

[ASR Registration Search](#)**Registration 1057367** [Map Registration](#)**Registration Detail**

Reg Number	1057367	Status	Constructed
File Number	A0980250	Constructed	11/01/1993
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type GTOWER - Guyed Structure Used for Communication Purposes

Location (in NAD83 Coordinates)

Lat/Long	44-46-36.5 N 085-39-42.9 W	Address	MORGAN HILL
City, State	TRAVERSE CITY , MI		
Zip	49684	County	LEELANAU
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
283.5	130.5
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
414.0	129.2

Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 12

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

FAA Notification

FAA Study	2015-AGL-11634-OE	FAA Issue Date	08/18/2015
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Owner & Contact Information

FRN	0008693798	Owner Entity Type	Corporation
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Owner

Good News Media, Inc.	P: (231)946-1400
Attention To: Mr. Brian Harcey	F: (231)946-3959
P.O. Box 1408	E: BrianH@wljn.com
Traverse City , MI 49685	

Contact

Harcey , Brian	P: (231)946-1400
P.O. Box 1408	F: (231)946-3959
Traverse City , MI 49685	E: BrianH@wljn.com

Last Action Status

Status	Constructed	Received	09/29/2015
Purpose	Admin Update	Entered	09/29/2015
Mode	Interactive		

Related Applications

09/29/2015	A0980250 - Admin Update (AU)
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09/29/2015 A0980234 - Admin Update (AU)

09/24/2015 A0980021 - Notification (NT)

Related applications (5)

Comments

Comments

08/20/2015 Special Condition: The FAA has approved the absence of steady burning red obstruction (L-810) lights on this structure. Accordingly, this tower will use red flashing lights (L-864) only.

08/20/2015 Refer to the Technical Report (Technical Note DOT/FAA/TC-TN12/9 Evaluation of New Obstruction Lighting Techniques to Reduce Avian Fatalities).

08/20/2015 Refer to the Technical Report (Technical Note DOT/FAA/TC-TN12/9 Evaluation of New Obstruction Lighting Techniques to Reduce Avian Fatalities).

All comments (6)

History

Date

Event

10/01/2015 Registration Printed

09/30/2015 Registration Printed

09/29/2015 ASR Application receipt email sent: Tower email

All History (11)

Automated Letters

10/01/2015 Authorization, Reference

09/30/2015 Authorization, Reference

08/21/2015 Authorization, Reference

All letters (4)

CLOSE WINDOW

Exhibit 13.2 - WLJN(AM) - Proposed Translator vs AM Contours

Munn-Reese.com

1776963.A

BNPFT20180125AFB
Latitude: 44-46-36 N
Longitude: 085-39-43 W

Frequency: 1400 kHz

1776963.A

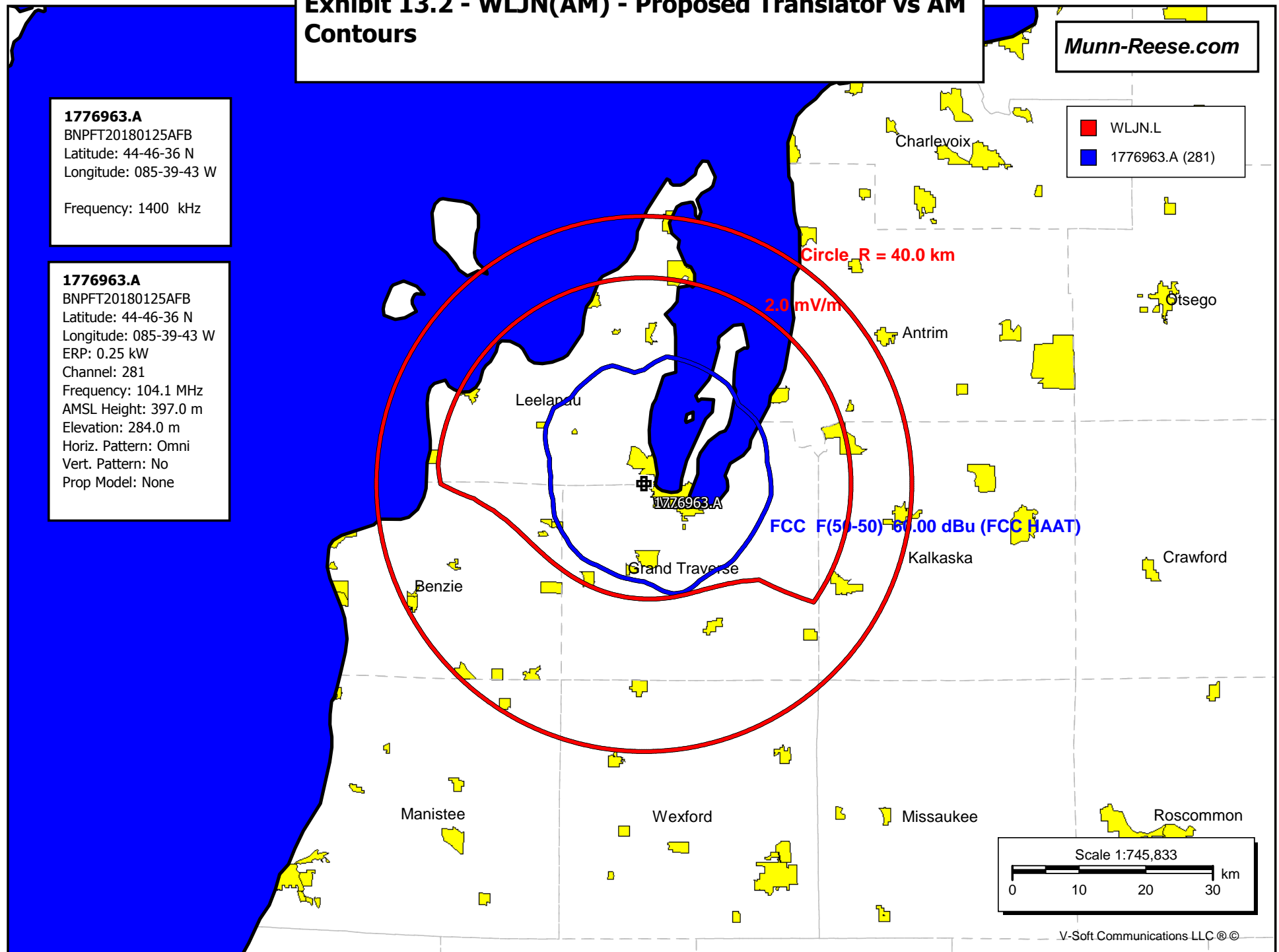
BNPFT20180125AFB
Latitude: 44-46-36 N
Longitude: 085-39-43 W
ERP: 0.25 kW
Channel: 281
Frequency: 104.1 MHz
AMSL Height: 397.0 m
Elevation: 284.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

