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Antenna Structure Registration

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TOWAIR Determination Results

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DETERMINATION Results

Structure does not require registration. The structure meets the 6.10-meter (20-foot) Rule criteria.

Your Specifications

NAD83 Coordinates

Latitude	38-42-04.1 north
Longitude	090-26-48.4 west

Measurements (Meters)

Overall Structure Height (AGL)	63
Support Structure Height (AGL)	57
Site Elevation (AMSL)	168

Structure Type

BANT - Building with Antenna on top

Tower Construction Notifications

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

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About ASR

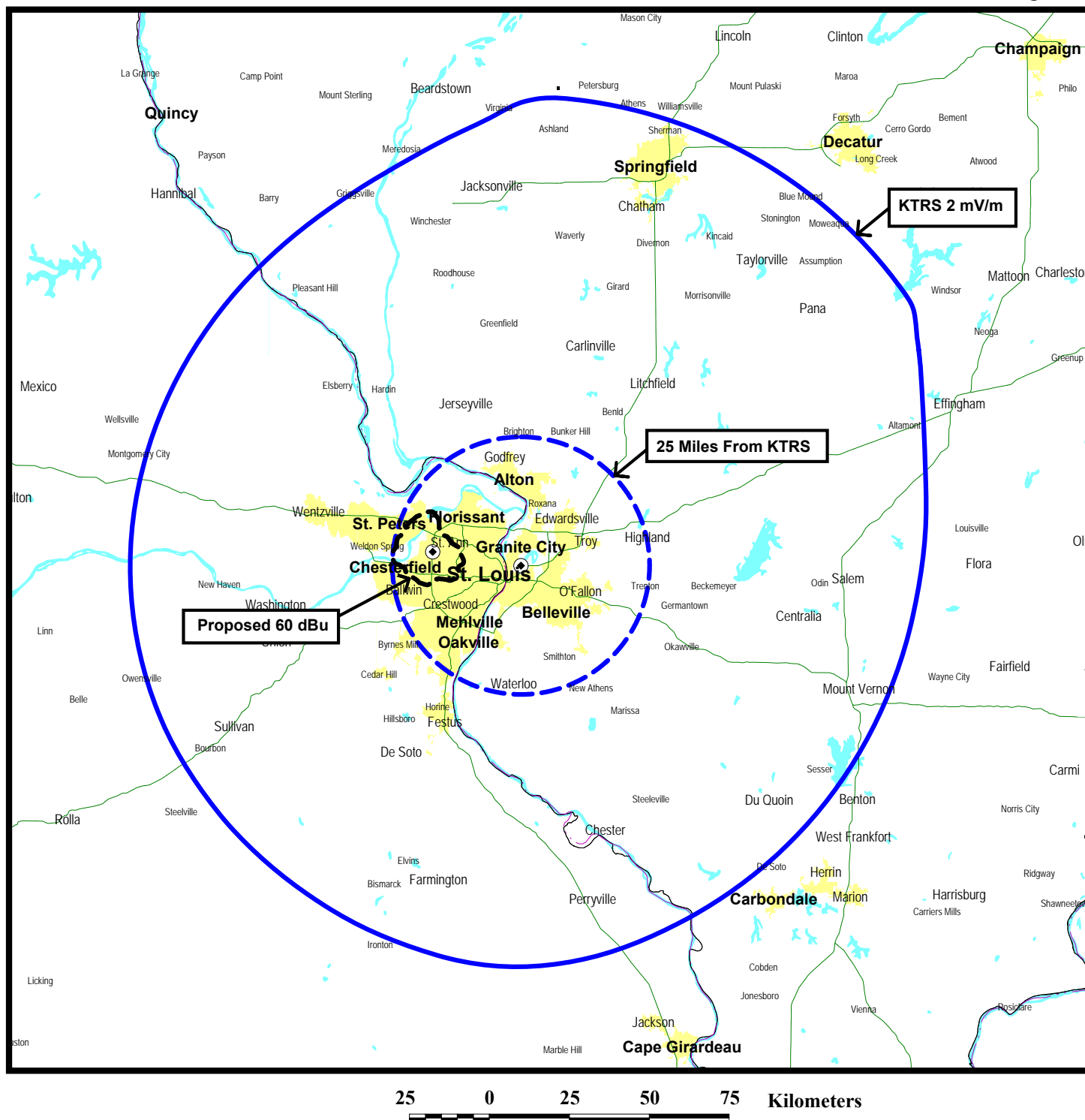
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Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Phone: 1-877-480-3201
TTY: 1-717-338-2824

