

Exhibit 13.1 - Copy of Antenna Structure Registration

ASR Registration Search

Registration 1038620

 [Map Registration](#)

Registration Detail

Reg Number	1038620	Status	Constructed
File Number	A1054167	Constructed	12/15/1988
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type GTOWER - Guyed Structure Used for Communication Purposes

Location (in NAD83 Coordinates)

Lat/Long	41-33-29.1 N 084-11-07.8 W	Address	753 TOWNSHIP ROAD W21
City, State	WAUSEON , OH		
Zip	43567	County	FULTON
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
236.3	116.7
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
353.0	115.8

Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 9

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

FAA Notification

FAA Study	88-AGL-627-OE	FAA Issue Date	07/14/1988
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Owner & Contact Information

FRN	0002944304	Owner Entity Type	Corporation
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Owner

NOBCO INC.
 Attention To: MAX SMITH
 303 1/2 NORTH DEFIANCE STREET
 ARCHBOLD , OH 43502

P: (419)445-9050
 F:
 E: wmtr@rtexpress.net

Contact

Smith , Max
 Attention To: MAX SMITH
 303 1/2 NORTH DEFIANCE STREET
 ARCHBOLD , OH 43502

P: (419)445-9050
 F:
 E: wmtr@rtexpress.net

Last Action Status

Status	Constructed	Received	11/21/2016
Purpose	Notification	Entered	11/21/2016

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Mode Interactive

Related Applications

11/21/2016 A1054167 - Notification (NT)
11/21/2016 A1054166 - Modification (MD)
11/18/2014 A0926956 - Notification (NT)

Related applications (5)

Comments**Comments**

None

History

Date	Event
11/21/2016	Construction Notification Received
11/21/2016	Modification Received
11/19/2014	FRN association letter send

All History (5)

Automated Letters

11/19/2014 FRN Association, Reference 835040
03/09/2000 Construction Reminder, Reference 42890

CLOSE WINDOW

Exhibit 13.2

Vertical Plan of Antenna System

The site is located at 753 Township Road W21, west of Wauseon, Fulton County, OH.

Site Location (NAD 27)

NL: 41° 33' 29"

WL: 84° 11' 08"

(41-33-29.1 NL; 84-11-07.8 WL (NAD1983))

NOTE: Existing Tower Construction

Antenna Structure Registration No.

1038620

WMTR-FM Antenna

WYSA(FM) Antenna

Proposed W232CM Antenna
COR: 304.0 meters AMSL
HAAT: 87.1 meters (max)
Nicom BKY3P Antenna

67.7 meters

353.0 meters AMSL

116.7 meters AGL

Ground Elevation = 236.3 m AMSL

Drawing is not to Scale

MUNN-REESE, INC.

Broadcast Engineering Consultants
Coldwater, MI 49036

Exhibit 13.3 - Proposed Service Contour & §74.1233(a)(1) Showing

W232CM.CP
Tedrow, OH
BNPFT20130827ADV
Latitude: 41-36-03 N
Longitude: 084-09-16 W
ERP: 0.11 kW
Channel: 232
Frequency: 94.3 MHz
AMSL Height: 268.0 m
Elevation: 241.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

2010 Census Data:

60 dBu Contour

Total Population: 8,459
Coverage Area: 113.7 sq. km

W232CM.P
Archbold, OH
Latitude: 41-33-29 N
Longitude: 084-11-08 W
ERP: 0.25 kW
Channel: 232
Frequency: 94.3 MHz
AMSL Height: 304.0 m
Elevation: 235.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

2010 Census Data

60 dBu Contour

Total Population: 14,147
Coverage Area: 221.6 sq. km

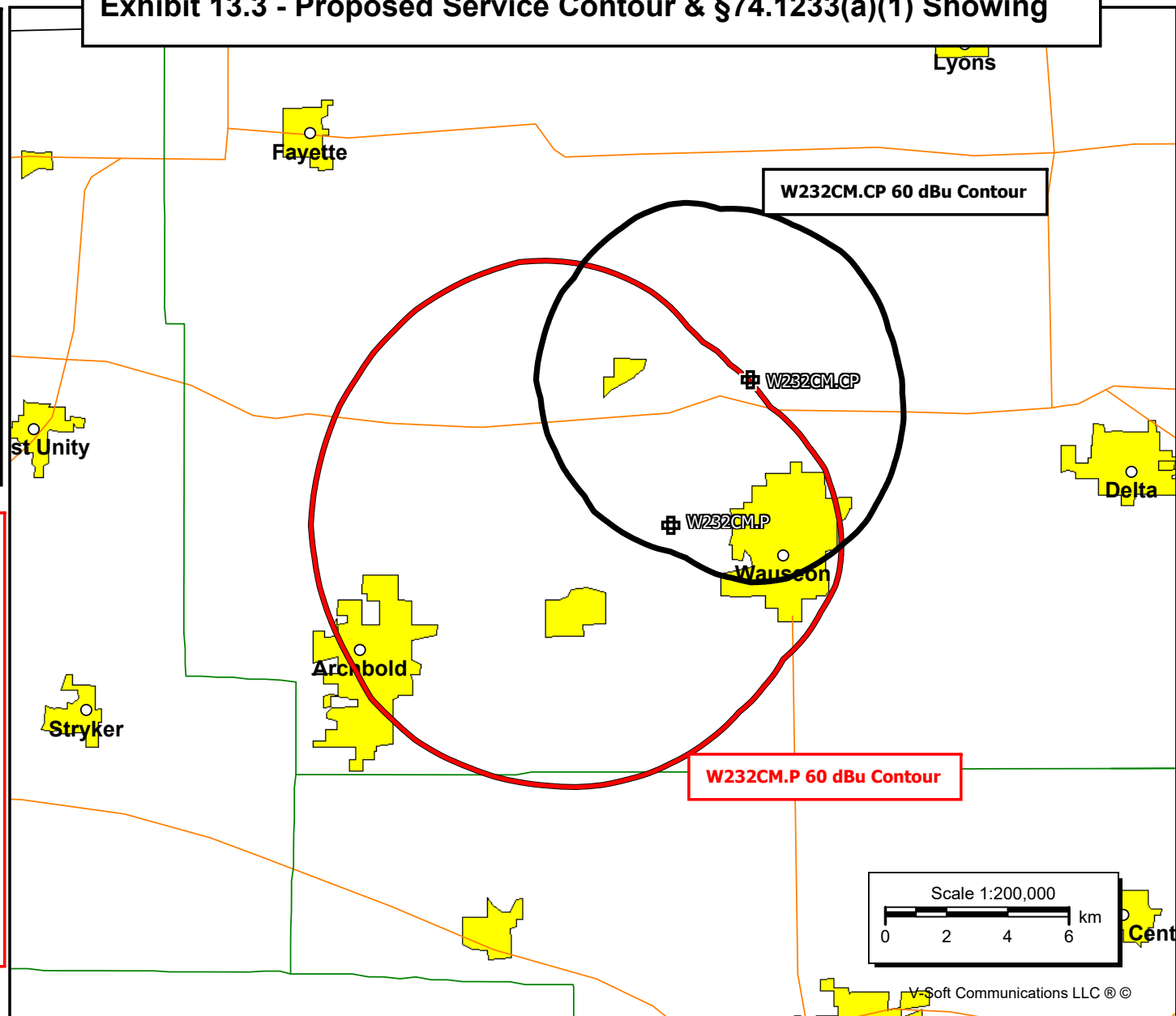


Exhibit 13.4 - Proposed vs Primary Service Contour Showing

WMTR-FM
Archbold, OH
BLH19910308KA
Latitude: 41-33-29 N
Longitude: 084-11-08 W
ERP: 3.80 kW
Channel: 241
Frequency: 96.1 MHz
AMSL Height: 348.0 m
Elevation: 236.3 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

W232CM.P
Archbold, OH
Latitude: 41-33-29 N
Longitude: 084-11-08 W
ERP: 0.25 kW
Channel: 232
Frequency: 94.3 MHz
AMSL Height: 304.0 m
Elevation: 236.3 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

