

Exhibit 12.1 - Copy of Existing Antenna Structure Registration

Registration Detail

Reg Number	1035330	Status	Constructed
File Number	A0453030	Constructed	07/10/1991
FAA Study	97-AGL-4906-OE	EMI	No
FAA Issue Date	11/13/1997	NEPA	No

Antenna Structure

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

Location (in NAD83 Coordinates)

Lat/Long 42-54-46.0 N 097-18-59.0 W TWR 1 5 MILES NORTHEAST

City, State YANKTON , SD

Center of 42-54-46.0 N 097-18-57.0 W
AM Array

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
357.2	283.2
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
640.4	282.4

Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 13

Paint and Light in Accordance with FAA Circular Number 70/7460-1J

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Owner & Contact Information

FRN	0002750206	Licensee ID	L00074356
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Owner

Saga Communications, Inc.
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

P: (202)363-4050
E: gsmithwick@fccworld.com

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Last Action Status

Status	Constructed	Received	06/27/2005
Purpose	Admin Update	Entered	06/27/2005
Mode	Interactive		

Related Applications

06/27/2005	A0453030 - Admin Update (AU)
12/09/1997	A0041751 - New (NE)

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Comments

Comments

None



Exhibit 12.2

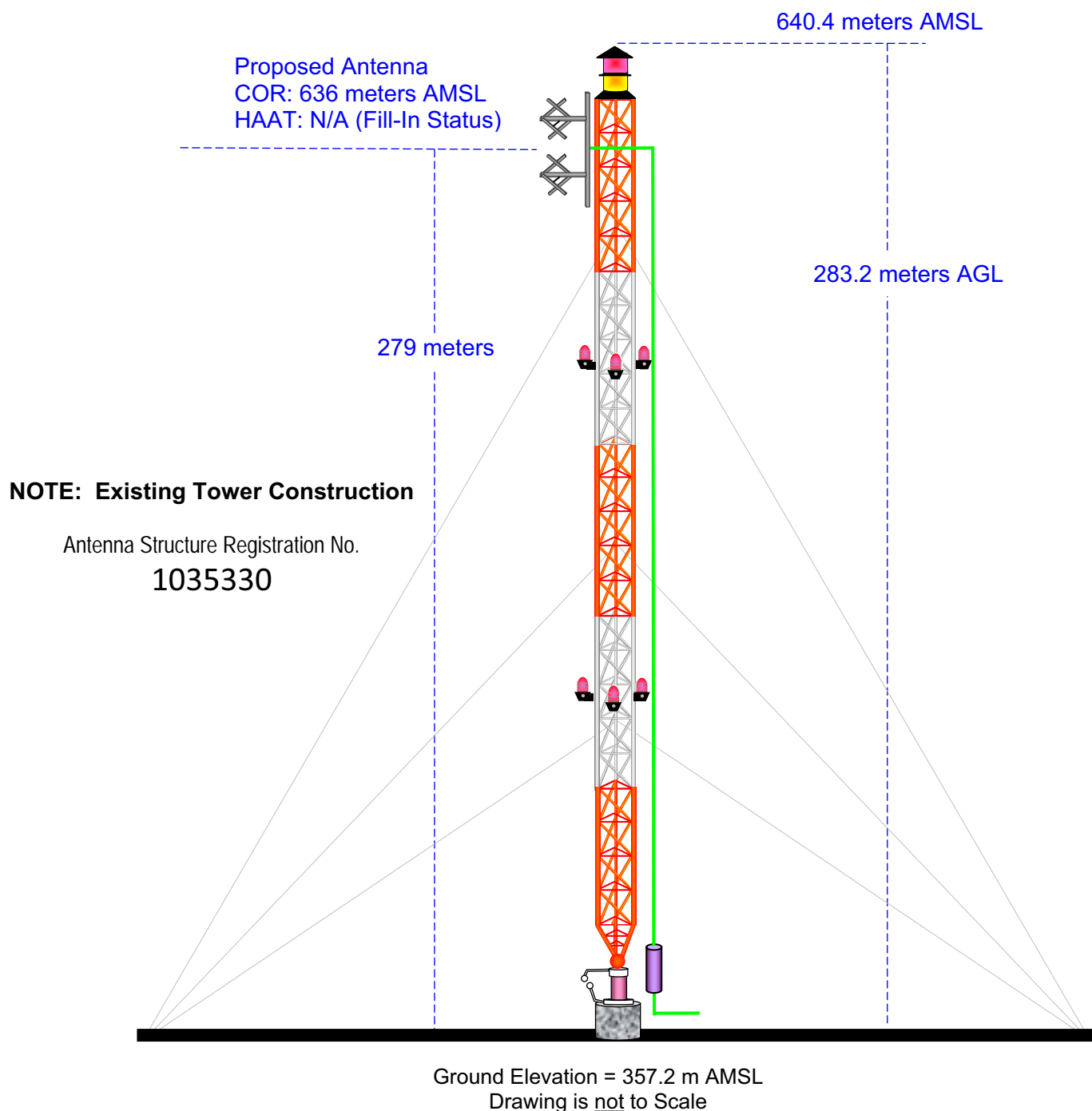
Vertical Plan of Antenna System

The site is located 5 miles northeast of the city of Yankton, Yankton County, South Dakota.

Site Location (NAD 27)

NL: 42° 54' 46"

WL: 97° 18' 58"



MUNN-REESE, INC.

Broadcast Engineering Consultants
Coldwater, MI 49036

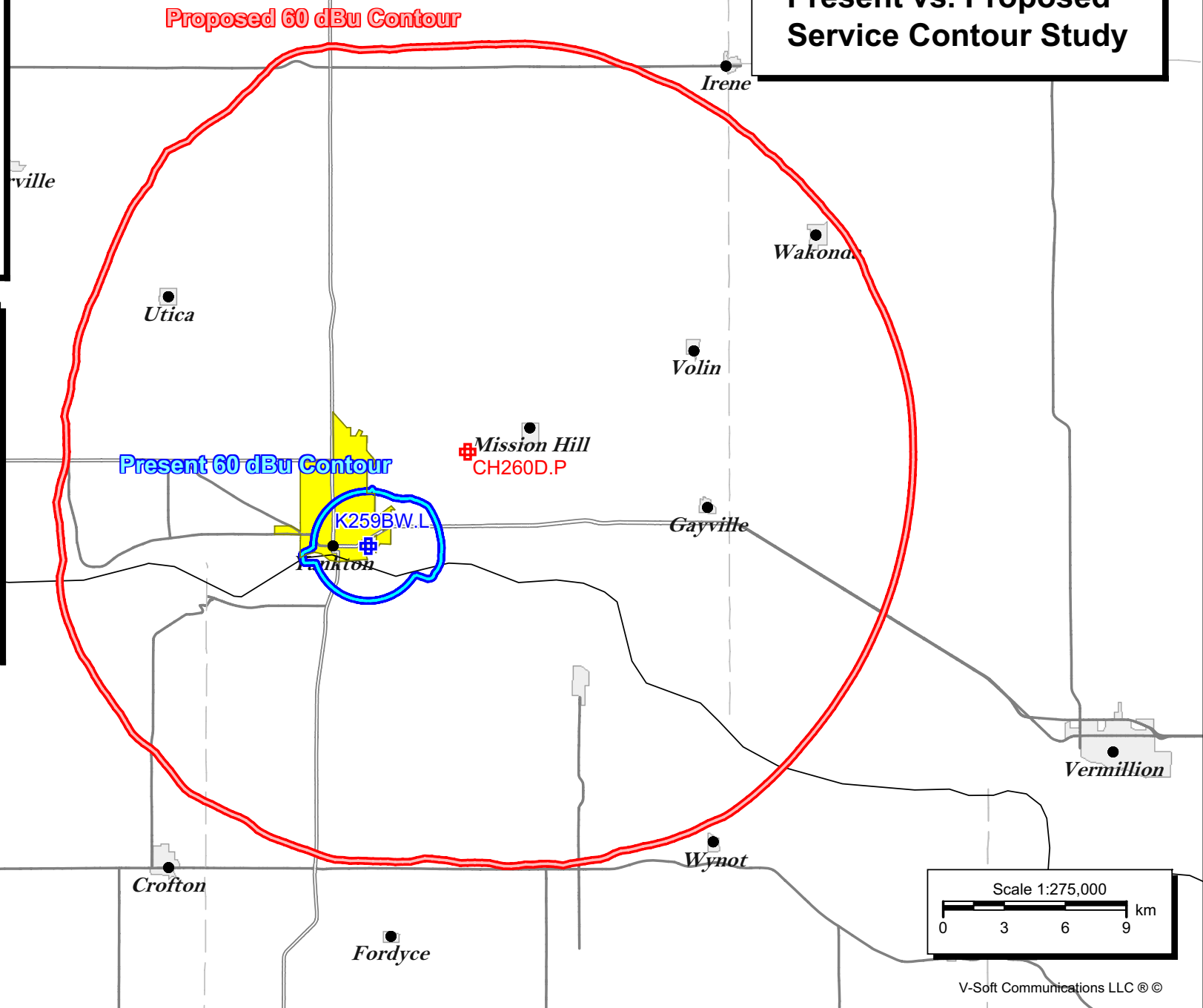
CH260D.P
Proposed Operation
Latitude: 42-54-46 N
Longitude: 097-18-58 W
ERP: 0.25 kW
Channel: 260
Frequency: 99.9 MHz
AMSL Height: 636.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model:

Proposed 60 dBu Contour
Total Population: 22,493
Total Area: 1377.80 sq. km

K259BW.L
BLFT-20090922ACV
Latitude: 42-52-16 N
Longitude: 097-22-33 W
ERP: 0.005 kW
Channel: 259
Frequency: 99.7 MHz
AMSL Height: 408.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model:

Proposed 60 dBu Contour
Total Population: 9,838
Total Area: 26.75 sq. km

Exhibit 12.3 Present vs. Proposed Service Contour Study



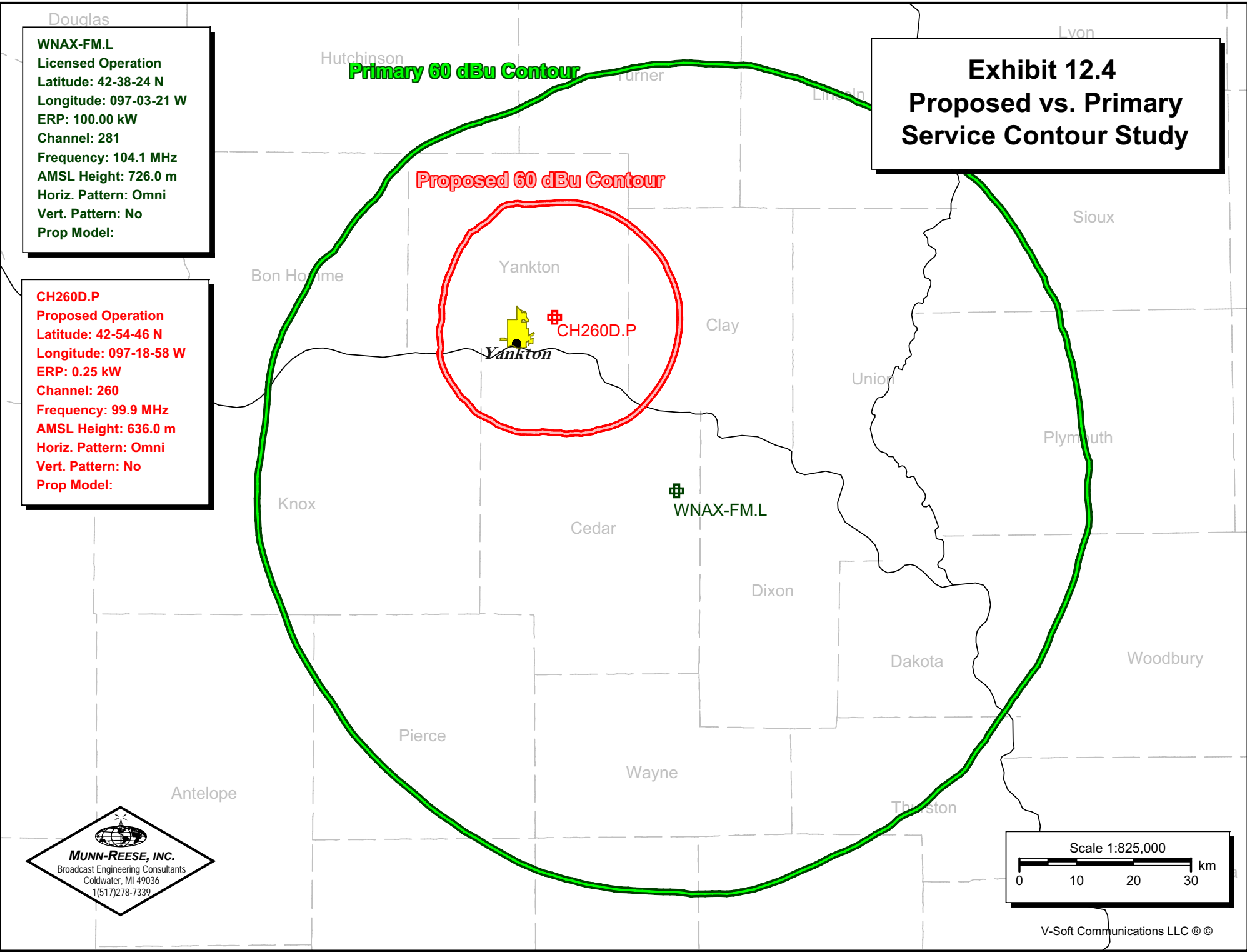


Exhibit 12.5

Tabulation of Proposed Allocation

Horizon Christian Fellowship

REFERENCE		CH# 260D - 99.9 MHz, Pwr= 0.25 kW, HAAT= 256.0 M, COR= 636 M								DISPLAY DATES	
42 54 46.0 N.		Average Protected F(50-50)= 20.91 km								DATA 09-08-09	
97 18 58.0 W.		Omni-directional								SEARCH 09-11-09	
CH CITY	CALL	TYPE STATE	ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
263C1 Salem	KIKN-FM	LIC SD	NCX	351.0 170.9	64.9 BLH20071113AIH	43 29 22.0 97 26 33.0	100.000 287	9.7 721	70.2 Cumulus Licensing Llc	35.1	-6.4*<
260C0 Omaha	KGOR	LIC NE	_C_	148.8 329.6	207.7 BLH20040630AAH	41 18 29.0 96 01 36.0	115.000 370	179.9 713	76.6 Capstar Tx Limited Partner	6.2	65.3
261C3 Brandon	R56384	ADD SD	___	40.3 220.8	100.0	43 35 45.0 96 30 50.0	25.000 100	64.6 540	42.7 Saga Communications Of Iow	14.7	26.6
Recon. filed 11/18/2002											
261A Brandon	KDEZ	LIC SD	NCX	43.0 223.5	92.5 BLH20071113AIJ	43 31 07.0 96 32 05.0	2.150 170	44.1 597	29.2 Cumulus Licensing Llc	27.7	32.5
