

**Exhibit 13.1 - Copy of Existing
Antenna Structure Registration****Registration Detail**

Reg Number	1015278	Status	Constructed
File Number	A0452797	Constructed	09/30/2003
FAA Study	2003-ACE-1361-OE	EMI	No
FAA Issue Date	07/14/2003	NEPA	No

Antenna Structure

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

Location (in NAD83 Coordinates)

Lat/Long 41-48-01.0 N 093-36-28.0 W .4 MI W OF US 69 .4 MI S OF NE 134TH AVE

City, State ALLEMAN , IA

Center of
AM Array**Heights (meters)**

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
295.7	450.8
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
746.5	450.8

Painting and Lighting Specifications

FCC Paragraphs A1, B, F, H

Owner & Contact Information

FRN	0003576667	Licensee ID	L00074326
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Owner

Saga Communications of Iowa, 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
 5028 Wisconsin Avenue NW, Suite 301
 Washington , DC 20016

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

Last Action Status

Status	Constructed	Received	06/22/2005
Purpose	Admin Update	Entered	06/22/2005
Mode	Interactive		

Related Applications

06/22/2005	A0452797 - Admin Update (AU)
09/30/2003	A0345394 - Notification (NT)
07/22/2003	A0335348 - Modification (MD)
	Related applications (6)

Comments

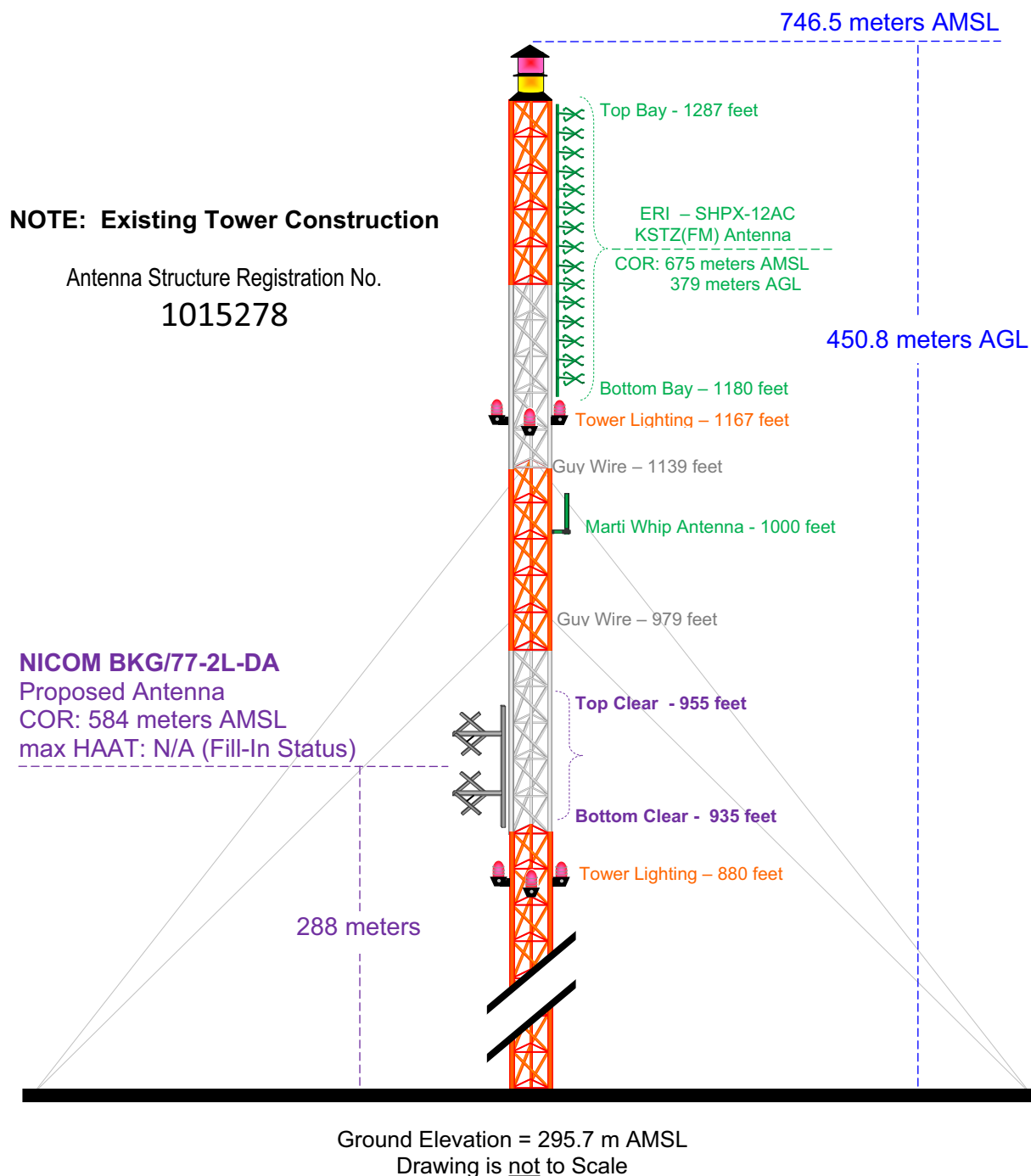
Exhibit 13.2

Vertical Plan of Antenna System

The site is located 0.4 miles west of US 69 &
0.4 miles south of NE 134th Ave
the city of Alleman Polk County, Iowa.

Site Location (NAD 27)

NL: 41° 48' 01"
WL: 93° 36' 27"



K260AM.L
BLFT20070223AHE
Latitude: 42-01-20 N
Longitude: 093-34-53 W
ERP: 0.0025 kW
Channel: 260
Frequency: 99.9 MHz
AMSL Height: 344.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

60 dBu Contour
Total Population: 2,577
Total Area: 24.03 sq. km

K260AM.P
Proposed Operation
Latitude: 41-48-01 N
Longitude: 093-36-27 W
ERP: 0.25 kW
Channel: 260
Frequency: 99.9 MHz
AMSL Height: 584.0 m
Horiz. Pattern: Directional
Vert. Pattern: No