■ WLJN.L
■ 1776963.A (281)

Circle R = 40.0 km

2.0 mV/m

FCC F(50-50) 60.00 dBu (FCC HAAT)



Munn-Reese
Coldwater, MI 49036

Exhibit 13.3
Good News Media, Inc.

REFERENCE CH# 281D - 104.1 MHz, Pwr= 0.25 kw, HAAT= 0.0 M, COR= 397 M
44 46 36.0 N. Average Protected F(50-50)= 7.09 km
85 39 43.0 W. Omni-directional

DISPLAY DATES
DATA 03-22-18
SEARCH 03-25-18

CH CITY	CALL	TYPE STATE	ANT --	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*OUT* (Overlap in km)
281D Traverse City	1776963	APP _C_ MI		0.0 0.0	0.00 BNPFT20180125AFB	44 46 36.0 85 39 43.0	0.250 397	0.00 397	0.00 Good News Media, Inc.	64.5R -64.5M
278C0 Traverse City	WTCM-FM	LIC _CN MI		185.0 4.9	35.49 BLH19870203KB	44 27 31.0 85 42 02.0	100.000 302	10.0 614	71.7 Wtcm Radio, Inc.	-37.3*<
283A Traverse City	WZTC	LIC NCX MI		270.0 90.0	1.73 BLH20110826AAN	44 46 36.0 85 41 02.0	1.750 187	2.5 419	31.6 Playtime Media, Llc	-31.0*<
280C2 Harbor Springs	WCMW-FM	LIC _CN MI		31.4 211.8	94.71 BLED19971212KC	45 30 08.0 85 01 44.0	12.000 305	83.6 569	56.7 Central Michigan Universit	9.3
282A Manistee	AL5679	RSV-A _MI		219.0 38.5	80.61 RM11418	44 12 40.0 86 17 53.0	6.000 100	41.3 299	26.7	32.0
227C3 Onkama	1501924	VAC _MI		233.2 52.8	47.86	44 31 05.0 86 08 40.0	25.000 100	11.2 326	77.4 Richard L. Culpepper	11.5R 36.4M
282L1 Roscommon	WRDS-LP	LIC _MI		110.1 290.8	89.97 BLL20030715ABH	44 29 38.0 84 35 47.0	0.100 17	374	Soul's Harbor Assembly Of	57.5
281A Algoma	WRLU	LIC _C_ WI		267.4 86.2	138.03 BLH19991012AAW	44 42 26.0 87 24 26.0	2.400 158	84.4 354	29.6 Nicolet Broadcasting, Inc.	60.8
284D Petoskey	W284DF	CP _C_ MI		45.3 225.8	86.48 BNPFT20171201ADF	45 19 17.0 84 52 33.0	0.250 524	1.1 524	22.2 Macdonald Garber Broadcast	63.1
228C2 Boyne City	WBCM	LIC _CN MI		45.0 225.6	86.64 BLH19931014KE	45 19 27.0 84 52 44.0	14.000 283	11.2 525	77.4 Wbcm Radio, Inc.	14.5R 72.1M
280A Big Rapids	WBZX	LIC NCX MI		168.0 348.2	126.63 BMLH20170602AAS	43 39 44.0 85 20 00.0	6.000 70	33.7 379	22.4 Up North Radio, Llc	79.5
280L1 Ludington	WLCV-LP	LIC _MI		214.5 34.0	111.29 BLL20160906AAH	43 56 57.0 86 27 00.0	0.058 40	231	Ludington Area Catholic Sc	84.9
281B Grand Rapids	WVGR	LIC DCX MI		177.3 357.4	236.16 BMLED20080306ABQ	42 39 17.0 85 31 38.0	96.000 221	163.1 469	78.9 Regents Of The University	91.5
284C Escanaba	AL1246	RSV-A _MI		321.8 140.8	187.38 RM9801	46 05 31.0 87 09 50.0	100.000 600	14.1 886	93.1	93.2
281A Linwood	WSAG	LIC NCX MI		130.0 311.2	179.76 BLH20070522ABZ	43 43 30.0 83 56 50.0	4.600 99	81.2 282	25.8 Macdonald Broadcasting Com	98.6
282A Mount Pleasant	WCZY-FM	LIC _CN MI		152.8 333.4	147.47 BLH19910828KB	43 35 39.0 84 49 26.0	3.000 100	34.6 351	23.0 Latitude Media, Llc	99.5
283B Muskegon	WSNX-FM	LIC _CN MI		189.7 9.4	177.25 BLH19880930KC	43 12 16.0 86 01 45.0	32.000 189	5.8 392	64.7 Cc Licenses, Llc	110.9
284C2 Tawas City	WKJC	LIC _CN MI		103.3 284.7	166.58 BLH19970121KA	44 24 48.0 83 37 14.0	50.000 150	5.3 382	47.8 Carroll Enterprises, Inc.	117.7
282C Sault Ste Marie	CJQFM	OPE _CN ON		26.3 207.2	226.36	46 35 40.0 84 21 00.0	100.000 150	96.3 426	69.6	118.8
284C1 Escanaba	WYKX	LIC _CX MI		316.1 135.0	179.43 BLH20160815AAE	45 55 45.0 87 16 11.0	100.000 105	6.7 373	56.3 Kmb Br	122.0
279C3 Menominee	WHYB	LIC _CX MI		282.2 100.8	160.95 BLH20150526ABV	45 03 58.0 87 39 55.0	13.000 91	3.4 275	33.7 Radio Plus Bay Cities, Llc	126.1
227C2 Midland	WKQZ	LIC _CN MI		129.1 310.2	162.41 BLH19881027KB	43 50 46.0 84 05 32.0	39.000 169	11.2 369	77.4 Radio License Holding Cbc,	14.5R 147.9M
282A Seymour	WKZG	LIC _CX WI		263.4 81.5	213.05 BMLH20030630AAX	44 31 26.0 88 19 56.0	5.600 104	45.6 346	29.6 Woodward Communications, I	162.5
280C3 Winneconne	WVBO	LIC ZCX WI		253.4 71.5	234.85 BLH20030926ARL	44 08 23.0 88 29 02.0	25.000 100	61.0 334	39.8 Cumulus Licensing Llc	173.7
283A Saginaw	WILZ	LIC NCN MI		137.3 318.6	207.19 BLH19920825KB	43 23 34.0 83 55 27.0	2.900 126	2.4 309	26.1 Radio License Holding Cbc,	179.9

