

EXHIBIT A
Technical Narrative

APPLICATION TO MODIFY A CONSTRUCTION PERMIT

FM TRANSLATOR STATION

K239DA

CLARIO COMMUNICATIONS

FACILITY ID: 202666

BPFT – 20181105ABD

This technical statement and exhibits were prepared for CLARIO COMMUNICATIONS in support of this application to modify a construction permit. As this application will change the location of the facility and other operating parameters, new exhibits are required.

Proposed Technical Parameters

Location NAD (83):

32 – 45 – 52.8 N
96 – 52 – 24.9 W

RCAGL – 76 meters

GAMSL – 176 meters

RCAMSL – 252 meters

ERP – 0.060 kW (H) and (V)

Directional Antenna – SCA CA5 bays 2

ASRN – 1049502

Tower Overall Height – 140 meters

KSCS – Wavier request for third adjacent channel

Applicant is requesting a wavier for KSCS channel 242, Facility ID 71201, Fort Worth, Texas.

KSCS F(50,50) contour at the proposed translator site is 90.5 db.

K239DA F(50,10) interference contour is 130.5 db. Distance of this contour is 16 meters.

The proposed RCAGL is 76 meters, thus this contour is 60 meters above ground level and will not reach ground level. There are no tall buildings, elevated roadways, or structures that are inhabited by people inside this contour.

EXHIBITS

Exhibit A – This technical narrative

Exhibit A1 – AM Fill-in Compliance

Exhibit A2 – Translator 60 db Contour Overlap

Exhibit A3 – Overlap Requirements

Exhibit A4 – Aerial Photo of Proposed Site

Exhibit A5 – Environmental and RFE

Applicant will use a SCALA 2 bay CA5 antenna.

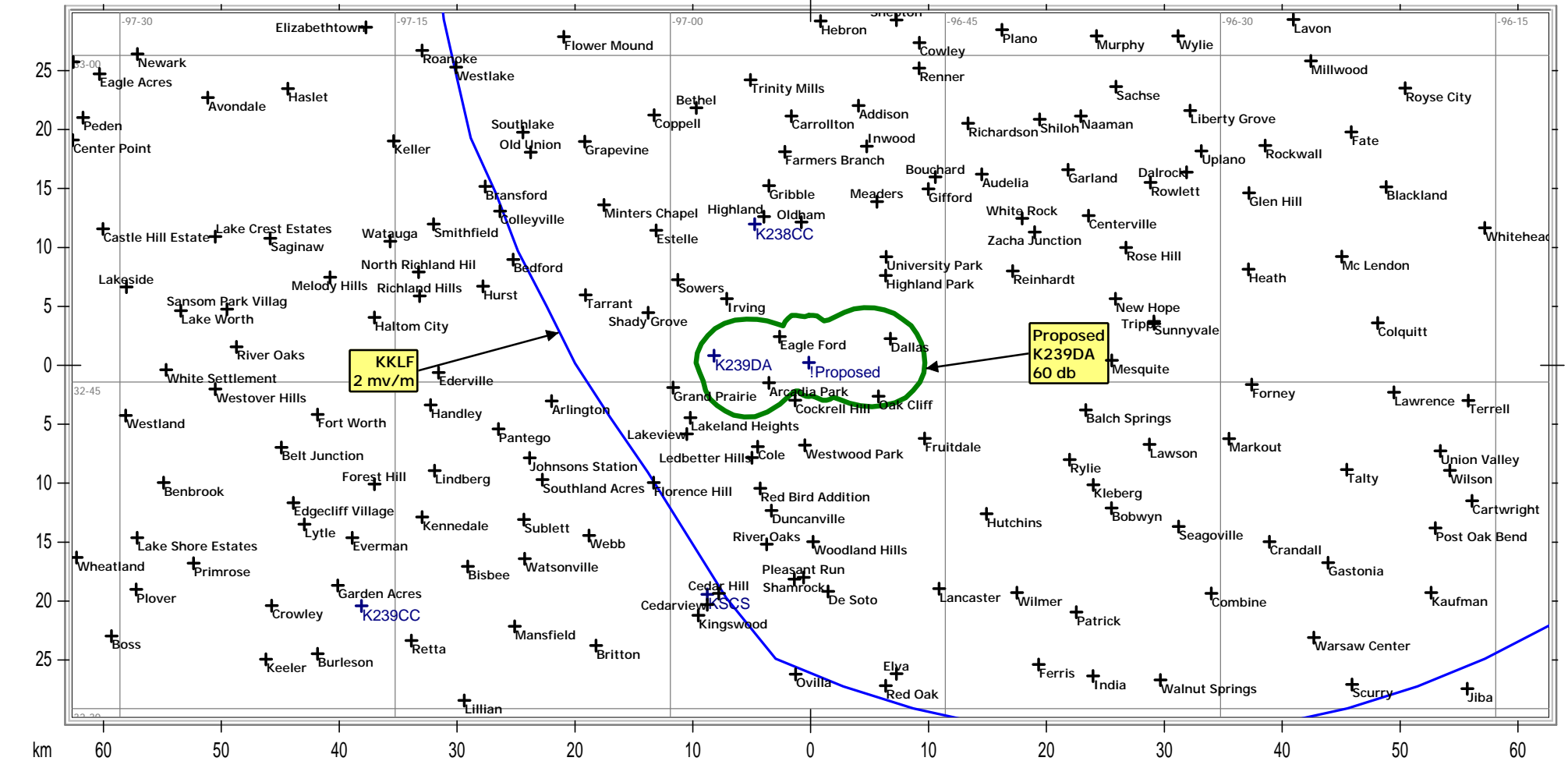
FCC FM Model.