Figure 1



AM FILL-IN COMPLIANCE MAP

FM TRANSLATOR STATION K291CW
ST. LOUIS, MISSOURI
CH 291 (106.1 MHZ) 0.25 KW (DA)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

FM Contour Study

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida



Channel: 291 **Coordinates:** 038-42-04 090-26-48 (NAD 27) **ERP:** 0.25 kW **Max. HAAT:** 100 m **Considering Only Interference Caused**

Comment: Proposed K291CW Amendment

Callsign	Chan.	Service	Status	Freq.	City	State	Co.	Rec.	Latitude	Dist. (km)	Sep. (km)	Spac. (km)
Facility ID	ARN			Class	DA	73.215	ERP (kW)	HAAT (m)	Longitude	Bear. (deg)	Comment	
WFUN-FM	238	FM	LIC	95.5	BETHALTO	IL	US	C	38-39-08	15.15	12	3.15
4948	BLH	20121203AQQ	C3	D	Y		10.5	155	090-17-03	111.02	CLOSE	
KPNT	289	FM	LIC	105.7	COLLINSVILLE	IL	US	C	38-34-27.7	17.59	65.93	-48.34
56525	BLH	20130125ABQ	C1	N	Y		54	254.4	090-19-31.5	143.19	SHORT	/1
KPNT 60.0 dBu desired distance: 64.8 km				Proposed 100.0 dBu undesired distance: 1.1 km								
K291CW	291	FX	APP	106.1	ST. LOUIS	MO	US	C	38-42-04	0	56.59	-56.59
202685	BMPFT	20190328AAJ	D	C	N		0.25		090-26-48	90	SHORT	/2
K291CW 60.0 dBu desired distance: 12.4 km				Proposed 40.0 dBu undesired distance: 44.2 km								
K291CW	291	FX	CP	106.1	ST. LOUIS	MO	US	C	38-42-04	0	56.59	-56.59
202685	BNPFT	20180501ABJ	D	C	N		0.25		090-26-48	90	SHORT	/3
K291CW 60.0 dBu desired distance: 12.4 km				Proposed 40.0 dBu undesired distance: 44.2 km								
WSMI-FM	291	FM	LIC	106.1	LITCHFIELD	IL	US	C	39-15-21	94.9	125.77	-30.87
64566	BLH	19800922AJ	B		N		50	140	089-36-48	49.17	SHORT	/4
WSMI-FM 54.0 dBu desired distance: 65.6 km				Proposed 34.0 dBu undesired distance: 60.2 km								
WARH	293	FM	LIC	106.5	GRANITE CITY	IL	US	C	38-34-27.7	17.59	75.22	-57.63
74577	BLH	20111026AGG	C1	N	N		90	309	090-19-31.5	143.19	SHORT	/1
WARH 60.0 dBu desired distance: 74.1 km				Proposed 100.0 dBu undesired distance: 1.1 km								