258C1 Le Mars	KKMA	LIC IA	_CN	118.6 299.3	99.0 BLH19781206AE	42 28 56.0 96 15 30.0	100.000 241	8.8 613	66.4 Powell Broadcasting Compan	68.3	31.5
261A Brandon	R56384	DEL SD	___	39.8 220.4	100.0	43 36 02.0 96 31 15.0	6.000 100	47.6 540	31.1 Saga Communications Of Iow	31.7	38.3
Recon. filed 11/18/2002											
259C1 Marshall	KKCK	LIC MN	_CN	27.5 208.2	172.2 BLH19890627KB	44 16 56.0 96 19 05.0	100.000 282	103.6 827	71.1 Knhl Broadcasting Company	48.1	70.6
261D Sioux Falls	K261CI	LIC SD	_CN	35.4 215.9	87.8 BLFT19961202TH	43 33 14.0 96 41 05.0	0.100 58	10.2 499	7.1 Cumulus Licensing Llc	56.8	50.0
Translator for KIKN, Salem, SD-											
207C1 Norfolk	KXNE-FM	LIC NE	_C_	177.6 357.6	75.1 BMLED20030822AGC	42 14 15.0 97 16 41.0	45.000 300	107.9 816	32.9 Nebraska Educational Telec	21.5R	53.6M
257D Sioux Falls	634202	APP SD	_C_	32.2 212.6	83.5 BNPFT20030317AVK	43 32 47.1 96 45 48.8	0.250	1.1 486	7.3 Horizon Christian Fellowsh	61.7	75.1
262C Central City	KZEN	LIC NE	_CN	191.2 11.0	155.3 BLH19850726KH	41 32 28.0 97 40 45.0	100.000 562	13.1 1071	89.8 Three Eagles Of Columbus,	121.7	64.3
206A Sioux Falls	KAUR	LIC SD	_CN	34.2 214.6	82.8 BLED19870129KB	43 31 37.0 96 44 18.0	0.680 56	107.9 497	32.9 Augustana College Associat	9.5R	73.3M
206C3 Blue Earth	1219411	APP MN	_CX	10.5 190.7	85.3 BNPED20071016AHH	43 40 01.2 97 07 19.1	14.000 70	107.9 398	32.9 Minnesota Public Radio	11.5R	73.8M
206D Le Mars	K206ED	LIC IA	_C_	103.7 284.4	86.4 BLFT20090818AAU	42 43 28.0 96 17 29.0	0.110	107.9 462	32.9 Radio Assist Ministry, Inc	9.5R	76.9M