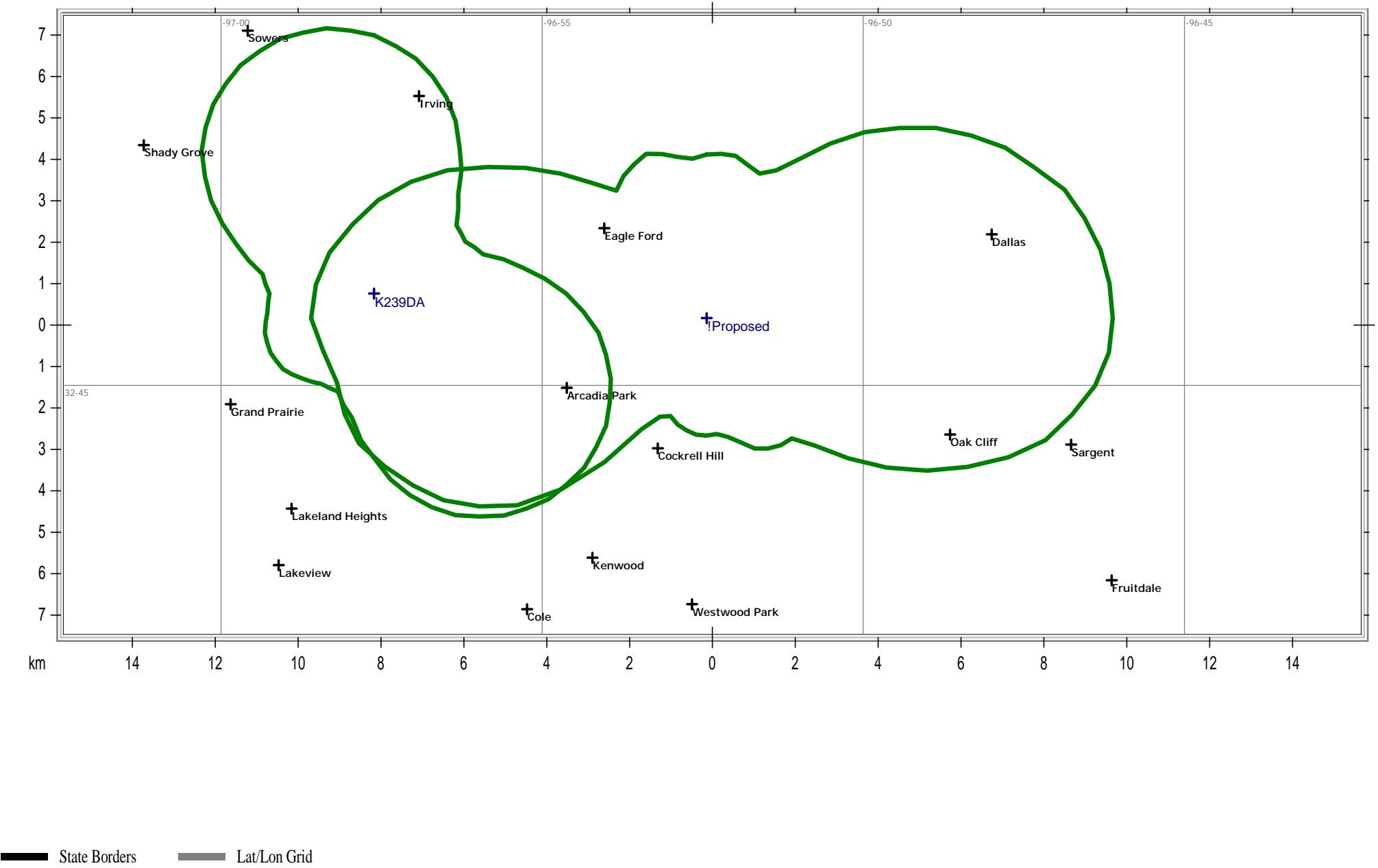
$S = 0.44 \mu\text{W}/\text{cm}^2$ which is 0.22 % of the $200 \mu\text{W}/\text{cm}^2$ maximum allowable for uncontrolled public access. This is less than 5 %, therefore no further study required.