60 dBu Contour
Total Population: 144,758
Total Area: 1380.86 sq. km

Exhibit 13.3 Present vs Proposed Service Contour Study

Boone

Ames

K260AM.L

Nevada

Present 60 dBu Contour

Proposed 60 dbu Contour

K260AM.P

Ankeny

Johnston

Polk

Altoona

Urbandale

Clive

Des Moines

West Des Moines

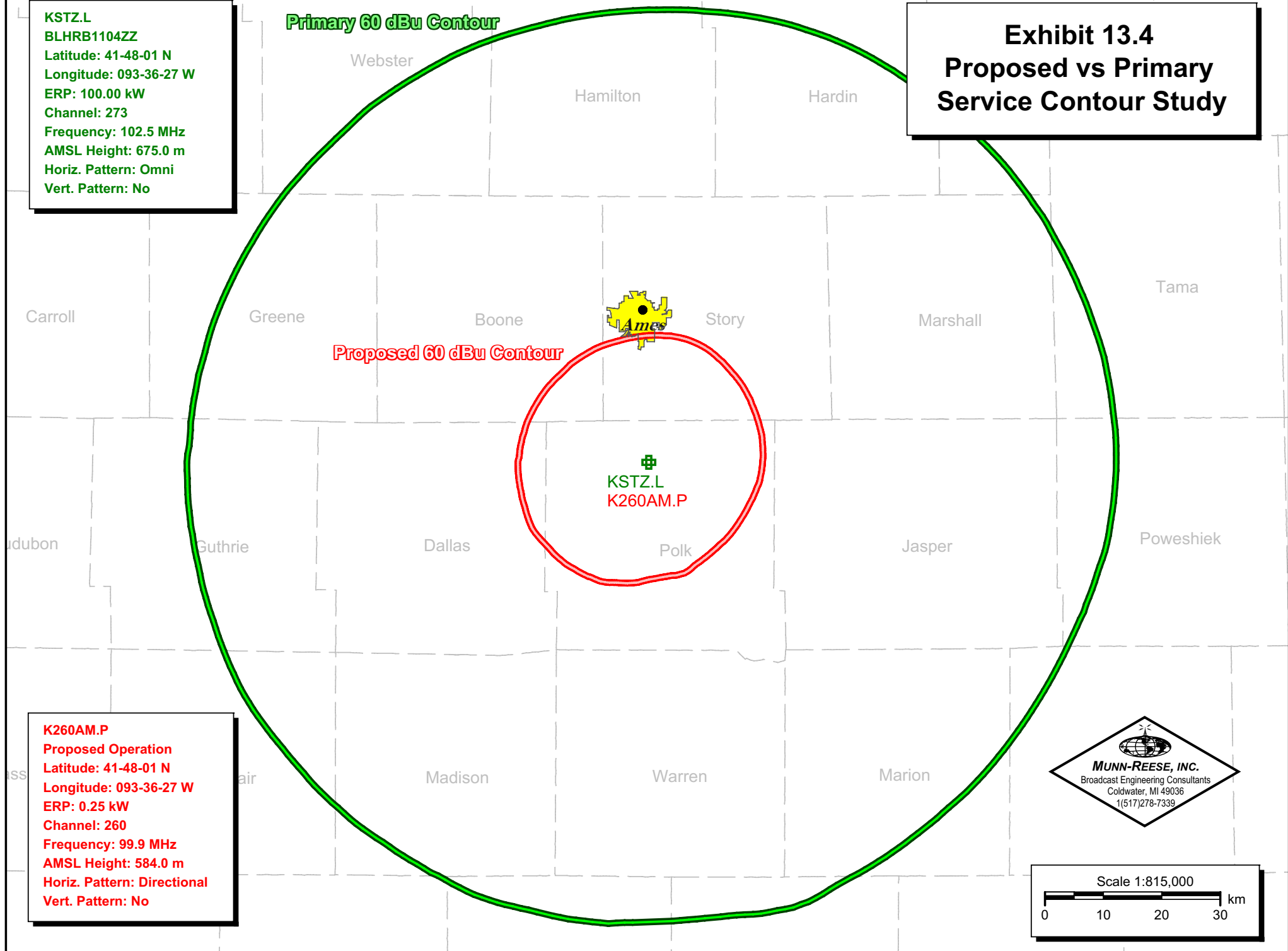
Scale 1:281,250

0 3 6 9 km

KSTZ.L
BLHRB1104ZZ
Latitude: 41-48-01 N
Longitude: 093-36-27 W
ERP: 100.00 kW
Channel: 273
Frequency: 102.5 MHz
AMSL Height: 675.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

Primary 60 dBu Contour

Exhibit 13.4 Proposed vs Primary Service Contour Study



K260AM.P
Proposed Operation
Latitude: 41-48-01 N
Longitude: 093-36-27 W
ERP: 0.25 kW
Channel: 260
Frequency: 99.9 MHz
AMSL Height: 584.0 m
Horiz. Pattern: Directional
Vert. Pattern: No

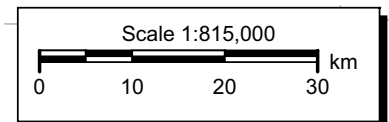


Exhibit 13.5

Tabulation of Proposed Allocation

Saga Communications Of Iowa, Llc

REFERENCE		CH# 260D - 99.9 MHz, Pwr= 0.25 kw DA, HAAT= 293.6 M, COR= 584 M								DISPLAY DATES	
41 48 01.0 N.		Average Protected F(50-50)= 7.09 km								DATA 07-31-10	
93 36 27.0 W.		Standard Directional								SEARCH 08-05-10	
CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR(kw)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
260D	K260AM	LIC	_C_	5.0	24.7	42 01 20.0	0.003	9.8	3.1	-6.8<	-44.3<
Ames		IA		185.0	BLFT20070223AHE	93 34 53.0		344	Saga Communications Of Iow		
260D	K260AM	CP	DC_	0.0	0.0	41 48 01.0	0.250	65.8	21.7	-87.5*<	-87.5*<
Ames		IA		0.0	BPFT20090922ADA	93 36 27.0		584	Saga Communications Of Iow		
262C	KDRB	LIC	_CX	349.4	3.4	41 49 48.0	100.000	13.0	89.5	-31.1*<	-87.3*<
Des Moines		IA		169.3	BLH20050323ACG	93 36 54.0	547	837	Citicasters Licenses, Inc.		
260C3	KCWN	LIC	_CN	125.7	96.2	41 17 32.0	25.000	108.8	33.9	-31.1*<	3.8
New Sharon		IA		306.3	BLH19951025KA	92 40 24.0	86	324	Crown Broadcasting Company		
257A	KTIA-FM	APP	NCX	176.0	13.5	41 40 45.0	6.000	2.4	23.6	-8.7*<	-11.0*<
Johnston		IA		356.0	BPH20100126AGR	93 35 46.0	88	362	Truth Broadcasting Corpora		
One Step Application											
257A	KTIA-FM	RSV	___	207.8	16.0	41 40 22.0	6.000	2.5	25.8	-8.6*<	-10.8*<
Johnston		IA		27.7		93 41 51.0	100	370	Truth Broadcasting Corpora		
One Step Application											
260C0	KGOR	LIC	_C_	255.6	209.1	41 18 29.0	115.000	185.0	80.2	1.7	61.1
Omaha		NE		74.0	BLH20040630AAH	96 01 36.0	370	713	Capstar Tx Llc		
207C3	KJMC	LIC	_CX	177.0	16.1	41 39 21.0	7.100	0.0	0.0	11.5R	4.6M
Des Moines		IA		357.0	BLED20040512AAD	93 35 51.0	61	331	Minority Communications, I		
257A	KTIA-FM	LIC	_CX	319.0	36.6	42 02 55.0	5.200	2.6	26.8	12.7	8.8
Boone		IA		138.8	BMLH20060823AAD	93 53 54.0	107	430	Truth Broadcasting Corpora		
260C1	KAUS-FM	LIC	_CN	10.2	206.5	43 37 42.0	100.000	170.1	70.8	14.5	69.3
Austin		MN		190.5	BLH4037	93 09 12.0	283	660	Three Eagles Of Luverne, I		
206D	K206AW	LIC	DVN	5.0	24.7	42 01 20.0	0.250	0.0	0.0	9.5R	15.2M
Ames		IA		185.0	BLFT19930629TC	93 34 53.0	49	344	Family Stations, Inc.		
Translator for KDFR, Des Moines, IA- Vertical polarization only											
258A	KPUL	LIC	_CN	210.1	51.3	41 24 02.0	6.000	2.9	29.9	26.3	20.3
Winterset		IA		29.9	BLH19920602KA	93 54 58.0	100	396	Positive Impact Media, Inc		
258A	R13803	DEL	___	210.1	51.3	41 24 02.0	6.000	2.9	29.9	26.3	20.4
Winterset		IA		29.9		93 54 58.0	100	396	Truth Broadcasting Corpora		
Involuntary channel substitution per BPH-20100126AGR - to Channel 269A											

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.
 "<" = Contour Overlap

Yellow highlighted text denotes a §74.1204(d) Second Adjacent Channel Given Interference Waiver Request toward KDRB(FM), Des Moines, IA as included in **Exhibit 12.7**. Full protection will be afforded the facility as the proposed interference area is void of population, housing or major roads as noted in the attached exhibit.

