

**Exhibit 12.1 - Copy of Existing  
Antenna Structure Registration****Registration Detail**

Reg Number	1011415	Status	Constructed
File Number	A0452028	Constructed	05/01/1992
FAA Study	95-AGL-1129-OE	EMI	No
FAA Issue Date	02/15/1995	NEPA	No

**Antenna Structure**

Structure Type TOWER - Free standing or Guyed Structure used for Communications Purposes

**Location** (in NAD83 Coordinates)

Lat/Long	40-00-45.0 N 088-08-29.0 W	908 COUNTRY RD 1700 E
City, State	PHILO , IL	
Center of AM Array		

**Heights (meters)**

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
210.6	146.6
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
357.2	145.9

**Painting and Lighting Specifications**

FAA Chapters 3, 4, 5, 13  
 Paint and Light in Accordance with FAA Circular Number 70/7460-1H  
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**Owner & Contact Information**

FRN	0009269655	Licensee ID	L00074309
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**Owner**

Saga Communications of Illinois, LLC  
 Attention To: Gregory Urbiel  
 73 Kercheval Avenue, Suite 201  
 Grosse Pointe Farms , MI 48236

P: (313)886-7070  
 E: gurbiel@sagacom.com

**Contact**

Smithwick , Gary S Esq  
 5028 Wisconsin Avenue, NW Suite 301  
 Washington , DC 20016  
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P: (202)363-4050  
 E: gsmithwick@fccworld.com

**Last Action Status**

Status	Constructed	Received	06/15/2005
Purpose	Admin Update	Entered	06/15/2005
Mode	Interactive		

**Related Applications**

06/15/2005	A0452028 - Admin Update (AU)
12/31/1996	A0013635 - New (NE)
.	

**Comments****Comments**

None  
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## Exhibit 12.2

### Vertical Plan of Antenna System

The site is located at 908 County Road 1700 E  
the city of Philo, Champaign County, Illinois.

#### Site Location (NAD 27)

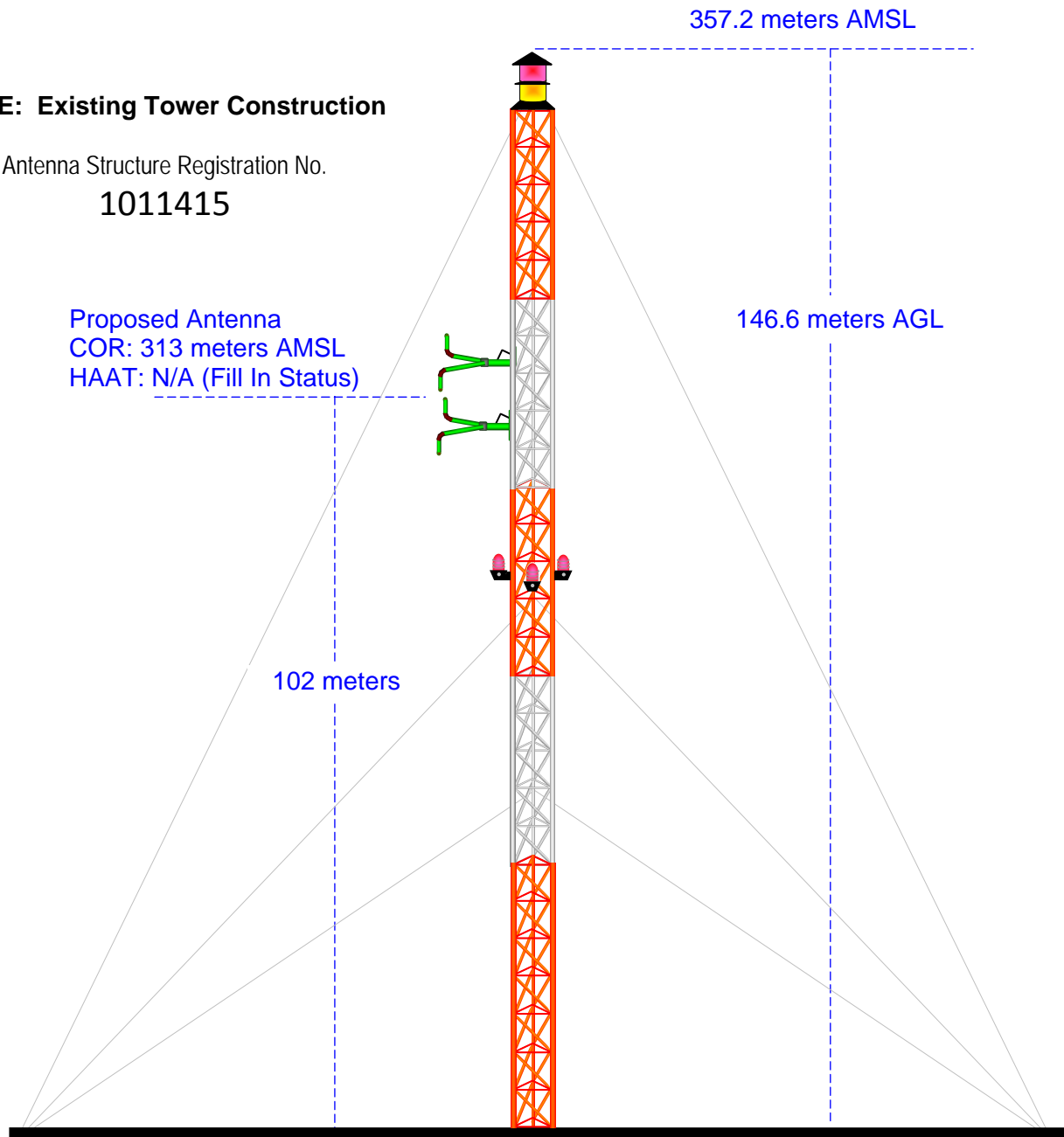
NL: 40° 00' 45"

