coordinates are 41-06-08.0 N, 85-11-05.0 W.

demonstrates that no interference beyond the normal tolerance will be caused to the technical parameters of any other station.

ENVIRONMENTAL IMPACT

The proposed STA facility for WPTA does not exceed the criteria outlined in 47 CFR § 1.1307(a) for certain types of facilities that may significantly affect the environment. More specifically, the collocation of WPTA's STA antenna on a newly registered replacement tower (i.e. the original structure was constructed before March 16, 2001) is not expected to exceed the conditions outlined in 47 CFR Part 1, App. B, § III.A.[2] With regard to the rules for limiting human exposure to radio-frequency (RF) energy in 47 CFR § 1.1307(b), this application seeks authority to operate a temporary UHF-TV antenna in full compliance with those guidelines. The technical parameters for the STA facility are listed below.

Frequency:	530 - 536 MHz (UHF Channel 24)
Antenna Type:	TFU-16WB-1-R S230
Antenna Polarization:	Horizontal
Antenna Rotation:	285 degrees
Effective Radiated Power:	477 kW (H)
Location coordinates:	41-06-07.6 N, 85-11-03.6 W (NAD83)
Site elevation:	248.7 meters AMSL
Antenna Height:	152.4 meters AGL; 153.1 meters HAAT
Overall tower height:	235.0 meters AGL
FCC ASRN:	1306723 (replacement tower for 1029441)

Using the methodology for predicting power density levels for television broadcast antennas outlined in *FCC OET Bulletin No. 65, Edition 97-01,* (OET-65), the proposed facility is calculated to produce a maximum power density of 3.38 μW/cm² at points 2 meters above ground (approximate human head height). As shown in Figure 3, this maximum ground-level exposure value was calculated at a horizontal distance of 86.83 meters from the base of the

[2] 47 CFR Part 1, App. B, § III.A. This section applies to the collocation of antennas on towers constructed on or before March 16, 2001. It is also applies to eligible replacement towers for such structures. *"An antenna may be mounted on an existing tower constructed on or before March 16, 2001 without such collocation being reviewed through the Section 106 process set forth in the NPA, unless: 1. The mounting of the antenna will result in a substantial increase in the size of the tower as defined in Stipulation I.E, above; or, 2. The tower has been determined by the FCC to have an adverse effect on one or more historic properties, where such effect has not been avoided or mitigated through a conditional no adverse effect determination, a Memorandum of Agreement, a programmatic agreement, or a finding of compliance with Section 106 and the NPA; or, 3. The tower is the subject of a pending environmental review or related proceeding before the FCC involving compliance with Section 106 of the National Historic Preservation Act; or, 4. The collocation licensee or the owner of the tower has received written or electronic notification that the FCC is in receipt of a complaint from a member of the public, an Indian Tribe, a SHPO or the Council, that the collocation has an adverse effect on one or more historic properties."*

tower. This determination was made using the antenna relative field data listed in Figure 4. The maximum exposure limits applicable to Channel 24, as determined in accordance with 47 CFR § 1.1310 for uncontrolled and controlled situations, are 353 μW/cm² and 1,767 μW/cm² respectively. Because the worst-case exposure level determined for the proposed facility is not more than 5% of those guidelines and considering that the existing tower location is fenced and suitable warning signs are posted, no further showing of compliance is necessary. Accordingly, this application complies with the RF exposure limits and is categorically excluded from environmental processing by 47 CFR § 1.1306.

Steps to limit exposure to persons authorized to access the transmitter site will be consistent with the appropriate recommendations in OET-65. All maintenance and other related work to be performed at elevations higher than 2 meters above ground will be coordinated to prevent exposure to RF fields in excess of the controlled limit. Such preventative steps shall include reducing power or shutting down the facility.