Blue highlighted text denotes contour protection maps and tabulations toward KCWN(FM), New Sharon, IA as included in **Exhibit 12.6**. The applicant would like to note the use of the NED 03 second terrain database for all allocation protection and contour showings.

Pink highlighted text denotes a pending application or reservation filings which do not need require protection by Translator Form 349 filings such as this.

Exhibit 13.6 - Contour Protection Studies Toward KCWN.L - New Sharon, IA

FMCommander Single Allocation Study - 09-15-2009 - NED 03 SEC
K260AM's Overlaps (In= -31.05 km, Out= 3.91 km)

K260AM CH 260 D DA
Lat= 41 48 01.0, Lng= 93 36 27.0
0.25 kW 293.9 M HAAT, 584 M COR
Prot.= 60 dBu, Intef.= 40 dBu

KCWN CH 260 C3 BLH19951025KA
Lat= 41 17 32.0, Lng= 92 40 24.0
25.0 kW 86 M HAAT, 324 M COR
Prot.= 60 dBu, Intef.= 40 dBu

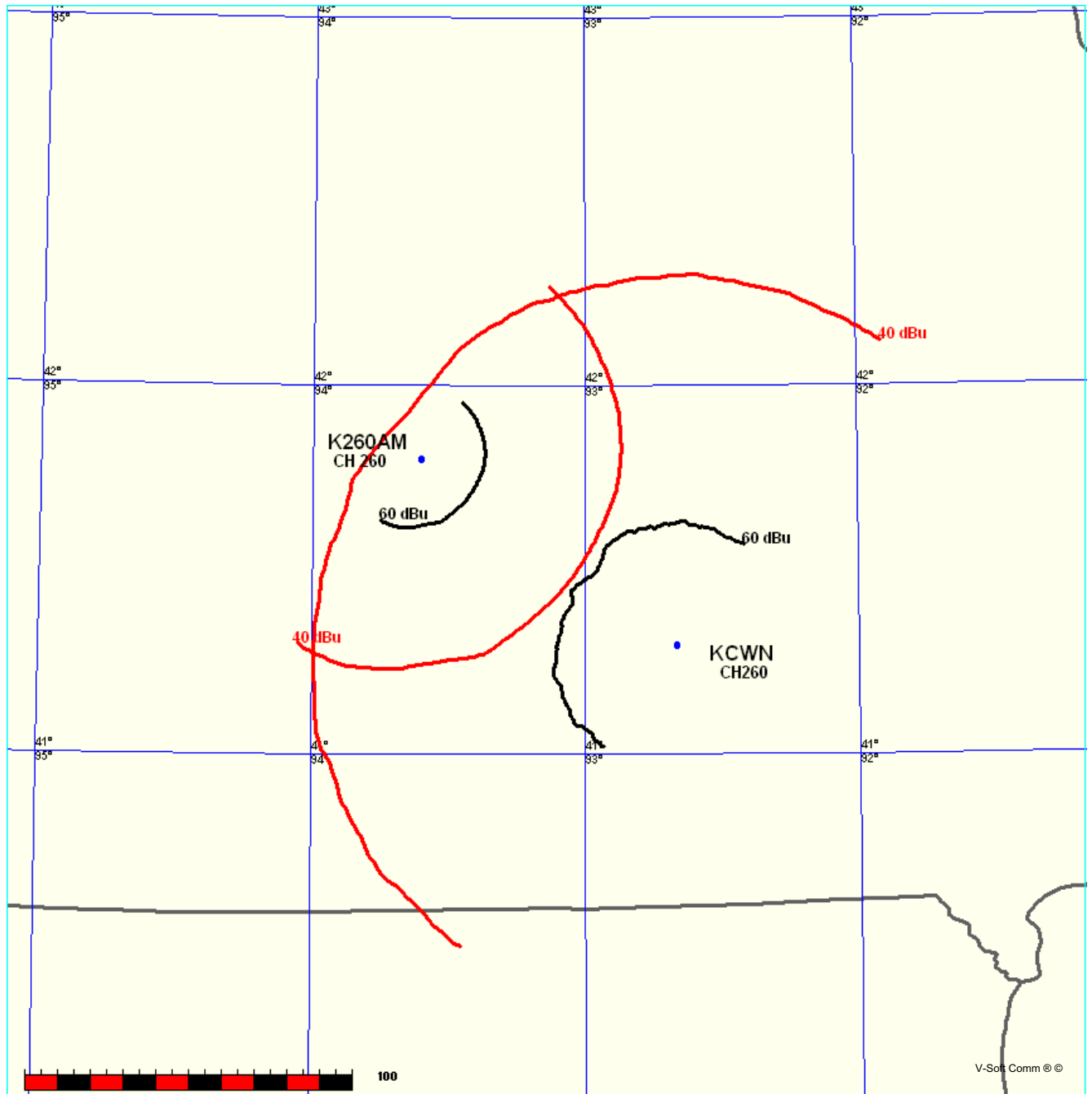


Exhibit 13.6 - Contour Protection Studies oward KCWN.L - New Sharon, IA

09-15-2009

NED 03 SEC Terrain Data

FMOver Analysis

K260AM

Channel = 260D

Max ERP = 0.25 kW

RCAMSL = 584 M

N. Lat. 41 48 01.0

W. Lng. 93 36 27.0

Protected

60 dBu

KCWN BLH19951025KA

Channel = 260C3

Max ERP = 25 kW

RCAMSL = 324 M

N. Lat. 41 17 32.0

W. Lng. 92 40 24.0

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
081.0	000.1332	0310.7	019.7	315.8	025.0000	0073.0	083.4	45.78**	25.43
082.0	000.1324	0310.9	019.7	315.7	025.0000	0073.2	083.1	45.85**	25.72
083.0	000.1316	0310.8	019.7	315.5	025.0000	0073.2	082.8	45.92**	25.98
084.0	000.1308	0310.8	019.6	315.4	025.0000	0072.9	082.6	45.97**	26.18
085.0	000.1300	0311.2	019.6	315.2	025.0000	0072.5	082.3	46.02**	26.36
086.0	000.1292	0312.0	019.6	315.0	025.0000	0072.1	082.1	46.06**	26.54
087.0	000.1284	0312.0	019.6	314.9	025.0000	0071.8	081.8	46.11**	26.71
088.0	000.1276	0312.0	019.5	314.7	025.0000	0071.7	081.6	46.16**	26.93
089.0	000.1268	0311.7	019.5	314.5	025.0000	0071.5	081.4	46.21**	27.11
090.0	000.1260	0311.5	019.5	314.3	025.0000	0071.2	081.2	46.25**	27.27
091.0	000.1258	0311.4	019.5	314.1	025.0000	0070.9	081.0	46.29**	27.43
092.0	000.1255	0310.8	019.4	313.9	025.0000	0070.6	080.8	46.33**	27.59
093.0	000.1253	0310.1	019.4	313.7	025.0000	0070.4	080.6	46.37**	27.75
094.0	000.1250	0309.6	019.4	313.6	025.0000	0070.4	080.4	46.42**	27.94
095.0	000.1248	0309.2	019.3	313.4	025.0000	0070.2	080.2	46.46**	28.10
096.0	000.1245	0308.5	019.3	313.1	025.0000	0070.0	080.0	46.49**	28.23
097.0	000.1243	0307.7	019.3	312.9	025.0000	0069.9	079.8	46.53**	28.40
098.0	000.1240	0307.4	019.3	312.7	025.0000	0070.0	079.6	46.58**	28.58
099.0	000.1238	0307.2	019.2	312.5	025.0000	0070.0	079.5	46.63**	28.76
100.0	000.1236	0306.4	019.2	312.3	025.0000	0069.7	079.3	46.65**	28.87
101.0	000.1236	0305.4	019.2	312.1	025.0000	0069.4	079.2	46.67**	28.94
102.0	000.1236	0303.2	019.1	311.8	025.0000	0069.2	079.1	46.69**	29.01
103.0	000.1236	0300.7	019.0	311.6	025.0000	0069.0	079.0	46.70**	29.07
104.0	000.1236	0299.2	019.0	311.4	025.0000	0068.9	078.9	46.73**	29.17
105.0	000.1236	0298.1	018.9	311.2	025.0000	0068.9	078.8	46.75**	29.28
106.0	000.1236	0297.0	018.9	310.9	025.0000	0068.9	078.6	46.78**	29.39
107.0	000.1236	0295.5	018.9	310.7	025.0000	0068.9	078.6	46.80**	29.47
108.0	000.1236	0294.1	018.8	310.5	025.0000	0068.8	078.5	46.82**	29.54
109.0	000.1236	0294.3	018.8	310.2	025.0000	0068.7	078.3	46.85**	29.64
110.0	000.1236	0292.0	018.7	310.0	025.0000	0068.6	078.3	46.85**	29.68
111.0	000.1236	0290.9	018.7	309.8	025.0000	0068.7	078.2	46.88**	29.76
112.0	000.1236	0289.8	018.7	309.5	025.0000	0068.7	078.2	46.90**	29.84
113.0	000.1236	0289.1	018.6	309.3	025.0000	0069.0	078.1	46.93**	29.94
114.0	000.1236	0288.4	018.6	309.0	025.0000	0069.2	078.0	46.96**	30.05
115.0	000.1236	0288.0	018.6	308.8	025.0000	0069.5	078.0	46.99**	30.17