WL: 88° 08' 29"

#### NOTE: Existing Tower Construction

Antenna Structure Registration No.  
**1011415**

Proposed Antenna  
COR: 313 meters AMSL  
HAAT: N/A (Fill In Status)



Ground Elevation = 210.6 m AMSL  
Drawing is not to Scale

**MUNN-REESE, INC.**  
Broadcast Engineering Consultants  
Coldwater, MI 49036

CH250D

Proposed Operation

Latitude: 40-00-45 N

Longitude: 088-08-29 W

ERP: 0.005 kW

Channel: 250

Frequency: 97.9 MHz

AMSL Height: 313.0 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model:

60 dBu Contour

Total Population: 1,746

Total Area: 79.59 sq. km

W251AV

Present Operation

Latitude: 39-54-44 N

Longitude: 088-10-46 W

ERP: 0.24 kW

Channel: 251

Frequency: 98.1 MHz

AMSL Height: 207.6 m

Horiz. Pattern: Directional

Vert. Pattern: No

Prop Model:

60 dBu Contour

Total Population: 2,733

Total Area: 136.02 sq. km

## Exhibit 12.3 Present vs Proposed Service Contour Study

Proposed 60 dBu f(50:50)

Present 60 dBu f(50:50)

CH250D

Philo

Sidney

ono

Pesotum

W251AV

Longview

Villa Grove



**MUNN-REESE, INC.**

Broadcast Engineering Consultants

Coldwater, MI 49036

1(517)278-7339

Scale 1:115,000

0 1 2 3 km

# Exhibit 12.4 Proposed vs Primary Service Contour Study

Primary 54 dBu f(50:50)

WLRW.L  
BLH20051107ABO  
Latitude: 40-07-35 N  
Longitude: 088-17-25 W  
ERP: 50.00 kW  
HAAT: 138.0 m  
Channel: 233  
Frequency: 94.5 MHz  
AMSL Height: 357.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model:

CH250D  
Proposed Operation  
Latitude: 40-00-45 N  
Longitude: 088-08-29 W  
ERP: 0.005 kW  
Channel: 250  
Frequency: 97.9 MHz  
AMSL Height: 313.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model:

Proposed 60 dBu f(50:50)

WLRW.L



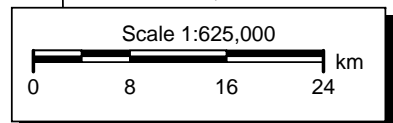
Champaign

CH250D



Tuscola

Douglas



# Exhibit 12.5

## Tabulation of Proposed Allocation

Tabulations of contours will be supplied upon request.