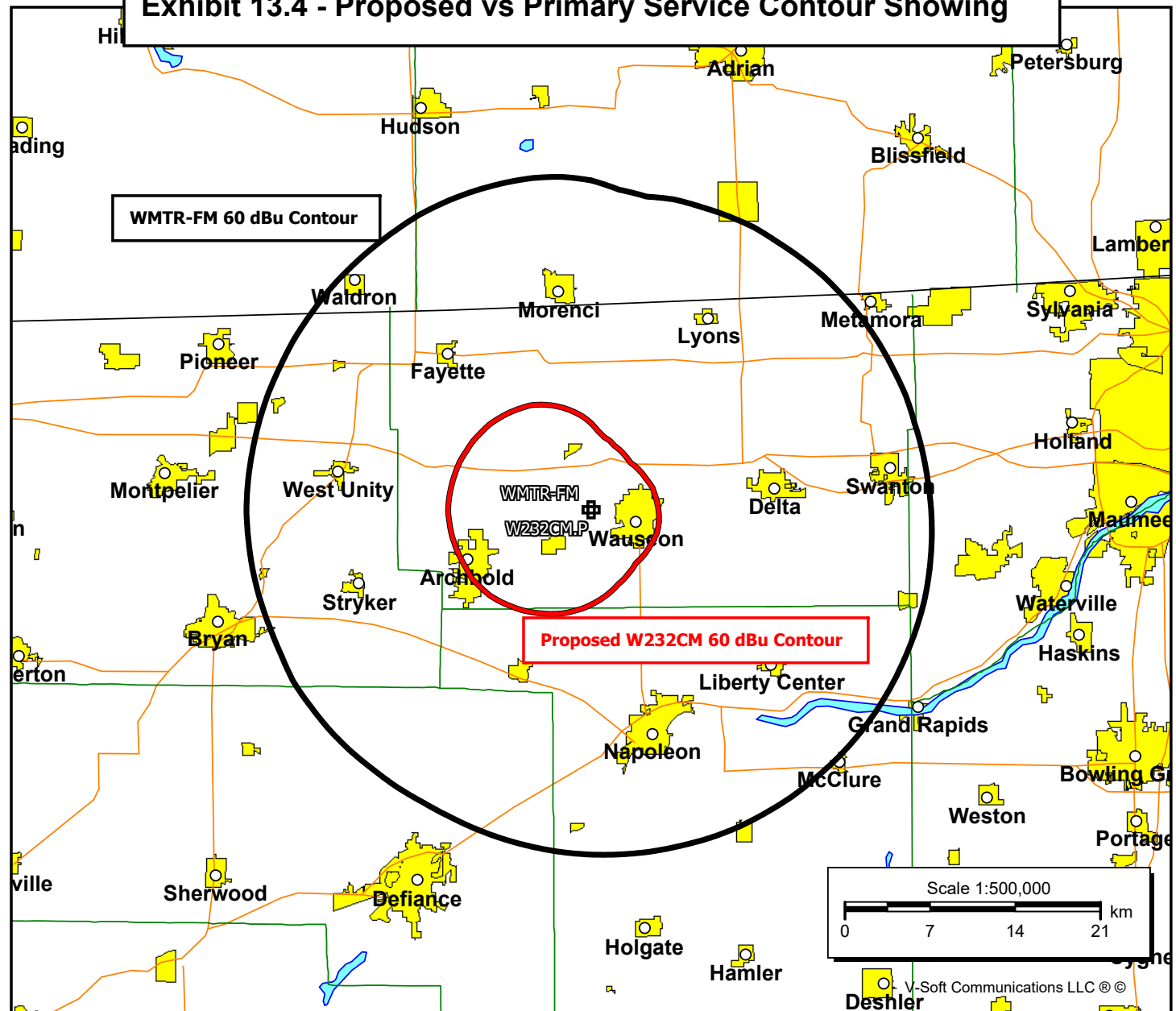


Exhibit 13.5 - Tabulation of Proposed Allocation

Munn-Reese, Inc.
Coldwater, MI 49036

Pittsford Educational Broadcasting Foundation											
REFERENCE	CH#	232D	-	94.3 MHz,	Pwr= 0.25 kW DA,	HAAT= 78.6 M,	COR= 304 M	DISPLAY DATES			
41 33 29.0 N.					Average Protected F(50-50)= 11.48 km			DATA	11-21-16		
84 11 08.0 W.					Standard Directional			SEARCH	11-21-16		
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*
232D Tedrow	W232CM	CP	DC_	28.5	5.41	41 36 03.0	0.110	20.9	6.3	-20.8*	-18.3*
		OH		208.6	BNPFT20130827ADV	84 09 16.0	40	268	Pittsford Educational Broa		
233B Port Clinton	WXKR	LIC	ZCX	94.5	76.37	41 30 03.0	30.000	75.8	63.9	-5.0<	1.3
		OH		275.1	BLH20080910ACQ	83 16 16.0	188	374	Cumulus Li censi ng Li c		
231L1 Napoleon	WTPS-LP	LIC	___	169.0	18.65	41 23 36.1	0.100		3.6		3.0
		OH		349.0	BLL20120509ADM	84 08 33.9	16	225	St. Paul Lutheran Church		
232B Chatham	AL8509	VAC	___	59.8	190.44	42 24 00.0	50.000	172.6	65.0	12.7	101.2
		ON		241.2		82 11 00.0	150	333			
231B Jackson	WWDK	LIC	_C_	336.9	100.87	42 23 31.0	40.000	76.0	63.7	15.5	17.6
		MI		156.6	BMLH20150427AAT	84 40 00.0	168	457	Midwest Communi cations, In		
232A Celina	WKKI	LIC	_C_	197.3	114.68	40 34 21.0	5.200	87.2	29.4	18.6	55.7
		OH		17.0	BLH20090831ADP	84 35 22.0	108	369	The Sonshine Communi cation		
230B1 Columbus Grove	WBKS	LIC	_CX	176.2	67.01	40 57 24.0	14.000	4.0	44.9	55.5	21.5
		OH		356.2	BMLH20050201BMF	84 07 56.0	133	356	Cc Li censes, Li c		
235D Perrysburg	W235BH	LIC	_C_	78.2	49.26	41 38 49.0	0.099	0.7	11.1	43.2	38.0
		OH		258.6	BLFT20151021AEY	83 36 18.0		313	Educational Medi a Foundati		
230C1 Windsor	CKLW	OPE	?CN	55.0	120.23	42 10 15.0	100.000	8.3	77.9	106.7	40.1
		ON		235.8		82 59 29.0	200	385			
232A Marion	WMRN-FM	LIC	_CN	142.7	132.22	40 36 27.0	3.000	76.5	24.6	49.9	88.6
		OH		323.4	BLH6599	83 14 14.0	91	375	Citicasters Licenses, Inc.		

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= East Zone, Co to 3rd adjacent.
 All separation margins (if shown) include rounding. Call signs with strikeout need not be protected.
 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 restricted contour.
 < = Contour Overlap

W232CM is the facility being modified. No protection is required for this station.

A detailed protection study towards WXKR - Port Clinton, OH is included in Exhibit 13.6.

Exhibit 13.6

Detailed Protection Study Towards WXKR(FM) - Port Clinton, OH

Pittsford Educational Broadcasting Foundation

FMCommander Single Allocation Study - 11-21-2016 - NED 03 SEC
W232CM.C's Overlaps (In= -5.02 km, Out= 1.35 km)

W232CM.C CH 232 D DA
Lat= 41 33 29.0, Lng= 84 11 08.0
0.25 kW 78.6 m HAAT, 304 m COR
Prot.= 60 dBu, Intef.= 48 dBu

WXKR CH 233 B 73.215 Z BLH20080910ACQ
Lat= 41 30 03.0, Lng= 83 16 16.0
30.0 kW 188.2 m HAAT, 373.7 m COR
Prot.= 54 dBu, Intef.= 54 dBu