Terrain database is NED 03 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 = 2, 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.
 Reference station has protected zone issue: AM tower

Yellow highlighted text denotes a \$74.1204(d) Waiver Request for given third adjacent channel interference to KIKN-FM - Salem, SD. Full protection will be afforded the facility as the calculated interference area will not reach the ground or a 7 meter artificial plane representing a standard two story building when taking into account the downward radiation characteristics of the antenna as supplied by the antenna manufacturer. A copy of the downward radiation study and antenna manufacturer specifications has been included in **Exhibit 12.6**.

KIKN-FM.L
BLH20071113AIH
Latitude: 43-29-22 N
Longitude: 097-26-33 W
ERP: 100.00 kW
Channel: 263
Frequency: 100.5 MHz
AMSL Height: 721.0 m
Horiz. Pattern: Omni

KIKN-FM.L

Exhibit 12.6

§74.1204(d) Waiver Request Toward KIKN-FM.L - Salem, SD

Proposed Antenna: BKG77/2 Two Bay 0.9 λ Spaced
Proposed Power: 0.25 kW
Antenna Height AGL: 279 meters
Interference Contour: 101.5 dBu f(50:10)
Artificial Ground Plane Height: 7 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 Angle	Antenna	ERP	ERP	Distance from Ant. to Interference Contour	Distance from Ant. to Artificial Plane	Field Strength in dBu @ Artificial Plane	Distance from Ant. to Ground Level	Field Strength in dBu @ Ground Level
Below Horizon	Relative Field	in kW	in dBk					
0°	1.000	0.250	-6.02	933.19 m	infinite	---	---	---
-5°	0.970	0.235	-6.29	905.19 m	3120.85 m	90.75 dBu	3201.17 m	90.53 dBu
-10°	0.885	0.196	-7.08	825.87 m	1566.39 m	95.94 dBu	1606.70 m	95.72 dBu
-15°	0.743	0.138	-8.60	693.36 m	1050.93 m	97.89 dBu	1077.97 m	97.67 dBu
-20°	0.568	0.081	-10.93	530.05 m	795.27 m	97.98 dBu	815.74 m	97.76 dBu
-25°	0.377	0.036	-14.49	351.81 m	643.61 m	96.25 dBu	660.17 m	96.03 dBu
-30°	0.189	0.009	-20.49	176.37 m	544.00 m	91.72 dBu	558.00 m	91.50 dBu
-35°	0.018	0.000	-40.92	16.80 m	474.22 m	72.49 dBu	486.42 m	72.26 dBu
-40°	0.123	0.004	-24.22	114.78 m	423.16 m	90.17 dBu	434.05 m	89.95 dBu
-45°	0.226	0.013	-18.94	210.90 m	384.67 m	96.28 dBu	394.57 m	96.06 dBu
-50°	0.290	0.021	-16.77	270.63 m	355.07 m	99.14 dBu	364.21 m	98.92 dBu
-55°	0.321	0.026	-15.89	299.55 m	332.05 m	100.61 dBu	340.60 m	100.38 dBu
-60°	0.321	0.026	-15.89	299.55 m	314.08 m	101.09 dBu	322.16 m	100.87 dBu
-65°	0.299	0.022	-16.51	279.02 m	300.12 m	100.87 dBu	307.84 m	100.65 dBu
-70°	0.261	0.017	-17.69	243.56 m	289.46 m	100.00 dBu	296.91 m	99.78 dBu
-75°	0.217	0.012	-19.29	202.50 m	281.60 m	98.64 dBu	288.84 m	98.42 dBu
-80°	0.171	0.007	-21.36	159.58 m	276.20 m	96.73 dBu	283.30 m	96.51 dBu
-85°	0.138	0.005	-23.22	128.78 m	273.04 m	94.97 dBu	280.07 m	94.75 dBu
-90°	0.124	0.004	-24.15	115.72 m	272.00 m	94.08 dBu	279.00 m	93.86 dBu

