

Exhibit 15.1

Tabulation of Proposed Domestic Map M3 Allocation Study

AM Daytime Study

Reference Station:

Call: WWCS.Pmc*,

Lat: 40-17-22 N

Lng: 080-11-07 W

Freq: 540 kHz

Power: 3.8 kW

Theo RMS: 576.28 mV/m @ 1km

CANONSBURG, PA, US

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swch	TL Swch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	63.5	0	0	0.0	0.0	0.0	0.0
2	0.910	80.0	80.0	334.0	63.5	0	0	0.0	0.0	0.0	0.0

Call	Freq	City	ST	Dist	Azi	In	Out
WGOP.C	540	DAMASCUS	MD	276.9	114.4	107.21	4.39
WGOP.L	540	POCOMOKE CIT	MD	469.7	123.3	123.90	139.91

The remainder of the proposed domestic and Canadian allocation has not been included in this application as the proposed parameters requested here-in are simply the presently licensed parameters at a reduced power. As a result, all existing allocation protections will be inherently afforded protection by the sole reduction in power from 5.0 kW to 3.8 kW .

Protection towards WGOP(AM).C and WGOP.L have been shown, as it was noted that supplemental measured conductivity data was used a included here-in.

Also it was noted WWCS(AM) was licensed with a custom "Q" value which has been appropriately ratioed down to the requested operating power of 3.8 kW.

mc* indicates supplemental Measured Conductivity Information as noted in **Exhibit(s) 15.6**.

Negative values in the "In" and "Out" columns reflect km² areas of Incoming and Outgoing overlap respectively. Positive values reflect linear distance of clearance to the offending contour. In response to FCC attempts to streamline the application process, tabulations of distances to contours and Map M-3 Conductivities for each station have been omitted. These tabulations will be supplied upon request.

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Coldwater, MI 49036

WWCS.Pmc

Freq: 540 kHz

Class: B

Latitude: 40-17-22 N

Longitude: 080-11-07 W

Power: 3.8 kW

RMS: 576.28 mV/m @1km

Towers: 2

Aucs: 0

— 0.5 mV/m

- - - 0.025 mV/m

Exhibit 15.2

Map of Proposed Domestic Map M3 Allocation Study

WWCS.Pmc
+

WGOP.C
+

WGOP.L
+

Scale 1:4,000,000

0 50 100 150 km

WWCS.Pmc
Proposed Operation
Freq: 540 kHz
Class: B
Latitude: 40-17-22 N
Longitude: 080-11-07 W
Power: 3.8 kW
RMS: 576.28 mV/m @1km
Towers: 2
Augs: 0

— 0.5 mV/m
- - 0.025 mV/m

Exhibit 15.3

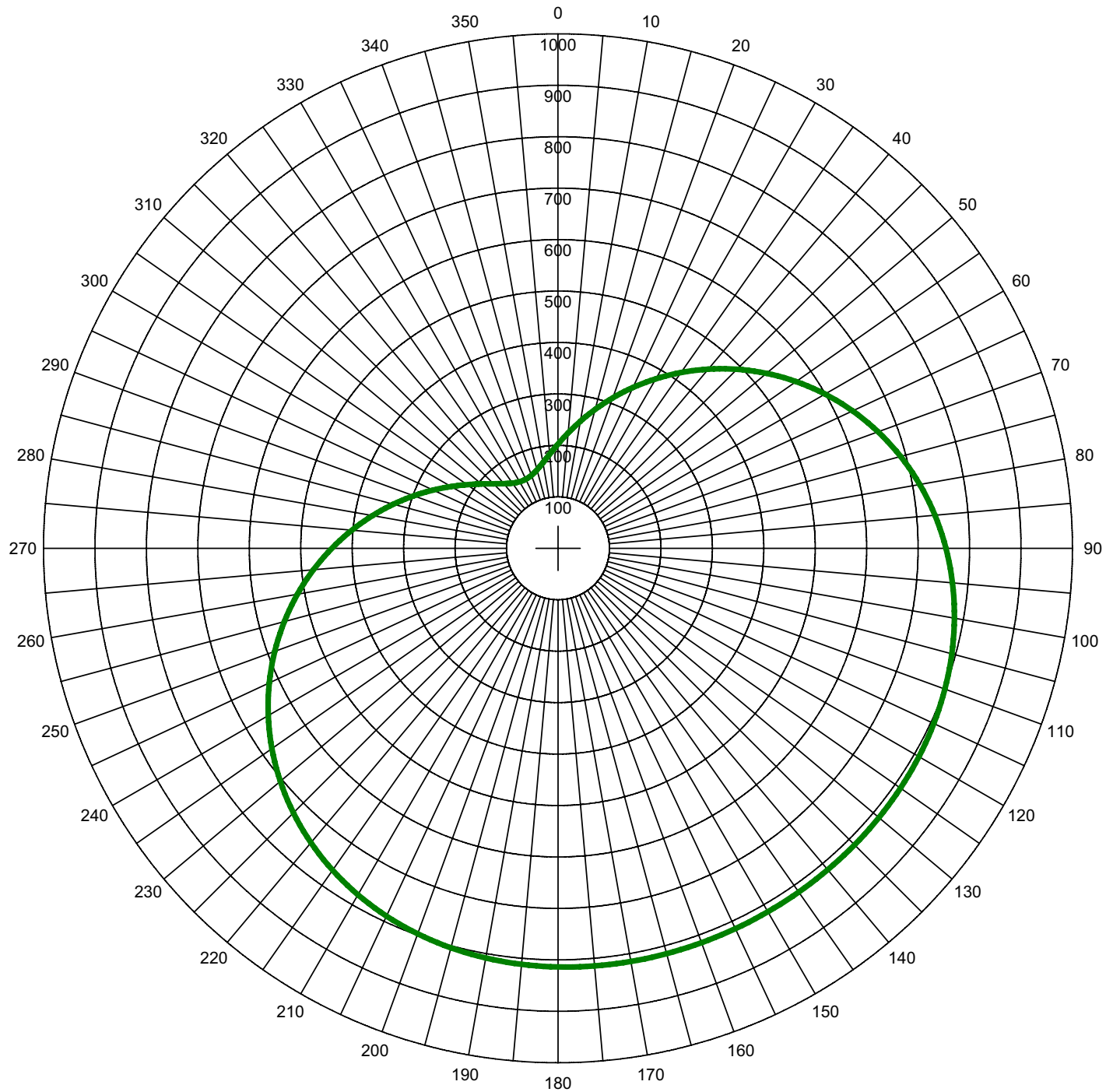
Expanded View of Proposed Map M3 Allocation Protections Towards WGOP.C BP-19960715AC