Respectfully submitted,

Scott Turpie
Technical Consultant
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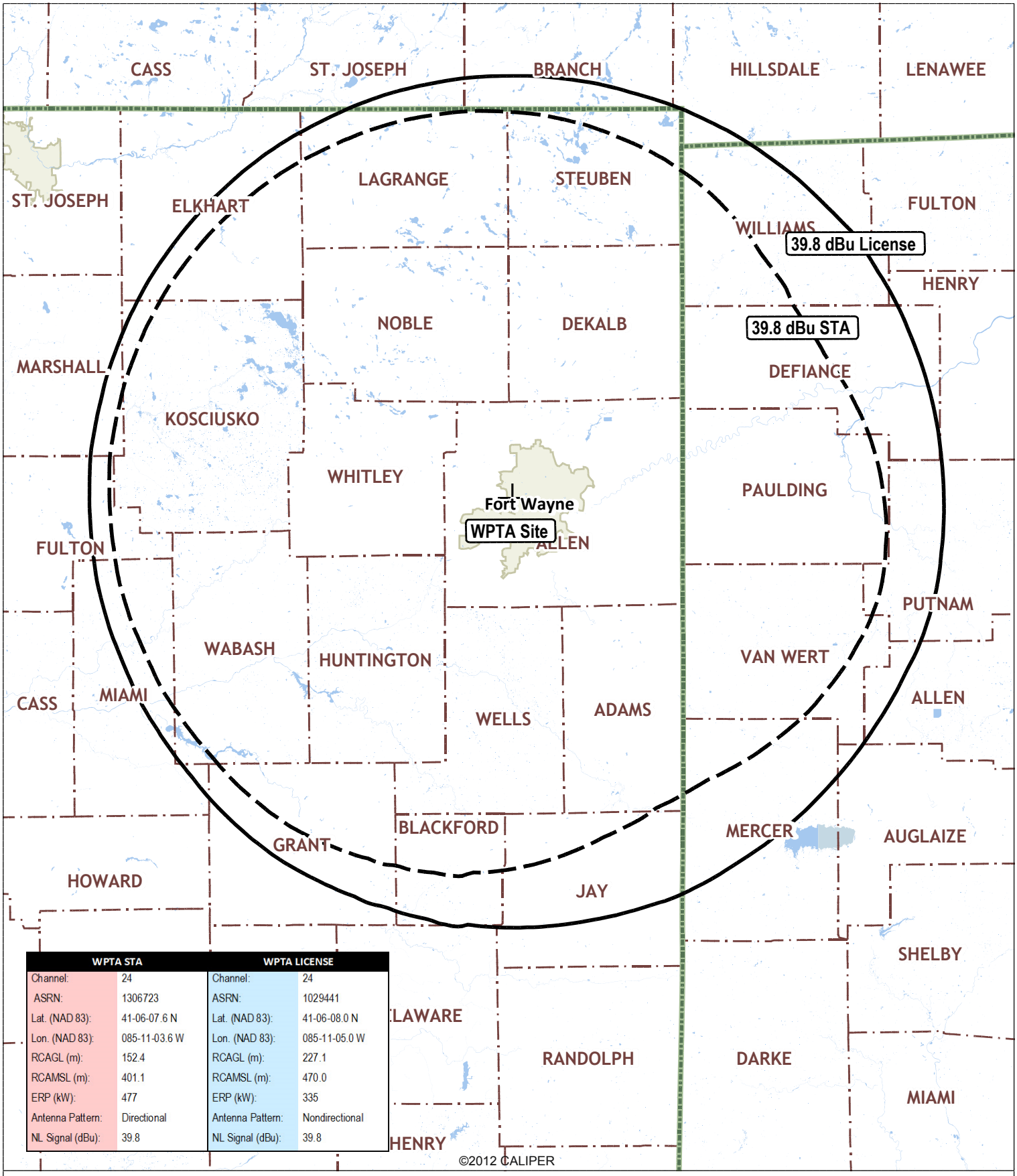
P.O. Box 881
Silver Spring, MD 20918-0881
Ph. 301-776-4488