CH260D.P
Proposed Operation
Latitude: 42-54-46 N
Longitude: 097-18-58 W
ERP: 0.25 kW
Channel: 260
Frequency: 99.9 MHz
AMSL Height: 636.0 m
Horiz. Pattern: Omni

101.5 dBu f(50:10)
CH260D.P

61.5 dBu f(50:50)

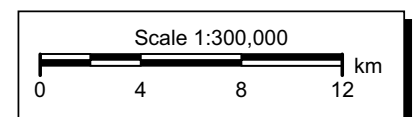
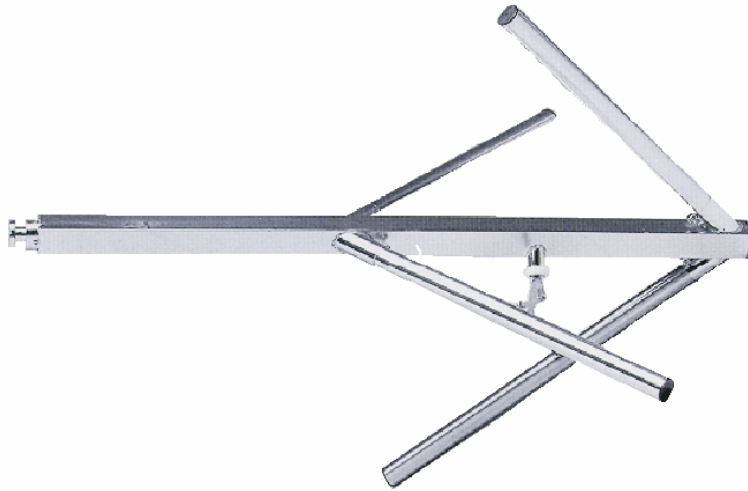


Exhibit 12.6

Manufacturer's Vertical Antenna Pattern Data



NICOM
BKG77

Medium Power

**Broadband
FM Circular
Polarization
Antenna
Antena de
FM Banda Ancha
Polarizacion Circular**

This antenna, constructed completely of stainless steel, offers circular polarization for better coverage especially in urban areas. In order to facilitate and decrease shipping costs, this model is simple to break down and reassemble when ready to be installed. It is insulated with Teflon, and with the appropriate connector has a maximum input of 2 kw.

Esta antena, fabricada completamente de acero inoxidable, le ofrece polarización circular para mejor alcance, especialmente en zonas urbanas. Para facilitar y disminuir los costos de transportación, este modelo es fácil de desarmar y volver a montar tan pronto que la quiera instalar. Está aislada con Teflon, y con el conector apropiado tiene una entrada máxima de 2 kw.



TECHNICAL SPECIFICATIONS

Antenna type	circular polarization dipole	Front-to-back ratio	3 dB
Frequency range	87.5 - 108 MHz	Lightening protection	all parts grounded
Bandwidth	16 MHz	Max wind velocity	119 mph (190 km/h)
Impedance	50 ohms	Wind load	53 Lbs (24 kg)
Connectors	N type (1 kw) - 7/8 type (2 kw)	Wind surface	1.1 ft ² (0.10 m ²)
Power rating	2000 Watts max	Materials (external)	stainless steel
VSWR	< 1.3	Mounting	from 2" to 4"
Polarization	vertical and horizontal	Weight	23.1 Lbs (10.5 kg)
Gain	- 3 dBd (referred to half-wave dipole)	Dimensions	58"×32"×32" (1450×800×800mm)
H plane	omnidirectional ±1.5 dB (with a 4" mast)	Packing	72"×6"×6" (1500×152×152mm)
V plane	omnidirectional ±3 dB (with a 4" mast)		