+
WGOP.C

Scale 1:500,000

0 7 14 21 km

Exhibit 15.4 - Polar Plot of Proposed Daytime Standard Pattern



Theo RMS: 576.28 mV/m@1km
 Std RMS: 605.44 mV/m@1km
 Q: 19.494 mV/m@1km

Horizontal Plane Standard Pattern

— Pattern (mV/m @ 1km)
 — Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Switch	TL Switch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	63.5	0	0	0.0	0.0	0.0	0.0
2	0.910	80.0	80.0	334.0	63.5	0	0	0.0	0.0	0.0	0.0

Call: WWCS.P
 Freq: 540 kHz
 CANONSBURG, PA, US
 Lat: 40-17-22 N
 Lng: 080-11-07 W
 Power: 3.8 kW
 Theo RMS: 576.28 mV/m @ 1km

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 Coldwater, MI 49036

Exhibit 15.5

Tabulation of Proposed Daytime Standard Pattern

Call: WWCS.P
 Freq: 540 kHz
 CANONSBURG, PA, US
 Lat: 40-17-22 N
 Lng: 080-11-07 W
 Power: 3.8 kW
 Theo RMS: 576.28 mV/m @ 1km

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swch	TL Swch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	63.5	0	0	0.0	0.0	0.0	0.0
2	0.910	80.0	80.0	334.0	63.5	0	0	0.0	0.0	0.0	0.0

Theoretical RMS: 576.28 mV/m@1km Erss = 549.87 mV/m@1km
 Standard RMS: 605.44 mV/m@1km Q = 19.49 mV/m@1km

Standard Horizontal Plane Pattern

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	202.50	120.0	810.09	240.0	650.32
5.0	224.90	125.0	812.76	245.0	619.21
10.0	250.69	130.0	814.39	250.0	585.88
15.0	279.54	135.0	815.29	255.0	550.75
20.0	311.07	140.0	815.70	260.0	514.28
25.0	344.84	145.0	815.84	265.0	477.01
30.0	380.36	150.0	815.87	270.0	439.49
35.0	417.09	155.0	815.87	275.0	402.29
40.0	454.49	160.0	815.87	280.0	365.98
45.0	491.98	165.0	815.81	285.0	331.10
50.0	528.99	170.0	815.58	290.0	298.17
55.0	564.99	175.0	815.00	295.0	267.66
60.0	599.46	180.0	813.84	300.0	239.98
65.0	631.94	185.0	811.83	305.0	215.52
70.0	662.06	190.0	808.65	310.0	194.55
75.0	689.51	195.0	803.97	315.0	177.31
80.0	714.07	200.0	797.46	320.0	163.97
85.0	735.62	205.0	788.79	325.0	154.62
90.0	754.14	210.0	777.66	330.0	149.33
95.0	769.69	215.0	763.82	335.0	148.10
100.0	782.42	220.0	747.10	340.0	150.96
105.0	792.53	225.0	727.36	345.0	157.88
110.0	800.31	230.0	704.60	350.0	168.83
115.0	806.05	235.0	678.86	355.0	183.75

WWCS(AM) – Canonsburg, PA Measurement Project

* All measurements on WWCS(AM) have been taken from original Construction Permit application BP-20010109AAK which was granted on 11/26/2003 and is a matter of public record before the Commission.