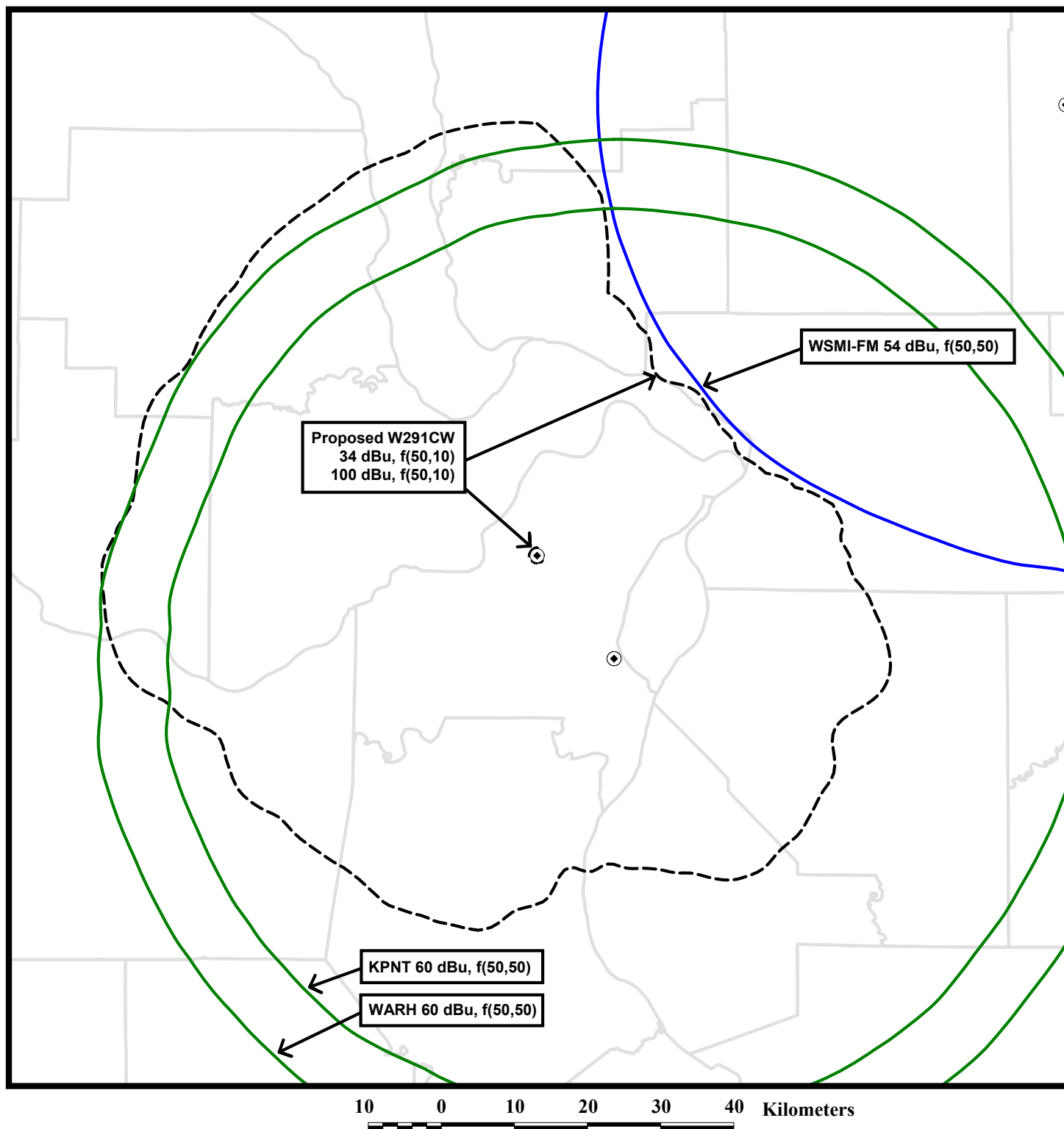
/1 There will be overlap normally prohibited by Section 74.1204. However, based on the U/D signal strength ratio method, which is permitted by the FCC per Living Way Ministries, there will be no actual interference due to lack of population under Section 74.1204(d). See Figure 17 and Figure 4.

/2 Pending K291CW application being amended by the instant application.

/3 Current K291CW authorization.

/4 Proposal complies with the contour overlap provisions of Section 74.1204(a). See Exhibit 17 and Figure 3.

