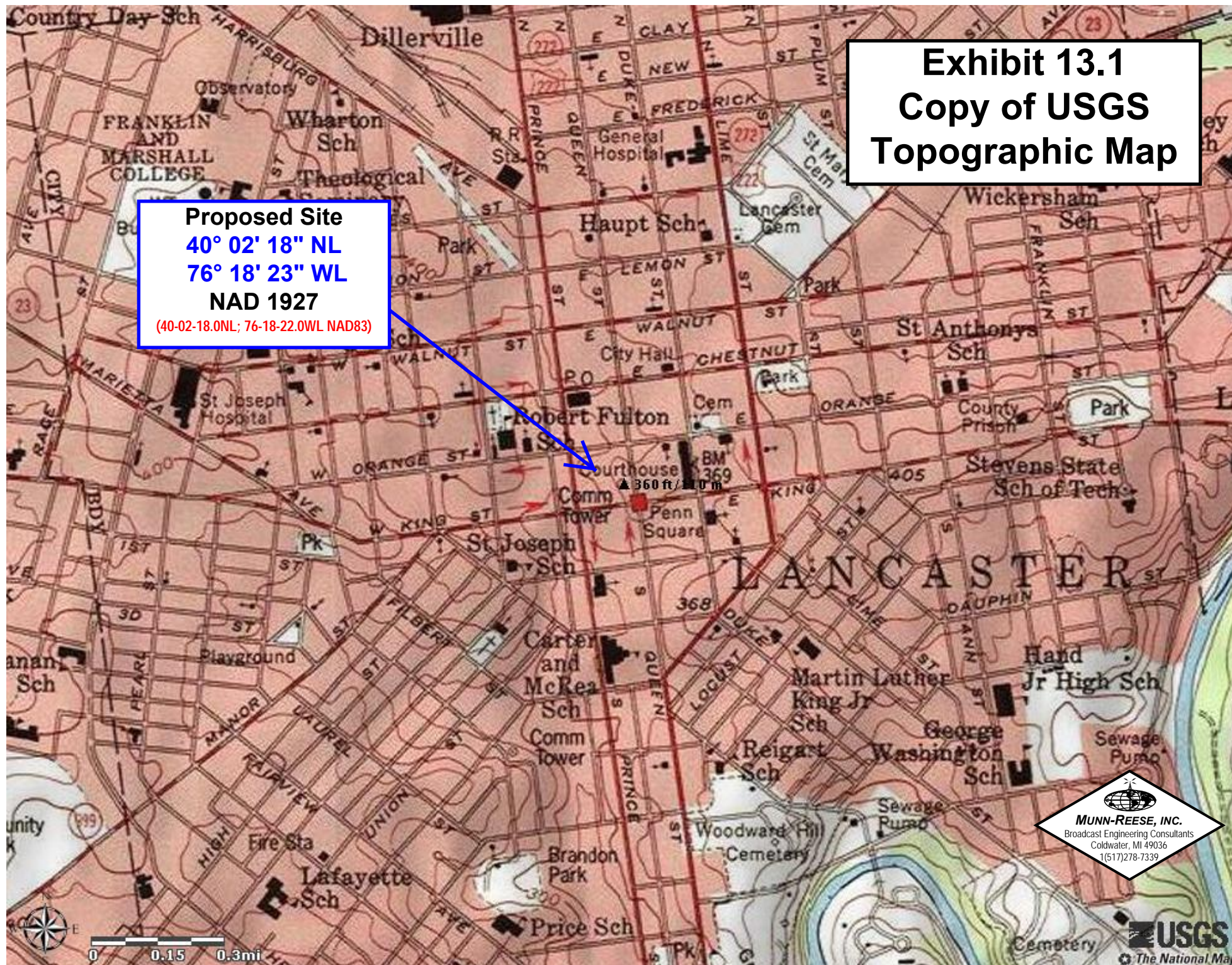


Exhibit 13.1 Copy of USGS Topographic Map

Proposed Site
40° 02' 18" NL
76° 18' 23" WL
NAD 1927
(40-02-18.0NL; 76-18-22.0WL NAD83)




MUNN-REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036
1(517)278-7339


USGS
The National Map

Exhibit 13.2 Copy of USGS Aerial Photograph

Proposed Site

40° 02' 18" NL

76° 18' 23" WL

NAD 1927

(40-02-18.0NL; 76-18-22.0WL NAD83)

▲ 360 ft / 110 m



Exhibit 13.3

Vertical Plan of Antenna System

The site is located on the roof of the Griest Building,
8 North Queen Street; the city of Lancaster;
Lancaster County; Pennsylvania.

Site Location (NAD 27)

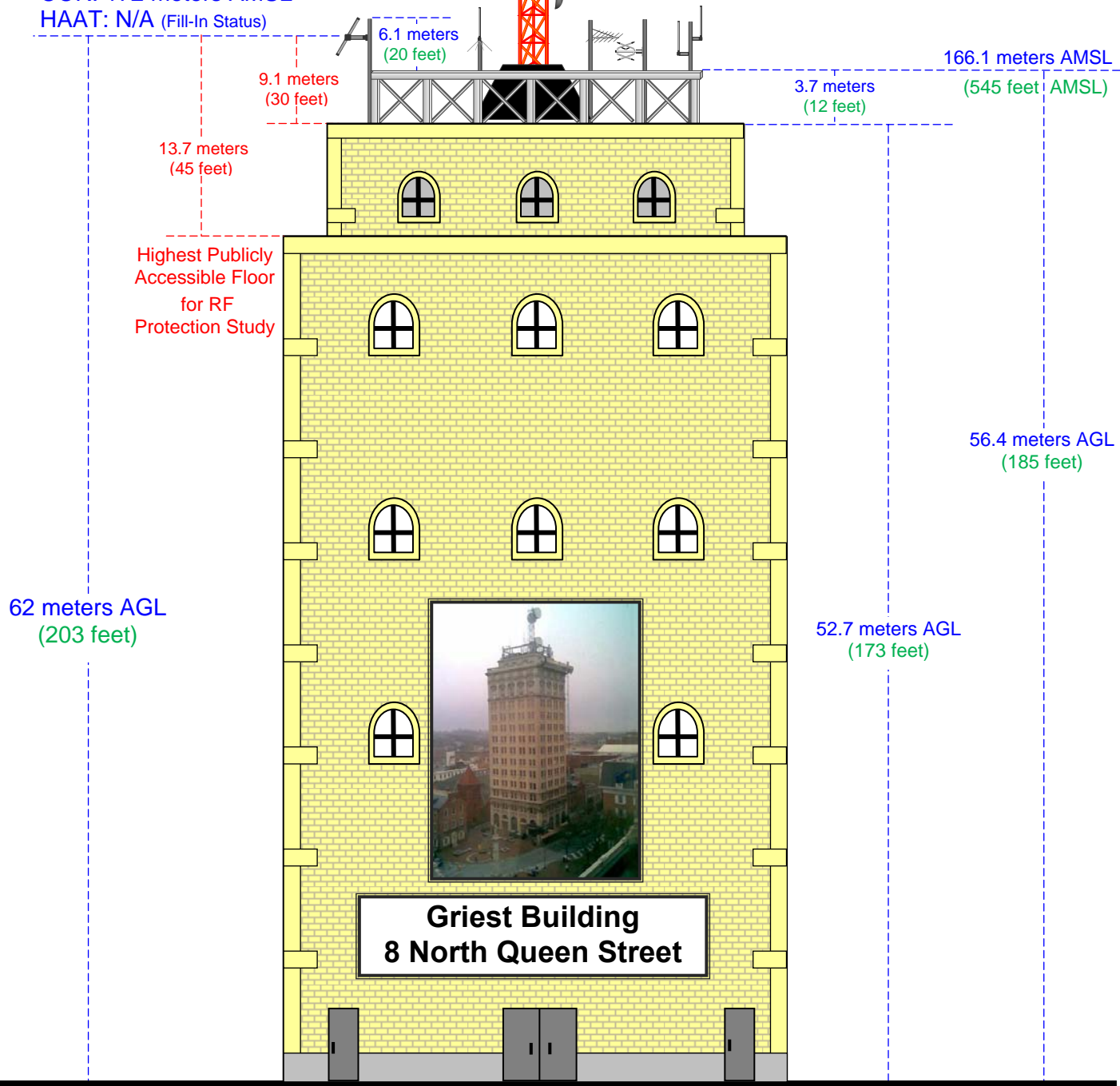
NL: 40° 02' 18"

WL: 76° 18' 23"

(40-02-18.0NL; 76-18-22.0WL NAD1983)

The applicant would like to note the existence of multiple antennas within the "antenna farm complex" located on the building roof top. While Antenna Structure Registration Number 1044369 is located on the roof top, this antenna will not be located on ASR No. 1044369, but rather on a separate roof mounted pole.

Proposed Antenna
COR: 172 meters AMSL
HAAT: N/A (Fill-In Status)



Ground Elevation = 109.7 m AMSL (360 feet)

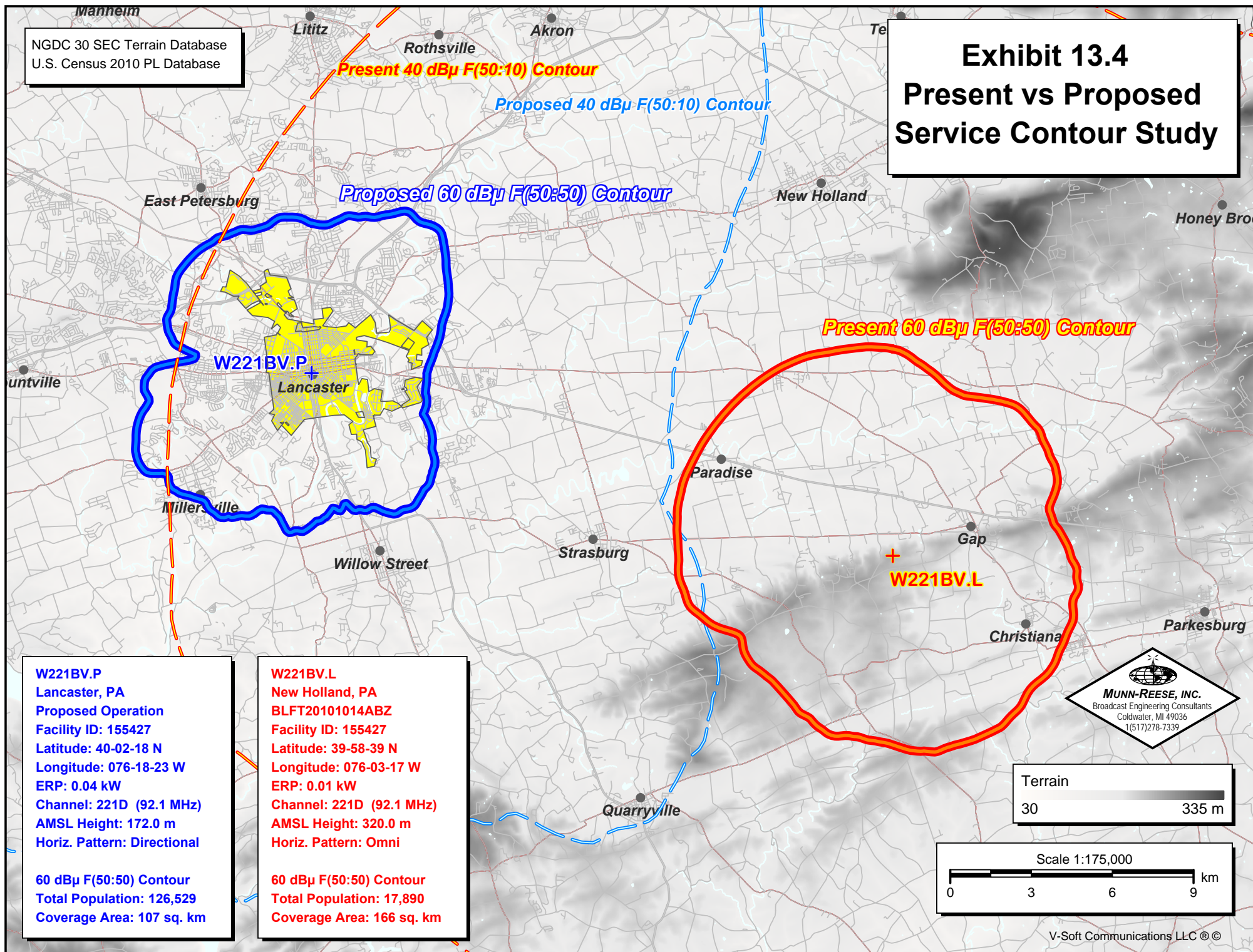
Drawing is not to Scale

MUNN-REESE, INC.