116.0	000.1236	0287.5	018.6	308.6	025.0000	0069.8	077.9	47.02**	30.29
117.0	000.1236	0287.2	018.6	308.3	025.0000	0070.1	077.9	47.05**	30.39

Munn-Reese, Inc.

Broadcast Engineering Consultants

Coldwater, MI 49036

Exhibit 13.6 - Contour Protection Studies oward KCWN.L - New Sharon, IA

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	
118.0	000.1236	0286.9	018.6	308.1	025.0000	0070.3	077.8	47.08**	30.49
119.0	000.1236	0286.7	018.6	307.9	025.0000	0070.7	077.8	47.11**	30.60
120.0	000.1236	0286.3	018.6	307.6	025.0000	0071.0	077.7	47.14**	30.69
121.0	000.1236	0286.0	018.5	307.4	025.0000	0071.5	077.7	47.17**	30.81
122.0	000.1236	0286.0	018.5	307.2	025.0000	0071.9	077.7	47.20**	30.91
123.0	000.1236	0285.9	018.5	306.9	025.0000	0072.1	077.7	47.22**	30.97
124.0	000.1236	0286.0	018.5	306.7	025.0000	0072.3	077.6	47.24**	31.04
125.0	000.1236	0286.1	018.5	306.4	025.0000	0072.5	077.6	47.25**	31.08
126.0	000.1236	0286.2	018.6	306.2	025.0000	0072.8	077.6	47.27**	31.13
127.0	000.1236	0286.5	018.6	306.0	025.0000	0073.0	077.6	47.28**	31.18
128.0	000.1236	0286.8	018.6	305.7	025.0000	0073.3	077.6	47.30**	31.24
129.0	000.1236	0287.1	018.6	305.5	025.0000	0073.5	077.6	47.31**	31.26
130.0	000.1236	0287.2	018.6	305.2	025.0000	0073.9	077.6	47.32**	31.31
131.0	000.1236	0287.7	018.6	305.0	025.0000	0074.3	077.7	47.34**	31.37
132.0	000.1236	0288.1	018.6	304.8	025.0000	0074.5	077.7	47.34**	31.38
133.0	000.1236	0288.4	018.6	304.5	025.0000	0074.6	077.7	47.34**	31.37
134.0	000.1236	0288.5	018.6	304.3	025.0000	0074.9	077.8	47.34**	31.36
135.0	000.1236	0288.9	018.6	304.1	025.0000	0075.1	077.8	47.34**	31.36
136.0	000.1236	0289.2	018.6	303.8	025.0000	0075.2	077.9	47.33**	31.32
137.0	000.1236	0288.9	018.6	303.6	025.0000	0075.3	078.0	47.32**	31.25
138.0	000.1236	0288.4	018.6	303.4	025.0000	0075.5	078.0	47.30**	31.20
139.0	000.1236	0288.1	018.6	303.1	025.0000	0075.9	078.1	47.30**	31.17
140.0	000.1236	0288.4	018.6	302.9	025.0000	0076.4	078.2	47.30**	31.18
141.0	000.1238	0289.6	018.7	302.7	025.0000	0077.0	078.3	47.32**	31.23
142.0	000.1241	0289.6	018.7	302.4	025.0000	0077.4	078.4	47.32**	31.21
143.0	000.1244	0289.8	018.7	302.2	025.0000	0077.6	078.5	47.30**	31.14
144.0	000.1247	0290.4	018.7	302.0	025.0000	0077.5	078.6	47.27**	31.04
145.0	000.1250	0290.8	018.8	301.8	025.0000	0077.8	078.7	47.26**	30.98
146.0	000.1252	0292.2	018.8	301.5	025.0000	0078.3	078.8	47.27**	31.00
147.0	000.1255	0292.9	018.8	301.3	025.0000	0078.8	078.9	47.27**	30.98
148.0	000.1258	0293.7	018.9	301.1	025.0000	0079.5	079.0	47.27**	30.98
149.0	000.1261	0294.9	018.9	300.9	025.0000	0080.1	079.1	47.27**	30.98
150.0	000.1264	0295.2	019.0	300.6	025.0000	0080.4	079.2	47.25**	30.89
151.0	000.1271	0296.2	019.0	300.4	025.0000	0080.5	079.4	47.22**	30.79
152.0	000.1279	0297.1	019.1	300.2	025.0000	0080.5	079.5	47.19**	30.67
153.0	000.1286	0297.8	019.1	300.0	025.0000	0080.5	079.6	47.16**	30.54
154.0	000.1294	0297.9	019.2	299.7	025.0000	0080.6	079.8	47.12**	30.39
155.0	000.1301	0299.2	019.2	299.5	025.0000	0080.7	079.9	47.09**	30.28
156.0	000.1309	0300.7	019.3	299.3	025.0000	0080.8	080.0	47.06**	30.16
157.0	000.1317	0303.1	019.4	299.1	025.0000	0080.9	080.2	47.03**	30.05
158.0	000.1324	0306.8	019.6	298.8	025.0000	0081.0	080.3	47.01**	29.97
159.0	000.1332	0309.3	019.7	298.6	025.0000	0081.2	080.4	46.98**	29.87
160.0	000.1340	0311.8	019.8	298.3	025.0000	0081.5	080.6	46.96**	29.77
161.0	000.1354	0311.6	019.8	298.1	025.0000	0081.5	080.8	46.91**	29.58
162.0	000.1369	0312.7	019.9	297.9	025.0000	0081.8	080.9	46.87**	29.45
163.0	000.1384	0310.8	019.9	297.7	025.0000	0082.2	081.2	46.83**	29.28
164.0	000.1399	0308.5	019.9	297.6	025.0000	0082.7	081.4	46.78**	29.10
165.0	000.1414	0307.4	019.9	297.4	025.0000	0083.2	081.7	46.74**	28.94