Applicant will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radio frequency electromagnetic fields in excess of FCC guidelines.

Applicant will place appropriate signage at the site.

Exhibit A6 – Directional Antenna Pattern consisting of 2 bays of SCA CA5 antennas.





**EXHIBIT A3
OVERLAP REQUIREMENTS
K239DA**

Callsign	State	City	Freq	Channel	ERP_w	Class	Status	Distance_km	Sep	Clr
K239DA	TX	RICHARDSON	95.7	239	200	D	CP	8.11	0	-59.73 dB
KSCS	TX	FORT WORTH	96.3	242	99000	C	LIC	21.49	0	-31.00 dB
K238CC	TX	DALLAS	95.5	238	250	D	CP	12.63	0	0.20 dB
KRQP-LP	TX	ARLINGTON	95.5	238	58	LP100	LIC	20.57	13	0.02 dB
K239CC	TX	BURLESON	95.7	239	250	D	LIC	43.37	0	1.49 dB
K240DS	TX	GARLAND	95.9	240	115	D	LIC	30.37	0	2.53 dB
KVWR-LP	TX	DALLAS	95.5	238	70	LP100	LIC	15.32	13	3.44 dB
K239CZ	TX	PLANO	95.7	239	124	D	CP	28.83	0	3.46 dB
KVWR-LP	TX	DALLAS	95.5	238	24	LP100	CP	15.32	13	5.72 dB
K237HE	TX	DALLAS	95.3	237	250	D	CP	13.5	0	5.02 dB
KFWR	TX	JACKSBORO	95.9	240	100000	C0	LIC	111.48	0	7.48 dB
KFWR	TX	JACKSBORO	95.9	240	100000	C0	LIC	111.48	0	7.51 dB
KYNC-LP	TX	SACHSE	95.7	239	16	LP100	LIC	53.82	24	8.87 dB
KHYI	TX	HOWE	95.3	237	17000	C2	LIC	78.61	0	10.79 dB
KFWR	TX	JACKSBORO	95.9	240	100000	C0	LIC	111.52	0	10.51 dB
KSGV-LP	TX	SEAGOVILLE	95.5	238	27	LP100	LIC	34.21	13	14.43 dB
K239CG	TX	BONHAM	95.7	239	250	D	LIC	106.54	0	17.53 dB
K293CM	TX	DALLAS	106.5	293	100	D	LIC	21.47	0	21.5
KSCS	TX	FORT WORTH	96.3	242	0	C	USE	21.82	0	22.10 dB
K237HD	TX	FORT WORTH	95.3	237	150	D	CP	39.65	0	24.51 dB
K239CB	TX	TYLER	95.7	239	250	D	LIC	156.75	0	25.30 dB
K239AM	TX	PALESTINE	95.7	239	250	D	LIC	161.69	0	27.64 dB
KOME-FM	TX	TOLAR	95.5	238	1550	C3	CP	120.81	0	29.00 dB
KBGO	TX	WACO	95.7	239	24000	C2	LIC	141.96	0	30.17 dB
KFCE-LP	TX	WILLS POINT	95.5	238	50	LP100	LIC	81.35	13	30.30 dB
KOME-FM	TX	MERIDIAN	95.3	237	11000	C3	LIC	117.89	0	31.29 dB
KCKL	TX	MALAKOFF	95.9	240	6000	A	LIC	108.93	0	31.65 dB
KKAJ-FM	OK	DAVIS	95.7	239	50000	C2	LIC	181.1	0	35.38 dB
K239CT	TX	LONGVIEW	95.7	239	250	D	CP	205.77	0	36.64 dB
KSCH	TX	SULPHUR SPRINGS	95.9	240	6000	A	LIC	126.32	0	36.79 dB
KITX	OK	HUGO	95.5	238	50000	C2	LIC	180.27	0	36.57 dB
KWAH-LP	TX	ENNIS	95.5	238	100	LP100	LIC	54.87	13	37.74 dB
KYEN-LP	TX	ENNIS	95.9	240	50	LP100	LIC	51.53	13	37.33 dB
KKTX-FM	TX	KILGORE	96.1	241	50000	C2	LIC	186.91	0	39.16 dB
KWSK-LP	TX	CASON	95.7	239	100	LP100	LIC	196.56	24	39.67 dB