Broadcast Engineering Consultants
Coldwater, MI 49036

NGDC 30 SEC Terrain Database
U.S. Census 2010 PL Database

Exhibit 13.4 Present vs Proposed Service Contour Study



NGDC 30 SEC Terrain Database
U.S. Census 2010 PL Database

Exhibit 13.5 Proposed vs. Primary Service Contour Study

W221BV.P
Lancaster, PA
Proposed Operation
Facility ID: 155427
Latitude: 40-02-18 N
Longitude: 076-18-23 W
ERP: 0.04 kW
Channel: 221D (92.1 MHz)
AMSL Height: 172.0 m
Horiz. Pattern: Directional

WLPA(AM)
LANCASTER, PA
1490 kHz Licensed
Domestic Station Class: C
File No: BL-19880311AD
Facility ID No.: 25870
40° 03' 38.00" N Latitude
76° 18' 59.00" W Longitude
Power: 0.6 kilowatts (kW)
ND1 - Non-directional Antenna:
Same constants day and night
RMS Theoretical: 310.60 mV/m
at 1 kilometer

25 mile AM Site Radius

Daytime 2 mV/m AM Contour

Proposed 60 dBµ F(50:50) Contour



Terrain
-60 544 m

Scale 1:475,000
0 10 20 30 km

V-Soft Communications, LLC ©



Exhibit 13.6

Tabulation of Proposed Allocation

REFERENCE 40 02 18.0 N. 76 18 23.0 W.		CH# 221D - 92.1 MHz, Pwr= 0.04 kW DA, HAAT= 60.1 M, COR= 172 M Average Protected F(50-50)= 6.34 km Standard Directional						DISPLAY DATES DATA 03-30-15 SEARCH 03-30-15		
CH CITY	CALL	TYPE STATE	ANT AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
221A Palmyra	WTPA	LIC NCX PA	317.9 137.7	52.94 BLH20061030ANC	40 23 28.0 76 43 31.0	1.500 183	87.0 386	31.7 Patrick H. Sickafus	-40.2*	0.6
221D New Holland	W221BV	LIC _C_ PA	107.4 287.6	22.47 BLFT20101014ABZ	39 58 39.0 76 03 17.0	0.010 157	27.5 320	8.2 Hope Christian Church Of M	-9.4*	0.5
220A Wyomissing	WYTL	LIC ZCX PA	61.2 241.4	34.20 BLED20100504AAD	40 11 09.0 75 57 15.0	0.450 166	32.0 338	21.5 Four Rivers Community Broa	33.5R	0.7M
219A Millersville	WIXQ	LIC _CX PA	228.7 48.7	6.31 BLED20110812ACE	40 00 03.1 76 21 43.4	0.096 6	0.7 125	5.6 Millersville University	-1.0*	0.3
222B Baltimore	WERQ-FM	LIC DCX MD	201.7 21.5	83.70 BLH20130830ACP	39 20 18.0 76 39 60.0	37.000 173	75.4 269	63.4 Radio One Licenses, Lic	2.7	9.2
224A Starview	WLPA-FM	LIC _C_ PA	275.8 95.5	42.27 BLH20040322AFY	40 04 32.0 76 48 03.0	0.700 291	1.7 429	29.7 Hall Communications, Inc.	36.0	12.2
220D York	W220BX	LIC DV_ PA	263.6 83.3	31.79 BLFT20100803AAD	40 00 21.0 76 40 35.0	0.010 180	10.5 329	7.3 Calvary Chapel Of Twin Fal	13.5R	18.3M
219A West Grove	WZWG	CP DCX PA	125.5 305.7	41.40 BPED20130611ABD	39 49 19.0 75 54 43.0	0.400 144	0.7 279	11.3 Hope Christian Church Of M	25.5R	15.9M
221A Vineland	WVLT	LIC NCX NJ	119.3 300.1	121.14 BLH20021028AAY	39 29 53.0 75 04 31.0	6.000 100	86.2 127	27.9 Clear Communications, Inc.	29.8	76.6
223B Philadelphia	WXTU	LIC DCX PA	89.6 270.3	91.00 BLH20031017ACG	40 02 19.0 75 14 14.0	15.000 279	4.7 343	58.8 Cbs Radio Stations Inc.	82.1	31.8
222D Laureldale	W222BY	LIC DV_ PA	47.9 228.2	47.19 BLFT20140402AND	40 19 19.0 75 53 35.0	0.090 242	7.9 382	5.5 Capstar Tx Limited Partner	32.6	32.2
219A West Grove	WZWG	LIC _VX PA	125.5 305.7	41.40 BLED20130610ACG	39 49 19.0 75 54 43.0	0.160 33	0.9 168	6.3 Hope Christian Church Of M	25.5R	15.9M
221D Exton	W221DG	CP _C_ PA	88.4 268.8	59.17 BNPFT20130830APS	40 03 05.0 75 36 41.0	0.006 159	19.7 276	5.9 Temple University Of The C	35.2	39.8
218B Baltimore	WBJC	LIC DCX MD	206.8 26.5	81.02 BLED20101109ABJ	39 23 11.0 76 43 52.0	50.000 152	4.7 289	44.4 Baltimore City Community C	53.5R	27.5M
221A Mercersburg	WNUZ	LIC NCN PA	259.2 78.3	130.37 BLH19960412KB	39 48 34.0 77 48 22.0	4.000 90	77.6 290	24.0 Hjv Limited Partnership	46.6	85.8
219A Summerdale	WJAZ	LIC DCX PA	296.7 116.3	66.68 BLED20101015ACE	40 18 20.0 77 00 27.0	1.000 214	0.9 384	19.4 Temple University Of The C	25.5R	41.2M

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= 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.

Green Text denotes the W221BV.L - New Holland, PA facility to be modified by this Form 349 Filing. This facility need not be protected.

Blue Highlighted Text denotes supplemental contour protection studies toward select stations as included in **Exhibit 13.7** and **13.9**.

Exhibit 13.7

Contour Protection Studies Toward WTPA(FM) - Palmyra, PA

FMCommander Single Allocation Study - 03-30-2015 - NGDC 30 SEC
W221BV.P's Overlaps (In= -40.24 km, Out= 0.64 km)

W221BV.P CH 221 D DA
Lat= 40 02 18.0, Lng= 76 18 23.0
0.04 kW 60.1 M HAAT, 172 M COR
Prot.= 60 dBu, Intef.= 40 dBu

WTPA CH 221 A 73.215 N BLH20061030ANC
Lat= 40 23 28.0, Lng= 76 43 31.0
1.5 kW 183.2 M HAAT, 386.4 M COR
Prot.= 60 dBu, Intef.= 40 dBu

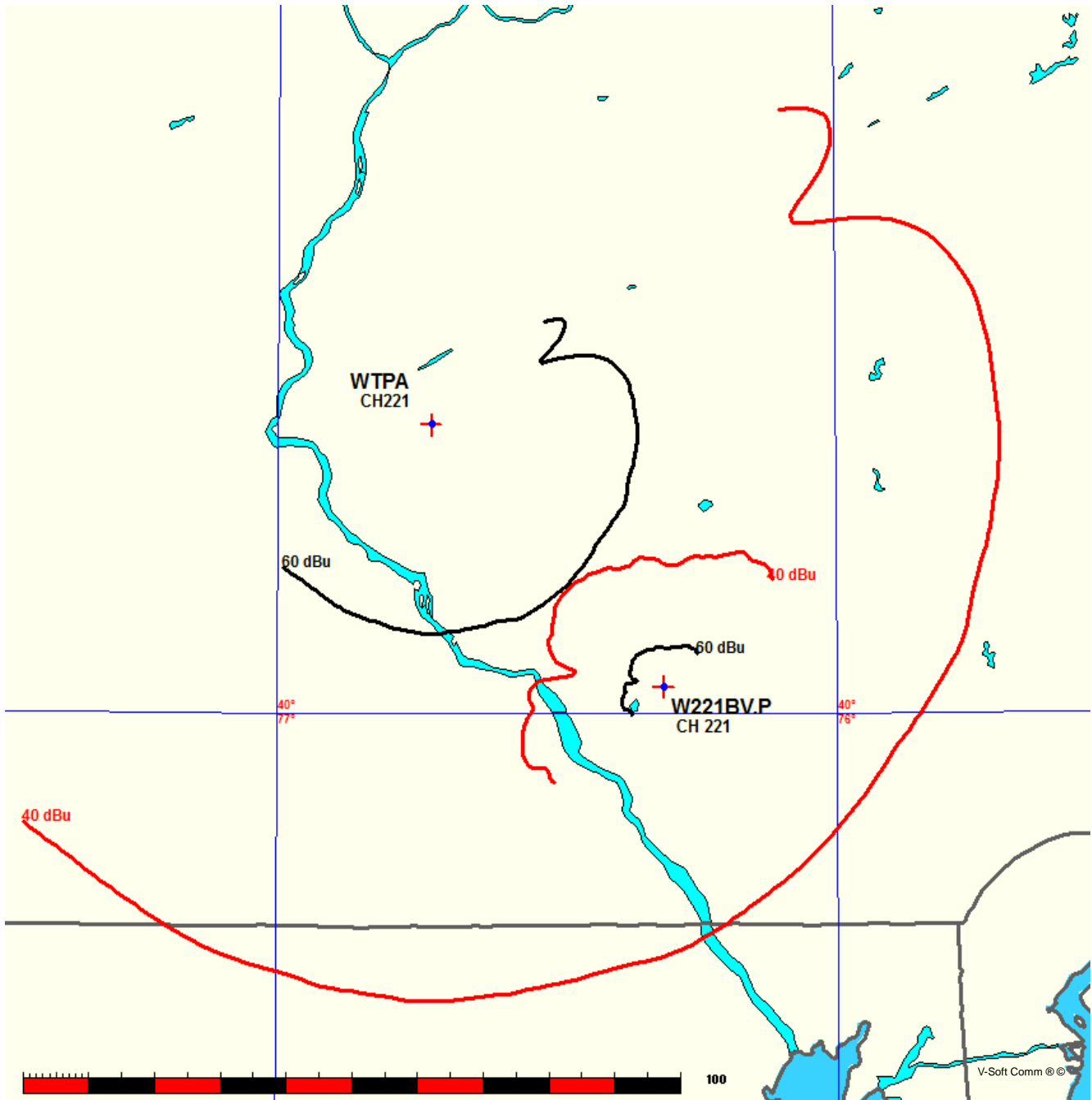


Exhibit 13.7

Contour Protection Studies Toward WTPA(FM) - Palmyra, PA

03-30-2015

Terrain Data: NGDC 30 SEC

FMOver Analysis

W221BV.P

WTPA BLH20061030ANC

Channel = 221D

Max ERP = 0.04 kW

RCAMSL = 172 M

N. Lat. 40 02 18.0

W. Lng. 76 18 23.0

Protected

60 dBu

Channel = 221A

Max ERP = 1.5 kW

RCAMSL = 386.4 M

N. Lat. 40 23 28.0

W. Lng. 76 43 31.0

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
275.0	000.0400	0037.1	005.0	141.6	001.5000	0256.2	049.4	53.43*	37.73
276.0	000.0400	0032.8	004.6	141.2	001.5000	0256.3	049.6	53.37*	37.58
277.0	000.0400	0030.6	004.5	141.0	001.5000	0256.3	049.7	53.35*	37.52
278.0	000.0400	0028.9	004.4	141.0	001.5000	0256.3	049.6	53.36*	37.55
279.0	000.0400	0030.1	004.4	140.9	001.5000	0256.3	049.6	53.38*	37.60
280.0	000.0400	0034.2	004.7	141.1	001.5000	0256.3	049.3	53.49*	37.88
281.0	000.0400	0038.5	005.1	141.2	001.5000	0256.3	049.0	53.61*	38.17
282.0	000.0400	0041.8	005.3	141.3	001.5000	0256.3	048.8	53.70*	38.40
283.0	000.0400	0042.9	005.4	141.3	001.5000	0256.3	048.7	53.75*	38.52
284.0	000.0400	0043.7	005.4	141.2	001.5000	0256.3	048.6	53.79*	38.62
285.0	000.0400	0044.7	005.5	141.2	001.5000	0256.3	048.4	53.83*	38.73
286.0	000.0400	0046.0	005.6	141.1	001.5000	0256.3	048.3	53.88*	38.85
287.0	000.0400	0046.7	005.6	141.1	001.5000	0256.3	048.2	53.92*	38.94
288.0	000.0400	0047.3	005.6	141.0	001.5000	0256.3	048.1	53.95*	39.03
289.0	000.0400	0047.9	005.7	140.9	001.5000	0256.3	048.1	53.99*	39.11
290.0	000.0400	0048.5	005.7	140.9	001.5000	0256.3	048.0	54.02*	39.19
291.0	000.0400	0048.8	005.7	140.8	001.5000	0256.3	047.9	54.05*	39.26
292.0	000.0400	0048.6	005.7	140.7	001.5000	0256.3	047.9	54.06*	39.30
293.0	000.0400	0048.3	005.7	140.5	001.5000	0256.3	047.8	54.08*	39.33
294.0	000.0400	0048.3	005.7	140.4	001.5000	0256.3	047.8	54.10*	39.38
295.0	000.0400	0048.6	005.7	140.3	001.5000	0256.3	047.7	54.12*	39.44
296.0	000.0400	0049.1	005.7	140.2	001.5000	0256.3	047.7	54.15*	39.51
297.0	000.0400	0049.8	005.8	140.2	001.5000	0256.3	047.6	54.18*	39.59
298.0	000.0400	0050.4	005.8	140.1	001.5000	0256.3	047.5	54.21*	39.66
299.0	000.0400	0051.1	005.9	140.0	001.5000	0256.3	047.4	54.24*	39.73
300.0	000.0400	0051.6	005.9	139.9	001.5000	0256.3	047.4	54.26*	39.79
301.0	000.0400	0052.3	005.9	139.8	001.5000	0256.3	047.3	54.29*	39.86
302.0	000.0400	0053.0	006.0	139.7	001.5000	0256.2	047.2	54.32*	39.93
303.0	000.0400	0053.9	006.0	139.5	001.5000	0256.2	047.2	54.35*	40.00
304.0	000.0400	0054.9	006.1	139.4	001.5000	0256.2	047.1	54.38*	40.08
305.0	000.0400	0055.6	006.1	139.3	001.5000	0256.1	047.0	54.41*	40.15
306.0	000.0400	0056.1	006.1	139.2	001.5000	0256.1	047.0	54.43*	40.19
307.0	000.0400	0056.4	006.2	139.1	001.5000	0256.0	046.9	54.44*	40.23
308.0	000.0400	0056.5	006.2	139.0	001.5000	0255.9	046.9	54.45*	40.25