Exhibit 13.6 - Contour Protection Studies oward KCWN.L - New Sharon, IA

09-15-2009 NED 03 SEC Terrain Data

KCWN BLH19951025KA
 Channel = 260C3
 Max ERP = 25 kW
 RCAMSL = 324 M
 N. Lat. 41 17 32.0
 W. Lng. 92 40 24.0
 Protected
 60 dBu

K260AM
 Channel = 260D
 Max ERP = 0.25 kW
 RCAMSL = 584 M
 N. Lat. 41 48 01.0
 W. Lng. 93 36 27.0
 Interfering
 40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
261.0	025.0000	0091.4	037.6	146.7	000.1254	0292.7	074.5	34.51	
262.0	025.0000	0090.5	037.4	146.4	000.1253	0292.5	074.0	34.67	
263.0	025.0000	0089.3	037.2	146.0	000.1252	0292.1	073.5	34.83	
264.0	025.0000	0088.6	037.1	145.7	000.1251	0291.8	073.0	34.99	
265.0	025.0000	0089.3	037.2	145.5	000.1251	0291.6	072.3	35.21	
266.0	025.0000	0087.9	036.9	145.1	000.1250	0290.9	071.9	35.33	
267.0	025.0000	0087.4	036.9	144.7	000.1249	0290.7	071.4	35.49	
268.0	025.0000	0086.9	036.7	144.4	000.1248	0290.5	070.9	35.66	
269.0	025.0000	0087.1	036.8	144.1	000.1247	0290.4	070.4	35.85	
270.0	025.0000	0085.4	036.5	143.6	000.1246	0290.1	070.0	35.95	
271.0	025.0000	0084.9	036.4	143.2	000.1245	0289.9	069.6	36.10	
272.0	025.0000	0084.8	036.3	142.9	000.1244	0289.7	069.1	36.26	
273.0	025.0000	0084.2	036.2	142.5	000.1243	0289.7	068.7	36.41	
274.0	025.0000	0083.5	036.1	142.1	000.1241	0289.6	068.3	36.53	
275.0	025.0000	0082.7	035.9	141.6	000.1240	0289.7	067.9	36.66	
276.0	025.0000	0081.6	035.7	141.1	000.1239	0289.7	067.6	36.76	
277.0	025.0000	0081.0	035.6	140.7	000.1237	0289.1	067.3	36.86	
278.0	025.0000	0081.0	035.6	140.3	000.1236	0288.7	066.8	37.00	
279.0	025.0000	0080.3	035.5	139.8	000.1236	0288.3	066.5	37.09	
280.0	025.0000	0083.0	036.0	139.7	000.1236	0288.2	065.7	37.38	
281.0	025.0000	0083.3	036.1	139.3	000.1236	0288.0	065.3	37.54	
282.0	025.0000	0081.3	035.7	138.7	000.1236	0288.3	065.2	37.57	
283.0	025.0000	0080.8	035.6	138.2	000.1236	0288.4	064.9	37.67	
284.0	025.0000	0081.1	035.6	137.7	000.1236	0288.5	064.5	37.82	
285.0	025.0000	0080.4	035.5	137.2	000.1236	0288.8	064.3	37.92	
286.0	025.0000	0079.5	035.3	136.7	000.1236	0289.0	064.1	37.99	
287.0	025.0000	0077.1	034.8	136.0	000.1236	0289.2	064.2	37.95	
288.0	025.0000	0076.1	034.6	135.4	000.1236	0289.0	064.1	37.98	
289.0	025.0000	0075.5	034.5	134.9	000.1236	0288.8	063.9	38.03	
290.0	025.0000	0075.2	034.4	134.4	000.1236	0288.5	063.7	38.10	

