

39°55'51"N
 88°12'39"W Map Extent 88°8'53"W
 39°53'36"N



Geographic Coordinate System (WGS84)

Exhibit 12.2

Vertical Plan of Antenna System

The site is located 0.5 km north of the "⊥" intersection of North County Road 1500 East and East 200 North Road, the city of Pesotum, Champaign County, Illinois.

Site Location (NAD 27)

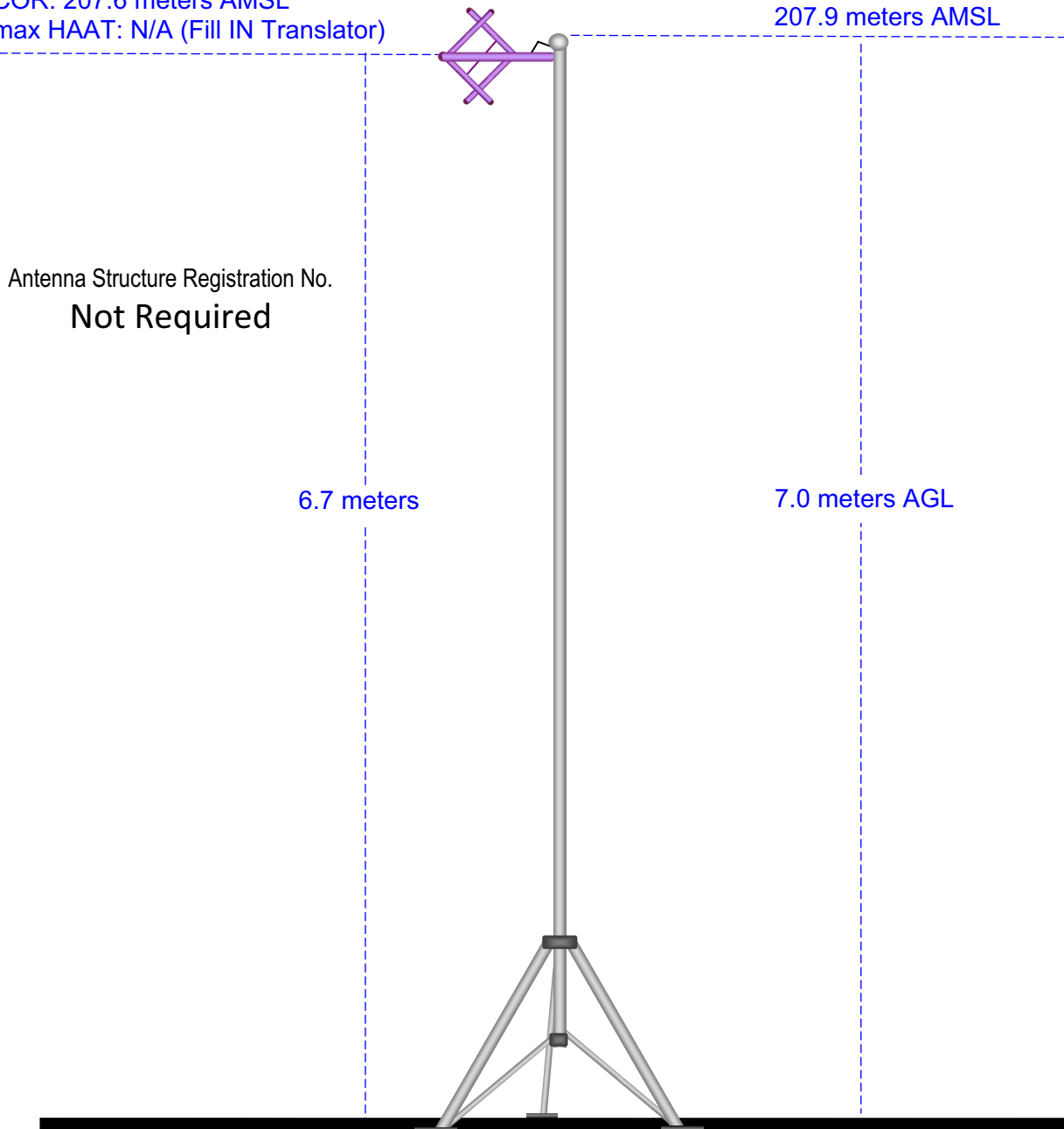
NL: 39° 54' 44"

WL: 88° 10' 46"