Exhibit 13.7

Contour Protection Studies Toward WTPA(FM) - Palmyra, PA

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	
309.0	000.0400	0056.6	006.2	138.8	001.5000	0255.9	046.9	54.46*	40.26
310.0	000.0400	0056.6	006.2	138.7	001.5000	0255.8	046.8	54.46*	40.27
311.0	000.0400	0056.7	006.2	138.6	001.5000	0255.7	046.8	54.47*	40.28
312.0	000.0400	0056.8	006.2	138.4	001.5000	0255.6	046.8	54.47*	40.29
313.0	000.0400	0056.8	006.2	138.3	001.5000	0255.5	046.8	54.47*	40.29
314.0	000.0400	0056.7	006.2	138.2	001.5000	0255.4	046.8	54.47*	40.29
315.0	000.0400	0056.7	006.2	138.1	001.5000	0255.3	046.8	54.47*	40.29
316.0	000.0400	0056.7	006.2	137.9	001.5000	0255.1	046.8	54.47*	40.28
317.0	000.0400	0056.6	006.2	137.8	001.5000	0255.0	046.8	54.46*	40.26
318.0	000.0400	0056.4	006.2	137.7	001.5000	0254.9	046.8	54.46*	40.24
319.0	000.0400	0056.2	006.1	137.5	001.5000	0254.7	046.8	54.44*	40.21
320.0	000.0400	0055.9	006.1	137.4	001.5000	0254.6	046.8	54.43*	40.18
321.0	000.0400	0055.5	006.1	137.3	001.5000	0254.4	046.8	54.42*	40.14
322.0	000.0400	0055.1	006.1	137.1	001.5000	0254.3	046.9	54.40*	40.10
323.0	000.0400	0054.9	006.1	137.0	001.5000	0254.2	046.9	54.39*	40.06
324.0	000.0400	0055.1	006.1	136.9	001.5000	0254.0	046.9	54.38*	40.05
325.0	000.0400	0055.2	006.1	136.7	001.5000	0253.9	046.9	54.37*	40.02
326.0	000.0400	0054.8	006.1	136.6	001.5000	0253.7	046.9	54.35*	39.97
327.0	000.0400	0053.9	006.0	136.5	001.5000	0253.6	047.0	54.32*	39.89
328.0	000.0400	0053.3	006.0	136.4	001.5000	0253.4	047.1	54.29*	39.82
329.0	000.0400	0053.0	006.0	136.3	001.5000	0253.3	047.1	54.27*	39.77
330.0	000.0400	0052.8	006.0	136.2	001.5000	0253.1	047.1	54.25*	39.72
331.0	000.0400	0052.5	005.9	136.0	001.5000	0253.0	047.2	54.23*	39.67
332.0	000.0400	0052.3	005.9	135.9	001.5000	0252.9	047.2	54.21*	39.61
333.0	000.0400	0052.2	005.9	135.8	001.5000	0252.7	047.3	54.19*	39.56
334.0	000.0400	0051.8	005.9	135.7	001.5000	0252.6	047.3	54.17*	39.50
335.0	000.0400	0050.9	005.9	135.6	001.5000	0252.5	047.4	54.13*	39.41
336.0	000.0400	0049.8	005.8	135.5	001.5000	0252.4	047.5	54.09*	39.31
337.0	000.0400	0048.9	005.7	135.4	001.5000	0252.3	047.6	54.05*	39.21
338.0	000.0400	0048.5	005.7	135.3	001.5000	0252.1	047.6	54.02*	39.14
339.0	000.0400	0048.3	005.7	135.2	001.5000	0252.0	047.7	54.00*	39.08
340.0	000.0400	0048.2	005.7	135.1	001.5000	0251.9	047.7	53.97*	39.02
341.0	000.0400	0048.1	005.7	135.0	001.5000	0251.8	047.8	53.95*	38.96
342.0	000.0400	0048.1	005.7	134.9	001.5000	0251.7	047.8	53.93*	38.90
343.0	000.0400	0048.1	005.7	134.8	001.5000	0251.5	047.9	53.91*	38.85
344.0	000.0400	0048.5	005.7	134.7	001.5000	0251.4	047.9	53.89*	38.81
345.0	000.0400	0049.2	005.8	134.5	001.5000	0251.3	047.9	53.88*	38.78
346.0	000.0400	0050.0	005.8	134.4	001.5000	0251.2	047.9	53.87*	38.76
347.0	000.0400	0050.7	005.8	134.3	001.5000	0251.1	047.9	53.86*	38.73
348.0	000.0400	0051.1	005.9	134.2	001.5000	0251.0	048.0	53.84*	38.68
349.0	000.0400	0051.3	005.9	134.0	001.5000	0250.9	048.0	53.82*	38.62
350.0	000.0400	0051.0	005.9	134.0	001.5000	0250.8	048.1	53.79*	38.55
351.0	000.0400	0050.7	005.8	133.9	001.5000	0250.7	048.2	53.75*	38.46
352.0	000.0400	0050.4	005.8	133.8	001.5000	0250.6	048.2	53.72*	38.38
353.0	000.0400	0050.2	005.8	133.7	001.5000	0250.5	048.3	53.69*	38.30
354.0	000.0400	0049.9	005.8	133.6	001.5000	0250.5	048.4	53.66*	38.22

Exhibit 13.7

Contour Protection Studies Toward WTPA(FM) - Palmyra, PA

03-30-2015

Terrain Data: NGDC 30 SEC

FMOver Analysis

WTPA BLH20061030ANC

W221BV.P

Channel = 221A

Max ERP = 1.5 kW

RCAMSL = 386.4 M

N. Lat. 40 23 28.0

W. Lng. 76 43 31.0

Protected

60 dBu

Channel = 221D

Max ERP = 0.04 kW

RCAMSL = 172 M

N. Lat. 40 02 18.0

W. Lng. 76 18 23.0

Interfering

40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
093.0	001.5000	0249.6	031.4	353.8	000.0400	0050.0	037.7	29.13	
094.0	001.5000	0249.8	031.4	353.6	000.0400	0050.0	037.2	29.34	
095.0	001.5000	0249.5	031.4	353.4	000.0400	0050.1	036.7	29.56	
096.0	001.5000	0249.1	031.4	353.2	000.0400	0050.1	036.1	29.78	
097.0	001.5000	0248.3	031.3	352.9	000.0400	0050.2	035.6	30.00	
098.0	001.5000	0247.9	031.3	352.7	000.0400	0050.3	035.1	30.22	
099.0	001.5000	0248.0	031.3	352.4	000.0400	0050.4	034.6	30.44	
100.0	001.5000	0248.0	031.3	352.1	000.0400	0050.4	034.0	30.67	
101.0	001.5000	0248.1	031.3	351.9	000.0400	0050.5	033.5	30.89	
102.0	001.5000	0247.7	031.3	351.5	000.0400	0050.5	033.0	31.11	
103.0	001.5000	0246.7	031.2	351.0	000.0400	0050.6	032.5	31.34	
104.0	001.5000	0245.9	031.2	350.6	000.0400	0050.8	032.0	31.57	
105.0	001.5000	0245.4	031.2	350.1	000.0400	0051.0	031.6	31.82	
106.0	001.5000	0245.6	031.2	349.7	000.0400	0051.1	031.1	32.07	
107.0	001.5000	0246.7	031.2	349.4	000.0400	0051.2	030.6	32.34	
108.0	001.5000	0248.5	031.3	349.1	000.0400	0051.3	030.0	32.63	
109.0	001.5000	0250.5	031.5	348.7	000.0400	0051.3	029.5	32.91	
110.0	001.5000	0252.4	031.6	348.4	000.0400	0051.2	029.0	33.20	
111.0	001.5000	0254.1	031.7	347.9	000.0400	0051.1	028.4	33.48	
112.0	001.5000	0254.9	031.7	347.4	000.0400	0050.9	027.9	33.73	
113.0	001.5000	0254.7	031.7	346.7	000.0400	0050.5	027.5	33.94	
114.0	001.5000	0253.4	031.7	345.9	000.0400	0049.9	027.1	34.08	
115.0	001.5000	0251.3	031.5	344.9	000.0400	0049.2	026.8	34.16	
116.0	001.5000	0249.3	031.4	343.9	000.0400	0048.5	026.4	34.25	
117.0	001.5000	0247.9	031.3	343.0	000.0400	0048.1	026.1	34.41	
118.0	001.5000	0247.1	031.3	342.1	000.0400	0048.1	025.7	34.64	
119.0	001.5000	0246.8	031.2	341.1	000.0400	0048.1	025.4	34.89	
120.0	001.5000	0246.3	031.2	340.1	000.0400	0048.2	025.1	35.13	
121.0	001.5000	0245.3	031.2	339.1	000.0400	0048.3	024.8	35.36	

Exhibit 13.7

Contour Protection Studies Toward WTPA(FM) - Palmyra, PA

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
122.0	001.5000	0244.0	031.1	338.0	000.0400	0048.5	024.5	35.59
123.0	001.5000	0242.9	031.0	336.8	000.0400	0049.0	024.3	35.87
124.0	001.5000	0242.3	031.0	335.7	000.0400	0050.1	024.0	36.27
125.0	001.5000	0242.4	031.0	334.6	000.0400	0051.4	023.7	36.70
126.0	001.5000	0243.1	031.0	333.5	000.0400	0052.1	023.4	37.04
127.0	001.5000	0244.1	031.1	332.3	000.0400	0052.3	023.1	37.29
128.0	001.5000	0245.2	031.2	331.2	000.0400	0052.5	022.8	37.54
129.0	001.5000	0246.3	031.2	330.0	000.0400	0052.8	022.6	37.80
130.0	001.5000	0247.4	031.3	328.7	000.0400	0053.0	022.3	38.04
131.0	001.5000	0248.4	031.3	327.4	000.0400	0053.7	022.1	38.31
132.0	001.5000	0249.2	031.4	326.1	000.0400	0054.7	021.9	38.64
133.0	001.5000	0250.0	031.4	324.7	000.0400	0055.3	021.8	38.85
134.0	001.5000	0250.8	031.5	323.3	000.0400	0055.0	021.6	38.92
135.0	001.5000	0251.8	031.5	321.9	000.0400	0055.2	021.5	39.06
136.0	001.5000	0253.0	031.6	320.4	000.0400	0055.8	021.4	39.25
137.0	001.5000	0254.2	031.7	318.9	000.0400	0056.2	021.3	39.40
138.0	001.5000	0255.2	031.8	317.4	000.0400	0056.6	021.2	39.51
139.0	001.5000	0256.0	031.8	315.9	000.0400	0056.7	021.2	39.56
140.0	001.5000	0256.3	031.8	314.4	000.0400	0056.7	021.2	39.54
141.0	001.5000	0256.3	031.8	312.9	000.0400	0056.8	021.3	39.49
142.0	001.5000	0256.2	031.8	311.5	000.0400	0056.8	021.4	39.41
143.0	001.5000	0256.2	031.8	310.0	000.0400	0056.6	021.5	39.30
144.0	001.5000	0256.5	031.8	308.6	000.0400	0056.6	021.6	39.19
145.0	001.5000	0257.0	031.9	307.1	000.0400	0056.5	021.7	39.07
146.0	001.5000	0257.6	031.9	305.7	000.0400	0056.0	021.9	38.88
147.0	001.5000	0258.3	031.9	304.3	000.0400	0055.2	022.0	38.61
148.0	001.5000	0258.8	032.0	303.0	000.0400	0053.9	022.2	38.25
149.0	001.5000	0259.2	032.0	301.7	000.0400	0052.7	022.5	37.88
150.0	001.5000	0259.7	032.0	300.4	000.0400	0051.9	022.7	37.54
151.0	001.5000	0260.3	032.1	299.1	000.0400	0051.2	023.0	37.22
152.0	001.5000	0261.1	032.1	297.9	000.0400	0050.4	023.2	36.88
153.0	001.5000	0261.7	032.2	296.7	000.0400	0049.6	023.5	36.51
154.0	001.5000	0261.7	032.2	295.7	000.0400	0049.0	023.9	36.14
155.0	001.5000	0261.1	032.1	294.7	000.0400	0048.5	024.3	35.77
156.0	001.5000	0259.9	032.0	293.8	000.0400	0048.3	024.7	35.42
157.0	001.5000	0257.8	031.9	293.1	000.0400	0048.3	025.2	35.09
158.0	001.5000	0254.9	031.7	292.5	000.0400	0048.4	025.7	34.76
159.0	001.5000	0252.2	031.6	291.9	000.0400	0048.6	026.2	34.44
160.0	001.5000	0250.2	031.5	291.3	000.0400	0048.7	026.7	34.15
161.0	001.5000	0248.4	031.3	290.7	000.0400	0048.7	027.2	33.83
162.0	001.5000	0247.4	031.3	290.1	000.0400	0048.5	027.6	33.50
163.0	001.5000	0247.3	031.3	289.5	000.0398	0048.2	028.1	33.14
164.0	001.5000	0247.9	031.3	288.8	000.0395	0047.7	028.5	32.79
165.0	001.5000	0248.3	031.3	288.1	000.0392	0047.4	028.9	32.43
166.0	001.5000	0248.2	031.3	287.6	000.0390	0047.0	029.4	32.09
167.0	001.5000	0247.4	031.3	287.1	000.0388	0046.8	029.9	31.76
168.0	001.5000	0246.9	031.3	286.6	000.0387	0046.5	030.4	31.43

Exhibit 13.8

Contour Protection Studies Toward WYTL(FM) - Wyomissing, PA

FMCommander Single Allocation Study - 03-30-2015 - NGDC 30 SEC
W221BV.P's Overlaps (In= -3.6 km, Out= 4.49 km)

W221BV.P CH 221 D DA
Lat= 40 02 18.0, Lng= 76 18 23.0
0.04 kW 60.1 M HAAT, 172 M COR
Prot.= 60 dBu, Intef.= 54 dBu

WYTL CH 220 A 73.215 Z BLED20100504AAD
Lat= 40 11 09.0, Lng= 75 57 15.0
0.45 kW 166 M HAAT, 338 M COR
Prot.= 60 dBu, Intef.= 54 dBu