September 28, 2018

Attachments:
Figure 1 – Predicted Noise-limited Contours
Figure 2 – Summary of TV Study Results
Figure 3 – Calculated Ground-Level Exposure
Figure 4 – Antenna Elevation Pattern



WPTA STA		WPTA LICENSE	
Channel:	24	Channel:	24
ASRN:	1306723	ASRN:	1029441
Lat. (NAD 83):	41-06-07.6 N	Lat. (NAD 83):	41-06-08.0 N
Lon. (NAD 83):	085-11-03.6 W	Lon. (NAD 83):	085-11-05.0 W
RCAGL (m):	152.4	RCAGL (m):	227.1
RCAMSL (m):	401.1	RCAMSL (m):	470.0
ERP (kW):	477	ERP (kW):	335
Antenna Pattern:	Directional	Antenna Pattern:	Nondirectional
NL Signal (dBu):	39.8	NL Signal (dBu):	39.8

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TELECOMMUNICATIONS CONSULTING
P.O. Box 881 Silver Spring, Maryland 20918-0881

SCALE 1:1,000,000

10 0 10 20 30 40
Kilometers

FIGURE 1
PREDICTED NOISE-LIMITED CONTOURS
SHOWING NO EXTENSION OF COVERAGE
FORT WAYNE, INDIANA

September 2018

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FIGURE 2
Analysis Summary
TVSTUDY, VERSION 2.2.5.