Proposed Antenna

COR: 207.6 meters AMSL

max HAAT: N/A (Fill IN Translator)



Antenna Structure Registration No.
Not Required

Ground Elevation = 200.9 m AMSL
Drawing is not to Scale

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

CH251D.P
Proposed 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

W251AV
Present Operation
Latitude: 39-48-05 N
Longitude: 088-14-08 W
ERP: 0.24 kW
Channel: 251
Frequency: 98.1 MHz
AMSL Height: 210.7 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model:

60 dBu Contour
Total Population: 5,554
Total Area: 136.02 sq. km

Exhibit 12.3 Present vs Proposed Service Contour Study

Proposed 60 dBu f(50:50)

CH251D.P

Present 60 dBu f(50:50)

W251AV

Tuscola

Canargo

Douglas

Villa Grove

Tolono

Pesotum

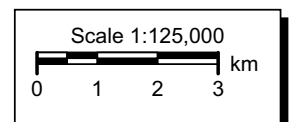


Exhibit 12.4 Proposed vs Primary Service Contour Study

Primary 54 dBu f(50:50)

Ford

McLean

De Witt

WLRW.L



Champaign

Vermilion

Piatt

Proposed 60 dBu f(50:50)

CH251D.P



Mason



Tuscola

Douglas

Vermilion

Parke

Edgar

Moultrie



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:

CH251D.P

Proposed 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:

Scale 1:625,000

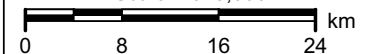


Exhibit 12.5

Tabulation of Proposed Allocation

Tabulations of contours will be supplied upon request.

REFERENCE		CH# 251D - 98.1 MHZ, Pwr= 0.24 kw, HAAT= 3.3 M, COR= 207.6 M								DISPLAY DATES	
39 54 44.0 N.		Average Protected F(50-50)= 7.02 km								DATA 01-03-09	
88 10 46.0 W.		Standard 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	*OUT* in km)	
248B Champaign	WHMS-FM	LIC _CN IL	343.1 163.0	20.0 BLH19911022KB	40 05 04.0 88 14 53.0	50.000 109	5.4 328	61.2 D.w.s., Inc.	7.6	-42.8*<	
251B1 Earl Park	WIBN	LIC _CN IN	39.8 220.2	95.9 BLH19910524KD	40 34 22.0 87 27 12.0	25.000 100	114.8 329	45.8 Brothers Broadcasting Corp	-25.1*<	25.2	
253B Paris	WINH	LIC _CN IL	131.2 311.5	51.6 BMLH452	39 36 21.0 87 43 35.0	50.000 152	6.0 360	65.6 Midwest Communications, In	39.7	-15.5*<	
252A Farmer City	WWHP	LIC _CX IL	327.5 147.2	65.0 BLH20080804AEC	40 24 17.0 88 35 34.0	5.200 107	45.9 352	29.9 Wms1, Inc.	12.2	25.2	
250D Monticello	W250AT	LIC _V_ IL	287.9 107.7	35.7 BLFT20070709AAS	40 00 37.0 88 34 40.0	0.010	4.4 213	3.2 Radio Assist Ministry, Inc	24.3	22.6	
251B Princeton	WRAY-FM	LIC _C_ IN	163.4 343.8	180.0 BLH19990528KC	38 21 25.0 87 35 25.0	50.000 133	137.4 268	64.8 Princeton Broadcasting Co.	36.2	84.5	
250A Heyworth	WBBE	LIC _CX IL	312.3 131.8	89.7 BLH20050919AGU	40 27 08.0 88 57 48.0	5.400 105	41.6 342	27.0 Connoisseur Media, LLC	41.2	52.8	
250A Effingham	WXEF	LIC _CN IL	204.5 24.2	96.1 BLH19940908KB	39 07 25.0 88 38 28.0	6.000 95	41.8 272	27.1 Premier Broadcasting, Inc.	47.4	59.1	
252A Tower Hill	WRAN	LIC _CX IL	224.3 43.8	97.8 BLH20011120ABI	39 16 48.0 88 58 22.0	3.700 128	43.4 314	28.5 Kaskaskia Broadcasting, In	47.4	59.3	
252D Decatur Translator for WEJT, Shelbyville, IL	W252AR	LIC _HN IL	263.8 83.3	66.6 BLFT19950829TA	39 50 43.0 88 57 13.0	0.100 30	8.0 232	5.6 wejt, Inc.	51.7	51.1	
251C1 St. Louis	KYKY	LIC _CX MO	231.8 50.5	237.5 BMLH20061006AAW	38 34 24.0 90 19 30.0	90.000 313	171.4 466	72.6 Cbs Radio Holdings Inc.	59.1	141.5	
249D Greenup	650382	APP _C_ IL	179.2 359.2	74.5 BNPFT20030317JVA	39 14 30.0 88 10 00.0	0.170	0.9 197	6.4 Covenant Network	66.9	67.0	

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 12.1**.