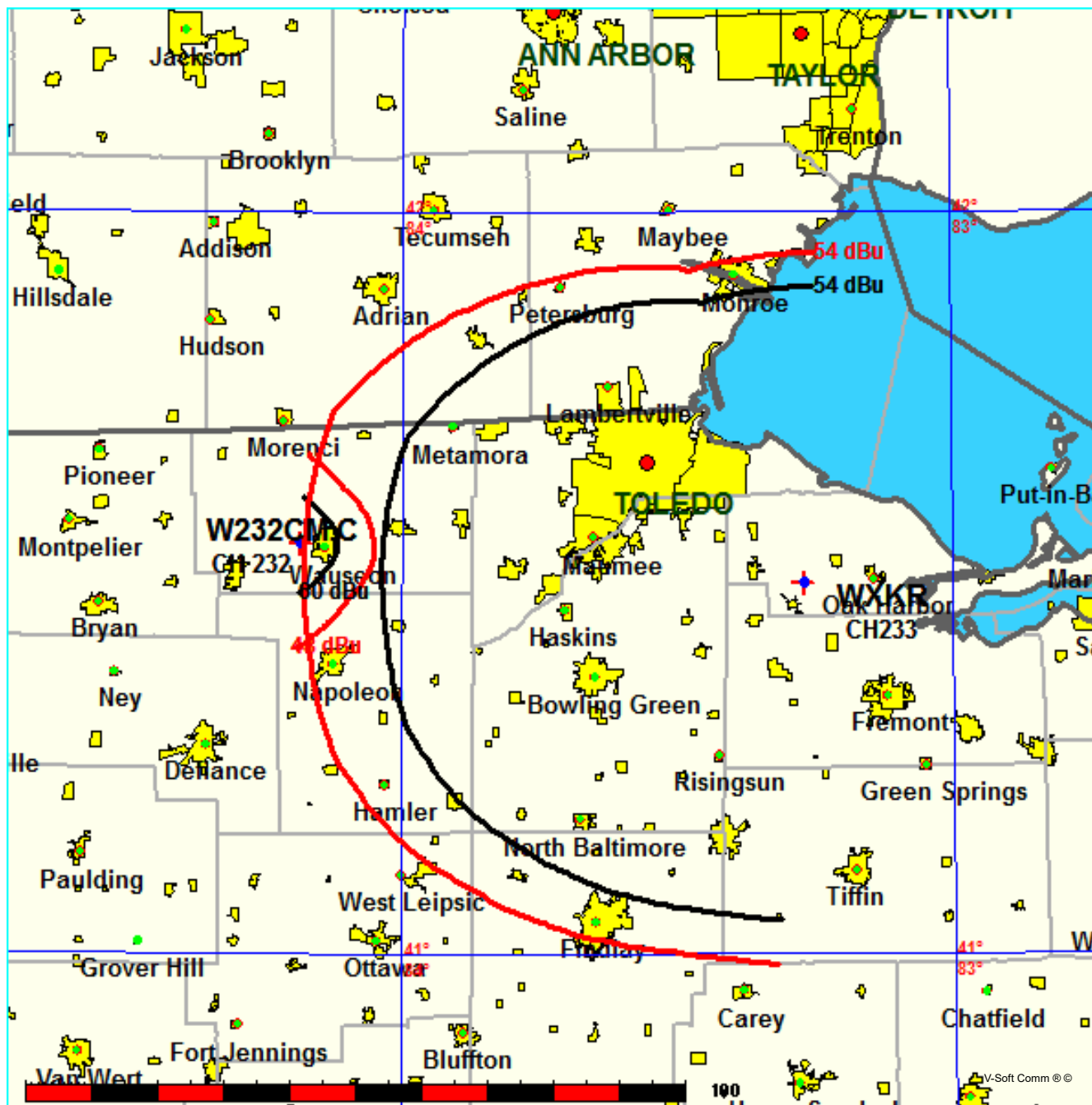


Exhibit 13.6

Detailed Protection Study Towards WXKR(FM) – Port Clinton, OH

11-21-2016 Terrain Data: NED 03 SEC FMOver Analysis

W232CM.C

WXKR BLH20080910ACQ

Channel = 232D
Max ERP = 0.25 kW
RCAMSL = 304 m
N. Lat. 41 33 29.0
W. Lng. 84 11 08.0
Protected
60 dBu

Channel = 233B
Max ERP = 30 kW
RCAMSL = 373.7 m
N. Lat. 41 30 03.0
W. Lng. 83 16 16.0
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
034.0	000.2500	0066.8	010.7	282.5	029.7889	0184.6	071.7	55.35*	4.12
035.0	000.2500	0066.9	010.7	282.5	029.7930	0184.6	071.5	55.41*	4.30
036.0	000.2500	0067.4	010.7	282.4	029.7959	0184.6	071.4	55.47*	4.49
037.0	000.2500	0067.4	010.7	282.4	029.8013	0184.6	071.2	55.53*	4.65
038.0	000.2500	0067.2	010.7	282.3	029.8076	0184.5	071.0	55.58*	4.82
039.0	000.2500	0067.5	010.7	282.2	029.8122	0184.5	070.9	55.64*	5.00
040.0	000.2500	0068.1	010.8	282.2	029.8154	0184.5	070.7	55.70*	5.18
041.0	000.2500	0068.6	010.8	282.1	029.8198	0184.5	070.5	55.76*	5.36
042.0	000.2500	0068.9	010.8	282.1	029.8246	0184.5	070.3	55.82*	5.54
043.0	000.2500	0069.3	010.8	282.0	029.8300	0184.5	070.1	55.88*	5.71
044.0	000.2500	0069.2	010.8	281.9	029.8373	0184.5	070.0	55.93*	5.87
045.0	000.2500	0069.5	010.9	281.9	029.8431	0184.5	069.8	55.99*	6.04
046.0	000.2500	0069.4	010.9	281.8	029.8507	0184.4	069.7	56.04*	6.20
047.0	000.2500	0069.7	010.9	281.7	029.8570	0184.4	069.5	56.10*	6.36
048.0	000.2500	0069.9	010.9	281.6	029.8642	0184.4	069.3	56.15*	6.53
049.0	000.2500	0070.0	010.9	281.5	029.8717	0184.4	069.2	56.20*	6.68
050.0	000.2500	0070.2	010.9	281.4	029.8795	0184.4	069.0	56.26*	6.84
051.0	000.2500	0070.6	010.9	281.4	029.8862	0184.4	068.9	56.31*	7.01
052.0	000.2500	0070.8	010.9	281.3	029.8944	0184.4	068.7	56.36*	7.17
053.0	000.2500	0071.0	011.0	281.2	029.9027	0184.4	068.5	56.42*	7.32
054.0	000.2500	0070.9	011.0	281.0	029.9120	0184.4	068.4	56.46*	7.46
055.0	000.2500	0071.3	011.0	281.0	029.9202	0184.4	068.3	56.52*	7.62
056.0	000.2500	0071.6	011.0	280.8	029.9287	0184.4	068.1	56.57*	7.77
057.0	000.2500	0071.6	011.0	280.7	029.9384	0184.4	068.0	56.61*	7.91
058.0	000.2500	0071.8	011.0	280.6	029.9477	0184.4	067.8	56.66*	8.05
059.0	000.2500	0072.1	011.0	280.5	029.9571	0184.4	067.7	56.71*	8.20
060.0	000.2500	0071.9	011.0	280.4	029.9680	0184.3	067.6	56.75*	8.31
061.0	000.2500	0072.1	011.0	280.3	029.9780	0184.3	067.4	56.79*	8.45
062.0	000.2500	0072.3	011.0	280.1	029.9885	0184.2	067.3	56.83*	8.57
063.0	000.2500	0072.4	011.1	280.0	029.9991	0184.2	067.2	56.88*	8.70
064.0	000.2500	0072.5	011.1	279.9	030.0000	0184.2	067.1	56.92*	8.81
065.0	000.2500	0072.5	011.1	279.7	030.0000	0184.2	067.0	56.95*	8.92
066.0	000.2500	0072.6	011.1	279.6	030.0000	0184.2	066.9	56.99*	9.03
067.0	000.2500	0073.2	011.1	279.5	030.0000	0184.1	066.7	57.03*	9.17
068.0	000.2500	0072.9	011.1	279.3	030.0000	0184.1	066.6	57.06*	9.25
069.0	000.2500	0073.2	011.1	279.2	030.0000	0184.1	066.5	57.10*	9.36
070.0	000.2500	0073.7	011.1	279.1	030.0000	0184.1	066.4	57.14*	9.48
071.0	000.2500	0074.0	011.2	278.9	030.0000	0184.0	066.3	57.18*	9.59
072.0	000.2500	0074.0	011.2	278.8	030.0000	0184.0	066.2	57.20*	9.67
073.0	000.2500	0073.7	011.1	278.6	030.0000	0183.9	066.1	57.22*	9.72
074.0	000.2500	0073.9	011.2	278.5	030.0000	0183.8	066.0	57.25*	9.80
075.0	000.2500	0073.9	011.2	278.3	030.0000	0183.7	066.0	57.27*	9.86
076.0	000.2500	0074.0	011.2	278.2	030.0000	0183.6	065.9	57.29*	9.93
077.0	000.2500	0074.4	011.2	278.0	030.0000	0183.5	065.8	57.32*	10.01
078.0	000.2500	0074.8	011.2	277.9	030.0000	0183.5	065.7	57.35*	10.11