Study created: 2018.09.28 15:04:02

Study build station data: LMS TV 2018-09-27

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    Proposal: WPTA D24 DT STA FORT WAYNE, IN
 File number: WPTA STA 20180928
 Facility ID: 73905
Station data: User record
   Record ID: 386
     Country: U.S.
        Zone: I
```

Build options:
Protect pre-transition records not on baseline channel

Search options:
All APP records excluded
All records for new LPTV stations excluded

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WCIU-TV	D23	DT	CP	CHICAGO, IL	BLANK0000034608	221.6 km
No	WCIU-TV	D23	DT	BL	CHICAGO, IL	DTVBL71428	221.6
No	WDTI	D23	DT	CP	INDIANAPOLIS, IN	BLANK0000034481	159.6
No	WDTI	D23	DT	BL	INDIANAPOLIS, IN	DTVBL7908	159.6
Yes	WIPB	D23	DT	LIC	MUNCIE, IN	BLEDT20090717ABL	113.5
No	WUEA-LD	D23	LD	LIC	South Bend, IN	BLANK0000004243	102.9
No	WUEA-LD	D23	LD	CP	South Bend, IN	BLANK0000036429	78.7
No	WBSF	D23	DT	CP	BAY CITY, MI	BLANK0000034870	264.2
No	WUDT-LD	D23	LD	LIC	Detroit, MI	BLANK0000007868	224.0
No	WXMI	D23	LD	CP	GRAND RAPIDS, MI	BLANK0000053423	131.9
No	WWHO	D23	DT	CP	CHILLICOTHE, OH	BLANK0000034759	224.0
No	WWHO	D23	DT	BL	CHILLICOTHE, OH	DTVBL21158	243.1
No	W23BZ-D	D23	LD	LIC	COLUMBUS, OH	BLDTL20110318AAC	225.3
No	WOIW-LD	D23	LD	LIC	LIMA, OH	BLDTL20090406AHU	97.2
No	WNWO-TV	D23	DT	CP	TOLEDO, OH	BLANK0000033631	164.9
No	WDMY-LP	D23	LD	CP	TOLEDO, OH	BDISDTL20100303AAB	145.0
No	WNWO-TV	D23	DT	BL	TOLEDO, OH	DTVBL73354	164.9
No	WRJK-LP	D24	LD	CP	ARLINGTON HEIGHTS, IL	BMPDTL20140211ACV	221.6
Yes	WFLD	D24	DT	CP	CHICAGO, IL	BLANK0000034486	221.6
Yes	WFLD	D24	DT	BL	CHICAGO, IL	DTVBL22211	221.6
No	WHOI	D24	DT	CP	PEORIA, IL	BLANK0000034285	373.3
No	WHOI	D24	DT	BL	PEORIA, IL	DTVBL6866	373.3
No	WJTS-CD	D24	DC	CP	JASPER, IN	BLANK0000028094	335.1
No	WJTS-CD	D24	DC	BL	JASPER, IN	DTVBL168419	335.1
No	WNKY	D24	DT	CP	BOWLING GREEN, KY	BLANK0000025367	460.1
No	WNKY	D24	DT	BL	BOWLING GREEN, KY	DTVBL61217	460.2

Yes	WCVN-TV	D24	DT	LIC	COVINGTON, KY	BLEDT20020201ABJ	237.3
No	WKYI-CD	D24	DC	LIC	LOUISVILLE, KY	BLDTA20091030AGQ	309.3
Yes	WKON	D24	DT	CP	OWENTON, KY	BLANK0000034637	288.2
Yes	WKON	D24	DT	BL	OWENTON, KY	DTVBL34211	288.2
No	WCML	D24	DT	LIC	ALPENA, MI	BLEDT20110707ABQ	456.2
Yes	WPXD-TV	D24	DT	CP	ANN ARBOR, MI	BLANK0000034355	218.3
Yes	WPXD-TV	D24	DT	BL	ANN ARBOR, MI	DTVBL5800	218.3
Yes	WTLJ	D24	DT	LIC	MUSKEGON, MI	BLANK0000001674	214.5
No	W24DL-D	D24	LD	LIC	SAGINAW, MI	BLDTL20120905AAM	293.0
Yes	WEAO	D24	DT	CP	AKRON, OH	BLANK0000034293	297.4
Yes	WEAO	D24	DT	BL	AKRON, OH	DTVBL49421	297.4
Yes	WDEM-CD	D24	DC	CP	COLUMBUS, OH	BLANK0000034853	224.0
No	WDEM-CD	D24	DC	BL	COLUMBUS, OH	DTVBL54414	221.3
No	WOIO	D24	LD	LIC	SHAKER HEIGHTS, OH	BLCDT20110817AAW	301.7
No	WJET-TV	D24	DT	LIC	ERIE, PA	BLCDT20090615ACF	437.9
No	WZCK-LD	D24	LD	CP	MADISON-MIDDLETON, WI	BLANK0000051613	415.1
No	WBME-CD	D24	DC	LIC	MILWAUKEE, WI	BLANK0000040426	318.0
No	WVAH-TV	D24	DT	CP	CHARLESTON, WV	BLANK0000027764	410.2
No	WVAH-TV	D24	DT	BL	CHARLESTON, WV	DTVBL417	410.2
No	W24DS-D	D24	LD	LIC	PARKERSBURG, WV	BLDTL20140527AHY	370.2
No	W25DW-D	D25	LD	LIC	ARBURY HILLS, IL	BLDTL20110224ACQ	220.8
No	WTTW	D25	DT	CP	CHICAGO, IL	BLANK0000034877	221.6
No	WTTW	D25	DT	BL	CHICAGO, IL	DTVBL10802	221.6
Yes	W43DI-D	D25	LD	CP	FORT WAYNE, IN	BLANK0000052700	3.3
No	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	158.9
No	WCWW-LD	D25	LD	LIC	SOUTH BEND, IN	BLDTL20121022ABV	101.1
No	WXYZ-TV	D25	DT	CP	DETROIT, MI	BLANK0000034678	221.0
No	WXYZ-TV	D25	DT	BL	DETROIT, MI	DTVBL10267	221.0
No	WLAJ	D25	DT	LIC	LANSING, MI	BLANK0000055596	156.4
No	WXCB-CD	D25	DC	CP	DELAWARE, OH	BLANK0000034022	181.1
No	WXCB-CD	D25	DC	BL	DELAWARE, OH	DTVBL59852	181.1
No	W32DS-D	D25	LD	CP	MAPLEWOOD, OH	BLANK0000054368	82.9
No	WDFM-LP	N26-	TX	LIC	DEFIANCE, OH	BLTTL20031007AAN	58.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