Exhibit A4

Aerial Photo of site

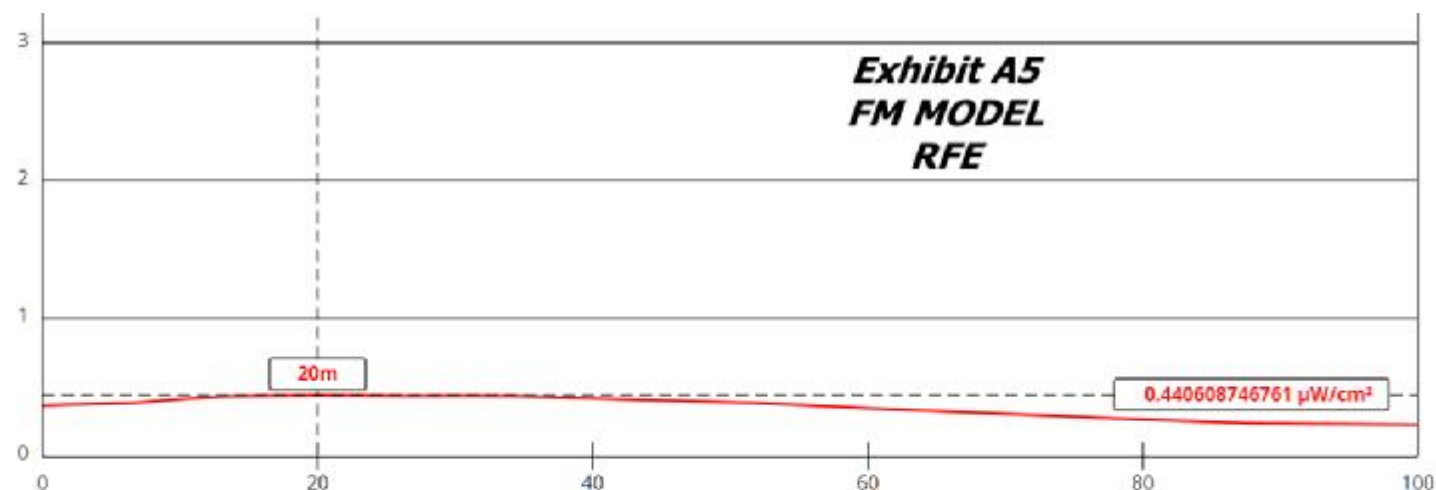
Legend

- 1049502
- K239DA



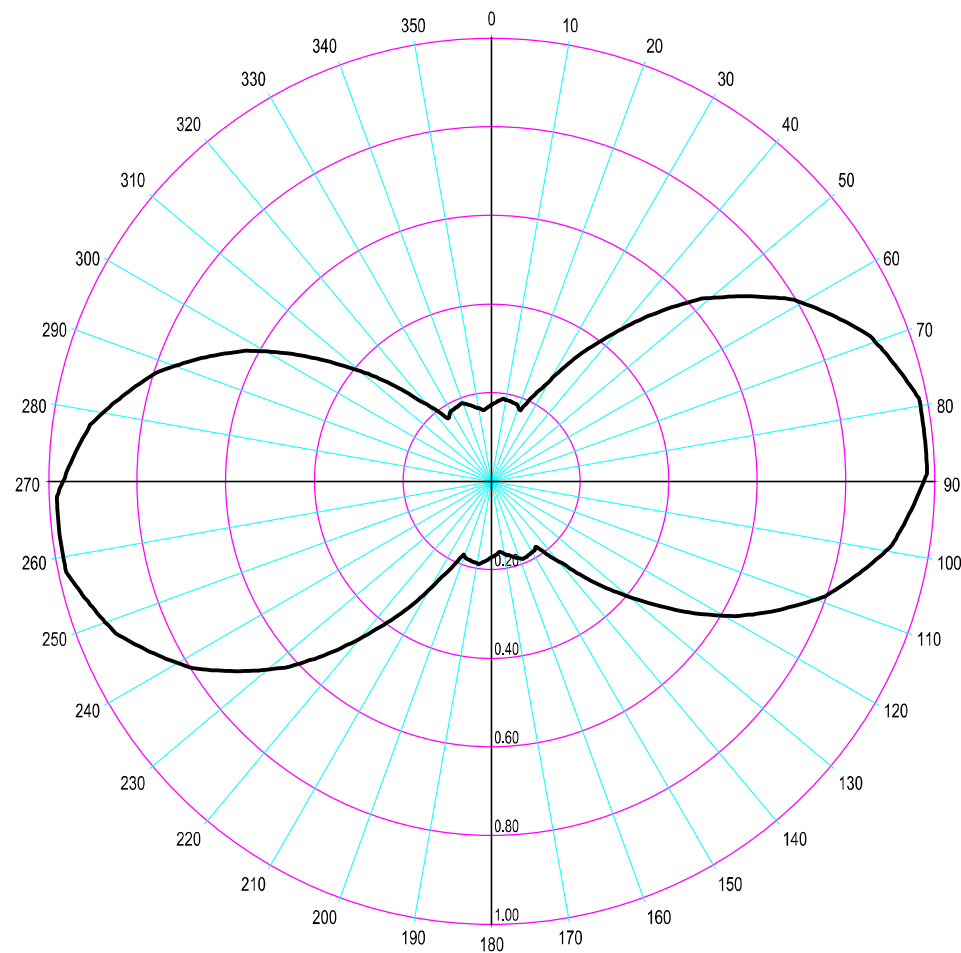
Google Earth

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[View Tabular Results +](#)

Channel Selection	Channel Z39 (95.7 MHz) ▼		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▼		
Height (m)	<input type="text" value="76"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="60"/>	ERP-V (W)	<input type="text" value="60"/>
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"/>	



Azim	Rel.FS	ERP [W]	dBk
0.0	0.173	1.796	-27.458
5.0	0.183	2.009	-26.969
10.0	0.187	2.098	-26.782
15.0	0.184	2.031	-26.922
20.0	0.177	1.880	-27.259
25.0	0.205	2.521	-25.983
30.0	0.264	4.182	-23.786
35.0	0.352	7.434	-21.288
40.0	0.443	11.775	-19.290
45.0	0.546	17.887	-17.475
50.0	0.644	24.884	-16.041
55.0	0.728	31.799	-14.976
60.0	0.807	39.075	-14.081
65.0	0.867	45.101	-13.458
70.0	0.921	50.894	-12.933
75.0	0.955	54.721	-12.618
80.0	0.982	57.859	-12.376
85.0	0.982	57.859	-12.376
90.0	0.975	57.037	-12.438
95.0	0.941	53.129	-12.747
100.0	0.903	48.925	-13.105
105.0	0.843	42.639	-13.702
110.0	0.779	36.410	-14.388
115.0	0.695	28.981	-15.379
120.0	0.607	22.107	-16.555
125.0	0.505	15.301	-18.153