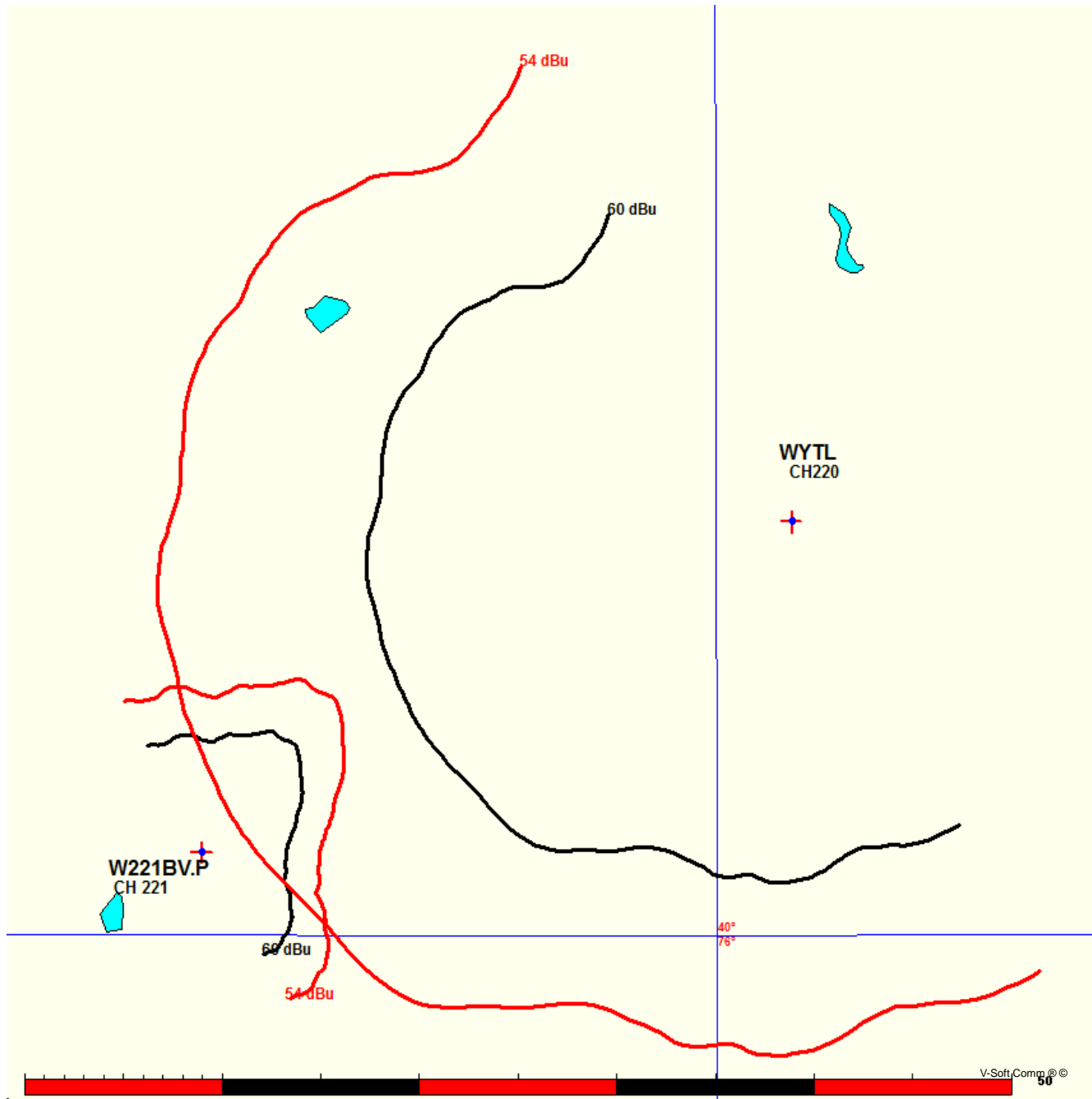


Exhibit 13.8

Contour Protection Studies Toward WYTL(FM) - Wyomissing, PA

03-30-2015

Terrain Data: NGDC 30 SEC

FMOver Analysis

W221BV.P

WYTL BLED20100504AAD

Channel = 221D
Max ERP = 0.04 kW
RCAMSL = 172 M
N. Lat. 40 02 18.0
W. Lng. 76 18 23.0
Protected
60 dBu

Channel = 220A
Max ERP = 0.45 kW
RCAMSL = 338 M
N. Lat. 40 11 09.0
W. Lng. 75 57 15.0
Interfering
54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
019.0	000.0400	0056.1	006.1	249.3	000.4500	0203.9	029.9	55.25*	2.23
020.0	000.0400	0056.5	006.2	249.2	000.4500	0203.8	029.8	55.31*	2.32
021.0	000.0400	0056.7	006.2	249.1	000.4500	0203.8	029.7	55.36*	2.41
022.0	000.0400	0057.5	006.2	249.0	000.4500	0203.8	029.6	55.42*	2.51
023.0	000.0400	0059.1	006.3	249.0	000.4500	0203.8	029.5	55.50*	2.65
024.0	000.0400	0060.9	006.4	249.0	000.4500	0203.8	029.3	55.59*	2.78
025.0	000.0400	0062.6	006.5	248.9	000.4500	0203.8	029.2	55.67*	2.92
026.0	000.0400	0064.1	006.5	248.8	000.4500	0203.7	029.1	55.75*	3.05
027.0	000.0400	0066.0	006.6	248.8	000.4500	0203.7	028.9	55.84*	3.19
028.0	000.0400	0068.3	006.7	248.8	000.4500	0203.7	028.7	55.94*	3.35
029.0	000.0400	0070.7	006.8	248.7	000.4500	0203.7	028.6	56.04*	3.51
030.0	000.0400	0072.5	006.9	248.6	000.4500	0203.7	028.4	56.13*	3.65
031.0	000.0400	0073.2	007.0	248.5	000.4500	0203.7	028.3	56.19*	3.75
032.0	000.0400	0073.0	007.0	248.3	000.4500	0203.6	028.3	56.23*	3.81
033.0	000.0400	0072.5	006.9	248.1	000.4500	0203.6	028.2	56.26*	3.86
034.0	000.0400	0071.7	006.9	247.8	000.4500	0203.5	028.2	56.28*	3.89
035.0	000.0400	0071.4	006.9	247.6	000.4500	0203.5	028.1	56.32*	3.94
036.0	000.0400	0071.8	006.9	247.4	000.4500	0203.5	028.1	56.36*	4.02
037.0	000.0400	0072.8	006.9	247.2	000.4500	0203.4	028.0	56.43*	4.11
038.0	000.0400	0073.9	007.0	247.1	000.4500	0203.4	027.9	56.49*	4.22
039.0	000.0400	0074.9	007.0	246.9	000.4500	0203.4	027.8	56.56*	4.32
040.0	000.0400	0075.6	007.1	246.7	000.4500	0203.4	027.7	56.61*	4.40
041.0	000.0400	0076.0	007.1	246.5	000.4500	0203.3	027.6	56.66*	4.47
042.0	000.0400	0075.8	007.1	246.3	000.4500	0203.3	027.6	56.68*	4.51
043.0	000.0400	0074.9	007.0	246.0	000.4500	0203.3	027.5	56.69*	4.51
044.0	000.0400	0073.3	007.0	245.7	000.4500	0203.2	027.6	56.67*	4.49
045.0	000.0400	0071.5	006.9	245.4	000.4500	0203.2	027.6	56.65*	4.45
046.0	000.0400	0069.7	006.8	245.1	000.4500	0203.2	027.6	56.62*	4.41
047.0	000.0400	0068.1	006.7	244.8	000.4500	0203.1	027.7	56.60*	4.37
048.0	000.0400	0066.4	006.6	244.5	000.4500	0203.1	027.7	56.57*	4.33
049.0	000.0400	0064.7	006.6	244.3	000.4500	0203.1	027.8	56.53*	4.28
050.0	000.0400	0063.0	006.5	244.0	000.4500	0203.1	027.8	56.50*	4.22
051.0	000.0400	0061.7	006.4	243.7	000.4500	0203.1	027.9	56.48*	4.19

Exhibit 13.8

Contour Protection Studies Toward WYTL(FM) - Wyomissing, PA

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
052.0	000.0400	0060.7	006.4	243.5	000.4500	0203.0	027.9	56.46* 4.16
053.0	000.0400	0060.0	006.3	243.3	000.4500	0203.0	027.9	56.45* 4.15
054.0	000.0400	0059.4	006.3	243.0	000.4500	0202.9	027.9	56.44* 4.13
055.0	000.0400	0058.8	006.3	242.8	000.4500	0202.8	027.9	56.43* 4.11
056.0	000.0400	0058.4	006.3	242.6	000.4500	0202.8	027.9	56.42* 4.10
057.0	000.0400	0057.9	006.2	242.3	000.4500	0202.6	027.9	56.41* 4.07
058.0	000.0400	0057.3	006.2	242.1	000.4500	0202.5	028.0	56.39* 4.05
059.0	000.0400	0056.9	006.2	241.9	000.4500	0202.4	028.0	56.38* 4.02
060.0	000.0400	0056.4	006.2	241.7	000.4500	0202.3	028.0	56.36* 3.99
061.0	000.0400	0056.2	006.1	241.5	000.4500	0202.2	028.0	56.35* 3.97
062.0	000.0400	0056.1	006.1	241.2	000.4500	0202.1	028.0	56.34* 3.95
063.0	000.0400	0056.0	006.1	241.0	000.4500	0201.9	028.0	56.32* 3.93
064.0	000.0400	0055.8	006.1	240.8	000.4500	0201.8	028.0	56.31* 3.91
065.0	000.0400	0055.5	006.1	240.6	000.4500	0201.6	028.1	56.29* 3.87
066.0	000.0400	0055.1	006.1	240.4	000.4500	0201.5	028.1	56.26* 3.82
067.0	000.0400	0054.6	006.1	240.2	000.4500	0201.3	028.1	56.23* 3.77
068.0	000.0400	0054.3	006.0	240.0	000.4500	0201.1	028.2	56.20* 3.73
069.0	000.0400	0054.4	006.0	239.7	000.4500	0200.9	028.2	56.18* 3.70
070.0	000.0400	0054.5	006.0	239.5	000.4500	0200.8	028.2	56.17* 3.67
071.0	000.0400	0054.7	006.1	239.3	000.4500	0200.6	028.2	56.15* 3.65
072.0	000.0400	0054.8	006.1	239.1	000.4500	0200.4	028.2	56.13* 3.61
073.0	000.0400	0054.8	006.1	238.9	000.4500	0200.2	028.2	56.11* 3.57
074.0	000.0400	0054.8	006.1	238.7	000.4500	0200.0	028.3	56.09* 3.53
075.0	000.0400	0054.8	006.1	238.5	000.4500	0199.7	028.3	56.06* 3.48
076.0	000.0400	0054.7	006.1	238.3	000.4500	0199.5	028.3	56.02* 3.43
077.0	000.0400	0054.7	006.1	238.1	000.4500	0199.3	028.4	55.99* 3.37
078.0	000.0400	0054.5	006.0	237.9	000.4500	0199.0	028.4	55.95* 3.31
079.0	000.0400	0054.4	006.0	237.7	000.4500	0198.8	028.5	55.92* 3.25
080.0	000.0400	0054.3	006.0	237.5	000.4500	0198.6	028.5	55.88* 3.18
081.0	000.0400	0054.2	006.0	237.3	000.4500	0198.3	028.5	55.84* 3.12
082.0	000.0400	0054.1	006.0	237.1	000.4500	0198.1	028.6	55.79* 3.04
083.0	000.0400	0053.9	006.0	236.9	000.4500	0197.8	028.6	55.75* 2.97
084.0	000.0400	0053.8	006.0	236.8	000.4500	0197.6	028.7	55.70* 2.90
085.0	000.0400	0053.6	006.0	236.6	000.4500	0197.4	028.8	55.66* 2.82
086.0	000.0400	0053.5	006.0	236.4	000.4500	0197.1	028.8	55.61* 2.75
087.0	000.0400	0053.5	006.0	236.2	000.4500	0196.9	028.9	55.57* 2.67
088.0	000.0400	0053.7	006.0	236.0	000.4500	0196.7	028.9	55.53* 2.61
089.0	000.0400	0053.9	006.0	235.9	000.4500	0196.5	029.0	55.49* 2.55
090.0	000.0400	0054.2	006.0	235.7	000.4500	0196.2	029.0	55.46* 2.48
091.0	000.0400	0054.4	006.0	235.5	000.4500	0196.0	029.1	55.42* 2.42
092.0	000.0400	0054.6	006.1	235.3	000.4500	0195.8	029.1	55.37* 2.35
093.0	000.0400	0054.9	006.1	235.1	000.4500	0195.6	029.2	55.33* 2.28
094.0	000.0400	0055.2	006.1	234.9	000.4500	0195.4	029.2	55.29* 2.21
095.0	000.0400	0055.3	006.1	234.8	000.4500	0195.2	029.3	55.24* 2.13
096.0	000.0400	0055.5	006.1	234.6	000.4500	0195.0	029.3	55.20* 2.05

Exhibit 13.8

Contour Protection Studies Toward WYTL(FM) - Wyomissing, PA

03-30-2015

Terrain Data: NGDC 30 SEC

FMOver Analysis

WYTL BLED20100504AAD

W221BV.P

Channel = 220A

Max ERP = 0.45 kW

RCAMSL = 338 M

N. Lat. 40 11 09.0

W. Lng. 75 57 15.0

Protected

60 dBu

Channel = 221D

Max ERP = 0.04 kW

RCAMSL = 172 M

N. Lat. 40 02 18.0

W. Lng. 76 18 23.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
196.0	000.4500	0137.1	017.8	091.4	000.0095	0054.5	025.1	29.97	
197.0	000.4500	0136.6	017.7	091.2	000.0095	0054.4	024.8	30.18	
198.0	000.4500	0136.4	017.7	090.9	000.0095	0054.4	024.5	30.39	
199.0	000.4500	0135.8	017.7	090.6	000.0096	0054.3	024.2	30.59	
200.0	000.4500	0135.2	017.6	090.3	000.0096	0054.2	024.0	30.80	
201.0	000.4500	0135.0	017.6	090.0	000.0096	0054.2	023.7	31.01	
202.0	000.4500	0135.3	017.6	089.8	000.0097	0054.1	023.4	31.25	
203.0	000.4500	0135.9	017.7	089.6	000.0097	0054.1	023.1	31.49	
204.0	000.4500	0137.1	017.8	089.5	000.0098	0054.0	022.8	31.75	
205.0	000.4500	0139.0	017.9	089.5	000.0098	0054.0	022.4	32.01	
206.0	000.4500	0141.5	018.1	089.5	000.0098	0054.0	022.1	32.29	
207.0	000.4500	0144.8	018.3	089.7	000.0097	0054.1	021.7	32.57	
208.0	000.4500	0148.3	018.5	089.8	000.0097	0054.1	021.3	32.87	
209.0	000.4500	0151.5	018.7	089.9	000.0096	0054.1	020.9	33.18	
210.0	000.4500	0154.6	018.9	090.0	000.0096	0054.1	020.5	33.49	
211.0	000.4500	0157.5	019.1	089.9	000.0096	0054.1	020.1	33.80	
212.0	000.4500	0160.1	019.3	089.8	000.0097	0054.1	019.8	34.12	
213.0	000.4500	0163.1	019.5	089.8	000.0097	0054.1	019.4	34.44	
214.0	000.4500	0167.2	019.7	089.8	000.0097	0054.1	019.0	34.79	
215.0	000.4500	0172.0	020.0	089.9	000.0096	0054.1	018.5	35.15	
216.0	000.4500	0176.6	020.2	089.9	000.0096	0054.1	018.1	35.52	
217.0	000.4500	0180.6	020.4	089.7	000.0097	0054.1	017.7	35.88	
218.0	000.4500	0183.9	020.6	089.4	000.0098	0054.0	017.3	36.24	
219.0	000.4500	0186.4	020.7	089.0	000.0099	0053.9	016.9	36.60	
220.0	000.4500	0188.3	020.8	088.4	000.0101	0053.8	016.6	36.94	
221.0	000.4500	0189.7	020.9	087.8	000.0103	0053.6	016.3	37.28	
222.0	000.4500	0190.6	020.9	087.0	000.0106	0053.5	016.0	37.62	
223.0	000.4500	0191.1	021.0	086.1	000.0109	0053.4	015.7	37.98	
224.0	000.4500	0191.4	021.0	085.1	000.0112	0053.6	015.5	38.36	

MUNN-REESE, INC.