Exhibit 12.6
Manufacturer's Vertical Antenna Pattern Data

Plot of Vertical Radiation Pattern

Manufacturer: NicomUSA, Inc.
Make/Model: BKG77/2
Polarization: Circular
Inter Bay Spacing: 0.9λ (Wavelength)
Antenna Gain: -0.1 dBd

Frequency: 87.5 MHz - 108.0 MHz
Weight: 14 kg
Max Power: 5.0 kW
Return Loss: -27.1 dB
R.C. Phase: -89°

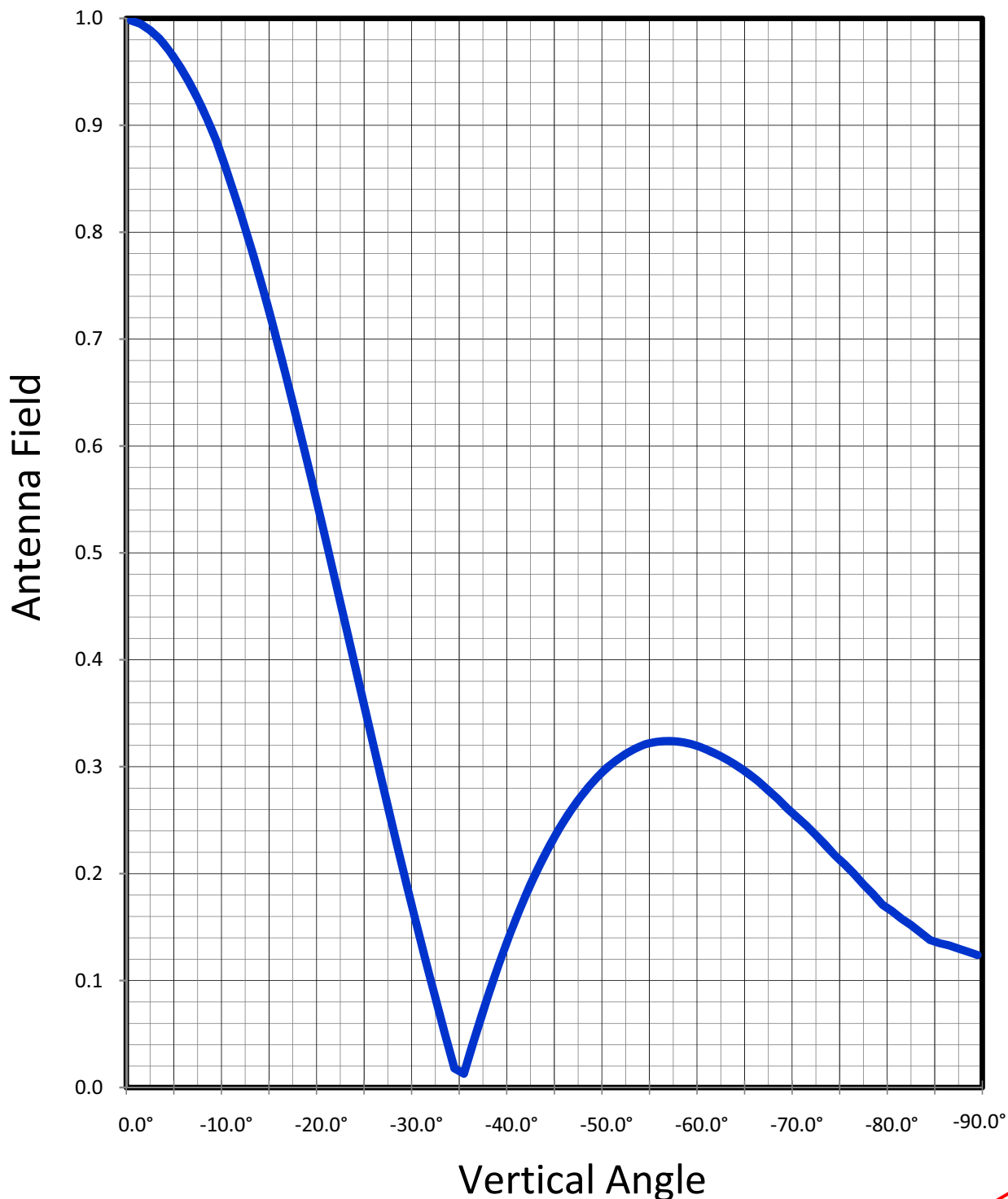


Exhibit 12.6

Manufacturer's Vertical Antenna Pattern Data

Tabulation of Vertical Radiation Pattern

Manufacturer: NicomUSA, Inc.