Exhibit 13.6

Detailed Protection Study Towards WXKR(FM) – Port Clinton, OH

079.0	000.2500	0075.0	011.2	277.7	030.0000	0183.5	065.6	57.38*	10.19
080.0	000.2500	0075.1	011.2	277.5	030.0000	0183.6	065.5	57.40*	10.26
081.0	000.2500	0075.2	011.2	277.4	030.0000	0183.6	065.5	57.42*	10.32
082.0	000.2500	0075.7	011.3	277.2	030.0000	0183.6	065.4	57.45*	10.41
083.0	000.2500	0076.1	011.3	277.1	030.0000	0183.6	065.3	57.48*	10.48
084.0	000.2500	0076.5	011.3	276.9	030.0000	0183.6	065.3	57.50*	10.55
085.0	000.2500	0076.5	011.3	276.7	030.0000	0183.6	065.2	57.52*	10.59
086.0	000.2500	0076.7	011.4	276.6	030.0000	0183.6	065.2	57.54*	10.65
087.0	000.2500	0076.8	011.4	276.4	030.0000	0183.7	065.1	57.55*	10.69
088.0	000.2500	0077.3	011.4	276.2	030.0000	0183.7	065.1	57.57*	10.75
089.0	000.2500	0077.9	011.4	276.0	030.0000	0183.7	065.0	57.59*	10.82
090.0	000.2500	0078.4	011.5	275.9	030.0000	0183.7	065.0	57.61*	10.87
091.0	000.2500	0078.6	011.5	275.7	030.0000	0183.7	064.9	57.62*	10.90
092.0	000.2500	0079.0	011.5	275.5	030.0000	0183.7	064.9	57.63*	10.94
093.0	000.2500	0079.3	011.5	275.3	030.0000	0183.7	064.9	57.64*	10.97
094.0	000.2500	0079.7	011.5	275.2	030.0000	0183.7	064.8	57.65*	11.00
095.0	000.2500	0080.1	011.6	275.0	030.0000	0183.6	064.8	57.66*	11.02
096.0	000.2500	0080.7	011.6	274.8	030.0000	0183.6	064.8	57.67*	11.06
097.0	000.2500	0080.9	011.6	274.6	030.0000	0183.6	064.8	57.68*	11.06
098.0	000.2500	0081.3	011.7	274.4	030.0000	0183.7	064.7	57.68*	11.09
099.0	000.2500	0081.7	011.7	274.3	030.0000	0183.8	064.7	57.69*	11.10
100.0	000.2500	0081.6	011.7	274.1	030.0000	0183.8	064.8	57.68*	11.08
101.0	000.2500	0082.0	011.7	273.9	030.0000	0183.8	064.8	57.68*	11.08
102.0	000.2500	0082.2	011.7	273.7	030.0000	0183.8	064.8	57.67*	11.06
103.0	000.2500	0082.5	011.7	273.5	030.0000	0183.7	064.8	57.66*	11.03
104.0	000.2500	0082.8	011.8	273.4	030.0000	0183.6	064.8	57.65*	11.00
105.0	000.2500	0083.2	011.8	273.2	030.0000	0183.5	064.8	57.64*	10.97
106.0	000.2500	0083.5	011.8	273.0	030.0000	0183.4	064.9	57.63*	10.94
107.0	000.2500	0083.7	011.8	272.8	030.0000	0183.4	064.9	57.62*	10.90
108.0	000.2500	0083.8	011.8	272.6	030.0000	0183.3	064.9	57.60*	10.84
109.0	000.2500	0083.7	011.8	272.5	030.0000	0183.3	065.0	57.58*	10.77
110.0	000.2500	0083.9	011.8	272.3	030.0000	0183.3	065.1	57.56*	10.71
111.0	000.2500	0083.9	011.8	272.1	030.0000	0183.2	065.1	57.53*	10.64
112.0	000.2500	0083.9	011.8	271.9	030.0000	0183.1	065.2	57.51*	10.56
113.0	000.2500	0084.1	011.8	271.8	030.0000	0183.0	065.3	57.48*	10.49
114.0	000.2500	0084.3	011.9	271.6	030.0000	0183.0	065.3	57.46*	10.41
115.0	000.2500	0084.6	011.9	271.4	030.0000	0182.9	065.4	57.43*	10.34
116.0	000.2500	0085.0	011.9	271.3	030.0000	0182.9	065.4	57.41*	10.27
117.0	000.2500	0085.1	011.9	271.1	030.0000	0182.9	065.5	57.38*	10.19
118.0	000.2500	0085.3	011.9	270.9	030.0000	0182.9	065.6	57.35*	10.11
119.0	000.2500	0085.5	011.9	270.8	030.0000	0182.9	065.7	57.32*	10.02
120.0	000.2500	0085.5	011.9	270.6	030.0000	0182.9	065.8	57.29*	9.92
121.0	000.2500	0086.0	012.0	270.4	030.0000	0183.0	065.9	57.26*	9.84
122.0	000.2500	0086.0	012.0	270.3	030.0000	0182.9	066.0	57.22*	9.73
123.0	000.2500	0086.0	012.0	270.1	030.0000	0182.9	066.1	57.19*	9.61
124.0	000.2500	0086.3	012.0	270.0	030.0000	0182.9	066.2	57.15*	9.51
125.0	000.2500	0086.3	012.0	269.8	030.0000	0182.8	066.3	57.11*	9.39
126.0	000.2500	0086.4	012.0	269.7	030.0000	0182.8	066.4	57.07*	9.26
127.0	000.2500	0086.6	012.0	269.5	030.0000	0182.8	066.6	57.03*	9.14
128.0	000.2500	0086.7	012.0	269.4	030.0000	0182.8	066.7	56.98*	9.01
129.0	000.2500	0086.7	012.0	269.2	030.0000	0182.7	066.8	56.94*	8.87
130.0	000.2500	0086.9	012.0	269.1	030.0000	0182.7	067.0	56.89*	8.74
131.0	000.2500	0087.0	012.0	269.0	030.0000	0182.6	067.1	56.85*	8.60
132.0	000.2500	0087.1	012.0	268.8	030.0000	0182.6	067.2	56.80*	8.45
133.0	000.2500	0086.9	012.0	268.7	030.0000	0182.6	067.4	56.74*	8.30
134.0	000.2500	0087.0	012.0	268.6	030.0000	0182.5	067.5	56.69*	8.14
135.0	000.2500	0087.0	012.0	268.4	030.0000	0182.5	067.7	56.64*	7.99
136.0	000.2500	0087.0	012.0	268.3	030.0000	0182.5	067.8	56.59*	7.83
137.0	000.2500	0086.9	012.0	268.2	030.0000	0182.4	068.0	56.53*	7.66
138.0	000.2500	0086.9	012.0	268.1	030.0000	0182.4	068.2	56.48*	7.50
139.0	000.2500	0087.1	012.0	268.0	030.0000	0182.4	068.3	56.42*	7.34
140.0	000.2500	0087.0	012.0	267.9	030.0000	0182.4	068.5	56.37*	7.17

Exhibit 13.6

Detailed Protection Study Towards WXKR(FM) – Port Clinton, OH

Exhibit 13.6

Detailed Protection Study Towards WXXR(FM) – Port Clinton, OH

11-21-2016 Terrain Data: NED 03 SEC FMOver Analysis

WXXR BLH20080910ACQ

W232CM.C

Channel = 233B
Max ERP = 30 kW
RCAMSL = 373.7 m
N. Lat. 41 30 03.0
W. Lng. 83 16 16.0
Protected
54 dBu