Broadcast Engineering Consultants
COLDWATER, MI 49036

Exhibit 13.8

Contour Protection Studies Toward WYTL(FM) - Wyomissing, PA

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
225.0	000.4500	0191.3	021.0	084.1	000.0116	0053.8	015.2	38.73
226.0	000.4500	0191.2	021.0	083.0	000.0119	0053.9	015.0	39.10
227.0	000.4500	0191.1	021.0	081.8	000.0123	0054.1	014.8	39.27
228.0	000.4500	0191.1	021.0	080.6	000.0128	0054.3	014.6	39.68
229.0	000.4500	0191.0	021.0	079.4	000.0134	0054.4	014.4	40.13
230.0	000.4500	0191.0	021.0	078.1	000.0141	0054.5	014.2	40.62
231.0	000.4500	0191.5	021.0	076.9	000.0149	0054.7	014.0	41.11
232.0	000.4500	0192.3	021.0	075.6	000.0158	0054.8	013.8	41.61
233.0	000.4500	0193.3	021.1	074.2	000.0166	0054.8	013.7	42.11
234.0	000.4500	0194.4	021.1	072.8	000.0176	0054.8	013.5	42.57
235.0	000.4500	0195.4	021.2	071.4	000.0186	0054.7	013.3	43.03
236.0	000.4500	0196.6	021.2	069.9	000.0197	0054.5	013.2	43.45
237.0	000.4500	0197.9	021.3	068.4	000.0214	0054.3	013.0	43.99
238.0	000.4500	0199.2	021.4	066.8	000.0233	0054.7	012.9	44.60
239.0	000.4500	0200.3	021.4	065.2	000.0253	0055.4	012.8	45.22
240.0	000.4500	0201.1	021.5	063.6	000.0275	0055.9	012.7	45.76
241.0	000.4500	0201.9	021.5	061.9	000.0298	0056.1	012.7	46.22
242.0	000.4500	0202.5	021.5	060.2	000.0321	0056.4	012.6	46.64
243.0	000.4500	0202.9	021.5	058.5	000.0335	0057.1	012.6	46.93
244.0	000.4500	0203.1	021.5	056.8	000.0348	0058.0	012.7	47.18
245.0	000.4500	0203.2	021.6	055.1	000.0360	0058.8	012.7	47.37
246.0	000.4500	0203.3	021.6	053.4	000.0373	0059.7	012.8	47.55
247.0	000.4500	0203.4	021.6	051.8	000.0386	0060.9	012.9	47.73
248.0	000.4500	0203.6	021.6	050.2	000.0399	0062.8	013.0	47.97
249.0	000.4500	0203.8	021.6	048.6	000.0400	0065.4	013.1	48.16
250.0	000.4500	0204.1	021.6	047.0	000.0400	0068.1	013.2	48.30
251.0	000.4500	0204.6	021.6	045.5	000.0400	0070.6	013.3	48.42
252.0	000.4500	0205.1	021.6	044.0	000.0400	0073.3	013.5	48.53
253.0	000.4500	0205.6	021.7	042.6	000.0400	0075.4	013.6	48.55
254.0	000.4500	0205.7	021.7	041.2	000.0400	0076.0	013.8	48.37
255.0	000.4500	0205.2	021.7	040.0	000.0400	0075.6	014.1	48.03
256.0	000.4500	0204.5	021.6	038.8	000.0400	0074.7	014.3	47.62
257.0	000.4500	0204.2	021.6	037.7	000.0400	0073.5	014.5	47.19
258.0	000.4500	0204.4	021.6	036.5	000.0400	0072.2	014.8	46.76
259.0	000.4500	0205.1	021.6	035.4	000.0400	0071.5	015.0	46.63
260.0	000.4500	0205.9	021.7	034.2	000.0400	0071.6	015.2	46.43
261.0	000.4500	0206.8	021.7	033.1	000.0400	0072.4	015.5	46.31
262.0	000.4500	0207.7	021.8	032.1	000.0400	0073.0	015.7	46.15
263.0	000.4500	0207.7	021.8	031.2	000.0400	0073.2	016.0	45.92
264.0	000.4500	0207.3	021.8	030.5	000.0400	0072.9	016.4	45.62
265.0	000.4500	0206.9	021.7	029.7	000.0400	0072.1	016.7	45.25
266.0	000.4500	0205.7	021.7	029.2	000.0400	0071.1	017.0	44.83
267.0	000.4500	0204.3	021.6	028.7	000.0400	0070.0	017.4	44.40
268.0	000.4500	0202.8	021.5	028.3	000.0400	0069.0	017.7	43.97
269.0	000.4500	0200.0	021.4	028.1	000.0400	0068.4	018.1	43.57
270.0	000.4500	0197.8	021.3	027.8	000.0400	0067.8	018.5	43.18
271.0	000.4500	0195.6	021.2	027.6	000.0400	0067.3	018.9	42.79

MUNN-REESE, INC.

Broadcast Engineering Consultants
COLDWATER, MI 49036

Contour Protection Studies Toward WIXQ(FM) - Millersville, PA

WIXQ CH 219 A BLED20110812ACE
Lat= 40 00 03.1, Lng= 76 21 43.4
0.096 kW 6.4 M HAAT, 124.5 M COR
Prot.= 60 dBu, Intef.= 100 dBu

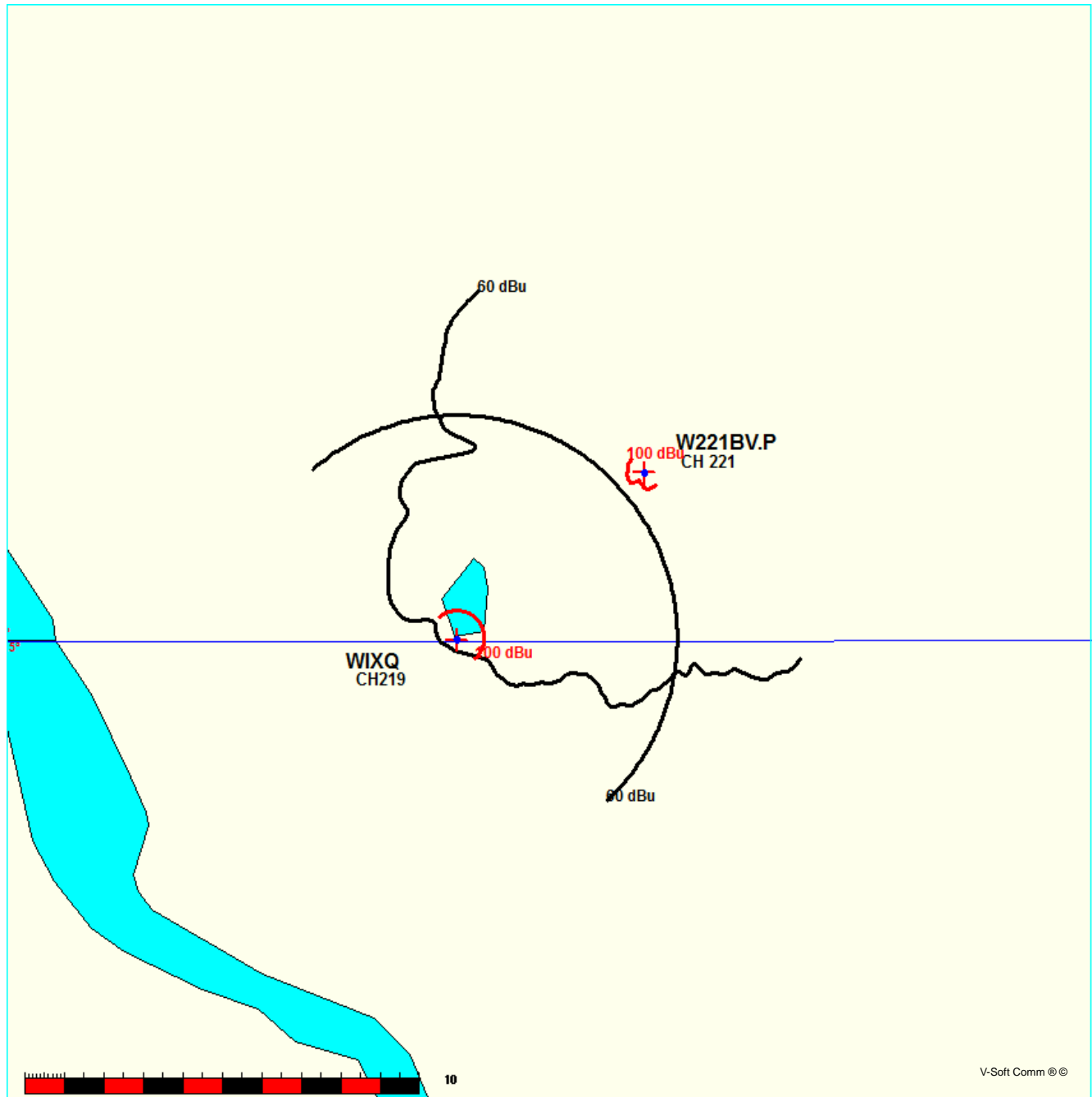


Exhibit 13.9

Contour Protection Studies Toward WIXQ(FM) - Millersville, PA

03-30-2015

Terrain Data: NGDC 30 SEC

FMOver Analysis

W221BV.P

WIXQ BLED20110812ACE

Channel = 221D

Max ERP = 0.04 kW

RCAMSL = 172 M

N. Lat. 40 02 18.0

W. Lng. 76 18 23.0

Protected

60 dBu

Channel = 219A

Max ERP = 0.096 kW

RCAMSL = 124.5 M

N. Lat. 40 00 03.1

W. Lng. 76 21 43.4

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
186.0	000.0262	0063.0	005.9	111.9	000.0960	0006.3	004.5	63.74	
187.0	000.0253	0066.0	005.9	113.1	000.0960	0007.0	004.4	64.04	
188.0	000.0243	0067.8	005.9	113.8	000.0960	0006.9	004.3	64.42	
189.0	000.0234	0067.7	005.9	113.4	000.0960	0007.0	004.2	64.89	
190.0	000.0225	0065.6	005.8	111.8	000.0960	0006.3	004.0	65.45	
191.0	000.0221	0063.3	005.6	110.4	000.0960	0005.0	003.9	65.99	
192.0	000.0216	0060.5	005.5	108.6	000.0960	0003.9	003.8	66.52	
193.0	000.0212	0059.2	005.4	107.5	000.0960	0003.8	003.7	67.00	
194.0	000.0207	0058.6	005.4	106.8	000.0960	0003.9	003.6	67.47	
195.0	000.0203	0057.8	005.3	105.9	000.0960	0003.7	003.5	67.94	
196.0	000.0199	0057.6	005.3	105.3	000.0960	0003.6	003.4	68.41	
197.0	000.0194	0059.0	005.3	105.8	000.0960	0003.7	003.3	68.88	
198.0	000.0190	0060.3	005.3	106.2	000.0960	0003.8	003.2	69.37	
199.0	000.0187	0061.1	005.3	106.2	000.0960	0003.8	003.1	69.88	
200.0	000.0182	0062.3	005.3	106.4	000.0960	0003.8	003.0	70.42	
201.0	000.0176	0066.1	005.4	108.1	000.0960	0003.8	002.9	71.03	
202.0	000.0169	0071.7	005.6	111.3	000.0960	0005.7	002.8	71.68	
203.0	000.0162	0076.4	005.7	113.8	000.0960	0006.8	002.7	72.35	
204.0	000.0156	0079.7	005.8	115.4	000.0960	0005.2	002.6	73.05	
205.0	000.0150	0082.1	005.8	116.1	000.0960	0004.0	002.5	73.80	
206.0	000.0144	0084.7	005.9	116.9	000.0960	0003.0	002.4	74.57	
207.0	000.0138	0088.4	005.9	118.7	000.0960	0003.1	002.3	75.37	
208.0	000.0132	0093.2	006.0	121.4	000.0960	0006.0	002.2	76.18	
209.0	000.0126	0097.3	006.1	123.4	000.0960	0004.1	002.1	77.02	
210.0	000.0121	0099.7	006.1	124.0	000.0960	0002.6	002.0	77.92	
211.0	000.0130	0100.1	006.2	127.8	000.0960	-0001.9	001.9	78.76	
212.0	000.0139	0098.8	006.3	130.1	000.0960	-0004.2	001.8	79.66	
213.0	000.0149	0096.4	006.3	131.2	000.0960	-0006.2	001.7	80.62	
214.0	000.0159	0093.0	006.3	131.0	000.0960	-0005.8	001.6	81.65	
215.0	000.0169	0090.0	006.3	131.1	000.0960	-0005.9	001.5	82.69	
216.0	000.0180	0087.7	006.3	131.8	000.0960	-0007.1	001.4	93.85	
217.0	000.0190	0085.2	006.3	132.0	000.0960	-0007.3	001.3	94.57	
218.0	000.0202	0081.8	006.2	130.1	000.0960	-0004.1	001.2	95.36	
219.0	000.0213	0078.2	006.2	127.0	000.0960	-0001.7	001.1	96.20	

MUNN-REESE, INC.