130.0	0.405	9.841	-20.069
135.0	0.317	6.029	-22.197
140.0	0.236	3.342	-24.760
145.0	0.184	2.031	-26.922
150.0	0.184	2.031	-26.922
155.0	0.187	2.098	-26.782
160.0	0.185	2.053	-26.875
165.0	0.175	1.837	-27.358
170.0	0.166	1.653	-27.816
175.0	0.162	1.575	-28.028
180.0	0.171	1.754	-27.559

Azim	Rel.FS	ERP [W]	dBk
185.0	0.181	1.966	-27.065
190.0	0.188	2.121	-26.735
195.0	0.185	2.053	-26.875
200.0	0.180	1.944	-27.113
205.0	0.215	2.773	-25.570
210.0	0.282	4.771	-23.214
215.0	0.370	8.214	-20.854
220.0	0.464	12.918	-18.888
225.0	0.566	19.221	-17.162
230.0	0.661	26.215	-15.814
235.0	0.745	33.301	-14.775
240.0	0.819	40.246	-13.953
245.0	0.879	46.358	-13.339
250.0	0.928	51.671	-12.868
255.0	0.961	55.411	-12.564
260.0	0.982	57.859	-12.376
265.0	0.982	57.859	-12.376
270.0	0.968	56.221	-12.501
275.0	0.935	52.453	-12.802
280.0	0.891	47.633	-13.221
285.0	0.831	41.434	-13.826
290.0	0.762	34.839	-14.579
295.0	0.678	27.581	-15.594
300.0	0.587	20.674	-16.846
305.0	0.484	14.055	-18.522
310.0	0.387	8.986	-20.464
315.0	0.299	5.364	-22.705
320.0	0.226	3.065	-25.136
325.0	0.173	1.796	-27.458
330.0	0.183	2.009	-26.969
335.0	0.186	2.076	-26.828
340.0	0.187	2.098	-26.782
345.0	0.177	1.880	-27.259
350.0	0.168	1.693	-27.712
355.0	0.164	1.614	-27.922