Figure 3

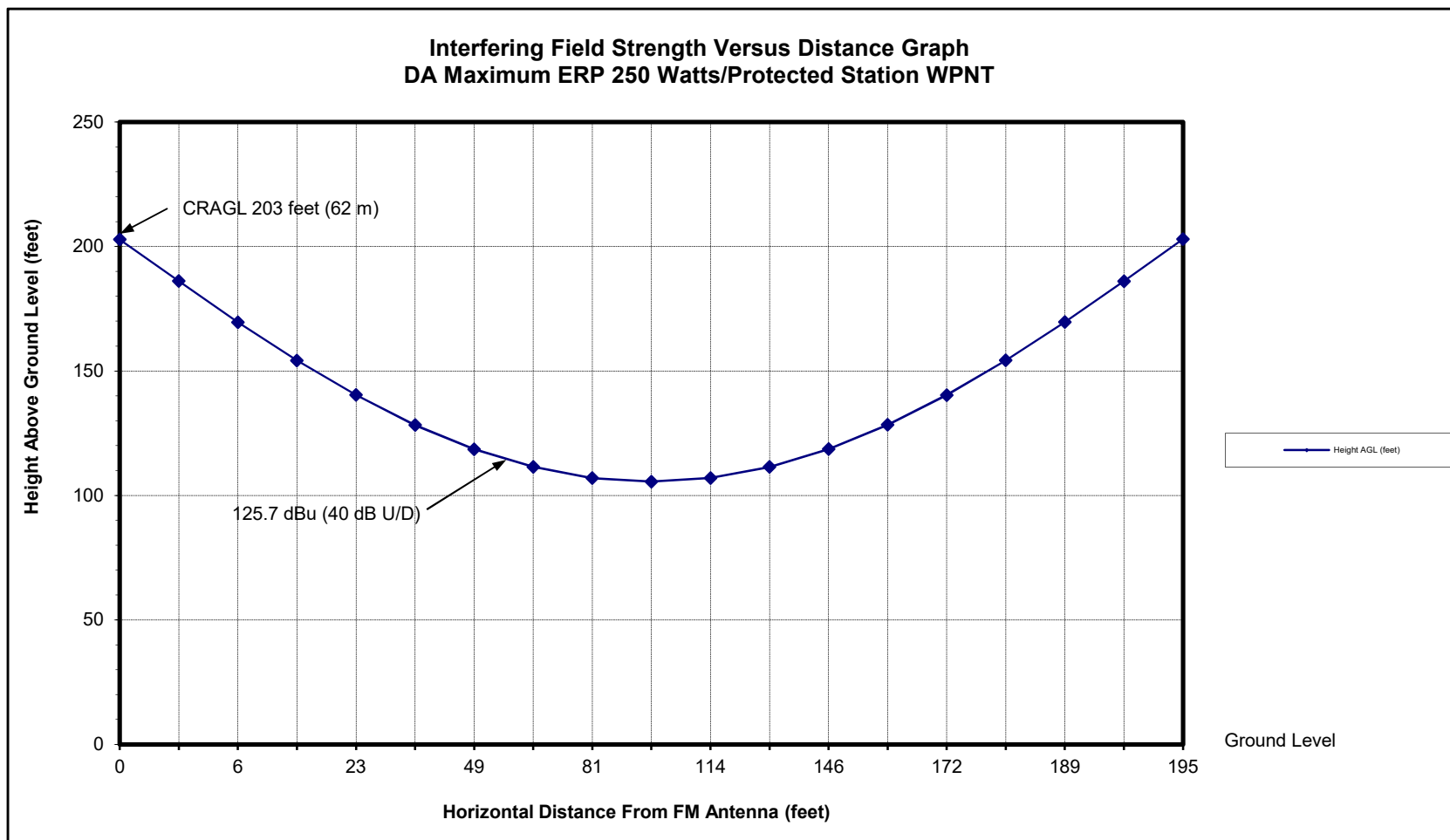


COMPLIANCE WITH SECTION 74.1204

FM TRANSLATOR STATION K291CW
ST. LOUIS, MISSOURI
CH 291 (106.1 MHZ) 0.25 KW (DA)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