Broadcast Engineering Consultants

COLDWATER, MI 49036

Exhibit 13.9

Contour Protection Studies Toward WIXQ(FM) - Millersville, PA

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
220.0	000.0225	0075.7	006.2	125.5	000.0960	-0000.4	001.0	97.12
221.0	000.0240	0074.3	006.2	127.5	000.0960	-0001.9	000.8	98.18
222.0	000.0256	0073.3	006.3	131.1	000.0960	-0005.9	000.7	99.40
223.0	000.0272	0072.4	006.3	135.9	000.0960	-0011.9	000.6	100.79* 0.06
224.0	000.0289	0071.4	006.4	141.6	000.0960	-0024.2	000.5	102.39* 0.17
225.0	000.0306	0070.6	006.4	150.4	000.0960	-0028.1	000.4	104.23* 0.26
226.0	000.0324	0070.4	006.5	167.3	000.0960	-0011.4	000.3	105.91* 0.34
227.0	000.0342	0070.1	006.6	190.4	000.0960	0037.9	000.3	106.80* 0.37
228.0	000.0361	0069.4	006.6	213.7	000.0960	-0019.2	000.3	106.84* 0.37
229.0	000.0380	0068.2	006.6	234.6	000.0960	-0003.4	000.3	106.30* 0.35
230.0	000.0400	0067.5	006.7	250.5	000.0960	0031.6	000.4	104.52* 0.28
231.0	000.0400	0067.5	006.7	264.4	000.0960	0018.2	000.5	103.50* 0.23
232.0	000.0400	0067.0	006.7	276.5	000.0960	0014.7	000.5	102.47* 0.17
233.0	000.0400	0065.7	006.6	289.5	000.0960	0010.3	000.6	101.67* 0.12
234.0	000.0400	0064.3	006.5	300.7	000.0960	-0003.7	000.6	100.70* 0.05
235.0	000.0400	0064.3	006.5	304.3	000.0960	-0002.8	000.7	99.36
236.0	000.0400	0066.5	006.6	300.5	000.0960	-0003.6	000.9	97.77
237.0	000.0400	0070.5	006.8	294.1	000.0960	0001.0	001.1	96.04
238.0	000.0400	0074.4	007.0	290.4	000.0960	0008.9	001.3	94.56
239.0	000.0400	0076.7	007.1	290.0	000.0960	0009.6	001.5	93.51
240.0	000.0400	0077.5	007.2	291.7	000.0960	0005.9	001.6	82.01
241.0	000.0400	0077.9	007.2	293.9	000.0960	0001.2	001.7	81.00
242.0	000.0400	0078.1	007.2	296.1	000.0960	0000.6	001.8	80.02
243.0	000.0400	0078.1	007.2	298.4	000.0960	-0001.4	001.9	79.10
244.0	000.0400	0077.7	007.2	300.9	000.0960	-0003.8	002.0	78.28
245.0	000.0400	0077.1	007.1	303.4	000.0960	-0003.3	002.1	77.49
246.0	000.0400	0076.5	007.1	305.8	000.0960	-0002.2	002.2	76.72
247.0	000.0400	0075.4	007.1	308.6	000.0960	-0001.2	002.3	76.04
248.0	000.0400	0074.1	007.0	311.4	000.0960	0000.4	002.3	75.40
249.0	000.0400	0072.9	006.9	313.9	000.0960	0000.6	002.4	74.72
250.0	000.0400	0072.0	006.9	315.9	000.0960	0000.5	002.5	74.00
251.0	000.0400	0071.0	006.9	318.0	000.0960	-0000.5	002.6	73.32
252.0	000.0400	0069.8	006.8	320.1	000.0960	-0001.9	002.7	72.68
253.0	000.0400	0068.5	006.7	322.2	000.0960	-0002.8	002.8	72.07
254.0	000.0400	0067.0	006.7	324.3	000.0960	-0002.9	002.9	71.50
255.0	000.0400	0065.5	006.6	326.5	000.0960	-0002.2	002.9	70.96
256.0	000.0400	0063.8	006.5	328.7	000.0960	-0001.8	003.0	70.45
257.0	000.0400	0061.7	006.4	331.0	000.0960	-0001.7	003.1	69.98
258.0	000.0400	0059.0	006.3	333.7	000.0960	-0002.1	003.2	69.57
259.0	000.0400	0057.0	006.2	336.0	000.0960	-0002.4	003.3	69.14
260.0	000.0400	0055.3	006.1	337.9	000.0960	-0002.8	003.4	68.70
261.0	000.0396	0055.3	006.1	338.5	000.0960	-0002.9	003.5	68.19
262.0	000.0392	0056.4	006.1	338.2	000.0960	-0002.8	003.6	67.62
263.0	000.0388	0057.5	006.2	337.9	000.0960	-0002.8	003.7	67.06
264.0	000.0384	0058.8	006.2	337.7	000.0960	-0002.7	003.8	66.51
265.0	000.0380	0059.0	006.2	338.2	000.0960	-0002.8	003.9	66.03

Exhibit 13.9

Contour Protection Studies Toward WIXQ(FM) - Millersville, PA

03-30-2015

Terrain Data: NGDC 30 SEC

FMOver Analysis

WIXQ BLED20110812ACE

W221BV.P

Channel = 219A

Max ERP = 0.096 kW

RCAMSL = 124.5 M

N. Lat. 40 00 03.1

W. Lng. 76 21 43.4

Protected

60 dBu

Channel = 221D

Max ERP = 0.04 kW

RCAMSL = 172 M

N. Lat. 40 02 18.0

W. Lng. 76 18 23.0

Interfering

100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
005.0	000.0960	0014.7	005.6	288.1	000.0393	0047.4	004.5	63.94	
006.0	000.0960	0015.9	005.6	288.4	000.0394	0047.5	004.4	64.35	
007.0	000.0960	0016.9	005.6	288.7	000.0395	0047.7	004.3	64.78	
008.0	000.0960	0017.6	005.6	288.9	000.0396	0047.8	004.2	65.21	
009.0	000.0960	0018.0	005.6	289.2	000.0397	0048.0	004.1	65.66	
010.0	000.0960	0018.1	005.6	289.4	000.0398	0048.1	004.0	66.11	
011.0	000.0960	0018.1	005.6	289.6	000.0399	0048.3	003.9	66.58	
012.0	000.0960	0017.9	005.6	289.8	000.0399	0048.4	003.8	67.05	
013.0	000.0960	0017.5	005.6	290.0	000.0400	0048.5	003.7	67.53	
014.0	000.0960	0016.9	005.6	290.2	000.0400	0048.6	003.6	68.00	
015.0	000.0960	0016.2	005.6	290.4	000.0400	0048.6	003.5	68.48	
016.0	000.0960	0015.4	005.6	290.5	000.0400	0048.7	003.4	68.97	
017.0	000.0960	0014.7	005.6	290.6	000.0400	0048.7	003.3	69.47	
018.0	000.0960	0014.2	005.6	290.7	000.0400	0048.7	003.2	69.97	
019.0	000.0960	0013.8	005.6	290.8	000.0400	0048.7	003.1	70.50	
020.0	000.0960	0013.3	005.6	290.8	000.0400	0048.7	003.0	71.06	
021.0	000.0960	0012.8	005.6	290.8	000.0400	0048.7	002.9	71.66	
022.0	000.0960	0012.3	005.6	290.8	000.0400	0048.7	002.8	72.30	
023.0	000.0960	0011.6	005.6	290.7	000.0400	0048.7	002.7	72.96	
024.0	000.0960	0010.8	005.6	290.6	000.0400	0048.7	002.6	73.65	
025.0	000.0960	0010.1	005.6	290.5	000.0400	0048.7	002.5	74.37	
026.0	000.0960	0009.6	005.6	290.3	000.0400	0048.6	002.4	75.10	
027.0	000.0960	0009.4	005.6	290.0	000.0400	0048.5	002.3	75.86	
028.0	000.0960	0009.3	005.6	289.7	000.0399	0048.3	002.3	76.60	
029.0	000.0960	0009.4	005.6	289.3	000.0397	0048.1	002.2	77.35	
030.0	000.0960	0009.7	005.6	288.8	000.0395	0047.8	002.1	78.10	
031.0	000.0960	0010.3	005.6	288.2	000.0393	0047.4	002.0	78.85	
032.0	000.0960	0011.1	005.6	287.6	000.0390	0047.0	001.9	79.58	
033.0	000.0960	0011.8	005.6	286.7	000.0387	0046.6	001.8	80.31	
034.0	000.0960	0012.6	005.6	285.8	000.0383	0045.7	001.7	80.95	
035.0	000.0960	0013.8	005.6	284.7	000.0379	0044.3	001.6	81.46	
036.0	000.0960	0015.4	005.6	283.3	000.0374	0043.2	001.5	89.13	

Exhibit 13.9

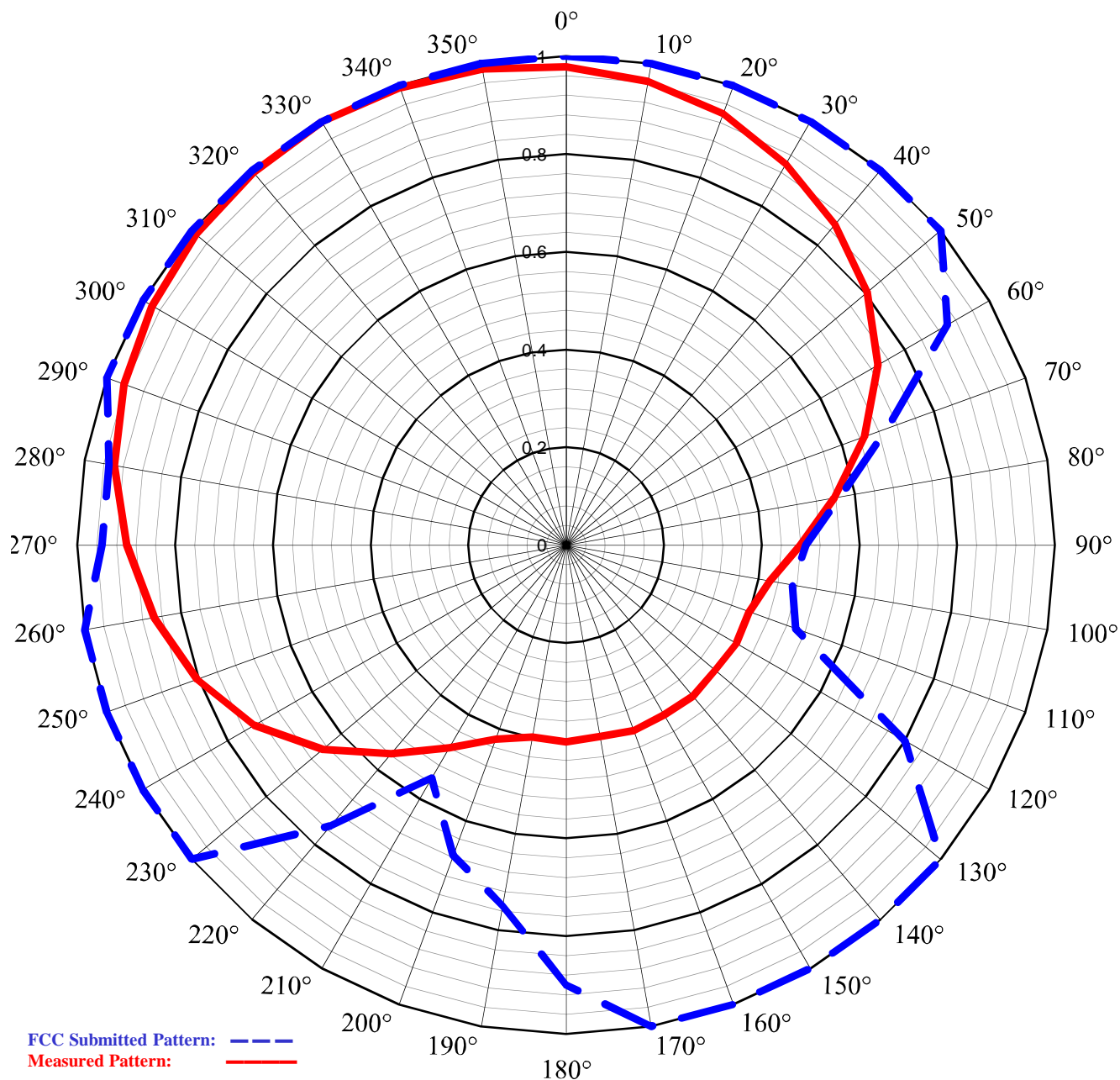
Contour Protection Studies Toward WIXQ(FM) - Millersville, PA