Exhibit 13.6 - Contour Protection Studies oward KCWN.L - New Sharon, IA

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
291.0	025.0000	0075.0	034.4	133.8	000.1236	0288.5	063.5	38.17
292.0	025.0000	0075.5	034.5	133.4	000.1236	0288.5	063.2	38.29
293.0	025.0000	0076.8	034.7	133.0	000.1236	0288.4	062.7	38.46
294.0	025.0000	0078.4	035.1	132.5	000.1236	0288.3	062.2	38.65
295.0	025.0000	0080.6	035.5	132.1	000.1236	0288.1	061.6	38.87
296.0	025.0000	0083.8	036.1	131.7	000.1236	0288.0	060.8	39.16
297.0	025.0000	0084.1	036.2	131.2	000.1236	0287.8	060.6	39.24
298.0	025.0000	0081.6	035.7	130.5	000.1236	0287.5	060.9	39.11
299.0	025.0000	0080.9	035.6	129.9	000.1236	0287.2	060.9	39.10
300.0	025.0000	0080.5	035.5	129.3	000.1236	0287.2	060.9	39.11
301.0	025.0000	0079.7	035.3	128.7	000.1236	0287.1	060.9	39.08
302.0	025.0000	0077.5	034.9	128.1	000.1236	0286.8	061.3	38.93
303.0	025.0000	0076.2	034.6	127.5	000.1236	0286.6	061.5	38.84
304.0	025.0000	0075.1	034.4	126.9	000.1236	0286.5	061.7	38.77
305.0	025.0000	0074.3	034.2	126.4	000.1236	0286.3	061.8	38.71
306.0	025.0000	0073.0	033.9	125.8	000.1236	0286.2	062.1	38.61
307.0	025.0000	0072.0	033.7	125.3	000.1236	0286.2	062.3	38.53
308.0	025.0000	0070.5	033.4	124.7	000.1236	0286.1	062.7	38.40
309.0	025.0000	0069.3	033.1	124.2	000.1236	0286.1	063.0	38.28
310.0	025.0000	0068.6	033.0	123.7	000.1236	0286.0	063.2	38.21
311.0	025.0000	0068.9	033.0	123.2	000.1236	0285.9	063.2	38.21
312.0	025.0000	0069.3	033.1	122.7	000.1236	0285.8	063.2	38.20
313.0	025.0000	0069.9	033.3	122.1	000.1236	0285.9	063.1	38.22
314.0	025.0000	0070.7	033.4	121.6	000.1236	0286.0	063.1	38.25
315.0	025.0000	0072.0	033.7	121.0	000.1236	0286.0	062.9	38.30
316.0	025.0000	0072.8	033.9	120.4	000.1236	0286.1	062.9	38.32
317.0	025.0000	0074.5	034.3	119.8	000.1236	0286.4	062.7	38.39
318.0	025.0000	0075.3	034.4	119.3	000.1236	0286.6	062.7	38.39
319.0	025.0000	0077.0	034.8	118.6	000.1236	0286.7	062.6	38.45
320.0	025.0000	0078.7	035.1	118.0	000.1236	0286.9	062.5	38.49
321.0	025.0000	0081.2	035.6	117.3	000.1236	0287.1	062.3	38.59
322.0	025.0000	0083.3	036.1	116.6	000.1236	0287.3	062.1	38.64
323.0	025.0000	0085.7	036.5	115.9	000.1236	0287.6	062.0	38.71
324.0	025.0000	0086.3	036.6	115.3	000.1236	0288.1	062.2	38.66
325.0	025.0000	0086.9	036.7	114.8	000.1236	0287.9	062.4	38.57
326.0	025.0000	0086.6	036.7	114.3	000.1236	0288.2	062.8	38.44
327.0	025.0000	0087.7	036.9	113.7	000.1236	0288.6	062.9	38.40
328.0	025.0000	0087.4	036.8	113.2	000.1236	0288.9	063.3	38.26
329.0	025.0000	0088.2	037.0	112.7	000.1236	0289.4	063.6	38.18
330.0	025.0000	0087.5	036.9	112.3	000.1236	0289.7	064.1	38.02
331.0	025.0000	0087.2	036.8	111.9	000.1236	0289.9	064.5	37.87
332.0	025.0000	0087.7	036.9	111.4	000.1236	0290.5	064.8	37.77
333.0	025.0000	0088.3	037.0	110.9	000.1236	0291.0	065.2	37.66
334.0	025.0000	0088.9	037.1	110.4	000.1236	0291.9	065.5	37.57
335.0	025.0000	0089.1	037.2	110.0	000.1236	0292.1	065.9	37.42
336.0	025.0000	0090.2	037.4	109.4	000.1236	0293.4	066.3	37.36
337.0	025.0000	0089.6	037.3	109.1	000.1236	0294.2	066.8	37.19
338.0	025.0000	0087.6	036.9	109.0	000.1236	0294.3	067.5	36.93

Munn-Reese, Inc.

Broadcast Engineering Consultants

Coldwater, MI 49036

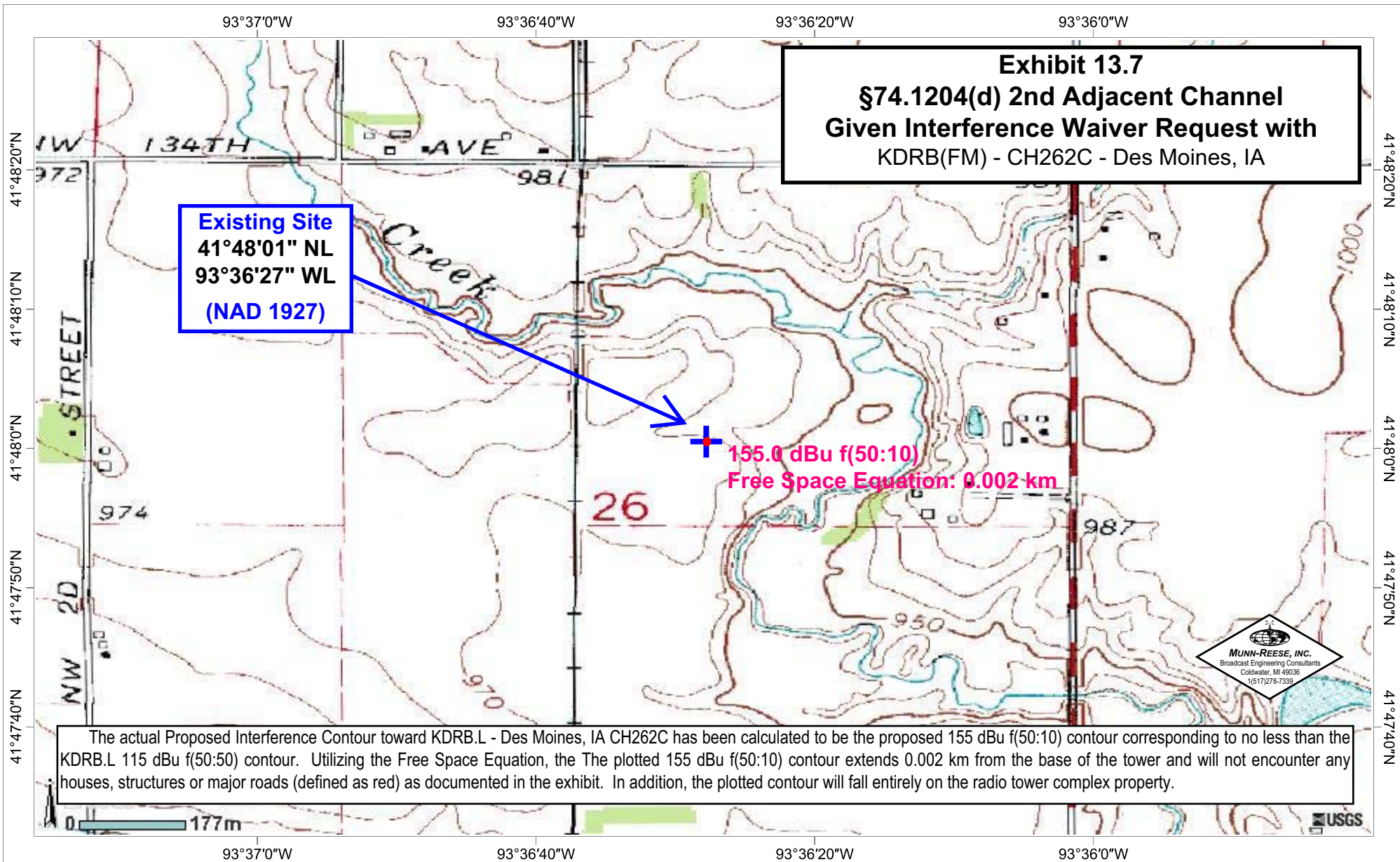


Exhibit 13.8 - Manufacturer's Directional Antenna Pattern Actual Pattern Rotated to 300.0°T)