Exhibit 15.6a

Summary of Measured Conductivities for WWCS

Exhibit 15.6a – Summary of measured Conductivities for WWCS

Exhibit 15.6b – Tabulation and Graph of Measurements for WWCS – 110.0°

Exhibit 15.6c – Tabulation and Graph of Measurements for WWCS – 130.0°

<u>Azimuth (° True)</u>	<u>Conductivities</u>	<u>Distance</u>
110.0°	3.0:	0.00 km to 75.0 km
	2.0:	75.0 km to 120.0 km
	1.0:	120.0 km to 187.7 km
130.0°	3.0:	0.00 km to 40.0 km
	4.0:	40.0 km to 70.0 km
	2.0:	70.0 km to 100.0 km
	1.5:	100.0 km to 160.0 km
	1.0:	160.0 km to 181.8 km

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Exhibit 15.6b - WWCS(AM) Radial 110.0°T

TABULATION OF FIELD STRENGTH MEASUREMENTS

STATION : WWCS
 FREQUENCY: 540 KHZ
 BEARING : 110 DEGREES TRUE

POINT	DAY	DIRECTIONAL	*DISTANCE *
* ### *	mV/m	TIME DATE	* KM *
1	880.000	1050 10-25-91	1.73
2	780.000	1058 10-25-91	1.86
3	265.000	1120 10-25-91	2.72
4	290.000	1130 10-25-91	3.50
5	188.000	1134 10-25-91	4.26
6	195.000	1140 10-25-91	5.27
7	125.000	1147 10-25-91	6.43
8	98.000	1153 10-25-91	7.44
9	95.000	1158 10-25-91	8.24
10	95.000	1204 10-25-91	9.21
11	95.000	1209 10-25-91	9.88
12	47.000	1223 10-25-91	13.84
13	42.000	1238 10-25-91	16.84
14	36.000	0112 10-25-91	19.87
15	22.500	0133 10-25-91	23.65
16	14.800	0150 10-25-91	26.96
17	13.000	0206 10-25-91	29.81
18	10.300	0234 10-25-91	34.40
19	6.200	0315 10-25-91	44.10
20	5.100	0410 10-25-91	54.20
21	4.900	1258 10-29-91	60.80
22	3.100	0123 10-29-91	71.30
23	1.500	0144 10-29-91	81.20
24	1.050	0240 10-29-91	94.80
25	0.720	0312 10-29-91	107.80
26	0.380	0328 10-29-91	114.70
27	0.190	1024 10-30-91	135.20
28	0.210	1122 10-30-91	141.60
29	0.110	1148 10-30-91	153.90
30	0.150	1213 10-30-91	169.70
31	0.120	1256 10-30-91	182.10
32	0.100	0118 10-30-91	187.70