```
    Channel: D24
   Latitude:  41  6  7.60 N (NAD83)
  Longitude:  85 11  3.60 W
Height AMSL: 401.1 m
       HAAT: 153.1 m
   Peak ERP: 477 kW
    Antenna: Dielectric-TFU-16WB-1-R S230 (ID 1004051) 285.0 deg
Elev Pattrn: Generic
  Elec Tilt: 0.55
```

39.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	261 kW	142.4 m	72.5 km
45.0	51.0	154.5	65.3
90.0	106	164.3	69.7
135.0	62.2	159.7	66.7
180.0	110	163.5	69.8
225.0	322	156.2	74.8
270.0	460	142.5	75.6
315.0	428	141.9	75.1

**Proposal is within coordination distance of Canadian border
Distance to Canadian border: 195.4 km

Distance to Mexican border: 1928.8 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 339.3 degrees Distance: 178.9 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 273.0 degrees Distance: 1690.2 km

Study cell size: 2.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

---- Below is IX received by proposal WPTA STA 20180928 ----

Proposal receives 1.86% interference from scenario 1
Proposal receives 1.86% interference from scenario 2
Proposal receives 1.86% interference from scenario 3
Proposal receives 1.86% interference from scenario 4
No IX check failures found.

FIGURE 3

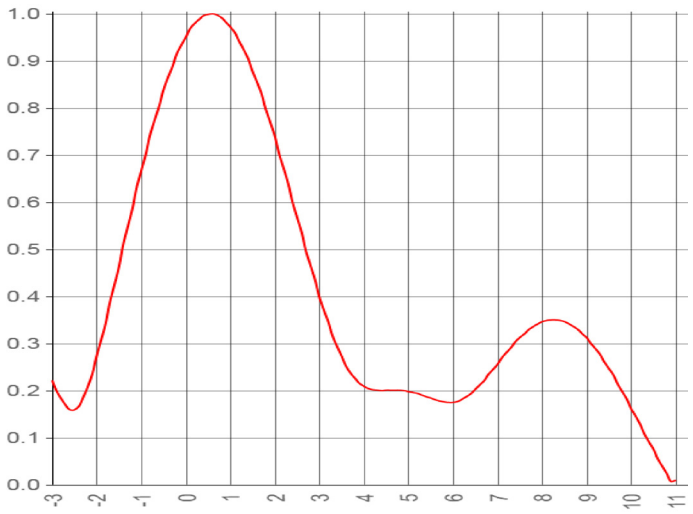
ERP (H-Pol):	477.0 kW	Channel:	24
ERP (V-Pol):		Bottom Frequency:	530
Antenna ht. AGL:	152.4 m		
Exposure ht. AGL:	2.0 m	General MPE Limit:	353
Ground reflection factor:	2.56	Occupational MPE Limit:	1767
Isotropic factor:	1.64		

Depression Angle	Distance (meters)	Slope (meters)	Relative Field	Power Density ($\mu W/cm^2$)	General MPE Limit	Occupational MPE Limit
90	0.00	150.40	0.000	0.00	0.00%	0.00%
85	13.16	150.97	0.007	0.03	0.01%	0.00%
80	26.52	152.72	0.022	0.33	0.09%	0.02%
75	40.30	155.71	0.019	0.24	0.07%	0.01%
70	54.74	160.05	0.036	0.81	0.23%	0.05%
65	70.13	165.95	0.062	2.22	0.63%	0.13%