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	(Overlap	*OUT* in km)
279A Hubbardston	WSJH	CP MI	ZCX	159.9 340.5	209.55 BPED20150616ADH	43 00 10.0 84 46 40.0	6.000 100	2.8 325	28.4 Hubbardston Community Radi		180.1
279A Hubbardston	WSJH	LIC MI	NHX	159.7 340.3	194.37 BLED20150615ACJ	43 08 02.0 84 49 51.0	2.000 37	1.6 253	12.0 Hubbardston Community Radi		181.3
280A Owosso	WRSR	LIC MI	_CX	145.4 326.5	238.92 BMLH20180117ABC	42 59 45.0 83 59 34.0	2.850 147	43.7 378	28.9 Kro1 Communications Inc.		185.2
279B Wauwatosa	WXSS	LIC WI	_C_	224.7 43.1	259.08 BMLH20010731ABY	43 05 48.0 87 54 18.0	19.500 257	6.2 466	69.0 Entercom License, LLC		188.4
283A Plymouth	WXER	LIC WI	NCX	239.3 57.6	223.33 BLH20060109ACJ	43 43 32.0 88 03 07.0	5.100 108	3.0 401	32.0 Midwest Communications, In		190.2
279C2 Harbor Beach	WCZE	LIC MI	ZCX	118.8 300.6	244.64 BLH20050421ABP	43 41 10.0 82 59 40.0	43.000 161	6.0 393	52.9 Jennifer & Edward Czelada		190.7

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.
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
 Incoming contour overlap is ignored.
 "*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
 < = Contour Overlap
 Reference station has protected zone issue: AM tower

Exhibit 13.4 - WLJN(AM) - Proposed Translator vs WTCM-FM and WZTC(FM) in support of a 74.1204(d) Waiver Request

Munn-Reese.com

1776963.A

BNPFT20180125AFB
Latitude: 44-46-36 N
Longitude: 085-39-43 W
ERP: 0.25 kW
Channel: 281
Frequency: 104.1 MHz
AMSL Height: 397.0 m
Elevation: 284.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

WTCM-FM

BLH19870203KB
Latitude: 44-27-31 N
Longitude: 085-42-02 W
ERP: 100.00 kW
Channel: 278
Frequency: 103.5 MHz
AMSL Height: 614.0 m
Elevation: 323.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

WZTC

BLH20110826AAN
Latitude: 44-46-36 N
Longitude: 085-41-02 W
ERP: 1.75 kW
Channel: 283
Frequency: 104.5 MHz
AMSL Height: 419.0 m
Elevation: 328.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

- 1776963.A (281)
- WTCM-FM (278)
- WZTC (283)