Exhibit 15.6b - WWCS(AM) Radial 110.0°T

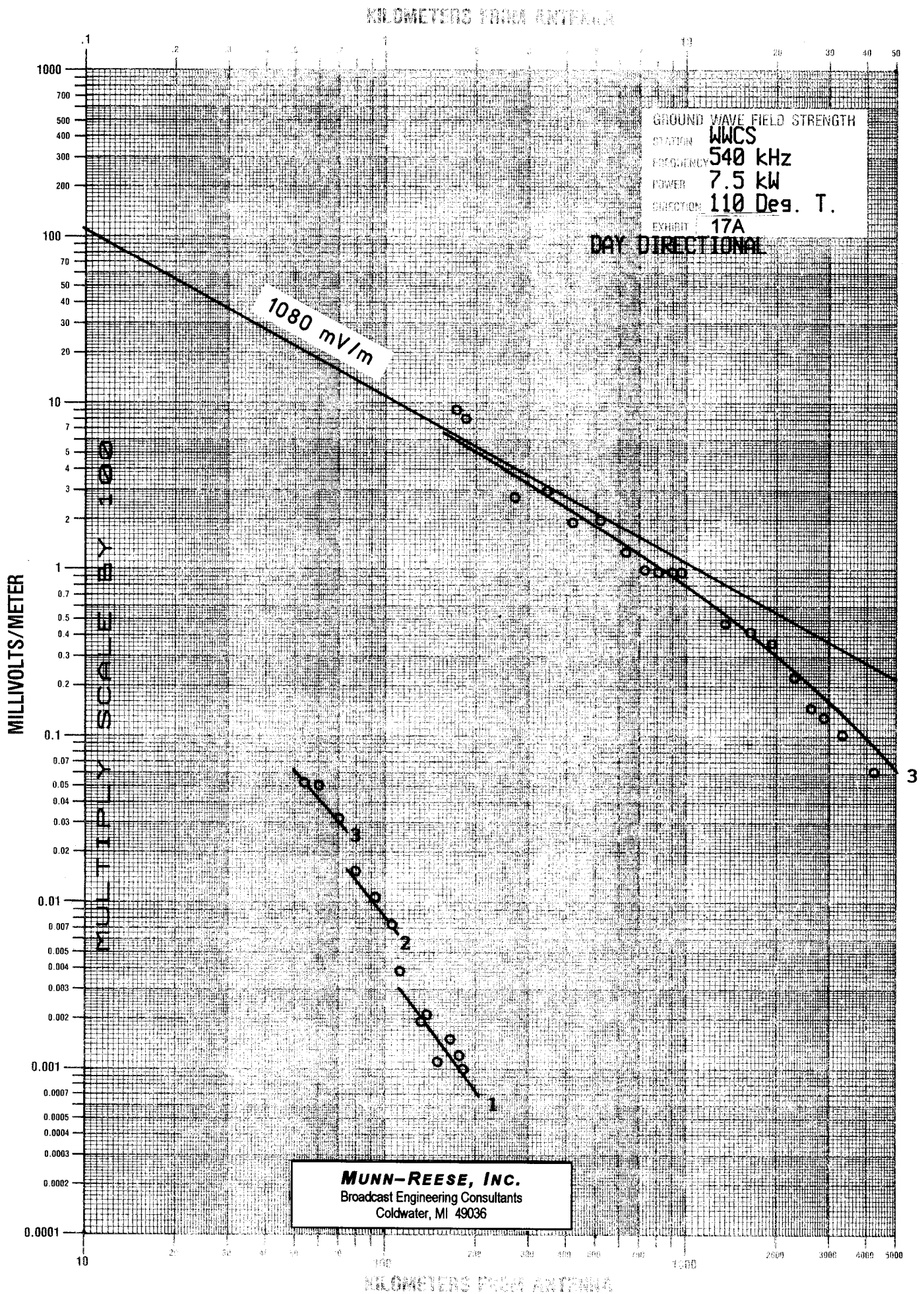


Exhibit 15.6c - WWCS(AM) Radial 130.0°T

TABULATION OF FIELD STRENGTH MEASUREMENTS

STATION : WWCS
 FREQUENCY: 540 KHZ
 BEARING : 130 DEGREES TRUE

POINT	DAY	DIRECTIONAL	*DISTANCE *
* ### *	mV/m	TIME DATE	* KM *

1	550.000	1028 10-28-91	1.72
2	485.000	1030 10-28-91	1.82
3	460.000	1033 10-28-91	2.01
4	500.000	1040 10-28-91	2.30
5	450.000	1042 10-28-91	2.38
6	440.000	1051 10-28-91	2.48
7	320.000	1059 10-28-91	2.85
8	300.000	1110 10-28-91	3.56
9	210.000	1124 10-28-91	4.72
10	180.000	1132 10-28-91	5.25
11	125.000	1142 10-28-91	7.93
12	88.000	1147 10-28-91	8.90
13	77.000	1157 10-28-91	10.12
14	62.000	1213 10-28-91	12.88
15	46.000	1230 10-28-91	16.37
16	31.000	0110 10-28-91	19.54
17	23.000	0136 10-28-91	23.06
18	16.500	0150 10-28-91	26.34
19	15.200	0206 10-28-91	29.92
20	13.000	0220 10-28-91	33.05
21	10.500	0324 10-31-91	39.60
22	9.900	0855 10-31-91	46.80
23	8.600	0920 10-31-91	54.20
24	4.800	0952 10-31-91	59.00
25	1.900	1029 10-31-91	71.80
26	1.200	1044 10-31-91	78.70
27	0.570	1119 10-31-91	86.40
28	0.820	1135 10-31-91	93.10
29	0.640	1147 10-31-91	104.30
30	0.640	1202 10-31-91	110.70
31	0.350	1243 10-31-91	130.50
32	0.130	0109 10-31-91	139.20
33	0.180	0128 10-31-91	146.00
34	0.150	0153 10-31-91	160.80
35	0.080	0211 10-31-91	169.10
36	0.120	0228 10-31-91	181.80

Exhibit 15.6c - WWCS(AM) Radial 130.0°T

KILOMETERS FROM ANTENNA