60	86.83	173.67	0.080	3.38	0.96%	0.19%
55	105.31	183.60	0.050	1.18	0.33%	0.07%
50	126.20	196.33	0.053	1.16	0.33%	0.07%
45	150.40	212.70	0.090	2.85	0.81%	0.16%
40	179.24	233.98	0.014	0.06	0.02%	0.00%
35	214.79	262.21	0.088	1.79	0.51%	0.10%
30	260.50	300.80	0.000	0.00	0.00%	0.00%
25	322.53	355.88	0.084	0.89	0.25%	0.05%
20	413.22	439.74	0.171	2.41	0.68%	0.14%
15	561.30	581.10	0.034	0.05	0.02%	0.00%
10	852.96	866.12	0.163	0.56	0.16%	0.03%

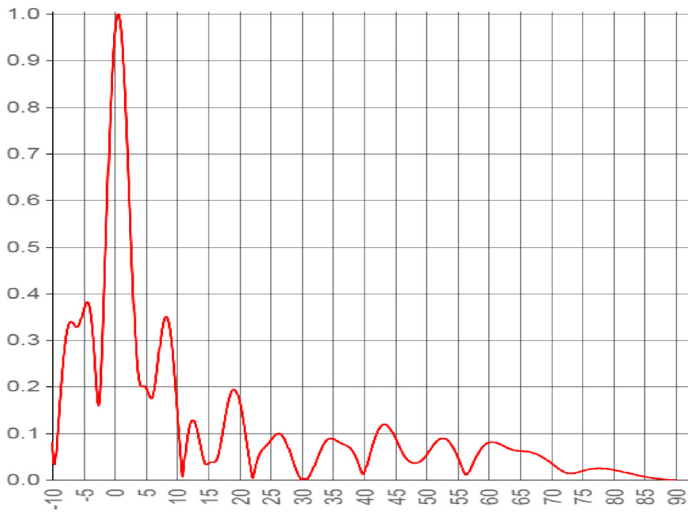
ELEVATION PATTERN

Exhibit No.	**FIGURE 4**
Date	**28 Sep 2018**
Call Letters	**WPTA**
Channel	**24**
Antenna Type	**TFU-NaNWB**
Location	**Fort Wayne, IN**
Customer	**WPTA License, LLC**

RMS Gain at Main Lobe	**14.5 (11.61 dB)**	Beam Tilt	**0.55 Degrees**
RMS Gain at Horizontal	**13.1 (11.18 dB)**	Drawing #	**TFU-WB-16**
	Calculated		



Degrees below horizontal



Degrees below horizontal

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10	0.082	10	0.163	30	0.000	50	0.053	70	0.036
-9	0.126	11	0.010	31	0.003	51	0.072	71	0.026
-8	0.286	12	0.115	32	0.029	52	0.086	72	0.018
-7	0.340	13	0.118	33	0.062	53	0.088	73	0.014
-6	0.328	14	0.060	34	0.085	54	0.075	74	0.015
-5	0.363	15	0.034	35	0.088	55	0.050	75	0.019
-4	0.370	16	0.038	36	0.081	56	0.018	76	0.022
-3	0.222	17	0.076	37	0.075	57	0.022	77	0.024
-2	0.269	18	0.151	38	0.065	58	0.050	78	0.025
-1	0.666	19	0.193	39	0.040	59	0.070	79	0.024
0	0.952	20	0.171	40	0.014	60	0.080	80	0.022
1	0.973	21	0.097	41	0.058	61	0.081	81	0.019
2	0.738	22	0.013	42	0.098	62	0.075	82	0.016
3	0.401	23	0.045	43	0.118	63	0.069	83	0.013
4	0.209	24	0.069	44	0.113	64	0.064	84	0.010
5	0.198	25	0.084	45	0.090	65	0.062	85	0.007
6	0.175	26	0.098	46	0.062	66	0.061	86	0.005
7	0.257	27	0.093	47	0.043	67	0.058	87	0.003
8	0.346	28	0.064	48	0.036	68	0.053	88	0.001
9	0.312	29	0.025	49	0.040	69	0.046	89	0.000