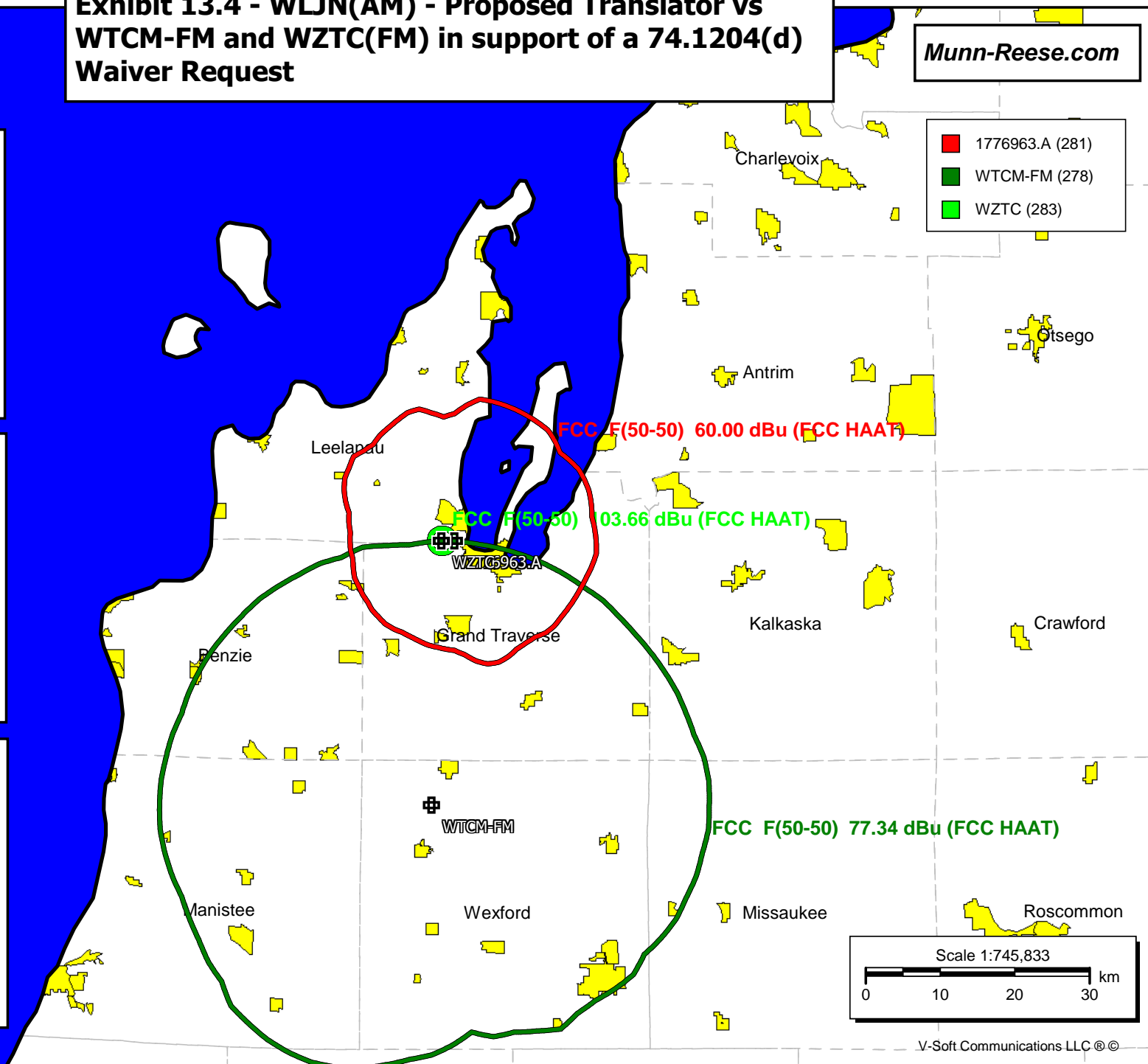
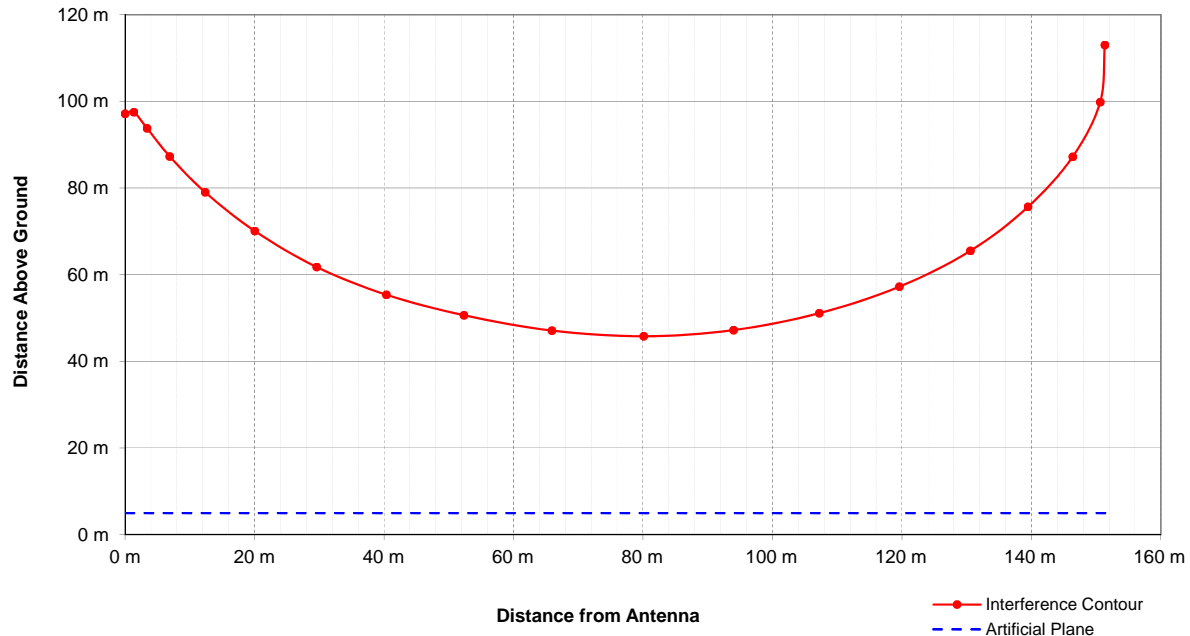