REFERENCE		CH# 250D - 97.9 MHz, Pwr= 0.005 kW, HAAT= 105.2 M, COR= 313 M							DISPLAY DATES	
40 00 45.0 N.		Average Protected F(50-50)= 5.03 km							DATA	01-03-09
88 08 29.0 W.		Omni-directional							SEARCH	01-09-09
CH CITY	CALL	TYPE STATE	ANT AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
248B Champaign	WHMS-FM	LIC _CN IL	311.4 131.3	12.1 BLH19911022KB	40 05 04.0 88 14 53.0	50.000 109	5.2 328	59.6 D.w.s., Inc.	2.2	-47.8*<
253B Paris	WINH	LIC _CN IL	141.8 322.0	57.5 BMLH452	39 36 21.0 87 43 35.0	50.000 152	6.1 360	65.8 Midwest Communications, Inc.	46.4	-8.7*<
250A Heyworth	WBBE	LIC _CX IL	305.3 124.8	85.3 BLH20050919AGU	40 27 08.0 88 57 48.0	5.400 105	83.9 342	26.8 Connoisseur Media, LLC	-3.4<	43.5
250A Effingham	WXEF	LIC _CN IL	203.6 23.3	107.6 BLH19940908KB	39 07 25.0 88 38 28.0	6.000 95	85.0 272	27.0 Premier Broadcasting, Inc.	17.4	63.7
250D Monticello	W250AT	LIC _V_ IL	269.8 89.5	37.3 BLFT20070709AAS	40 00 37.0 88 34 40.0	0.010	10.2 213	3.2 Radio Assist Ministry, Inc.	22.2	18.4
251B1 Earl Park	WIBN	LIC _CN IN	42.9 223.4	85.4 BLH19910524KD	40 34 22.0 87 27 12.0	25.000 100	61.2 329	45.7 Brothers Broadcasting Corp	19.0	31.0
252A Farmer City	WWHP	LIC _CX IL	318.8 138.5	58.1 BLH20080804AEC	40 24 17.0 88 35 34.0	5.200 107	2.9 352	29.9 Wms1, Inc.	50.6	28.0
250B Anderson	WGNR-FM	LIC _C_ IN	87.7 269.3	207.6 BMLED20030908ADX	40 03 43.0 85 42 34.0	50.000 149	137.9 405	65.2 The Moody Bible Institute	64.6	118.1
252D Decatur	W252AR	LIC _HN IL	255.2 74.7	71.9 BLFT19950829TA	39 50 43.0 88 57 13.0	0.100 30	0.7 232	5.7 Wejt, Inc.	66.2	66.1
Translator for WEJT, Shelbyville, IL										
249D Greenup	650382	APP _C_ IL	181.5 1.4	85.6 BNPFT20030317JVA	39 14 30.0 88 10 00.0	0.170	9.2 197	6.4 Covenant Network	71.2	71.8
252A Tower Hill	WRAN	LIC _CX IL	221.4 40.9	108.2 BLH200111120ABI	39 16 48.0 88 58 22.0	3.700 128	2.6 314	28.5 Kaskaskia Broadcasting, Inc.	100.5	79.5
251D Atlanta	628751	APP _C_ IL	285.5 104.7	99.1 BNPFT20030310AAL	40 14 39.0 89 15 51.0	0.120	8.4 220	5.9 Cornerstone Community Radi	85.9	86.4
249A Petersburg	WLCE	LIC _CX IL	265.6 84.6	135.1 BLH20020305AAR	39 54 35.0 89 43 01.0	6.000 100	44.1 273	28.6 Long Nine, Inc.	86.0	99.6
247A Taylorsville	WTIM-FM	LIC _CX IL	237.9 57.2	116.2 BLH20011109ACK	39 27 08.0 89 17 10.0	4.600 114	2.8 306	29.0 Miller Communications, Inc	108.5	87.0
250B Chicago	WLUP-FM	LIC _CX IL	11.6 191.9	214.0 BLH20030702AAV	41 53 56.0 87 37 23.0	4.000 425	121.6 606	62.4 Emmis Radio License, LLC	87.3	127.8