Exhibit 12.6 - Tabulation of Proposed Directional Antenna.

NOTE: Actual Antenna will be mounted at 290°T

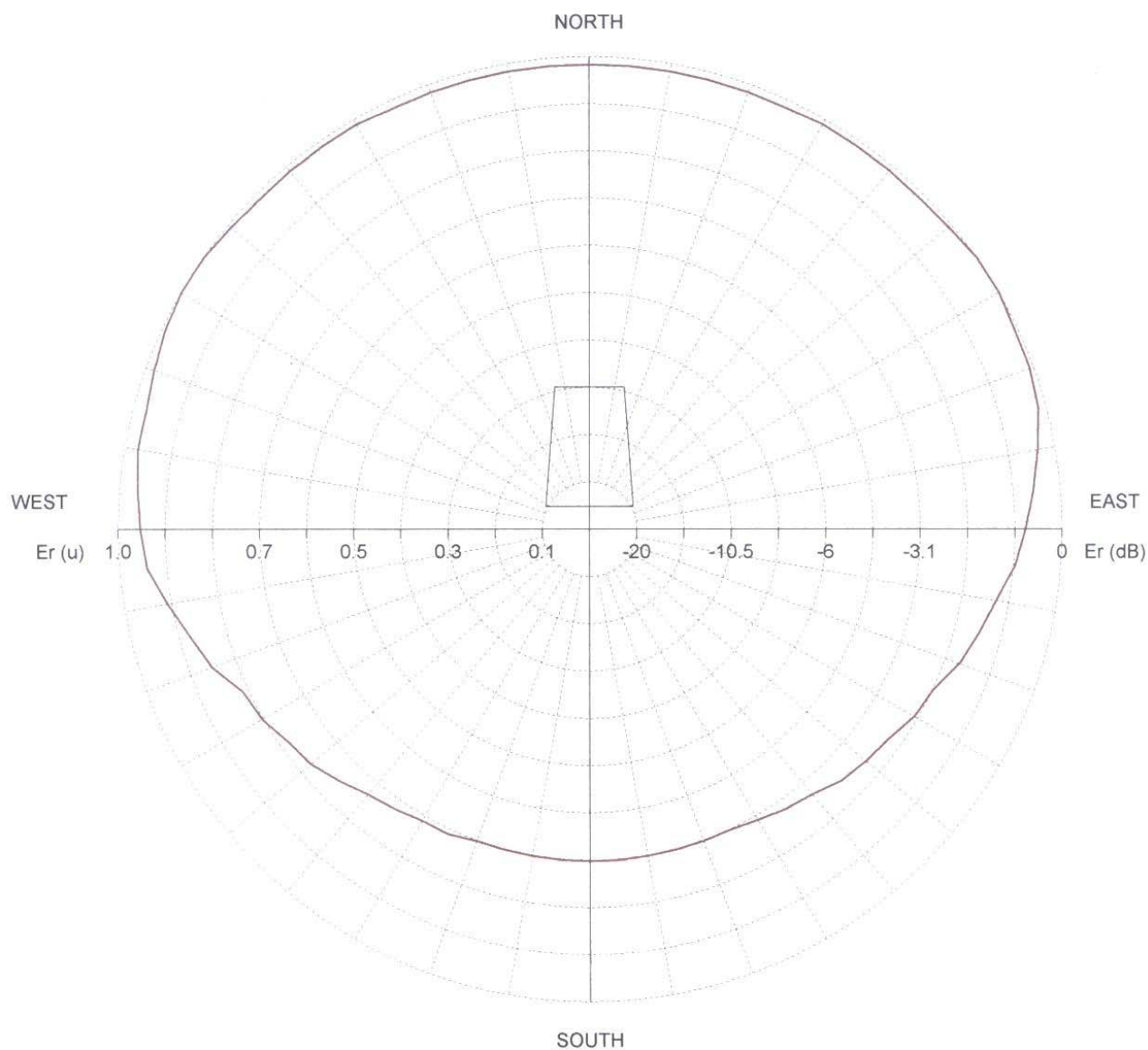
(Antenna Manufacturer Documentation Supplied as Unrotated Pattern.)