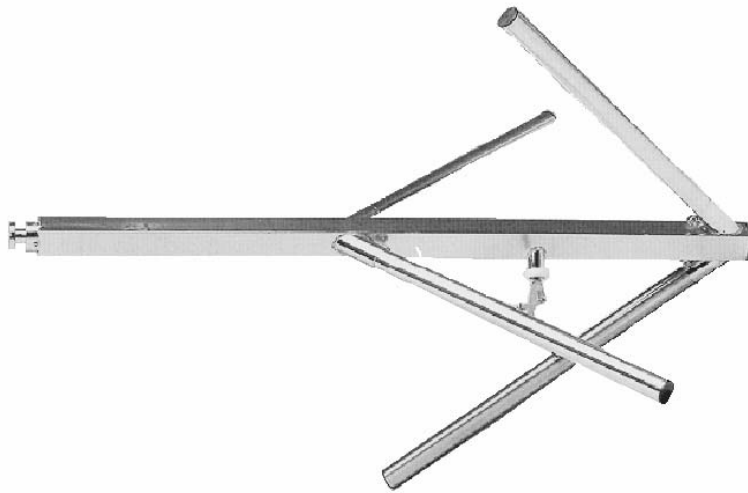
Exhibit 13.4 - Downward Radiation Study in support of a 74.1204(d) Waiver Request



Proposed Antenna: 1 Bay Nicom BKG77-1 (One Bay Fully Spaced)
Proposed Power: 0.25 kW
Antenna Height AGL: 113 meters
Interference Contour: 117.3 dBu f(50:10)
Artificial Ground Plane Height: 5 meters
Distance (Free Space) Equation: $= (10^{(106.92 - [\text{desired dBu}] + [\text{ERP in dBk}]/20)}) * 1000$
Field Strength (dBu) Equation: $= 106.92 - (20 * (\text{LOG}_{10}[\text{DistMeters}/1000])) + [\text{ERP in dBk}]$

Depression				Distance				
Angle	Antenna			from Ant.	Distance	Field Strength	Distance	Field Strength
Below	Relative	ERP	ERP	to Interference	from Ant. to	in dBu @	from Ant.	in dBu @
Horizon	Field	in kW	in dBk	Contour	Artificial Plane	Artificial Plane	to Ground Level	Ground Level
0°	1.000	0.250	-6.02	151.35 m	infinite	---	---	---
-5°	0.999	0.250	-6.03	151.19 m	1239.16 m	99.03 dBu	1296.53 m	98.64 dBu
-10°	0.982	0.241	-6.18	148.62 m	621.95 m	104.87 dBu	650.74 m	104.47 dBu
-15°	0.954	0.228	-6.43	144.38 m	417.28 m	108.08 dBu	436.60 m	107.69 dBu
-20°	0.918	0.211	-6.76	138.94 m	315.77 m	110.17 dBu	330.39 m	109.78 dBu
-25°	0.872	0.190	-7.21	131.97 m	255.55 m	111.56 dBu	267.38 m	111.17 dBu
-30°	0.818	0.167	-7.77	123.80 m	216.00 m	112.47 dBu	226.00 m	112.07 dBu
-35°	0.758	0.144	-8.43	114.72 m	188.29 m	113.00 dBu	197.01 m	112.60 dBu
-40°	0.691	0.119	-9.23	104.58 m	168.02 m	113.18 dBu	175.80 m	112.79 dBu
-45°	0.616	0.095	-10.23	93.23 m	152.74 m	113.01 dBu	159.81 m	112.62 dBu
-50°	0.538	0.072	-11.40	81.42 m	140.98 m	112.53 dBu	147.51 m	112.14 dBu
-55°	0.465	0.054	-12.67	70.38 m	131.84 m	111.85 dBu	137.95 m	111.45 dBu
-60°	0.391	0.038	-14.18	59.18 m	124.71 m	110.83 dBu	130.48 m	110.43 dBu
-65°	0.313	0.024	-16.11	47.37 m	119.16 m	109.29 dBu	124.68 m	108.89 dBu
-70°	0.239	0.014	-18.45	36.17 m	114.93 m	107.26 dBu	120.25 m	106.87 dBu
-75°	0.176	0.008	-21.11	26.64 m	111.81 m	104.84 dBu	116.99 m	104.45 dBu
-80°	0.129	0.004	-23.81	19.52 m	109.67 m	102.31 dBu	114.74 m	101.92 dBu
-85°	0.103	0.003	-25.76	15.59 m	108.41 m	100.45 dBu	113.43 m	100.06 dBu
-90°	0.105	0.003	-25.60	15.89 m	108.00 m	100.65 dBu	113.00 m	100.26 dBu

Exhibit 13.5 - Manufacturer's Antenna Specifications



NICOM
BKG77

Low 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 0.5 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 0.5 kw.



TECHNICAL SPECIFICATIONS (per bay)

Antenna type	circular polarization dipole	Front-to-back ratio	3 dB
Frequency range	87.5 - 108 MHz	Lightening protection	all parts grounded
Bandwidth	500 kHz max	Max wind velocity	119 mph (190 km/h)
Impedance	50 ohms	Wind load	8 Lbs (3.6 kg)
Connectors	N type (0.5 kw)	Wind surface	0.3 ft ² (0.04 m ²)
Power rating	500 Watts max	Materials (external)	stainless steel
VSWR	< 1.1:1	Mounting	from 2" to 4"
Polarization	vertical and horizontal	Weight	7.7 Lbs (3.5 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)		