Channel = 232D
Max ERP = 0.25 kW
RCAMSL = 304 m
N. Lat. 41 33 29.0
W. Lng. 84 11 08.0
Interfering
48 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
215.0	012.0777	0180.0	055.3	138.9	000.0121	0087.0	068.4	17.48	
216.0	012.4112	0179.7	055.5	139.3	000.0121	0087.1	067.5	17.73	
217.0	012.7492	0179.5	055.7	139.7	000.0121	0087.0	066.6	17.99	
218.0	013.0918	0179.6	055.9	140.1	000.0121	0087.0	065.7	18.26	
219.0	013.4389	0180.0	056.2	140.5	000.0123	0087.1	064.8	18.57	
220.0	013.7905	0180.1	056.4	140.9	000.0124	0087.1	063.9	18.89	
221.0	014.2168	0180.0	056.7	141.3	000.0125	0087.1	063.0	19.21	
222.0	014.6496	0180.6	057.0	141.7	000.0127	0087.0	062.1	19.55	
223.0	015.0889	0180.7	057.3	142.2	000.0128	0087.0	061.1	19.90	
224.0	015.5347	0180.4	057.5	142.5	000.0130	0087.0	060.2	20.26	
225.0	015.9870	0180.3	057.8	142.9	000.0131	0087.0	059.2	20.63	
226.0	016.4902	0179.7	058.0	143.3	000.0132	0087.1	058.3	21.01	
227.0	017.0012	0179.7	058.3	143.7	000.0133	0087.2	057.3	21.40	
228.0	017.5201	0179.9	058.6	144.1	000.0135	0087.3	056.3	21.80	
229.0	018.0467	0180.3	058.9	144.5	000.0136	0087.4	055.3	22.21	
230.0	018.5811	0180.3	059.2	144.9	000.0138	0087.3	054.3	22.62	
231.0	019.1664	0180.7	059.5	145.3	000.0139	0087.3	053.3	23.03	
232.0	019.7608	0181.0	059.8	145.8	000.0141	0087.2	052.3	23.44	
233.0	020.3643	0181.3	060.1	146.2	000.0142	0087.2	051.3	23.86	
234.0	020.9769	0181.5	060.4	146.6	000.0144	0087.2	050.3	24.27	
235.0	021.5986	0182.0	060.7	147.0	000.0145	0087.1	049.2	24.69	
236.0	022.2293	0181.7	060.9	147.4	000.0146	0087.1	048.2	25.10	
237.0	022.8691	0181.7	061.2	147.7	000.0148	0087.1	047.1	25.52	
238.0	023.5180	0181.9	061.5	148.1	000.0149	0087.1	046.1	25.95	
239.0	024.1760	0181.9	061.7	148.4	000.0150	0087.1	045.0	26.39	
240.0	024.8430	0180.8	061.9	148.6	000.0151	0087.1	043.9	26.82	
241.0	025.3368	0180.4	062.0	148.7	000.0152	0087.1	042.8	27.26	
242.0	025.8355	0180.9	062.3	149.0	000.0153	0087.0	041.7	27.71	
243.0	026.3391	0181.6	062.5	149.3	000.0154	0087.0	040.6	28.18	
244.0	026.8475	0181.2	062.7	149.4	000.0154	0087.0	039.5	28.65	
245.0	027.3608	0180.9	062.8	149.5	000.0154	0087.0	038.4	29.12	
246.0	027.8789	0180.9	063.0	149.6	000.0155	0087.0	037.3	29.61	
247.0	028.4019	0181.3	063.2	149.7	000.0155	0087.0	036.2	30.11	
248.0	028.9297	0181.8	063.4	149.9	000.0156	0087.0	035.1	30.63	
249.0	029.4624	0182.1	063.6	150.0	000.0156	0087.1	033.9	31.14	
250.0	030.0000	0182.4	063.8	150.0	000.0156	0087.1	032.8	31.68	
251.0	030.0000	0182.7	063.9	149.7	000.0155	0087.0	031.7	32.16	
252.0	030.0000	0182.8	063.9	149.3	000.0154	0087.0	030.6	32.67	
253.0	030.0000	0183.0	063.9	148.9	000.0152	0087.1	029.5	33.23	
254.0	030.0000	0183.0	063.9	148.3	000.0150	0087.1	028.4	33.81	
255.0	030.0000	0183.1	063.9	147.7	000.0148	0087.1	027.4	34.41	
256.0	030.0000	0183.8	064.0	147.2	000.0146	0087.1	026.3	35.06	
257.0	030.0000	0184.0	064.0	146.4	000.0143	0087.2	025.2	35.71	
258.0	030.0000	0183.2	063.9	145.3	000.0139	0087.3	024.2	36.32	
259.0	030.0000	0182.7	063.8	144.1	000.0135	0087.3	023.2	36.93	
260.0	030.0000	0182.4	063.8	142.9	000.0131	0087.0	022.2	37.51	

Exhibit 13.6

Detailed Protection Study Towards WXKR(FM) – Port Clinton, OH

261.0	030.0000	0182.2	063.8	141.4	000.0126	0087.1	021.2	38.11
262.0	030.0000	0182.1	063.8	139.9	000.0121	0087.0	020.3	38.69
263.0	030.0000	0181.9	063.8	138.1	000.0121	0086.9	019.4	39.43
264.0	030.0000	0181.9	063.8	136.1	000.0121	0087.0	018.5	40.18
265.0	030.0000	0182.0	063.8	133.9	000.0121	0087.0	017.6	40.91
266.0	030.0000	0182.0	063.8	131.4	000.0121	0087.0	016.8	41.61
267.0	030.0000	0182.2	063.8	128.7	000.0121	0086.7	016.0	42.25
268.0	030.0000	0182.4	063.8	125.6	000.0121	0086.4	015.2	42.85
269.0	030.0000	0182.7	063.8	122.2	000.0121	0086.0	014.6	43.35
270.0	030.0000	0182.9	063.9	118.4	000.0123	0085.3	014.0	44.07
271.0	030.0000	0182.9	063.9	114.2	000.0127	0084.4	013.5	44.77
272.0	030.0000	0183.1	063.9	109.8	000.0132	0083.8	013.0	45.45
273.0	030.0000	0183.4	063.9	105.0	000.0132	0083.2	012.7	45.84
274.0	030.0000	0183.8	064.0	100.0	000.0132	0081.7	012.5	46.01
275.0	030.0000	0183.6	063.9	094.9	000.0132	0080.0	012.4	45.92
276.0	030.0000	0183.7	063.9	089.8	000.0132	0078.3	012.5	45.66
277.0	030.0000	0183.6	063.9	084.7	000.0132	0076.4	012.7	45.20
278.0	030.0000	0183.5	063.9	079.9	000.0132	0075.2	012.9	44.65
279.0	030.0000	0184.1	064.0	075.3	000.0132	0073.9	013.3	44.04
280.0	030.0000	0184.2	064.0	071.0	000.0132	0074.0	013.8	43.42
281.0	029.9161	0184.4	064.0	067.1	000.0129	0073.2	014.3	42.48
282.0	029.8322	0184.5	064.0	063.6	000.0125	0072.4	015.0	41.69
283.0	029.7485	0184.6	064.0	060.4	000.0121	0072.0	015.7	40.88
284.0	029.6649	0184.8	063.9	057.6	000.0121	0071.7	016.5	40.15
285.0	029.5815	0184.9	063.9	055.1	000.0121	0071.3	017.3	39.38
286.0	029.4981	0185.1	063.9	052.8	000.0121	0071.0	018.2	38.60
287.0	029.4149	0185.1	063.9	050.9	000.0121	0070.6	019.1	37.79
288.0	029.3318	0185.2	063.9	049.1	000.0121	0070.0	020.1	36.95
289.0	029.2488	0185.4	063.9	047.6	000.0121	0069.9	021.0	36.15
290.0	029.1659	0185.4	063.8	046.3	000.0121	0069.5	022.0	35.32
291.0	028.0759	0185.5	063.5	045.8	000.0121	0069.4	023.2	34.41
292.0	027.0066	0185.6	063.1	045.5	000.0121	0069.4	024.3	33.56
293.0	025.9582	0185.7	062.8	045.3	000.0121	0069.4	025.5	32.75
294.0	024.9304	0185.9	062.4	045.1	000.0121	0069.5	026.7	31.97
295.0	023.9235	0185.9	062.0	045.0	000.0121	0069.5	027.8	31.24
296.0	022.9373	0186.1	061.6	045.0	000.0121	0069.5	028.9	30.55
297.0	021.9718	0186.3	061.2	045.0	000.0121	0069.5	030.1	29.92
298.0	021.0271	0186.5	060.9	045.1	000.0121	0069.5	031.2	29.33
299.0	020.1032	0186.8	060.5	045.2	000.0121	0069.4	032.3	28.80
300.0	019.2000	0187.2	060.1	045.3	000.0121	0069.4	033.5	28.30
301.0	018.4397	0187.5	059.7	045.4	000.0121	0069.4	034.6	27.82
302.0	017.6947	0187.5	059.4	045.6	000.0121	0069.4	035.7	27.34
303.0	016.9651	0187.8	059.0	045.7	000.0121	0069.4	036.8	26.88
304.0	016.2509	0187.8	058.6	046.0	000.0121	0069.4	037.8	26.44
305.0	015.5520	0187.9	058.2	046.2	000.0121	0069.5	038.9	26.01
306.0	014.8685	0188.1	057.8	046.5	000.0121	0069.6	040.0	25.60
307.0	014.2003	0188.4	057.4	046.8	000.0121	0069.6	041.0	25.19
308.0	013.5475	0188.6	057.0	047.1	000.0121	0069.8	042.1	24.80
309.0	012.9101	0188.7	056.6	047.4	000.0121	0069.9	043.2	24.42
310.0	012.2880	0188.9	056.2	047.8	000.0121	0070.0	044.2	24.05
311.0	011.7563	0189.1	055.8	048.1	000.0121	0069.9	045.2	23.68
312.0	011.2363	0189.3	055.4	048.4	000.0121	0069.9	046.2	23.33
313.0	010.7281	0189.4	055.0	048.8	000.0121	0070.0	047.2	22.99
314.0	010.2317	0189.6	054.6	049.1	000.0121	0070.0	048.2	22.66
315.0	009.7470	0190.4	054.2	049.5	000.0121	0070.0	049.2	22.34
316.0	009.3409	0190.8	053.9	049.8	000.0121	0070.1	050.2	22.02
317.0	008.9435	0191.3	053.5	050.1	000.0121	0070.2	051.1	21.71
318.0	008.5547	0190.4	053.1	050.5	000.0121	0070.4	052.1	21.40
319.0	008.1745	0190.2	052.6	051.0	000.0121	0070.6	053.0	21.11
320.0	007.8030	0190.5	052.3	051.3	000.0121	0070.7	054.0	20.80
321.0	007.5000	0190.6	051.9	051.7	000.0121	0070.8	054.9	20.50
322.0	007.2030	0190.7	051.6	052.0	000.0121	0070.8	055.8	20.19