TX station: BKG77

Site name:

Frequency: 98.00 MHz

Horizontal diagram



—— 0.0° depres. (Total antenna), Gain (dBd): -2.9 ERP T.max (KW): 0.519

ERP E.max (KW): 0.403

Exhibit 12.6 - Tabulation of Proposed Directional Antenna.

NOTE: Actual Antenna will be mounted at 290°T

(Antenna Manufacturer Documentation Supplied as Unrotated Pattern.)

TX station: BKG77

Site name:

Frequency: 98.00 MHz

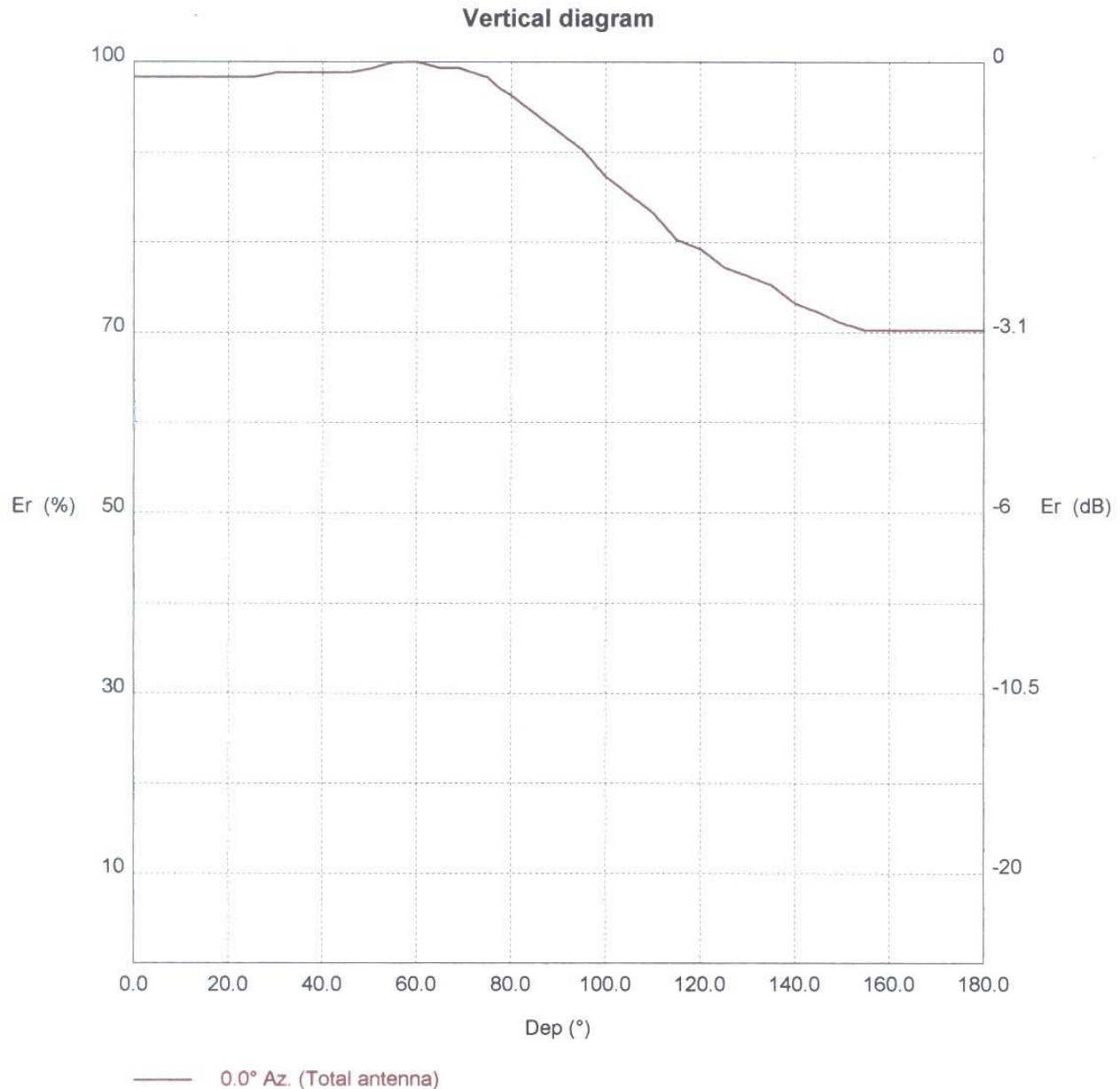


Exhibit 12.6 - Tabulation of Proposed Directional Antenna.