Date: 29/04/2013

BKG77SINGLE.PRJ

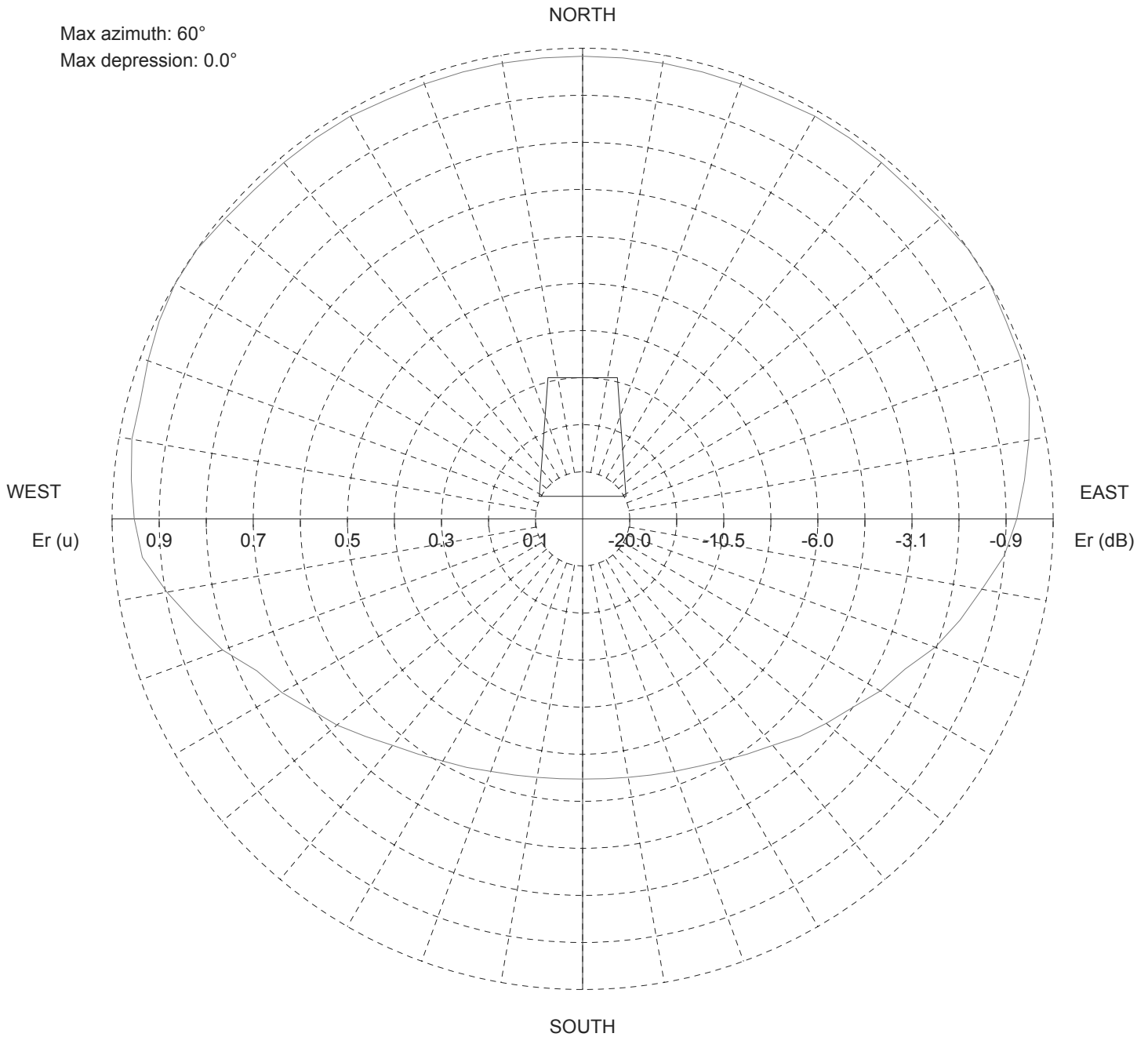
TX station: BKG77-1

Site name:

Frequency: 100.00 MHz

Horizontal diagram of Maxima

Max azimuth: 60°
Max depression: 0.0°



—— 0.0° depres. (Total antenna), Gain (dBd): -3.03 ERP T.max (KW): 0.498

ERP E.max (KW): 0.387

NicomUsa, Inc

Date: 29/04/2013

BKG77SINGLE.PRJ

TX station: BKG77-1

Site name:

Frequency: 100.00 MHz

Horizontal diagram of Maxima

Az (°)	Dep (°)	Er (%)	ERP (W)	Az (°)	Dep (°)	Er (%)	ERP (W)	Az (°)	Dep (°)	Er (%)	ERP (W)
0.0	0.0	98.3	373.6	120.0	0.0	73.1	206.6	240.0	0.0	73.8	210.7
5.0	0.0	98.3	373.6	125.0	0.0	69.9	189.2	245.0	0.0	76.4	225.7
10.0	0.0	98.3	373.6	130.0	0.0	67.6	176.7	250.0	0.0	81.5	256.6
15.0	0.0	98.3	373.6	135.0	0.0	65.3	165.1	255.0	0.0	85.3	281.6
20.0	0.0	98.3	373.6	140.0	0.0	62.8	152.7	260.0	0.0	89.7	311.1
25.0	0.0	98.3	373.6	145.0	0.0	61.0	144.0	265.0	0.0	93.9	341.1
30.0	0.0	98.8	377.5	150.0	0.0	59.4	136.3	270.0	0.0	95.3	351.1
35.0	0.0	98.8	377.5	155.0	0.0	58.0	130.3	275.0	0.0	96.3	358.5
40.0	0.0	98.8	377.5	160.0	0.0	57.1	126.1	280.0	0.0	97.3	366.1
45.0	0.0	98.8	377.5	165.0	0.0	56.3	122.8	285.0	0.0	97.3	366.1
50.0	0.0	99.2	380.8	170.0	0.0	55.8	120.3	290.0	0.0	98.3	373.6
55.0	0.0	100.0	386.5	175.0	0.0	55.4	118.7	295.0	0.0	99.3	381.4
60.0	0.0	100.0	386.7	180.0	0.0	55.3	118.2	300.0	0.0	100.0	386.7
65.0	0.0	99.3	381.4	185.0	0.0	55.4	118.7	305.0	0.0	100.0	386.5
70.0	0.0	99.1	380.0	190.0	0.0	55.8	120.3	310.0	0.0	99.2	380.8
75.0	0.0	98.3	373.6	195.0	0.0	56.3	122.8	315.0	0.0	98.8	377.5
80.0	0.0	96.3	358.5	200.0	0.0	57.1	126.1	320.0	0.0	98.8	377.5
85.0	0.0	94.3	343.8	205.0	0.0	58.3	131.4	325.0	0.0	98.8	377.5
90.0	0.0	92.3	329.3	210.0	0.0	59.4	136.5	330.0	0.0	98.8	377.5
95.0	0.0	90.0	312.9	215.0	0.0	61.0	144.0	335.0	0.0	98.3	373.6
100.0	0.0	86.2	287.1	220.0	0.0	62.8	152.7	340.0	0.0	98.3	373.6
105.0	0.0	83.0	266.7	225.0	0.0	65.3	165.1	345.0	0.0	98.3	373.6
110.0	0.0	79.7	245.9	230.0	0.0	68.2	179.6	350.0	0.0	98.3	373.6
115.0	0.0	75.6	221.0	235.0	0.0	70.6	192.7	355.0	0.0	98.3	373.6

Date: 29/04/2013

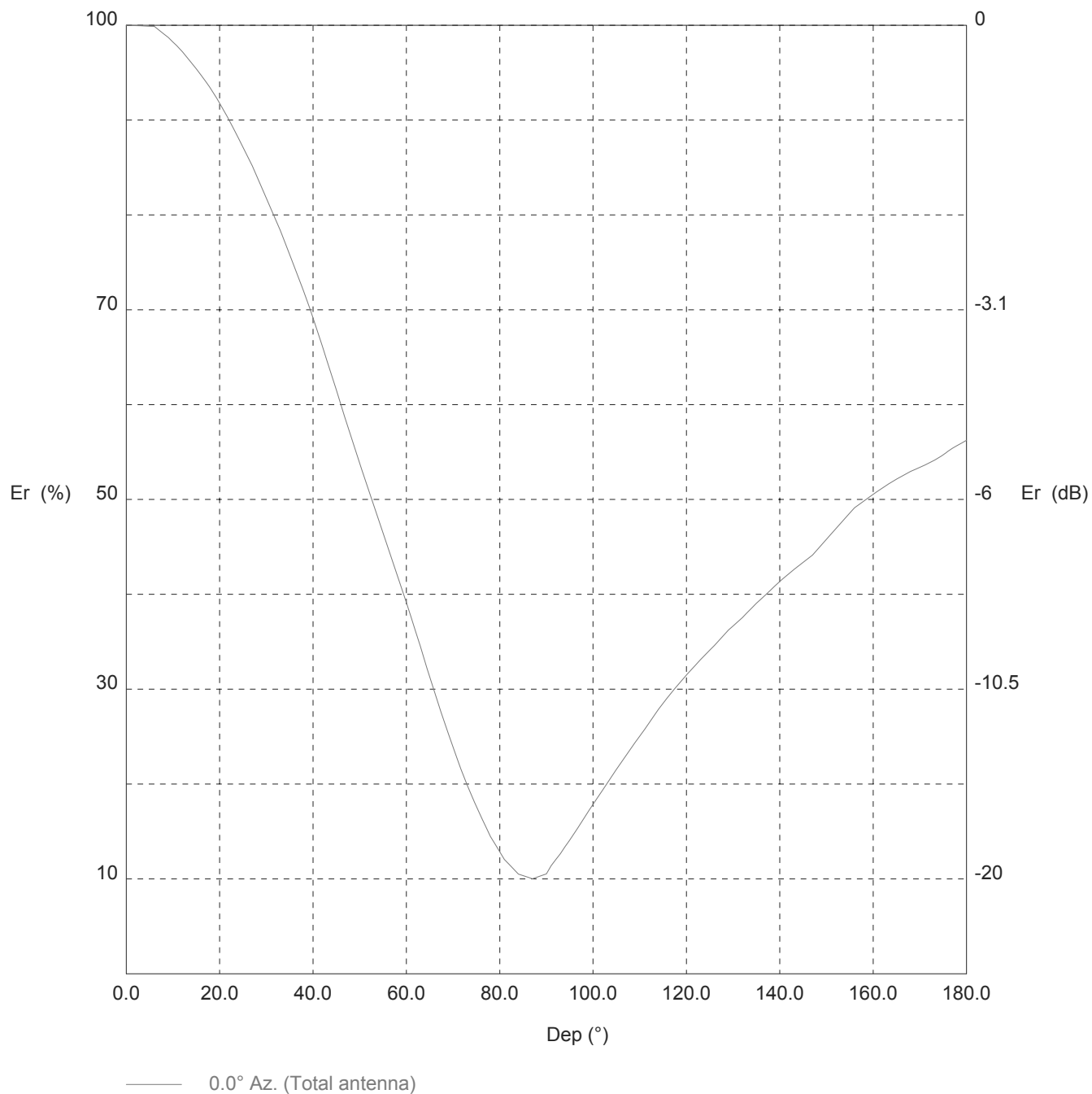
BKG77SINGLE.PRJ

TX station: BKG77-1

Site name:

Frequency: 100.00 MHz

Vertical diagram



TX station: BKG77-1

Site name:

Frequency: 100.00 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	373.6	60.0	39.1	57.2	120.0	31.5	37.0
1.0	100.0	373.5	61.0	37.6	52.8	121.0	32.0	38.3
2.0	100.0	373.4	62.0	36.1	48.6	122.0	32.6	39.6
3.0	99.9	373.3	63.0	34.5	44.6	123.0	33.1	41.0
4.0	99.9	373.1	64.0	32.9	40.5	124.0	33.6	42.2
5.0	99.9	372.9	65.0	31.3	36.6	125.0	34.1	43.5
6.0	99.9	372.8	66.0	29.7	33.0	126.0	34.6	44.7
7.0	99.5	369.9	67.0	28.2	29.8	127.0	35.2	46.2
8.0	99.1	367.0	68.0	26.8	26.8	128.0	35.7	47.6
9.0	98.7	364.1	69.0	25.3	23.9	129.0	36.2	49.1
10.0	98.2	360.5	70.0	23.9	21.3	130.0	36.7	50.3
11.0	97.7	356.9	71.0	22.5	18.9	131.0	37.1	51.5
12.0	97.2	353.3	72.0	21.1	16.6	132.0	37.6	52.7
13.0	96.6	348.9	73.0	19.9	14.8	133.0	38.1	54.1
14.0	96.0	344.5	74.0	18.8	13.2	134.0	38.6	55.6
15.0	95.4	340.1	75.0	17.6	11.6	135.0	39.1	57.0
16.0	94.7	335.4	76.0	16.6	10.2	136.0	39.5	58.4
17.0	94.1	330.8	77.0	15.5	9.0	137.0	40.0	59.7
18.0	93.4	326.1	78.0	14.5	7.8	138.0	40.4	61.1
19.0	92.6	320.4	79.0	13.7	7.0	139.0	40.9	62.5
20.0	91.8	314.7	80.0	12.9	6.2	140.0	41.4	63.9
21.0	91.0	309.1	81.0	12.0	5.4	141.0	41.8	65.3
22.0	90.0	302.7	82.0	11.5	5.0	142.0	42.2	66.5
23.0	89.1	296.5	83.0	11.0	4.5	143.0	42.6	67.8
24.0	88.1	290.3	84.0	10.5	4.1	144.0	43.0	69.0
25.0	87.2	283.8	85.0	10.3	4.0	145.0	43.4	70.3
26.0	86.2	277.4	86.0	10.2	3.9	146.0	43.8	71.6
27.0	85.2	271.1	87.0	10.0	3.7	147.0	44.1	72.8
28.0	84.0	263.9	88.0	10.2	3.9	148.0	44.7	74.7
29.0	82.9	256.8	89.0	10.4	4.0	149.0	45.3	76.5
30.0	81.8	249.8	90.0	10.5	4.1	150.0	45.8	78.4
31.0	80.6	242.9	91.0	11.4	4.8	151.0	46.4	80.3
32.0	79.5	236.1	92.0	12.0	5.4	152.0	46.9	82.3
33.0	78.3	229.3	93.0	12.7	6.0	153.0	47.5	84.3
34.0	77.1	222.0	94.0	13.4	6.7	154.0	48.0	86.2
35.0	75.8	214.7	95.0	14.1	7.4	155.0	48.6	88.2
36.0	74.5	207.6	96.0	14.8	8.2	156.0	49.1	90.2
37.0	73.2	200.4	97.0	15.6	9.1	157.0	49.5	91.5
38.0	71.9	193.3	98.0	16.4	10.0	158.0	49.8	92.8
39.0	70.6	186.3	99.0	17.1	11.0	159.0	50.2	94.1
40.0	69.1	178.6	100.0	17.9	11.9	160.0	50.5	95.4
41.0	67.6	170.9	101.0	18.6	12.9	161.0	50.9	96.8
42.0	66.1	163.5	102.0	19.3	13.9	162.0	51.2	98.1
43.0	64.6	156.0	103.0	20.1	15.0	163.0	51.5	99.2
44.0	63.1	148.7	104.0	20.8	16.2	164.0	51.8	100.4
45.0	61.6	141.6	105.0	21.5	17.3	165.0	52.1	101.6
46.0	60.0	134.4	106.0	22.3	18.5	166.0	52.4	102.7
47.0	58.4	127.5	107.0	23.0	19.7	167.0	52.7	103.7
48.0	56.8	120.7	108.0	23.7	21.0	168.0	53.0	104.8
49.0	55.3	114.4	109.0	24.4	22.2	169.0	53.2	105.7
50.0	53.8	108.2	110.0	25.1	23.5	170.0	53.4	106.5
51.0	52.3	102.2	111.0	25.7	24.8	171.0	53.6	107.4
52.0	50.8	96.6	112.0	26.5	26.2	172.0	53.9	108.4
53.0	49.4	91.1	113.0	27.2	27.6	173.0	54.1	109.4
54.0	47.9	85.8	114.0	27.9	29.0	174.0	54.4	110.5
55.0	46.5	80.7	115.0	28.5	30.4	175.0	54.7	111.9
56.0	45.0	75.7	116.0	29.2	31.8	176.0	55.1	113.3
57.0	43.6	71.0	117.0	29.8	33.1	177.0	55.4	114.7
58.0	42.1	66.2	118.0	30.4	34.4	178.0	55.7	115.9
59.0	40.6	61.6	119.0	30.9	35.7	179.0	56.0	117.0