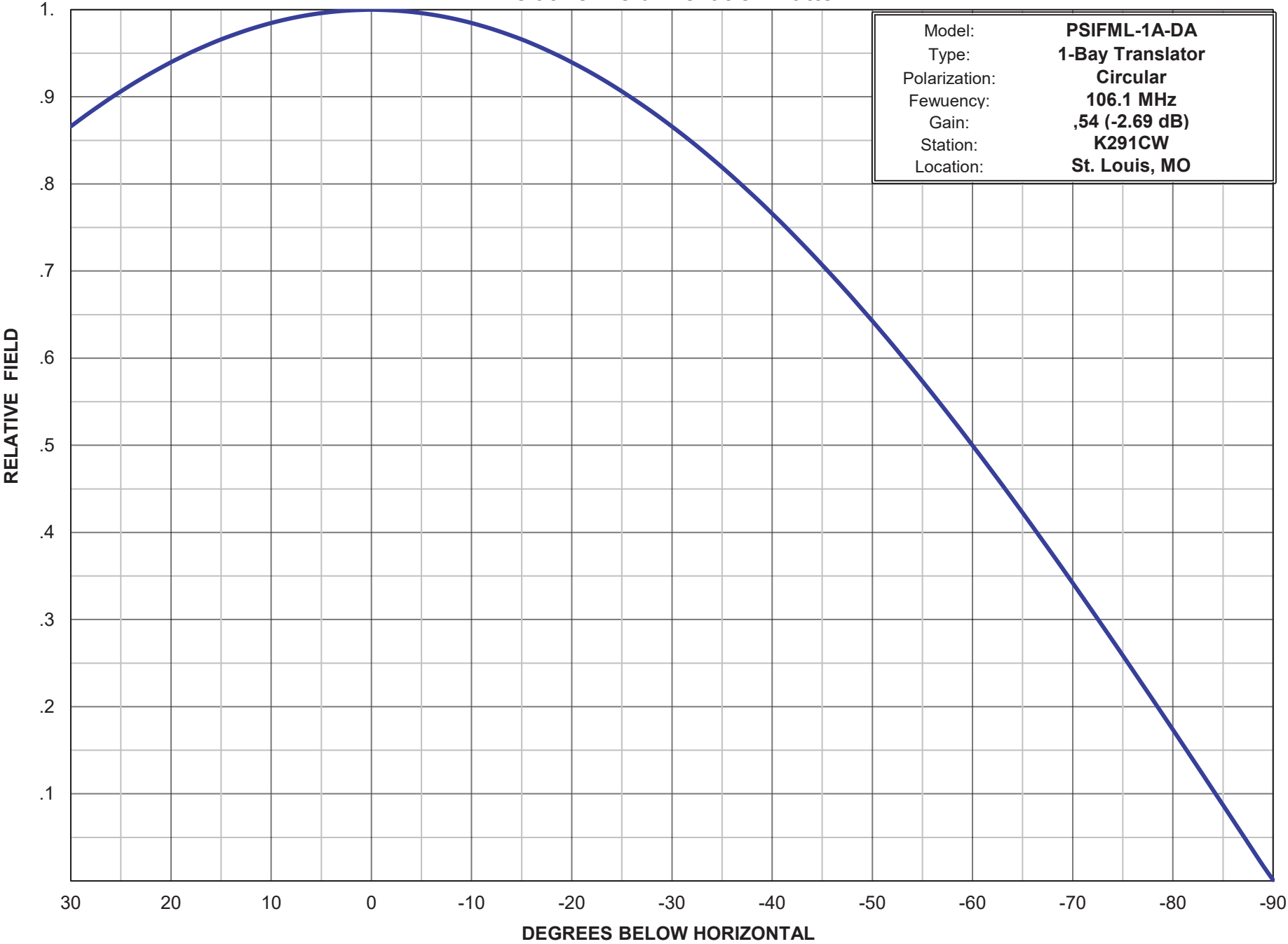
Figure 4





Propagation Systems, Inc.

Relative Field Elevation Pattern





Propagation Systems Inc.

Relative Field Tabulation Elevation Pattern

Antenna Model: PSIFML-1A-DA

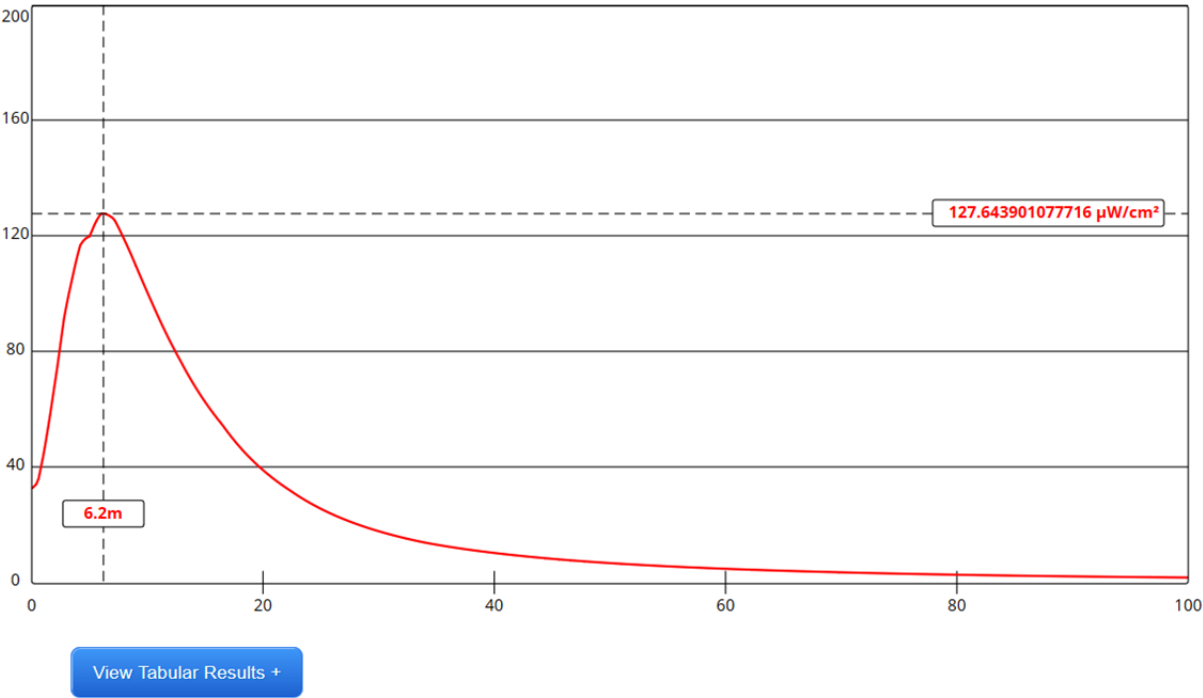
Gain: .54 (-2.69 dBd)