Terrain database is NGDC 30 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM  
 Contour distances are on direct line to and from reference station. Reference zone = 1, Co to 3rd adjacent.  
 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.  
 "<" = Contour Overlap

Denotes a §74.1204(d) Waiver Request for given second & third adjacent channel interference to WHMS-FM, Champaign, IL and WINH(FM), Paris, IL. Full protection will be afforded both facilities as the calculated interference area has been shown to be void of population, houses, buildings and major roads as noted in **Exhibit 12.6**.

# Exhibit 12.6

**§74.1204(d) 2nd & 3rd Adjacent Channel  
Given Interference Waiver Request with  
WHMS-FM - Champaign, IL CH248B  
WINH(FM) - Paris, IL CH253B**

**CH250D**  
BLH20000721AAB  
Latitude: 40-00-45 N  
Longitude: 088-08-29 W  
ERP: 0.005 kW  
Channel: 250  
Frequency: 97.9 MHz  
AMSL Height: 313.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model:

**WHMS-FM**  
BLH19911022KB  
Latitude: 40-05-04 N  
Longitude: 088-14-53 W  
ERP: 50.00 kW  
Channel: 248  
Frequency: 97.5 MHz  
AMSL Height: 328.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model:

**WINH**  
BMLH452  
Latitude: 39-36-21 N  
Longitude: 087-43-35 W  
ERP: 50.00 kW  
Channel: 253  
Frequency: 98.5 MHz  
AMSL Height: 360.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model:

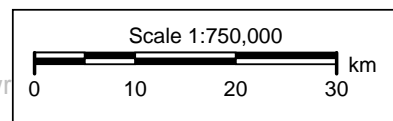
CH250D  
97.7 dBu f(50:10)

57.7 dBu f(50:50)

57.7 dBu f(50:50)

**Proposed Antenna:** 2 Bay ERI Series 1105-2F Fully Spaced  
**Proposed Power:** 0.005 kW  
**Antenna Height AGL:** 102 meters  
**Interference Contour:** 97.7 mV/m f(50:10)  
**Artificial Ground Plane Height:** 9 meters  
**Distance (Free Space) Equation:**  $= (10^{((106.92 - [\text{desired dBu}] + [\text{ERP in dBk}]) / 20)) * 1000}$   
**Field Strength (dBu) Equation:**  $= 106.92 - (20 * (\text{LOG10}[\text{DistMeters} / 1000])) + [\text{ERP in dBk}]$