Exhibit 13.6
Detailed Protection Study Towards WXKR(FM) – Port Clinton, OH

323.0	006.9120	0190.8	051.2		052.4	000.0121	0070.9	056.7	19.90
324.0	006.6270	0190.8	050.8		052.8	000.0121	0071.0	057.6	19.62
325.0	006.3480	0191.2	050.5		053.1	000.0121	0071.0	058.5	19.33
326.0	006.0750	0191.4	050.1		053.5	000.0121	0071.0	059.3	19.05
327.0	005.8080	0191.5	049.7		053.9	000.0121	0070.9	060.2	18.78
328.0	005.5470	0191.6	049.3		054.3	000.0121	0071.1	061.0	18.54
329.0	005.2920	0191.8	048.9		054.8	000.0121	0071.2	061.8	18.29
330.0	005.0430	0191.9	048.5		055.2	000.0121	0071.3	062.7	18.06
331.0	004.8481	0192.0	048.1		055.6	000.0121	0071.5	063.5	17.83
332.0	004.6571	0192.0	047.8		056.0	000.0121	0071.6	064.3	17.62
333.0	004.4699	0192.1	047.4		056.4	000.0121	0071.6	065.1	17.40
334.0	004.2865	0192.3	047.0		056.8	000.0121	0071.6	065.9	17.19
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Exhibit 13.7

Proposed W232CM Directional Antenna Pattern

W232CM. C

11-21-2016

RMS(V) = .608

Graph is Relative Field

Azi	Field	dBk	kW
000	0.440	-13.152	0.048
010	0.360	-14.895	0.032
020	0.290	-16.773	0.021
030	0.250	-18.062	0.016
040	0.220	-19.172	0.012
050	0.220	-19.172	0.012
060	0.220	-19.172	0.012
070	0.230	-18.786	0.013
080	0.230	-18.786	0.013
090	0.230	-18.786	0.013
100	0.230	-18.786	0.013
110	0.230	-18.786	0.013
120	0.220	-19.172	0.012
130	0.220	-19.172	0.012
140	0.220	-19.172	0.012
150	0.250	-18.062	0.016
160	0.290	-16.773	0.021
170	0.360	-14.895	0.032
180	0.440	-13.152	0.048
190	0.530	-11.535	0.070
200	0.630	-10.034	0.099
210	0.730	-08.754	0.133
220	0.810	-07.851	0.164
230	0.880	-07.131	0.194
240	0.930	-06.651	0.216
250	0.970	-06.285	0.235
260	0.990	-06.108	0.245
270	1.000	-06.021	0.250
280	0.990	-06.108	0.245
290	0.970	-06.285	0.235
300	0.930	-06.651	0.216
310	0.880	-07.131	0.194
320	0.810	-07.851	0.164
330	0.730	-08.754	0.133
340	0.630	-10.034	0.099
350	0.530	-11.535	0.070

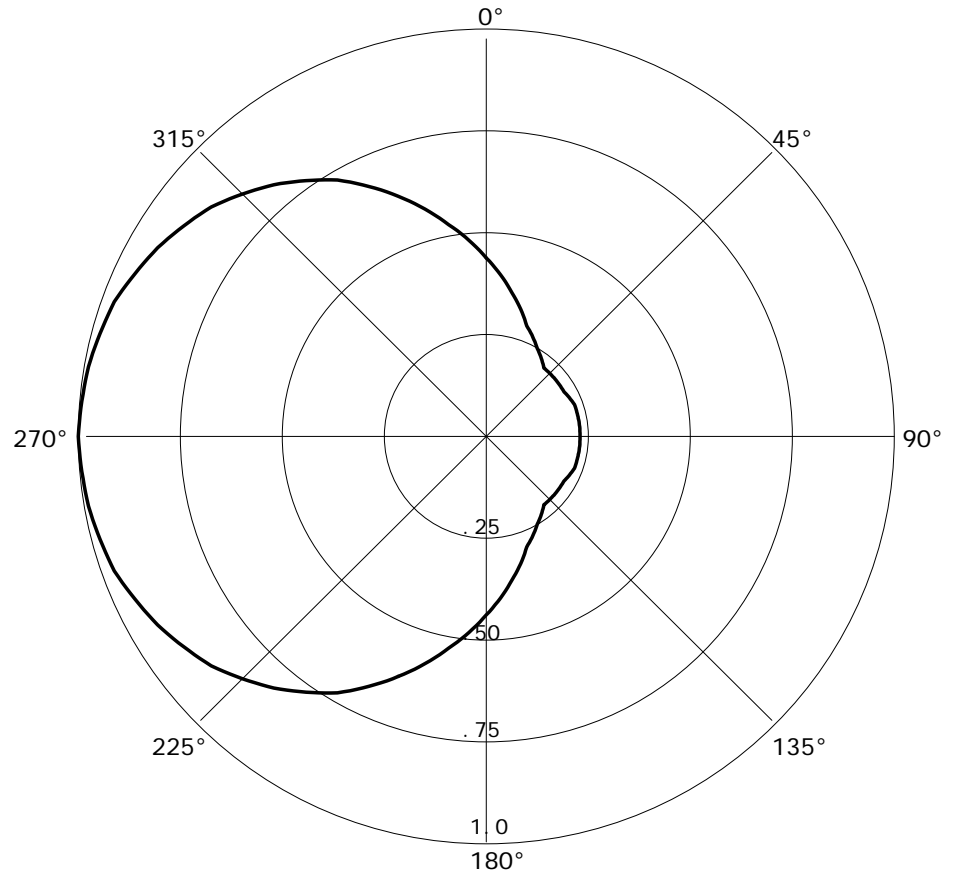
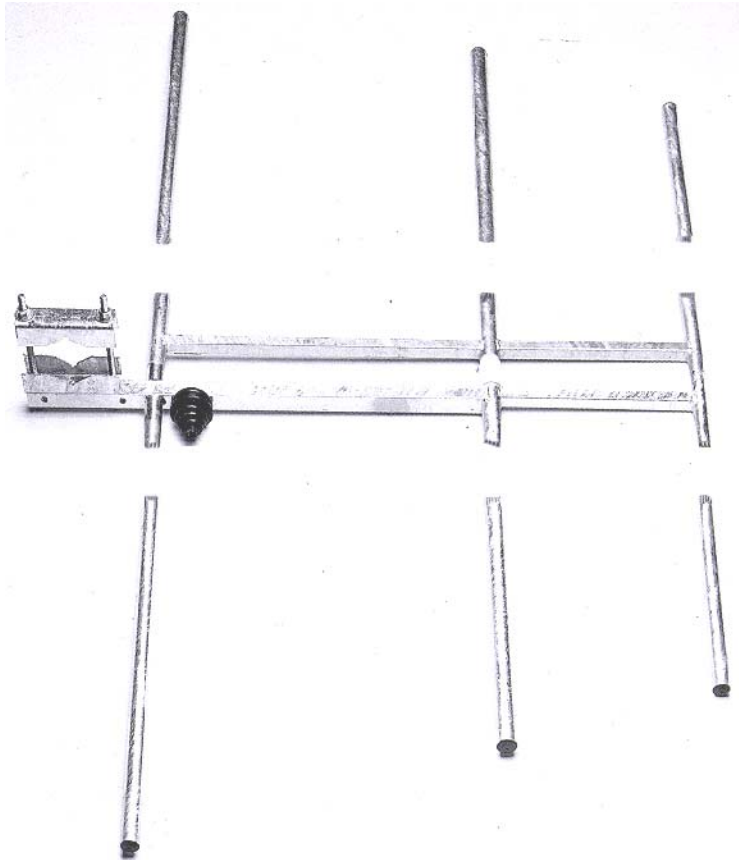