NOTE: Actual Antenna will be mounted at 290°T

(Antenna Manufacturer Documentation Supplied as Unrotated Pattern.)

TX station: BKG77

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	98.3	389.0	60.0	100.0	402.7	120.0	79.2	252.8
2.0	98.3	389.0	62.0	99.7	400.4	122.0	78.4	247.7
4.0	98.3	389.0	64.0	99.4	398.2	124.0	77.6	242.7
6.0	98.3	389.0	66.0	99.3	397.1	126.0	77.0	238.9
8.0	98.3	389.0	68.0	99.3	397.0	128.0	76.6	236.4
10.0	98.3	389.0	70.0	99.1	395.7	130.0	76.2	234.0
12.0	98.3	389.0	72.0	98.8	393.0	132.0	75.8	231.5
14.0	98.3	389.0	74.0	98.5	390.4	134.0	75.4	229.1
16.0	98.3	389.0	76.0	97.8	385.1	136.0	74.8	225.4
18.0	98.3	389.0	78.0	97.0	378.5	138.0	74.0	220.6
20.0	98.3	389.0	80.0	96.3	373.3	140.0	73.2	215.9
22.0	98.3	389.0	82.0	95.5	367.1	142.0	72.8	213.5
24.0	98.3	389.0	84.0	94.7	361.0	144.0	72.4	211.2
26.0	98.4	389.8	86.0	93.9	354.9	146.0	72.0	208.5
28.0	98.6	391.4	88.0	93.1	348.9	148.0	71.5	205.6
30.0	98.8	393.0	90.0	92.3	342.9	150.0	71.0	203.2
32.0	98.8	393.0	92.0	91.5	336.9	152.0	70.7	201.3
34.0	98.8	393.0	94.0	90.7	331.0	154.0	70.4	199.4
36.0	98.8	393.0	96.0	89.7	323.8	156.0	70.2	198.5
38.0	98.8	393.0	98.0	88.5	315.1	158.0	70.2	198.5
40.0	98.8	393.0	100.0	87.3	306.6	160.0	70.2	198.5
42.0	98.8	393.0	102.0	86.5	301.0	162.0	70.2	198.5
44.0	98.8	393.0	104.0	85.7	295.4	164.0	70.2	198.5
46.0	98.9	393.7	106.0	84.9	289.9	166.0	70.2	198.5
48.0	99.1	395.1	108.0	84.1	284.5	168.0	70.2	198.5
50.0	99.2	396.5	110.0	83.2	279.1	170.0	70.2	198.5
52.0	99.5	398.8	112.0	82.0	271.1	172.0	70.2	198.5
54.0	99.8	401.2	114.0	80.8	263.2	174.0	70.2	198.5
56.0	100.0	402.5	116.0	80.0	258.0	176.0	70.2	198.5
58.0	100.0	402.6	118.0	79.6	255.4	178.0	70.2	198.5

TX station: BKG77

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	389.0	120.0	79.2	252.8	240.0	80.2	259.3
10.0	98.3	389.0	130.0	76.2	234.0	250.0	85.3	292.7
20.0	98.3	389.0	140.0	73.2	215.9	260.0	90.9	333.0
30.0	98.8	393.0	150.0	71.0	203.2	270.0	95.3	365.6
40.0	98.8	393.0	160.0	70.2	198.5	280.0	97.3	381.1
50.0	99.2	396.5	170.0	70.2	198.5	290.0	98.3	389.0
60.0	100.0	402.7	180.0	70.2	198.5	300.0	100.0	402.7
70.0	99.1	395.7	190.0	70.2	198.5	310.0	99.2	396.5
80.0	96.3	373.3	200.0	70.2	198.5	320.0	98.8	393.0
90.0	92.3	342.9	210.0	71.2	204.2	330.0	98.8	393.0
100.0	87.3	306.6	220.0	73.2	215.9	340.0	98.3	389.0
110.0	83.2	279.1	230.0	77.2	240.2	350.0	98.3	389.0