Depression	Antenna	ERP	ERP	Distance	Distance	Field Strength	Distance	Field Strength
Angle	Relative	in kW	in dBk	from Ant.	from Ant. to	in dBu @	from Ant.	in dBu @
Below	Field			to Interference	Artificial Plane	Artificial Plane	to Ground Level	Ground Level
Horizon				Contour				
0°	1.000	0.005	-23.01	204.40 m	infinite	---	---	---
-5°	0.960	0.005	-23.36	196.23 m	1067.06 m	82.99 dBu	1170.32 m	82.19 dBu
-10°	0.844	0.004	-24.48	172.52 m	535.57 m	87.86 dBu	587.39 m	87.06 dBu
-15°	0.667	0.002	-26.53	136.34 m	359.32 m	89.28 dBu	394.10 m	88.48 dBu
-20°	0.451	0.001	-29.93	92.19 m	271.91 m	88.30 dBu	298.23 m	87.50 dBu
-25°	0.221	0.000	-36.12	45.17 m	220.06 m	83.95 dBu	241.35 m	83.14 dBu
-30°	0.001	0.000	-83.01	0.20 m	186.00 m	38.52 dBu	204.00 m	37.72 dBu
-35°	0.193	0.000	-37.30	39.45 m	162.14 m	85.42 dBu	177.83 m	84.62 dBu