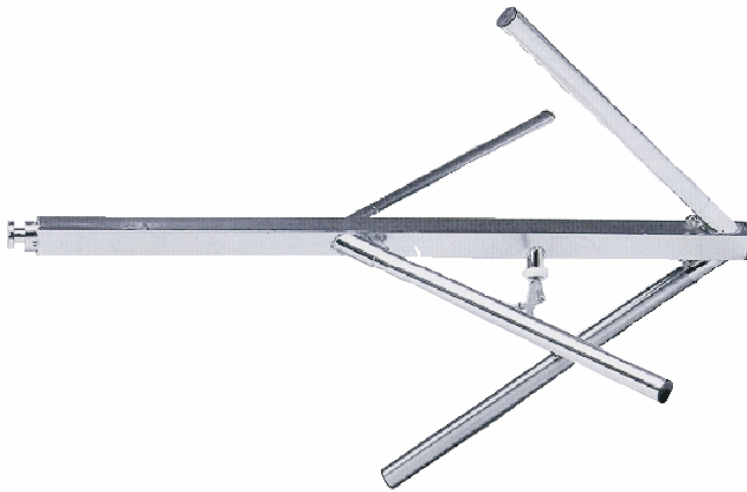


NICOM
BKG77

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
Frequency range	87.5 - 108 MHz
Bandwidth	16 MHz
Impedance	50 ohms
Connectors	N type (1 kw) - 7/8 type (2 kw)
Power rating	2000 Watts max
VSWR	< 1.3
Polarization	vertical and horizontal
Gain	- 3 dBd (referred to half-wave dipole)
H plane	omnidirectional ± 1.5 dB (with a 4" mast)
V plane	omnidirectional ± 3 dB (with a 4" mast)

Front-to-back ratio	3 dB
Lightening protection	all parts grounded
Max wind velocity	119 mph (190 km/h)
Wind load	53 Lbs (24 kg)
Wind surface	1.1 ft ² (0.10 m ²)
Materials (external)	stainless steel
Mounting	from 2" to 4"
Weight	23.1 Lbs (10.5 kg)
Dimensions	58"×32"×32" (1450×800×800mm)
Packing	72"×6"×6" (1500×152×152mm)

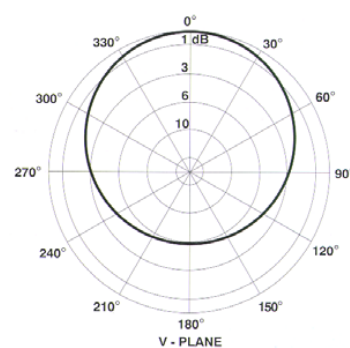
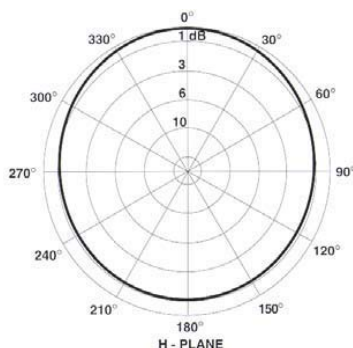


Exhibit 13.8 - Manufacturer's Directional Antenna Pattern Actual Pattern Rotated to 300.0°T)

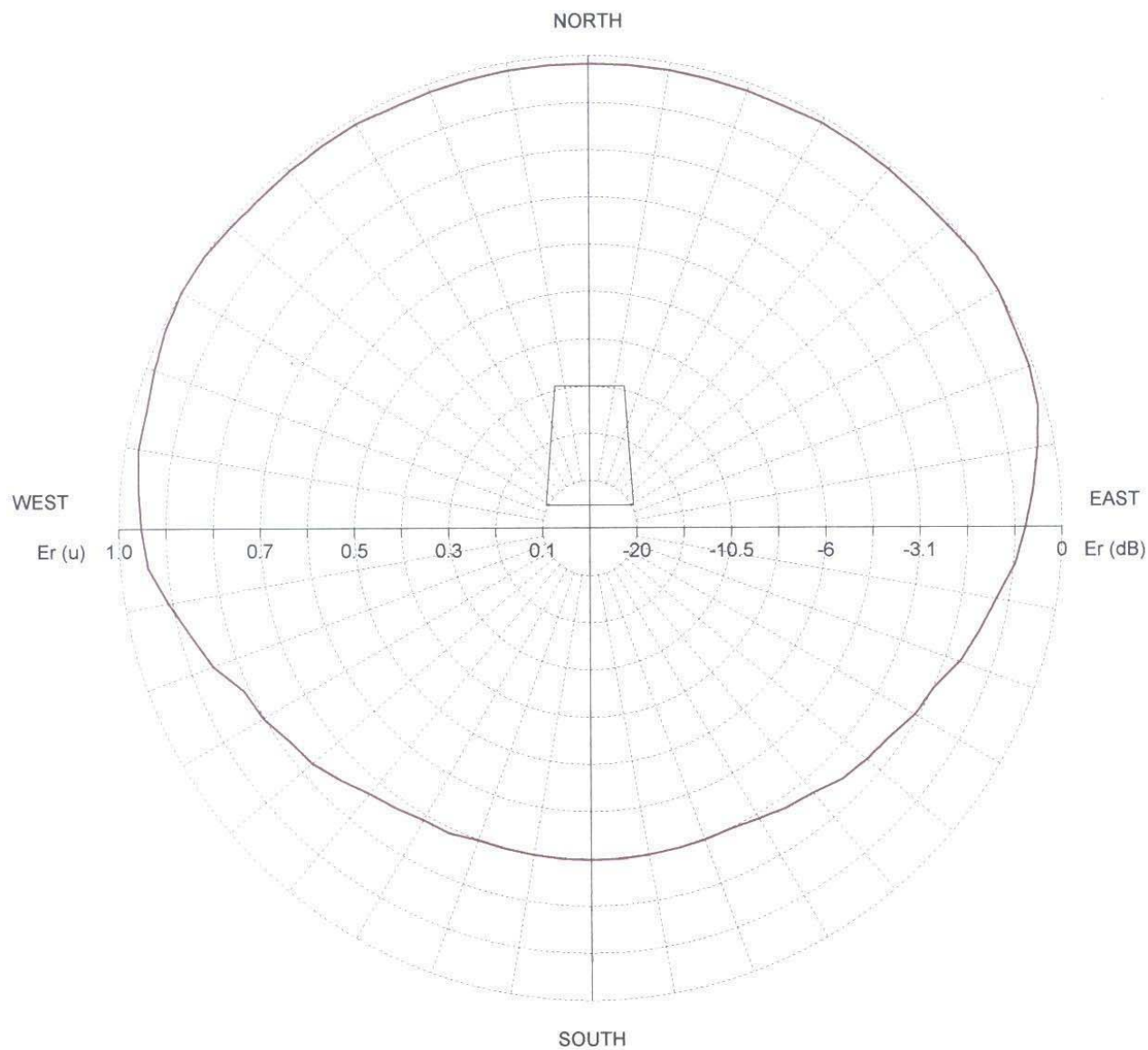


TX station: BGK77/2

Site name:

Frequency: 98.00 MHz

Horizontal diagram



—— 0.0° depres. (Total antenna), Gain (dBd): 0.2 ERP T.max (KW): 1.037 ERP E.max (KW): 0.805