Station: K281CW

Location: St. Louis, MO

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90	0.001	-60.00	-50	0.643	-3.84	-10	0.985	-0.13
-89	0.017	-35.18	-49	0.656	-3.66	-9	0.988	-0.11
-88	0.035	-29.16	-48	0.669	-3.49	-8	0.990	-0.09
-87	0.052	-25.63	-47	0.682	-3.32	-7	0.992	-0.07
-86	0.070	-23.14	-46	0.695	-3.17	-6	0.994	-0.05
-85	0.087	-21.20	-45	0.707	-3.01	-5	0.996	-0.03
-84	0.104	-19.63	-44	0.719	-2.86	-4	0.997	-0.02
-83	0.122	-18.29	-43	0.731	-2.72	-3	0.998	-0.01
-82	0.139	-17.13	-42	0.743	-2.58	-2	0.999	-0.01
-81	0.156	-16.12	-41	0.755	-2.44	-1	1.000	0.00
-80	0.174	-15.21	-40	0.766	-2.32	0	1.000	0.00
-79	0.191	-14.39	-39	0.777	-2.19	1	1.000	0.00
-78	0.208	-13.64	-38	0.788	-2.07	2	0.999	-0.01
-77	0.225	-12.96	-37	0.798	-1.95	3	0.998	-0.01
-76	0.242	-12.33	-36	0.809	-1.84	4	0.997	-0.02
-75	0.259	-11.74	-35	0.819	-1.73	5	0.996	-0.03
-74	0.276	-11.19	-34	0.829	-1.63	6	0.994	-0.05
-73	0.292	-10.68	-33	0.839	-1.53	7	0.992	-0.07
-72	0.309	-10.20	-32	0.848	-1.43	8	0.990	-0.09
-71	0.325	-9.75	-31	0.857	-1.34	9	0.988	-0.11
-70	0.342	-9.32	-30	0.866	-1.25	10	0.985	-0.13
-69	0.358	-8.91	-29	0.875	-1.16	11	0.982	-0.16
-68	0.375	-8.53	-28	0.883	-1.08	12	0.978	-0.19
-67	0.391	-8.17	-27	0.891	-1.00	13	0.974	-0.23
-66	0.407	-7.82	-26	0.899	-0.93	14	0.970	-0.26
-65	0.423	-7.48	-25	0.906	-0.86	15	0.966	-0.30
-64	0.438	-7.16	-24	0.913	-0.79	16	0.961	-0.34
-63	0.454	-6.86	-23	0.920	-0.72	17	0.956	-0.39
-62	0.469	-6.57	-22	0.927	-0.66	18	0.951	-0.44
-61	0.485	-6.29	-21	0.933	-0.60	19	0.945	-0.49
-60	0.500	-6.02	-20	0.940	-0.54	20	0.940	-0.54
-59	0.515	-5.76	-19	0.945	-0.49	21	0.933	-0.60
-58	0.530	-5.52	-18	0.951	-0.44	22	0.927	-0.66
-57	0.545	-5.28	-17	0.956	-0.39	23	0.920	-0.72
-56	0.559	-5.05	-16	0.961	-0.34	24	0.913	-0.79
-55	0.573	-4.83	-15	0.966	-0.30	25	0.906	-0.86
-54	0.588	-4.62	-14	0.970	-0.26	26	0.899	-0.93
-53	0.602	-4.41	-13	0.974	-0.23	27	0.891	-1.00
-52	0.616	-4.21	-12	0.978	-0.19	28	0.883	-1.08
-51	0.629	-4.02	-11	0.982	-0.16	29	0.875	-1.16

Figure 6



Channel Selection	Channel 250 (97.9 MHz) ▾		
Antenna Type +	EPA Type 2: Opposed V Dipole ▾		
Height (m)	<input type="text" value="8"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="250"/>	ERP-V (W)	<input type="text" value="250"/>
Num of Elements	<input type="text" value="1"/>	Element Spacing (λ)	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	