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
037.0	000.0960	0017.3	005.6	281.8	000.0368	0041.3	001.4	89.59
038.0	000.0960	0019.2	005.6	280.0	000.0361	0034.0	001.3	90.06
039.0	000.0960	0021.0	005.6	277.8	000.0361	0029.2	001.2	90.63
040.0	000.0960	0022.4	005.6	275.3	000.0361	0035.8	001.2	91.22
041.0	000.0960	0023.6	005.6	272.3	000.0361	0050.9	001.1	91.83
042.0	000.0960	0024.5	005.6	268.8	000.0366	0057.5	001.0	92.50
043.0	000.0960	0024.9	005.6	264.6	000.0382	0059.0	000.9	93.29
044.0	000.0960	0024.9	005.6	259.9	000.0400	0055.5	000.9	94.08
045.0	000.0960	0024.6	005.6	254.3	000.0400	0066.5	000.8	94.61
046.0	000.0960	0024.1	005.6	248.1	000.0400	0074.0	000.8	95.07
047.0	000.0960	0023.5	005.6	241.1	000.0400	0077.9	000.8	95.41
048.0	000.0960	0022.8	005.6	233.8	000.0400	0064.6	000.7	95.61
049.0	000.0960	0021.9	005.6	226.2	000.0327	0070.4	000.7	94.76
050.0	000.0960	0021.1	005.6	218.7	000.0209	0079.3	000.7	92.68
051.0	000.0960	0020.6	005.6	211.6	000.0135	0099.6	000.8	90.49
052.0	000.0960	0020.6	005.6	205.1	000.0150	0082.3	000.8	90.51
053.0	000.0960	0020.7	005.6	199.3	000.0185	0061.2	000.9	90.92
054.0	000.0960	0020.9	005.6	194.3	000.0206	0058.3	000.9	90.81
055.0	000.0960	0021.0	005.6	189.9	000.0226	0065.7	001.0	90.60
056.0	000.0960	0021.1	005.6	186.2	000.0260	0063.8	001.1	90.61
057.0	000.0960	0021.0	005.6	183.1	000.0292	0059.8	001.1	90.50
058.0	000.0960	0020.8	005.6	180.4	000.0320	0053.2	001.2	90.30
059.0	000.0960	0020.5	005.6	178.1	000.0338	0048.6	001.3	89.96
060.0	000.0960	0020.4	005.6	176.2	000.0352	0047.2	001.4	89.58
061.0	000.0960	0020.2	005.6	174.6	000.0364	0044.9	001.5	89.19
062.0	000.0960	0020.1	005.6	173.2	000.0375	0042.7	001.6	81.32
063.0	000.0960	0019.7	005.6	172.0	000.0384	0040.6	001.7	80.08
064.0	000.0960	0019.2	005.6	171.0	000.0392	0038.9	001.7	78.90
065.0	000.0960	0018.7	005.6	170.1	000.0399	0038.9	001.8	78.13
066.0	000.0960	0018.3	005.6	169.4	000.0400	0039.8	001.9	77.51
067.0	000.0960	0018.1	005.6	168.8	000.0400	0040.5	002.0	76.83
068.0	000.0960	0018.3	005.6	168.2	000.0400	0040.7	002.1	76.05
069.0	000.0960	0018.9	005.6	167.8	000.0400	0040.7	002.2	75.23
070.0	000.0960	0019.7	005.6	167.5	000.0400	0040.4	002.3	74.37
071.0	000.0960	0020.8	005.6	167.2	000.0400	0039.9	002.4	73.48
072.0	000.0960	0021.8	005.6	167.0	000.0400	0039.4	002.5	72.61
073.0	000.0960	0022.8	005.6	166.8	000.0400	0039.1	002.6	71.79
074.0	000.0960	0023.3	005.6	166.7	000.0400	0038.8	002.7	71.03
075.0	000.0960	0023.3	005.6	166.6	000.0400	0038.6	002.8	70.31
076.0	000.0960	0022.8	005.6	166.6	000.0400	0038.6	002.9	69.65
077.0	000.0960	0021.8	005.6	166.6	000.0400	0038.6	003.0	69.04
078.0	000.0960	0020.2	005.6	166.6	000.0400	0038.6	003.1	68.47
079.0	000.0960	0018.6	005.6	166.7	000.0400	0038.7	003.2	67.96
080.0	000.0960	0017.1	005.6	166.8	000.0400	0038.9	003.3	67.49
081.0	000.0960	0016.0	005.6	166.9	000.0400	0039.2	003.4	67.05
082.0	000.0960	0015.1	005.6	167.0	000.0400	0039.5	003.5	66.63

Exhibit 13.10

Manufacturer's Directional Antenna Pattern Documentation

Measured Composite Pattern in Relative Field



Call Sign: W221BV.P

Channel: 221D

Max ERP: 0.040 kW (V)
0.040 kW (H)

Antenna Make: Nicom USA Inc.

Model: BKG1/P-1DA(Slant45)

Licensee: Hope Christian Church of Marlton, Inc.

Munn-Reese, Inc.

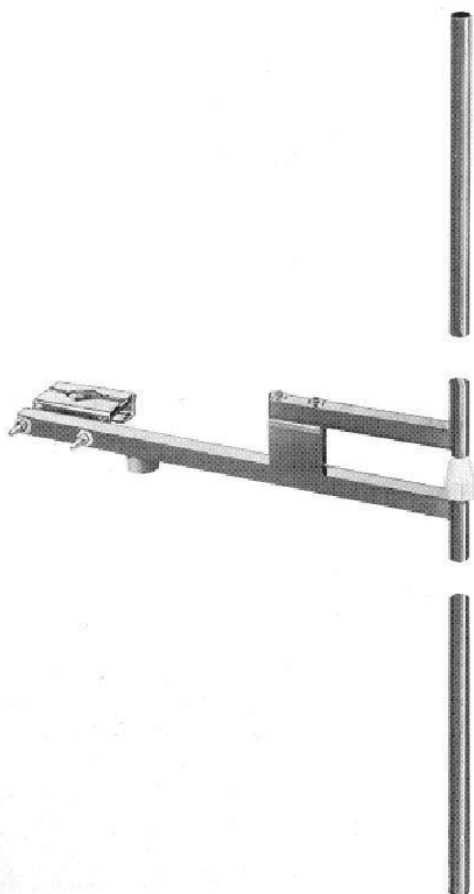
Broadcast Engineering Consultants
Coldwater, MI 49036

Exhibit 13.10

Manufacturer's Directional Antenna Pattern Documentation

MEASURED PATTERN (from manufacturer)								SUBMITTED PATTERN (to FCC)							
Enter	Measured	Calculated			Measured	Relative		Enter	Submitted	Calculated			Submitted	Relative	
Max ERP	Relative	dB			Relative	Field		Max ERP	Relative	dB			Relative	Field	
(kW)	° True	Field	Change	Suppression	Equiv Power	Field ²	RMS	(kW)	° True	Field	Change	Suppression	Power	Field ²	RMS
0.04	0°	0.978	-0.10	-0.19	0.038	0.96	0.739	0.040	0°	1	0.00	0.00	0.040	1.00	0.905
	10°	0.963	-0.13	-0.33	0.037	0.93			10°	1	0.00	0.00	0.040	1.00	
	20°	0.939	-0.22	-0.55	0.035	0.88			20°	1	0.00	0.00	0.040	1.00	
	30°	0.899	-0.38	-0.92	0.032	0.81			30°	1	0.00	0.00	0.040	1.00	
	40°	0.856	-0.43	-1.35	0.029	0.73			40°	1	0.00	0.00	0.040	1.00	
	50°	0.804	-0.54	-1.89	0.026	0.65			50°	1	0.00	0.00	0.040	1.00	
	60°	0.737	-0.76	-2.65	0.022	0.54			60°	0.9	-0.92	-0.92	0.032	0.81	
	70°	0.65	-1.09	-3.74	0.017	0.42			70°	0.7	-2.18	-3.10	0.020	0.49	
	80°	0.557	-1.34	-5.08	0.012	0.31			80°	0.57	-1.78	-4.88	0.013	0.32	
	90°	0.479	-1.31	-6.39	0.009	0.23			90°	0.49	-1.31	-6.20	0.010	0.24	
	100°	0.423	-1.08	-7.47	0.007	0.18			100°	0.47	-0.36	-6.56	0.009	0.22	
	110°	0.399	-0.51	-7.98	0.006	0.16			110°	0.5	0.54	-6.02	0.010	0.25	
	120°	0.403	0.09	-7.89	0.006	0.16			120°	0.8	4.08	-1.94	0.026	0.64	
	130°	0.398	-0.11	-8.00	0.006	0.16			130°	1	1.94	0.00	0.040	1.00	
	140°	0.404	0.13	-7.87	0.007	0.16			140°	1	0.00	0.00	0.040	1.00	
	150°	0.401	-0.06	-7.94	0.006	0.16			150°	1	0.00	0.00	0.040	1.00	
	160°	0.404	0.06	-7.87	0.007	0.16			160°	1	0.00	0.00	0.040	1.00	
	170°	0.398	-0.13	-8.00	0.006	0.16			170°	1	0.00	0.00	0.040	1.00	
	180°	0.403	0.11	-7.89	0.006	0.16			180°	0.9	-0.92	-0.92	0.032	0.81	
	190°	0.399	-0.09	-7.98	0.006	0.16			190°	0.75	-1.58	-2.50	0.023	0.56	
	200°	0.423	0.51	-7.47	0.007	0.18			200°	0.675	-0.92	-3.41	0.018	0.46	
	210°	0.479	1.08	-6.39	0.009	0.23			210°	0.55	-1.78	-5.19	0.012	0.30	
	220°	0.557	1.31	-5.08	0.012	0.31			220°	0.75	2.69	-2.50	0.023	0.56	
	230°	0.65	1.34	-3.74	0.017	0.42			230°	1	2.50	0.00	0.040	1.00	
	240°	0.737	1.09	-2.65	0.022	0.54			240°	1	0.00	0.00	0.040	1.00	
	250°	0.804	0.76	-1.89	0.026	0.65			250°	1	0.00	0.00	0.040	1.00	
	260°	0.856	0.54	-1.35	0.029	0.73			260°	1	0.00	0.00	0.040	1.00	
	270°	0.899	0.43	-0.92	0.032	0.81			270°	0.95	-0.45	-0.45	0.036	0.90	
	280°	0.939	0.38	-0.55	0.035	0.88			280°	0.95	0.00	-0.45	0.036	0.90	
	290°	0.963	0.22	-0.33	0.037	0.93			290°	1	0.45	0.00	0.040	1.00	
	300°	0.978	0.13	-0.19	0.038	0.96			300°	1	0.00	0.00	0.040	1.00	
	310°	0.989	0.10	-0.10	0.039	0.98			310°	1	0.00	0.00	0.040	1.00	
	320°	0.995	0.05	-0.04	0.040	0.99			320°	1	0.00	0.00	0.040	1.00	
	330°	1	0.04	0.00	0.040	1.00			330°	1	0.00	0.00	0.040	1.00	
	340°	0.995	-0.04	-0.04	0.040	0.99			340°	1	0.00	0.00	0.040	1.00	
	350°	0.989	-0.05	-0.10	0.039	0.98			350°	1	0.00	0.00	0.040	1.00	

Exhibit 13.10 - Manufacturer's Directional Antenna Pattern Documentation (Actual Pattern Rotated to 330°T)



NICOM **BKG1/P** **Low Power** **Broadband** **FM Dipole** **Dipolo de FM** **Banda Ancha**

This antenna can be easily installed because of its lightness. Electrically grounded it gives excellent protection against lightning. Combined in arrays of more elements this dipole offers high gain over a wide angle.

Esta antena puede ser facilmente armada debido a su ligereza. Es conectada por tierra lo cual ofrece óptima protección contra relámpagos. Combinada de arrays de varios elementos este dipolo puede ofrecer buena ganancia a través de un amplio ángulo.

TECHNICAL SPECIFICATIONS

Antenna type	dipole	Front-to-back ratio	7 dB
Frequency range	87.5 - 108 MHz	Lightning protection	all parts grounded
Bandwidth	20 MHz	Max wind velocity	119 mph (190 km/h)
Impedance	50 Ohms	Wind load	39.6 Lbs (18 kg)
Connectors	N type	Wind surface	1.2 ft ² (0.11 m ²)
Power rating	500 Watts max.	Materials (external)	anti-corrosive aluminum
VSWR	< 1.3	Mounting	from 2" to 4"
Polarization	vertical	Weight	8.8 Lbs (4 kg)
Gain	0 dBd (unity gain)	Dimensions	55"×33"×2" (1400×850×60 mm)
H plane	194 degrees	Packing	59"×36"×4" (1500×900×100 mm)
V plane	78 degrees		

Radiation Patterns (at mid-band)

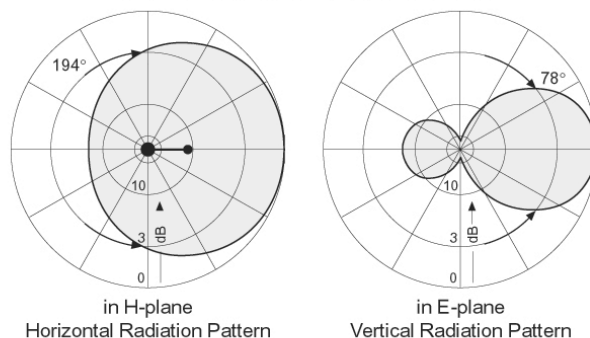


Exhibit 13.10 - Manufacturer's Directional Antenna Pattern Documentation (Actual Pattern Rotated to 330°T)



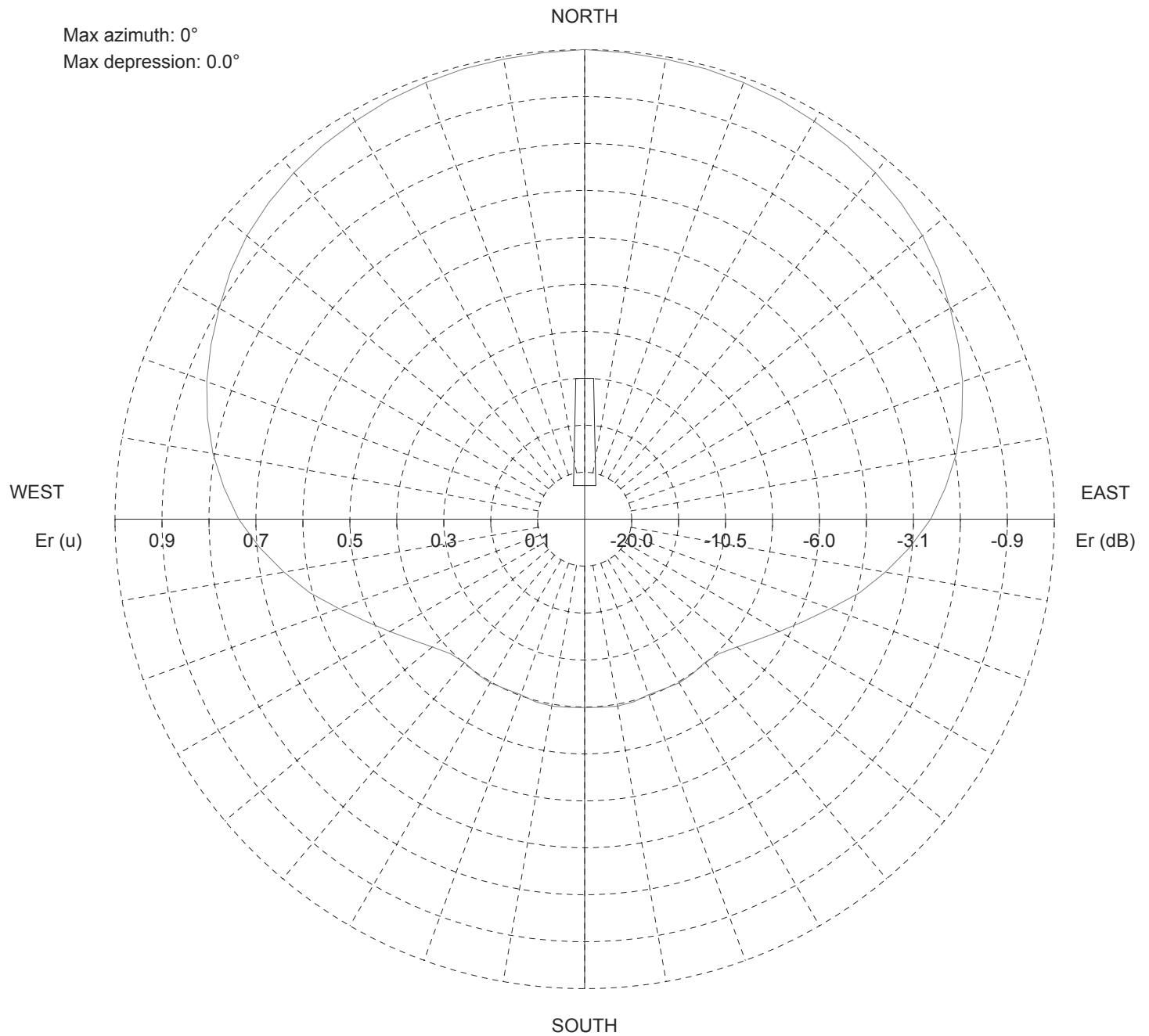
TX station: BKG1/P

Site name:

Frequency: 100.00 MHz

Horizontal diagram of Maxima

Max azimuth: 0°
Max depression: 0.0°



—— 0.0° depres. (Total antenna), Gain (dBd): 0.00 ERP T.max (KW): 1.