Exhibit 13.8 - Reprint of Directional Antenna Data from Antenna Manufacturer



NICOM
BKY3/P
Medium Power
Portable
Broadband FM
Directional Antenna
Antena Portátil
Direccional
de FM Banda Ancha

This broadband dipole antenna constructed of stainless steel is designed to last a long time in any weather condition. Because of its sturdy construction it can support up to 2 kw of input power with the appropriate connector. Since it has a wide angle of radiation it is strongly recommended for omni-directional arrays. Due to the fact that it is easily disassembled and reassembled, it can be placed in a compact container making it very portable and

inexpensive to ship.

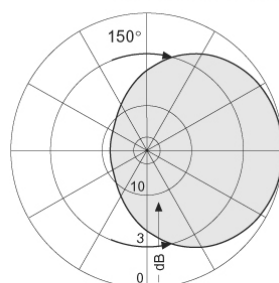
Esta antena dipolo de banda ancha, fabricada de acero inoxidable fue concebida para ser duradera en cualquier condición de clima. Debido a su robusta construcción puede soportar hasta 2 kw de potencia de entrada con el conector apropiado. Esta antena es recomendada para formaciones omnidireccionales ya que tiene un gran ángulo de irradiación. Dado al hecho que es fácil de armar y desarmar esta antena puede ser enviada en un contenedor muy compacto rendiendola portátil y económica para envíos.

TECHNICAL SPECIFICATIONS

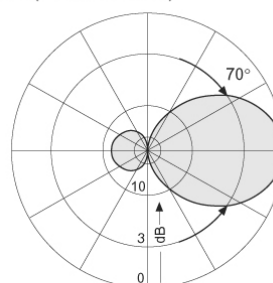
Antenna type	3 element directional antenna
Frequency range	87.5 - 108 MHz
Bandwidth	20 MHz
Impedance	50 Ohms
Connectors	N type (1 kw) - EIA 7/8 (2 kw)
Power rating	2000 Watts max.
VSWR	< 1.2 max.
Polarization	vertical or horizontal
Gain	4.5 dB (referred to half-wave dipole)
H plane	150 degrees
V plane	70 degrees

Front-to-back ratio	18 dB
Lightning protection	all parts grounded
Max wind velocity	130 mph (208 km/h)
Wind load	48.4 Lbs (22 kg)
Wind surface	2.0 ft ² (0.19 m ²)
Materials (external)	stainless steel
Mounting	from 2" to 4"
Weight	20 Lbs (9 kg)
Dimensions	50"×72"×3" (1250×1800×60mm)
Packing	53"×19"×4" (1300×480×100mm)

Radiation Patterns (at mid-band)



in H-plane
Horizontal Radiation Pattern

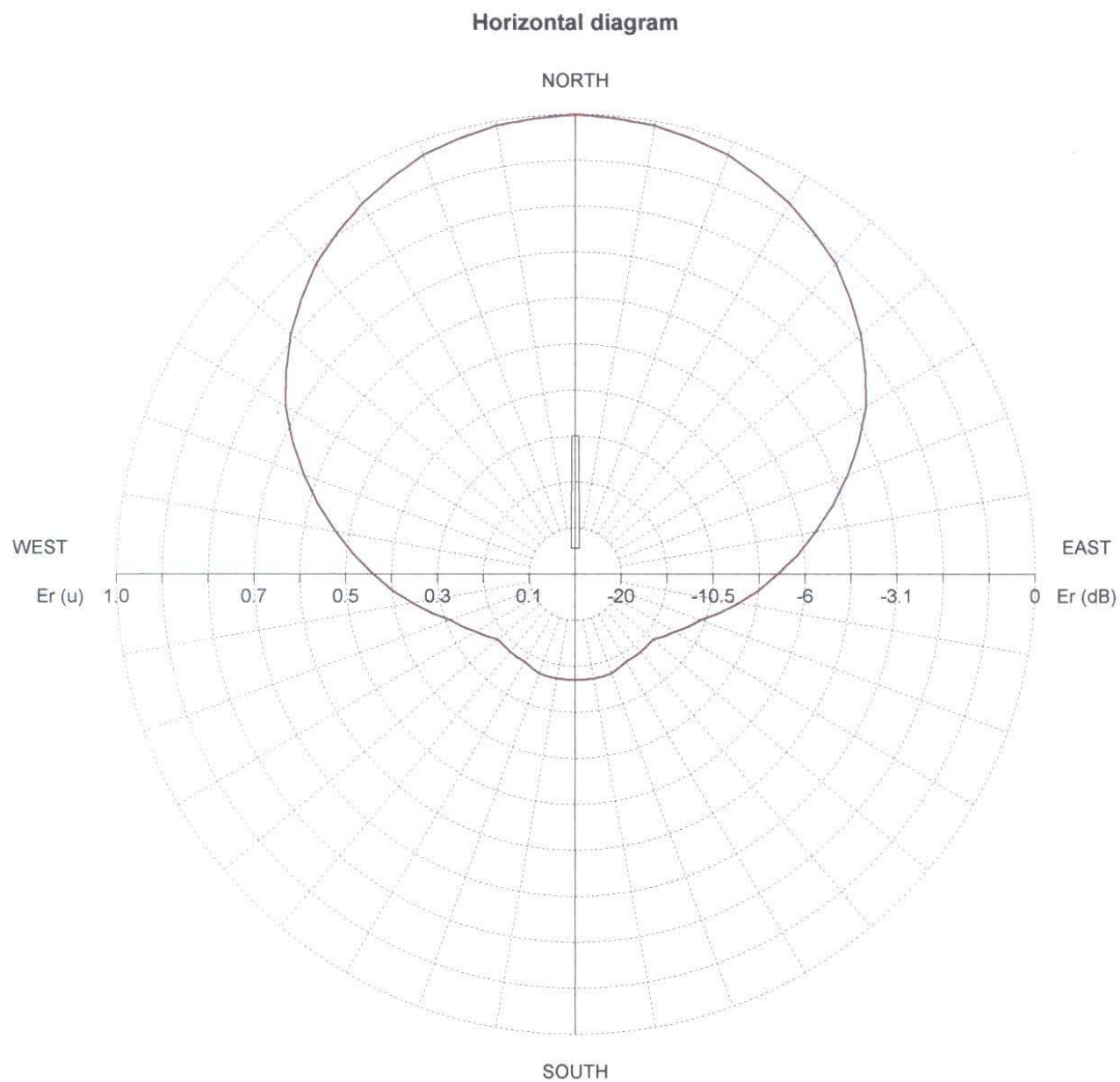


in E-plane
Vertical Radiation Pattern

Exhibit 13.8 - Reprint of Directional Antenna Data from Antenna Manufacturer

TX station: BKY/3
Frequency: 98.00 MHz

Site name:



— 0.0° depres. (Total antenna), Gain (dBd): 3.6 ERP T.max (KW): 2.291 ERP E.max (KW): 1.778

Exhibit 13.8 - Reprint of Directional Antenna Data from Antenna Manufacturer

TX station: BKY/3

Site name:

Frequency: 98.00 MHz

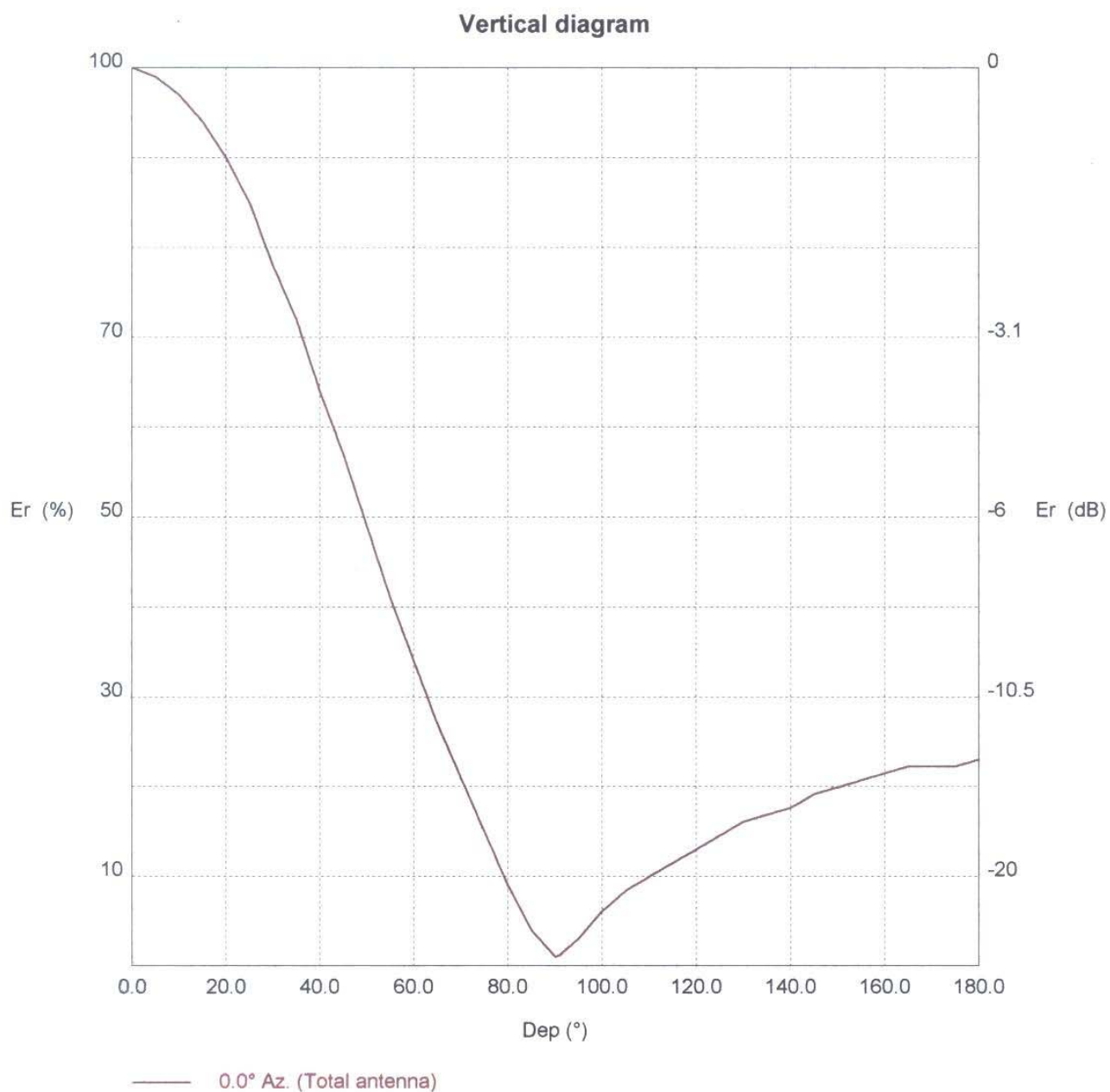


Exhibit 13.8 - Reprint of Directional Antenna Data from Antenna Manufacturer

TX station: BKY/3

Site name:

Frequency: 98.00 MHz

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)
0.0	100.0	1.78	60.0	34.0	0.21	120.0	13.0	0.03
2.0	99.6	1.76	62.0	31.2	0.17	122.0	13.6	0.03
4.0	99.2	1.75	64.0	28.4	0.14	124.0	14.3	0.04
6.0	98.6	1.73	66.0	25.8	0.12	126.0	14.9	0.04
8.0	97.8	1.70	68.0	23.4	0.10	128.0	15.5	0.04
10.0	97.0	1.67	70.0	21.0	0.08	130.0	16.1	0.05
12.0	95.8	1.63	72.0	18.6	0.06	132.0	16.4	0.05
14.0	94.6	1.59	74.0	16.2	0.05	134.0	16.7	0.05
16.0	93.2	1.54	76.0	13.8	0.03	136.0	17.0	0.05
18.0	91.6	1.49	78.0	11.4	0.02	138.0	17.3	0.05
20.0	90.0	1.44	80.0	9.0	0.01	140.0	17.6	0.06
22.0	88.0	1.38	82.0	7.0	0.01	142.0	18.2	0.06
24.0	86.0	1.32	84.0	5.0	0.00	144.0	18.9	0.06
26.0	83.6	1.24	86.0	3.4	0.00	146.0	19.3	0.07
28.0	80.8	1.16	88.0	2.2	0.00	148.0	19.6	0.07
30.0	78.0	1.08	90.0	1.0	0.00	150.0	19.9	0.07
32.0	75.6	1.02	92.0	1.7	0.00	152.0	20.2	0.07
34.0	73.2	0.95	94.0	2.6	0.00	154.0	20.5	0.08
36.0	70.4	0.88	96.0	3.7	0.00	156.0	20.9	0.08
38.0	67.2	0.80	98.0	4.9	0.00	158.0	21.2	0.08
40.0	64.0	0.73	100.0	6.1	0.01	160.0	21.5	0.08
42.0	61.2	0.67	102.0	7.1	0.01	162.0	21.8	0.08
44.0	58.4	0.61	104.0	8.0	0.01	164.0	22.1	0.09
46.0	55.4	0.55	106.0	8.7	0.01	166.0	22.2	0.09
48.0	52.2	0.48	108.0	9.4	0.02	168.0	22.2	0.09
50.0	49.0	0.43	110.0	10.0	0.02	170.0	22.2	0.09
52.0	45.8	0.37	112.0	10.6	0.02	172.0	22.2	0.09
54.0	42.6	0.32	114.0	11.2	0.02	174.0	22.2	0.09
56.0	39.6	0.28	116.0	11.8	0.02	176.0	22.4	0.09
58.0	36.8	0.24	118.0	12.4	0.03	178.0	22.7	0.09

TX station: BKY/3

Site name:

Frequency: 98.00 MHz

Horizontal diagram at 0.0° depres. (Total antenna)

Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)
0.0	100.0	1.78	120.0	25.0	0.11	240.0	25.0	0.11
10.0	99.0	1.74	130.0	22.0	0.09	250.0	29.0	0.15
20.0	97.0	1.67	140.0	22.0	0.09	260.0	36.0	0.23
30.0	93.0	1.54	150.0	22.0	0.09	270.0	44.0	0.34
40.0	88.0	1.38	160.0	23.0	0.09	280.0	53.0	0.50
50.0	81.0	1.17	170.0	23.0	0.09	290.0	63.0	0.71
60.0	73.0	0.95	180.0	23.0	0.09	300.0	73.0	0.95
70.0	63.0	0.71	190.0	23.0	0.09	310.0	81.0	1.17
80.0	53.0	0.50	200.0	23.0	0.09	320.0	88.0	1.38
90.0	44.0	0.34	210.0	22.0	0.09	330.0	93.0	1.54
100.0	36.0	0.23	220.0	22.0	0.09	340.0	97.0	1.67
110.0	29.0	0.15	230.0	22.0	0.09	350.0	99.0	1.74