-40°	0.345	0.001	-32.25	70.52 m	144.68 m	91.46 dBu	158.68 m	90.66 dBu
-45°	0.451	0.001	-29.93	92.19 m	131.52 m	94.61 dBu	144.25 m	93.81 dBu
-50°	0.510	0.001	-28.86	104.24 m	121.40 m	96.38 dBu	133.15 m	95.57 dBu
-55°	0.529	0.001	-28.54	108.13 m	113.53 m	97.28 dBu	124.52 m	96.47 dBu
-60°	0.514	0.001	-28.79	105.06 m	107.39 m	97.51 dBu	117.78 m	96.71 dBu
-65°	0.474	0.001	-29.49	96.89 m	102.61 m	97.20 dBu	112.54 m	96.40 dBu
-70°	0.417	0.001	-30.61	85.24 m	98.97 m	96.40 dBu	108.55 m	95.60 dBu
-75°	0.350	0.001	-32.13	71.54 m	96.28 m	95.12 dBu	105.60 m	94.32 dBu
-80°	0.277	0.000	-34.16	56.62 m	94.43 m	93.26 dBu	103.57 m	92.45 dBu
-85°	0.202	0.000	-36.90	41.29 m	93.36 m	90.61 dBu	102.39 m	89.81 dBu
-90°	0.129	0.000	-40.80	26.37 m	93.00 m	86.75 dBu	102.00 m	85.95 dBu



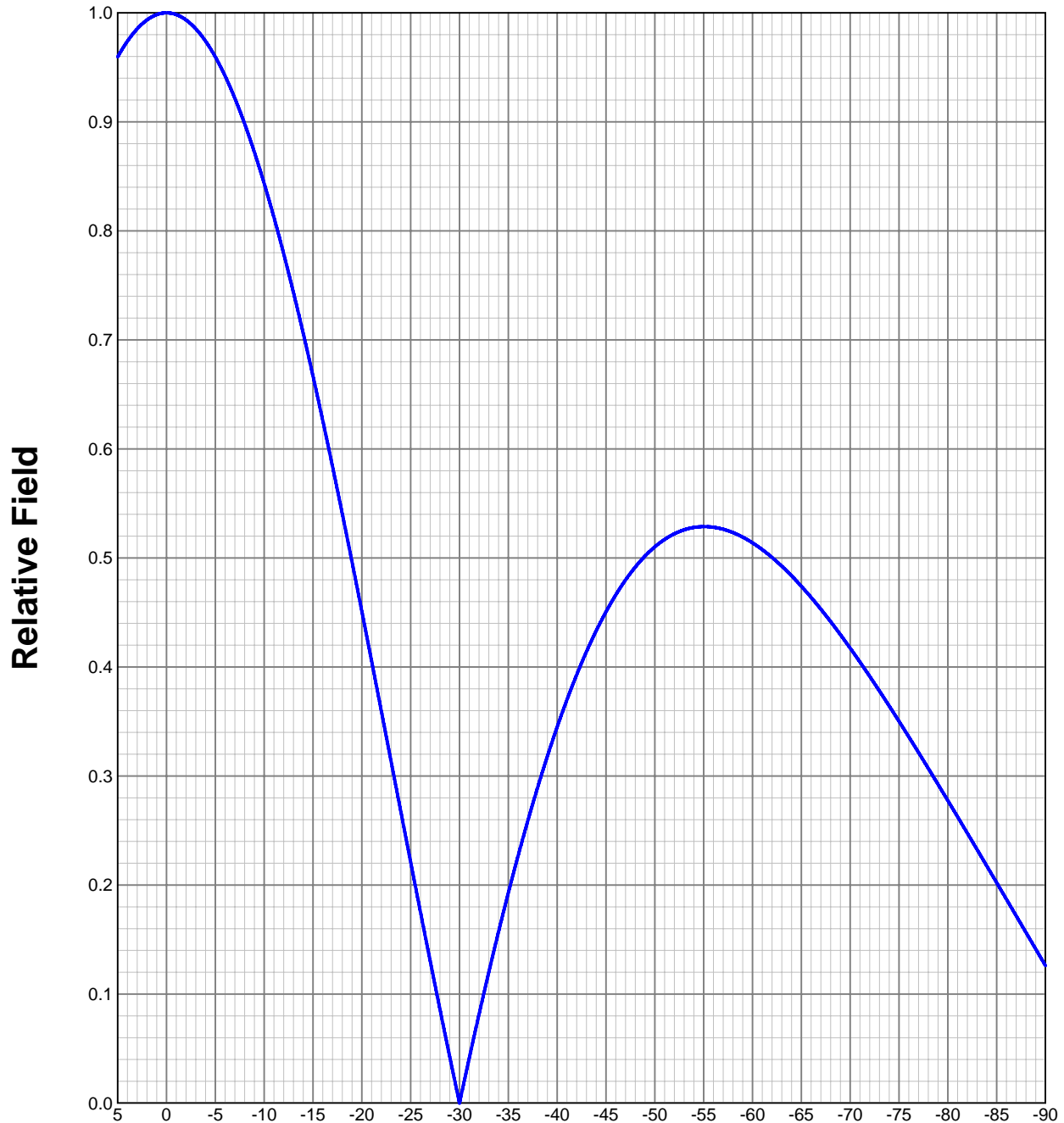
# Exhibit 12.6 - Copy of Proposed Antenna Data From Antenna Manufacturer