ERP E.max (KW): 0.776

Exhibit 13.10 - Manufacturer's Directional Antenna Pattern Documentation (Actual Pattern Rotated to 330°T)



TX station: BKG1/P

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	100.0	776.2	120.0	0.0	47.9	178.0	240.0	0.0	47.9	178.0
5.0	0.0	99.7	772.1	125.0	0.0	44.8	156.0	245.0	0.0	51.5	205.9
10.0	0.0	99.5	768.1	130.0	0.0	42.3	139.1	250.0	0.0	55.7	240.8
15.0	0.0	99.3	765.7	135.0	0.0	40.5	127.4	255.0	0.0	60.6	285.0
20.0	0.0	98.9	759.7	140.0	0.0	39.9	123.3	260.0	0.0	65.0	328.3
25.0	0.0	98.5	753.4	145.0	0.0	40.1	125.1	265.0	0.0	69.5	374.7
30.0	0.0	97.8	743.2	150.0	0.0	40.3	126.0	270.0	0.0	73.7	421.3
35.0	0.0	97.2	733.2	155.0	0.0	39.9	123.5	275.0	0.0	77.1	461.6
40.0	0.0	96.3	720.1	160.0	0.0	39.8	122.8	280.0	0.0	80.4	501.4
45.0	0.0	95.2	703.9	165.0	0.0	40.3	126.1	285.0	0.0	83.2	536.8
50.0	0.0	93.9	684.4	170.0	0.0	40.4	126.9	290.0	0.0	85.6	569.2
55.0	0.0	92.1	658.3	175.0	0.0	40.3	125.8	295.0	0.0	87.8	598.3
60.0	0.0	89.9	627.1	180.0	0.0	40.1	125.0	300.0	0.0	89.9	627.1
65.0	0.0	87.8	598.3	185.0	0.0	40.3	125.8	305.0	0.0	92.1	658.3
70.0	0.0	85.6	569.2	190.0	0.0	40.4	126.9	310.0	0.0	93.9	684.4
75.0	0.0	83.2	536.8	195.0	0.0	40.3	126.1	315.0	0.0	95.2	703.9
80.0	0.0	80.4	501.4	200.0	0.0	39.8	122.8	320.0	0.0	96.3	720.1
85.0	0.0	77.1	461.6	205.0	0.0	39.9	123.5	325.0	0.0	97.2	733.2
90.0	0.0	73.7	421.3	210.0	0.0	40.3	126.0	330.0	0.0	97.8	743.2
95.0	0.0	69.5	374.7	215.0	0.0	40.1	125.1	335.0	0.0	98.5	753.4
100.0	0.0	65.0	328.3	220.0	0.0	39.9	123.3	340.0	0.0	98.9	759.7
105.0	0.0	60.6	285.0	225.0	0.0	40.5	127.4	345.0	0.0	99.3	765.7
110.0	0.0	55.7	240.8	230.0	0.0	42.3	139.1	350.0	0.0	99.5	768.1
115.0	0.0	51.5	205.9	235.0	0.0	44.8	156.0	355.0	0.0	99.7	772.1

Exhibit 13.10 - Manufacturer's Directional Antenna Pattern Documentation (Actual Pattern Rotated to 330°T)



TX station: BKG1/P

Site name:

Frequency: 100.00 MHz

Vertical diagram

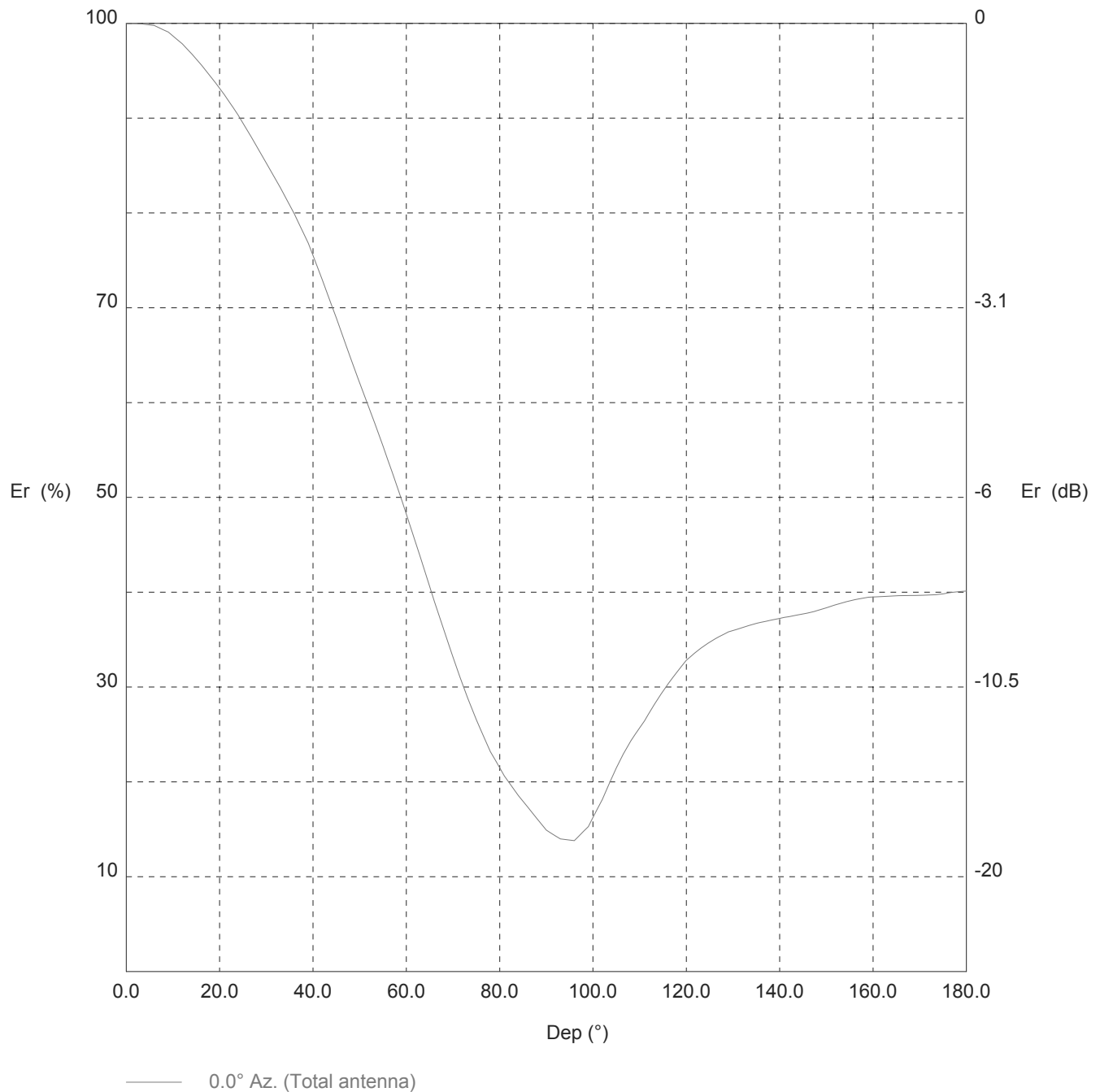


Exhibit 13.10 - Manufacturer's Directional Antenna Pattern Documentation (Actual Pattern Rotated to 330°T)



TX station: BKG1/P

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	776.2	60.0	48.3	180.9	120.0	32.8	83.6
1.0	100.0	776.1	61.0	46.8	169.7	121.0	33.2	85.8
2.0	100.0	775.9	62.0	45.2	158.9	122.0	33.7	88.0
3.0	100.0	775.7	63.0	43.7	148.5	123.0	34.1	90.2
4.0	99.9	774.8	64.0	42.2	138.1	124.0	34.4	91.9
5.0	99.8	773.8	65.0	40.6	128.0	125.0	34.7	93.6
6.0	99.8	772.9	66.0	39.1	118.4	126.0	35.0	95.3
7.0	99.5	769.2	67.0	37.6	109.6	127.0	35.3	96.8
8.0	99.3	765.6	68.0	36.1	101.1	128.0	35.6	98.2
9.0	99.1	762.0	69.0	34.6	92.9	129.0	35.8	99.6
10.0	98.7	755.7	70.0	33.2	85.4	130.0	36.0	100.4
11.0	98.3	749.5	71.0	31.7	78.1	131.0	36.1	101.3
12.0	97.9	743.2	72.0	30.3	71.2	132.0	36.3	102.1
13.0	97.3	735.2	73.0	29.0	65.4	133.0	36.4	103.0
14.0	96.8	727.2	74.0	27.8	59.9	134.0	36.6	103.8
15.0	96.3	719.2	75.0	26.5	54.6	135.0	36.7	104.7
16.0	95.7	710.3	76.0	25.4	50.1	136.0	36.8	105.3
17.0	95.1	701.4	77.0	24.3	45.8	137.0	36.9	105.9
18.0	94.5	692.6	78.0	23.2	41.7	138.0	37.0	106.5
19.0	93.8	683.0	79.0	22.3	38.7	139.0	37.1	107.1
20.0	93.1	673.5	80.0	21.5	35.8	140.0	37.2	107.7
21.0	92.5	664.1	81.0	20.6	33.1	141.0	37.3	108.2
22.0	91.8	653.7	82.0	19.9	30.9	142.0	37.4	108.8
23.0	91.0	643.4	83.0	19.2	28.8	143.0	37.5	109.3
24.0	90.3	633.1	84.0	18.6	26.7	144.0	37.6	109.8
25.0	89.5	621.6	85.0	17.9	25.0	145.0	37.7	110.4
26.0	88.7	610.3	86.0	17.3	23.4	146.0	37.8	111.0
27.0	87.8	599.0	87.0	16.7	21.8	147.0	37.9	111.6
28.0	87.0	587.3	88.0	16.1	20.2	148.0	38.1	112.5
29.0	86.1	575.7	89.0	15.5	18.7	149.0	38.2	113.4
30.0	85.3	564.3	90.0	14.9	17.3	150.0	38.4	114.2
31.0	84.4	552.9	91.0	14.6	16.5	151.0	38.5	115.2
32.0	83.5	541.7	92.0	14.3	15.8	152.0	38.7	116.1
33.0	82.7	530.6	93.0	14.0	15.2	153.0	38.8	117.1
34.0	81.7	518.8	94.0	13.9	15.0	154.0	39.0	117.9
35.0	80.8	507.1	95.0	13.9	14.9	155.0	39.1	118.6
36.0	79.9	495.6	96.0	13.8	14.8	156.0	39.2	119.4
37.0	78.9	482.9	97.0	14.3	15.9	157.0	39.3	119.9
38.0	77.8	470.4	98.0	14.8	17.0	158.0	39.4	120.4
39.0	76.8	458.0	99.0	15.3	18.1	159.0	39.5	120.9
40.0	75.5	442.7	100.0	16.2	20.5	160.0	39.5	121.1
41.0	74.2	427.7	101.0	17.2	23.0	161.0	39.5	121.3
42.0	72.9	412.9	102.0	18.1	25.5	162.0	39.5	121.4
43.0	71.6	398.0	103.0	19.3	28.8	163.0	39.6	121.6
44.0	70.3	383.3	104.0	20.4	32.3	164.0	39.6	121.7
45.0	68.9	368.9	105.0	21.5	35.9	165.0	39.6	121.9
46.0	67.5	354.2	106.0	22.4	39.1	166.0	39.6	122.0
47.0	66.2	339.7	107.0	23.4	42.4	167.0	39.6	122.0
48.0	64.8	325.5	108.0	24.3	45.8	168.0	39.7	122.1
49.0	63.4	312.3	109.0	25.0	48.5	169.0	39.7	122.1
50.0	62.1	299.4	110.0	25.7	51.3	170.0	39.7	122.2
51.0	60.8	286.8	111.0	26.4	54.2	171.0	39.7	122.2
52.0	59.5	274.4	112.0	27.2	57.6	172.0	39.7	122.4
53.0	58.1	262.3	113.0	28.1	61.1	173.0	39.7	122.5
54.0	56.8	250.4	114.0	28.9	64.6	174.0	39.8	122.7
55.0	55.4	238.3	115.0	29.6	67.9	175.0	39.8	123.2
56.0	54.0	226.6	116.0	30.3	71.1	176.0	39.9	123.7
57.0	52.6	215.1	117.0	31.0	74.4	177.0	40.0	124.2
58.0	51.2	203.3	118.0	31.6	77.5	178.0	40.0	124.5
59.0	49.7	191.9	119.0	32.2	80.5	179.0	40.1	124.7