Frequency: 87.5 MHz - 108.0 MHz

Make/Model: BKG77/2

Weight: 14 Kg

Polarization: Circular

Max Power: 5 kW

Inter Bay Spacing: 0.9 λ (Wavelength)

Return Loss: -27.1 dB

Antenna Gain: -0.1 dBd

R.C. Phase: -89°

Vertical Azimuth	Field (%)	dB	Vertical Azimuth	Field (%)	dB	Vertical Azimuth	Field (%)	dB
0.0°	1.000	0.00	-30.0°	0.189	-7.24	-60.0°	0.321	-4.93
-1.0°	0.998	-0.01	-31.0°	0.153	-8.15	-61.0°	0.318	-4.98
-2.0°	0.995	-0.02	-32.0°	0.118	-9.28	-62.0°	0.314	-5.03
-3.0°	0.989	-0.05	-33.0°	0.083	-10.81	-63.0°	0.310	-5.09
-4.0°	0.981	-0.08	-34.0°	0.050	-13.01	-64.0°	0.305	-5.16
-5.0°	0.970	-0.13	-35.0°	0.018	-17.45	-65.0°	0.299	-5.24
-6.0°	0.957	-0.19	-36.0°	0.013	-18.86	-66.0°	0.293	-5.33
-7.0°	0.942	-0.26	-37.0°	0.043	-13.67	-67.0°	0.286	-5.44
-8.0°	0.925	-0.34	-38.0°	0.071	-11.49	-68.0°	0.278	-5.56
-9.0°	0.906	-0.43	-39.0°	0.098	-10.09	-69.0°	0.270	-5.69
-10.0°	0.885	-0.53	-40.0°	0.123	-9.10	-70.0°	0.261	-5.83
-11.0°	0.859	-0.66	-41.0°	0.147	-8.33	-71.0°	0.253	-5.97
-12.0°	0.832	-0.80	-42.0°	0.169	-7.72	-72.0°	0.245	-6.11
-13.0°	0.804	-0.95	-43.0°	0.190	-7.21	-73.0°	0.236	-6.27
-14.0°	0.774	-1.11	-44.0°	0.209	-6.80	-74.0°	0.227	-6.44
-15.0°	0.743	-1.29	-45.0°	0.226	-6.46	-75.0°	0.217	-6.64
-16.0°	0.710	-1.49	-46.0°	0.242	-6.16	-76.0°	0.209	-6.80
-17.0°	0.676	-1.70	-47.0°	0.256	-5.92	-77.0°	0.200	-6.99
-18.0°	0.640	-1.94	-48.0°	0.269	-5.70	-78.0°	0.190	-7.21
-19.0°	0.605	-2.18	-49.0°	0.280	-5.53	-79.0°	0.181	-7.42
-20.0°	0.568	-2.46	-50.0°	0.290	-5.38	-80.0°	0.171	-7.67
-21.0°	0.530	-2.76	-51.0°	0.299	-5.24	-81.0°	0.165	-7.83
-22.0°	0.492	-3.08	-52.0°	0.306	-5.14	-82.0°	0.158	-8.01
-23.0°	0.454	-3.43	-53.0°	0.312	-5.06	-83.0°	0.152	-8.18
-24.0°	0.415	-3.82	-54.0°	0.317	-4.99	-84.0°	0.145	-8.39
-25.0°	0.377	-4.24	-55.0°	0.321	-4.93	-85.0°	0.138	-8.60
-26.0°	0.339	-4.70	-56.0°	0.323	-4.91	-86.0°	0.135	-8.70
-27.0°	0.301	-5.21	-57.0°	0.324	-4.89	-87.0°	0.133	-8.76
-28.0°	0.263	-5.80	-58.0°	0.324	-4.89	-88.0°	0.130	-8.86
-29.0°	0.226	-6.46	-59.0°	0.323	-4.91	-89.0°	0.127	-8.96
						-90.0°	0.124	-9.07