1105-2

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## ELEVATION PATTERN

Type:	11052F		Channel:	250
Directivity:	Numeric	dBd	Location:	
Main Lobe:	1.00	-0.01	Beam Tilt:	0.00
Horizontal:	1.00	-0.01	Polarization:	Circular



# Exhibit 12.6 - Copy of Proposed Antenna Data From Antenna Manufacturer

1105-2

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## TABULATED DATA FOR ELEVATION PATTERN

Type: 11052F

Polarization: Circular

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB
5.00	0.960	-0.36	-6.75	0.927	-0.66	-27.00	0.130	-17.70	-50.50
4.75	0.963	-0.32	-7.00	0.922	-0.71	-27.50	0.108	-19.33	-51.00
4.50	0.967	-0.29	-7.25	0.916	-0.76	-28.00	0.086	-21.31	-51.50
4.25	0.971	-0.26	-7.50	0.910	-0.82	-28.50	0.064	-23.86	-52.00
4.00	0.974	-0.23	-7.75	0.904	-0.87	-29.00	0.042	-27.44	-52.50
3.75	0.977	-0.20	-8.00	0.898	-0.93	-29.50	0.021	-33.51	-53.00
3.50	0.980	-0.17	-8.25	0.892	-0.99	-30.00	0.000	-373.34	-53.50
3.25	0.983	-0.15	-8.50	0.886	-1.06	-30.50	0.021	-33.63	-54.00
3.00	0.985	-0.13	-8.75	0.879	-1.12	-31.00	0.041	-27.67	-54.50
2.75	0.988	-0.11	-9.00	0.872	-1.19	-31.50	0.062	-24.22	-55.00
2.50	0.990	-0.09	-9.25	0.865	-1.26	-32.00	0.081	-21.79	-55.50
2.25	0.992	-0.07	-9.50	0.858	-1.33	-32.50	0.101	-19.92	-56.00
2.00	0.993	-0.06	-9.75	0.851	-1.40	-33.00	0.120	-18.41	-56.50
1.75	0.995	-0.04	-10.00	0.844	-1.48	-33.50	0.139	-17.15	-57.00
1.50	0.996	-0.03	-10.50	0.828	-1.64	-34.00	0.157	-16.07	-57.50
1.25	0.997	-0.02	-11.00	0.812	-1.80	-34.50	0.175	-15.13	-58.00
1.00	0.998	-0.01	-11.50	0.796	-1.98	-35.00	0.193	-14.29	-58.50
0.75	0.999	-0.01	-12.00	0.779	-2.17	-35.50	0.210	-13.55	-59.00
0.50	1.000	0.00	-12.50	0.761	-2.37	-36.00	0.227	-12.89	-59.50
0.25	1.000	0.00	-13.00	0.743	-2.57	-36.50	0.243	-12.28	-60.00
0.00	1.000	0.00	-13.50	0.725	-2.79	-37.00	0.259	-11.73	-60.50
-0.25	1.000	0.00	-14.00	0.706	-3.02	-37.50	0.275	-11.23	-61.00
-0.50	1.000	0.00	-14.50	0.687	-3.27	-38.00	0.290	-10.77	-61.50
-0.75	0.999	-0.01	-15.00	0.667	-3.52	-38.50	0.304	-10.34	-62.00
-1.00	0.998	-0.01	-15.50	0.647	-3.79	-39.00	0.318	-9.95	-62.50
-1.25	0.997	-0.02	-16.00	0.626	-4.07	-39.50	0.332	-9.58	-63.00
-1.50	0.996	-0.03	-16.50	0.605	-4.36	-40.00	0.345	-9.24	-63.50
-1.75	0.995	-0.04	-17.00	0.584	-4.67	-40.50	0.358	-8.93	-64.00
-2.00	0.993	-0.06	-17.50	0.562	-5.00	-41.00	0.370	-8.64	-64.50
-2.25	0.992	-0.07	-18.00	0.540	-5.34	-41.50	0.382	-8.37	-65.00
-2.50	0.990	-0.09	-18.50	0.518	-5.71	-42.00	0.393	-8.11	-65.50
-2.75	0.988	-0.11	-19.00	0.496	-6.09	-42.50	0.404	-7.88	-66.00
-3.00	0.985	-0.13	-19.50	0.474	-6.49	-43.00	0.414	-7.66	-66.50
-3.25	0.983	-0.15	-20.00	0.451	-6.91	-43.50	0.424	-7.45	-67.00
-3.50	0.980	-0.17	-20.50	0.428	-7.36	-44.00	0.433	-7.26	-67.50
-3.75	0.977	-0.20	-21.00	0.405	-7.84	-44.50	0.442	-7.09	-68.00
-4.00	0.974	-0.23	-21.50	0.382	-8.35	-45.00	0.451	-6.92	-68.50
-4.25	0.971	-0.26	-22.00	0.359	-8.89	-45.50	0.459	-6.77	-69.00
-4.50	0.967	-0.29	-22.50	0.336	-9.47	-46.00	0.466	-6.63	-69.50
-4.75	0.963	-0.32	-23.00	0.313	-10.08	-46.50	0.473	-6.50	-70.00
-5.00	0.960	-0.36	-23.50	0.290	-10.75	-47.00	0.480	-6.38	-70.50
-5.25	0.955	-0.40	-24.00	0.267	-11.47	-47.50	0.486	-6.27	-71.00
-5.50	0.951	-0.43	-24.50	0.244	-12.25	-48.00	0.492	-6.17	-71.50
-5.75	0.947	-0.48	-25.00	0.221	-13.11	-48.50	0.497	-6.07	-72.00
-6.00	0.942	-0.52	-25.50	0.198	-14.06	-49.00	0.502	-5.99	-72.50
-6.25	0.937	-0.56	-26.00	0.175	-15.12	-49.50	0.506	-5.91	-73.00
-6.50	0.932	-0.61	-26.50	0.153	-16.32	-50.00	0.510	-5.84	-73.50