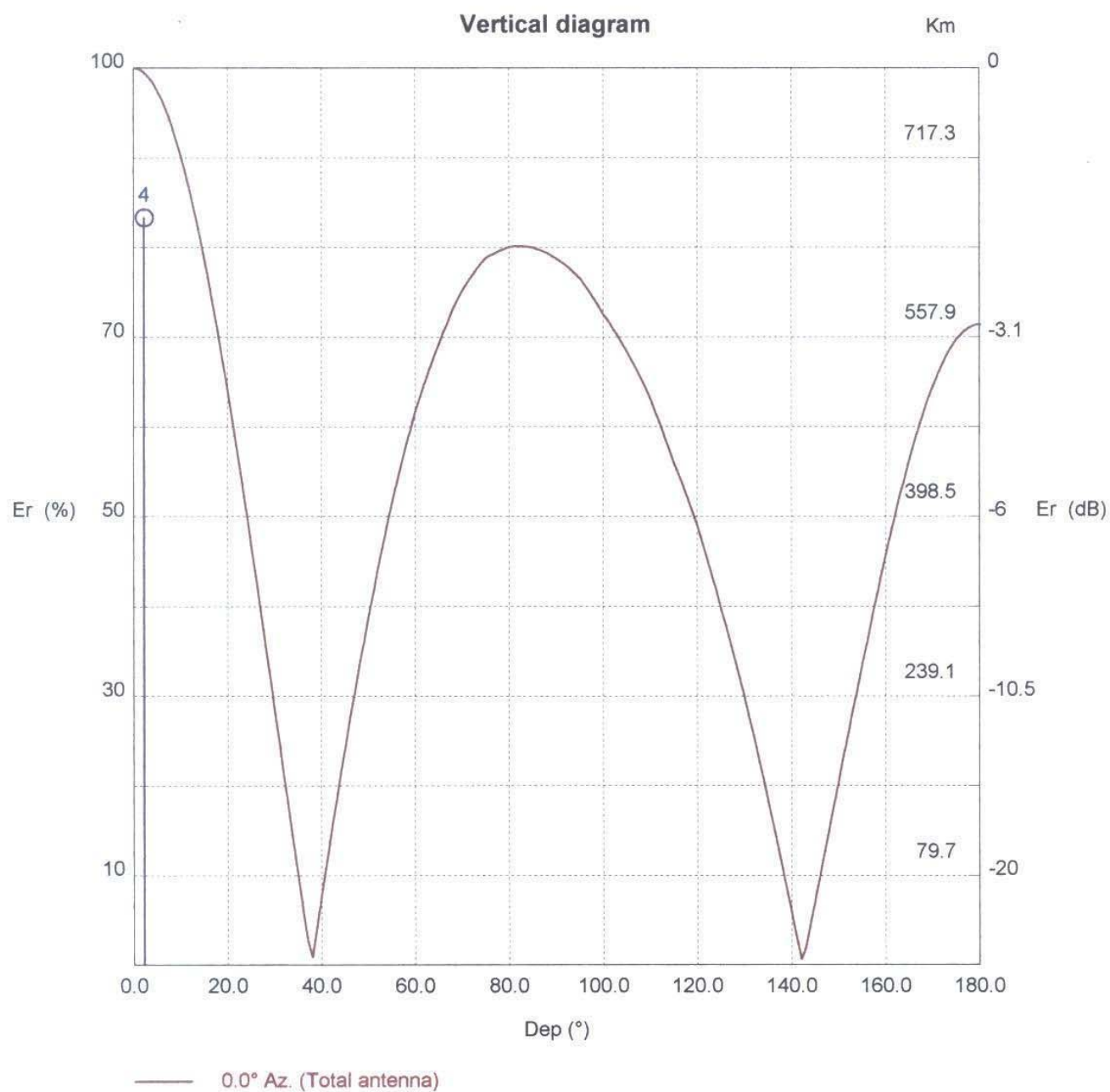
Exhibit 13.8 - Manufacturer's Directional Antenna Pattern Actual Pattern Rotated to 300.0°T



TX station: BGK77/2

Site name:

Frequency: 98.00 MHz



Distance scale for field level equal to 0 dB μ V/m. (Free space)

Exhibit 13.8 - Manufacturer's Directional Antenna Pattern

Actual Pattern Rotated to 300.0°T)



TX station: BGK77/2

Site name:

Frequency: 98.00 MHz

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	100.0	778.1	60.0	61.7	295.8	120.0	48.9	185.7
2.0	99.6	771.9	62.0	64.9	328.0	122.0	45.4	160.3
4.0	98.4	753.4	64.0	67.9	358.3	124.0	41.7	135.3
6.0	96.4	723.5	66.0	70.5	387.2	126.0	37.9	111.8
8.0	93.7	683.0	68.0	73.0	415.0	128.0	34.0	89.8
10.0	90.2	633.6	70.0	75.1	438.9	130.0	29.8	69.2
12.0	86.1	576.9	72.0	76.8	458.6	132.0	25.4	50.3
14.0	81.3	514.9	74.0	78.2	475.6	134.0	20.8	33.7
16.0	76.0	449.7	76.0	79.1	486.5	136.0	16.0	19.9
18.0	70.2	383.3	78.0	79.6	492.8	138.0	11.0	9.3
20.0	63.9	317.8	80.0	80.0	498.2	140.0	5.8	2.6
22.0	57.3	255.1	82.0	80.1	499.5	142.0	0.6	0.0
24.0	50.3	197.0	84.0	80.0	498.5	144.0	4.6	1.7
26.0	43.2	145.1	86.0	79.8	495.2	146.0	9.9	7.7
28.0	35.9	100.4	88.0	79.3	489.7	148.0	15.2	18.1
30.0	28.5	63.4	90.0	78.7	482.3	150.0	20.5	32.8
32.0	21.1	34.5	92.0	78.0	473.0	152.0	25.8	51.7
34.0	13.6	14.5	94.0	77.0	461.9	154.0	30.9	74.2
36.0	6.3	3.1	96.0	75.8	447.1	156.0	35.9	100.5
38.0	0.9	0.1	98.0	74.2	428.8	158.0	40.9	130.2
40.0	7.9	4.8	100.0	72.5	409.1	160.0	45.6	162.1
42.0	14.6	16.6	102.0	71.0	391.9	162.0	50.1	195.5
44.0	21.1	34.6	104.0	69.3	373.2	164.0	54.3	229.4
46.0	27.3	58.0	106.0	67.4	353.2	166.0	58.1	262.7
48.0	33.2	85.8	108.0	65.3	332.0	168.0	61.5	294.3
50.0	38.8	117.2	110.0	63.1	309.5	170.0	64.5	323.3
52.0	44.1	151.5	112.0	60.3	283.3	172.0	66.9	348.5
54.0	49.1	187.7	114.0	57.4	256.6	174.0	68.9	369.1
56.0	53.7	224.4	116.0	54.6	232.1	176.0	70.3	384.4
58.0	57.9	260.4	118.0	51.9	209.2	178.0	71.1	393.8

TX station: BGK77/2

Site name:

Frequency: 98.00 MHz

Horizontal diagram at 0.0° depres. (Total antenna)

Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)
0.0	98.3	778.1	120.0	79.2	505.6	240.0	80.2	518.5
10.0	98.3	778.1	130.0	76.2	468.0	250.0	85.3	585.4
20.0	98.3	778.1	140.0	73.2	431.7	260.0	90.9	666.0
30.0	98.8	786.1	150.0	71.0	406.5	270.0	95.3	731.2
40.0	98.8	786.1	160.0	70.2	397.0	280.0	97.3	762.3
50.0	99.2	792.9	170.0	70.2	397.0	290.0	98.3	778.1
60.0	100.0	805.3	180.0	70.2	397.0	300.0	100.0	805.3
70.0	99.1	791.4	190.0	70.2	397.0	310.0	99.2	792.9
80.0	96.3	746.7	200.0	70.2	397.0	320.0	98.8	786.1
90.0	92.3	685.7	210.0	71.2	408.4	330.0	98.8	786.1
100.0	87.3	613.2	220.0	73.2	431.7	340.0	98.3	778.1
110.0	83.2	558.1	230.0	77.2	480.4	350.0	98.3	778.1