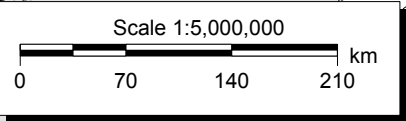
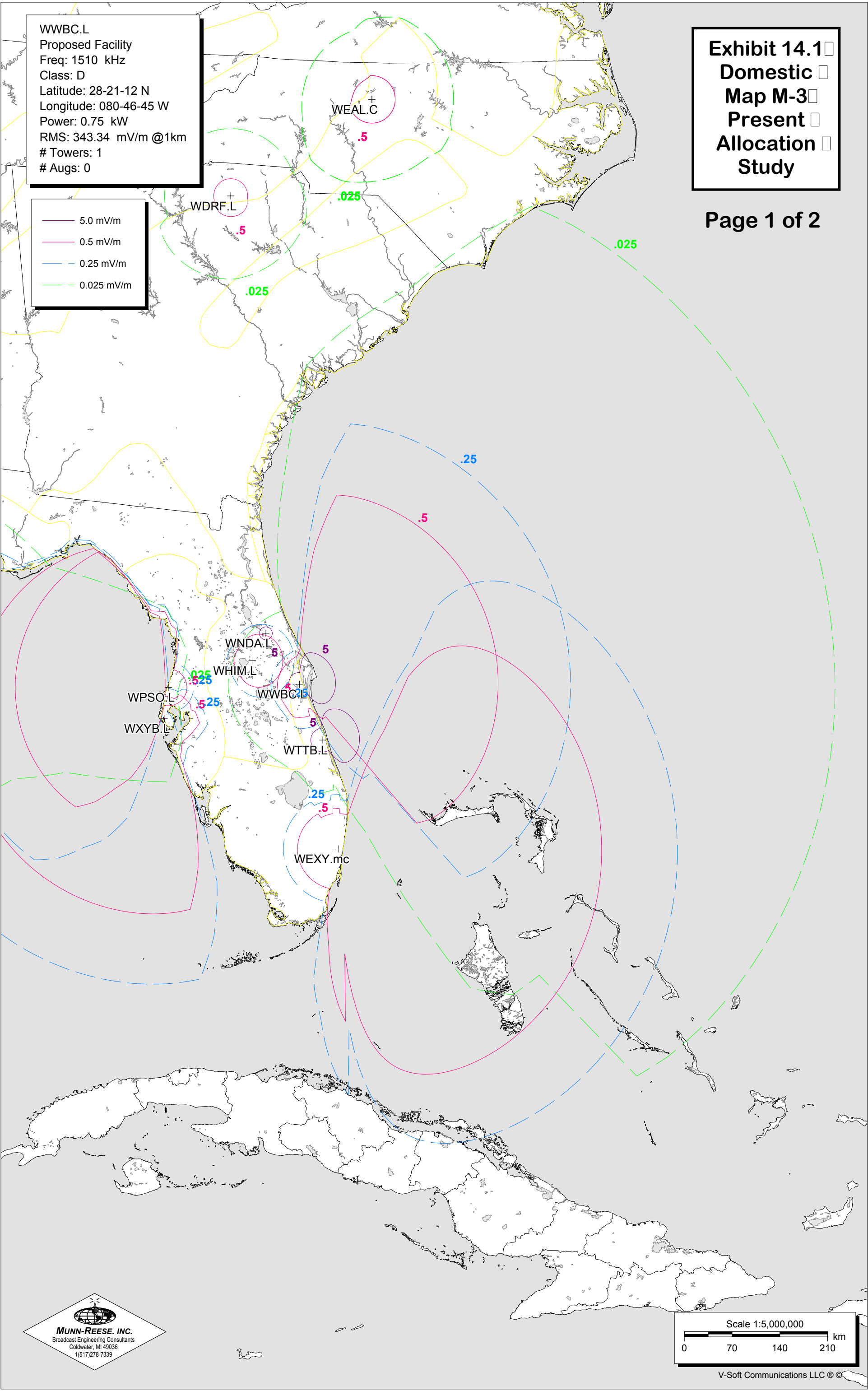


WWBC.L  
Proposed Facility  
Freq: 1510 kHz  
Class: D  
Latitude: 28-21-12 N  
Longitude: 080-46-45 W  
Power: 0.75 kW  
RMS: 343.34 mV/m @1km  
# Towers: 1  
# Augs: 0

5.0 mV/m  
0.5 mV/m  
0.25 mV/m  
0.025 mV/m

Exhibit 14.1  
Domestic  
Map M-3  
Present  
Allocation  
Study

Page 1 of 2



# Exhibit 14.1

## Domestic Map M-3 Allocation Study

### Present Operation - Page 2 of 2

#### AM Daytime Study

Reference Station:

Call: WWBC.L                      Freq: 1510 kHz                      COCOA, FL, US  
 Lat: 28-21-12 N                      Power: 0.75 kW  
 Lng: 080-46-45 W                      Theo RMS: 343.34 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	143.7	0	0	143.7	0.0	0.0	0.0

Call	Freq	City	ST	Dist	Azi	In	Out
WEXY.mc	1520	WILTON MANOR	FL	249.2	165.8	-37736.00	-57860.00
WHIM.L	1520	APOPKA	FL	77.5	295.1	-536.50	-211.50
WTTB.L	1490	VERO BEACH	FL	88.7	156.4	53.82	53.82
WNDA.L	1490	DELAND	FL	89.5	325.2	62.68	62.68
WXYB.L	1520	INDIAN ROCKS	FL	203.8	253.5	114.74	117.16
WPSO.L	1500	NEW PORT RIC	FL	191.5	266.4	122.48	122.80
WEAL.L	1510	GREENSBORO	NC	859.8	6.5	524.62	303.77
WEAL.C	1510	GREENSBORO	NC	859.8	6.5	524.80	303.84
WDRF.L	1510	WOODRUFF	SC	720.2	350.0	559.75	467.04
KAGY.L	1510	PORT SULPHUR	LA	879.1	276.0	137.77	503.59

Negative values in the "In" and "Out" columns reflect km<sup>2</sup> 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.

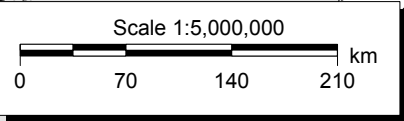
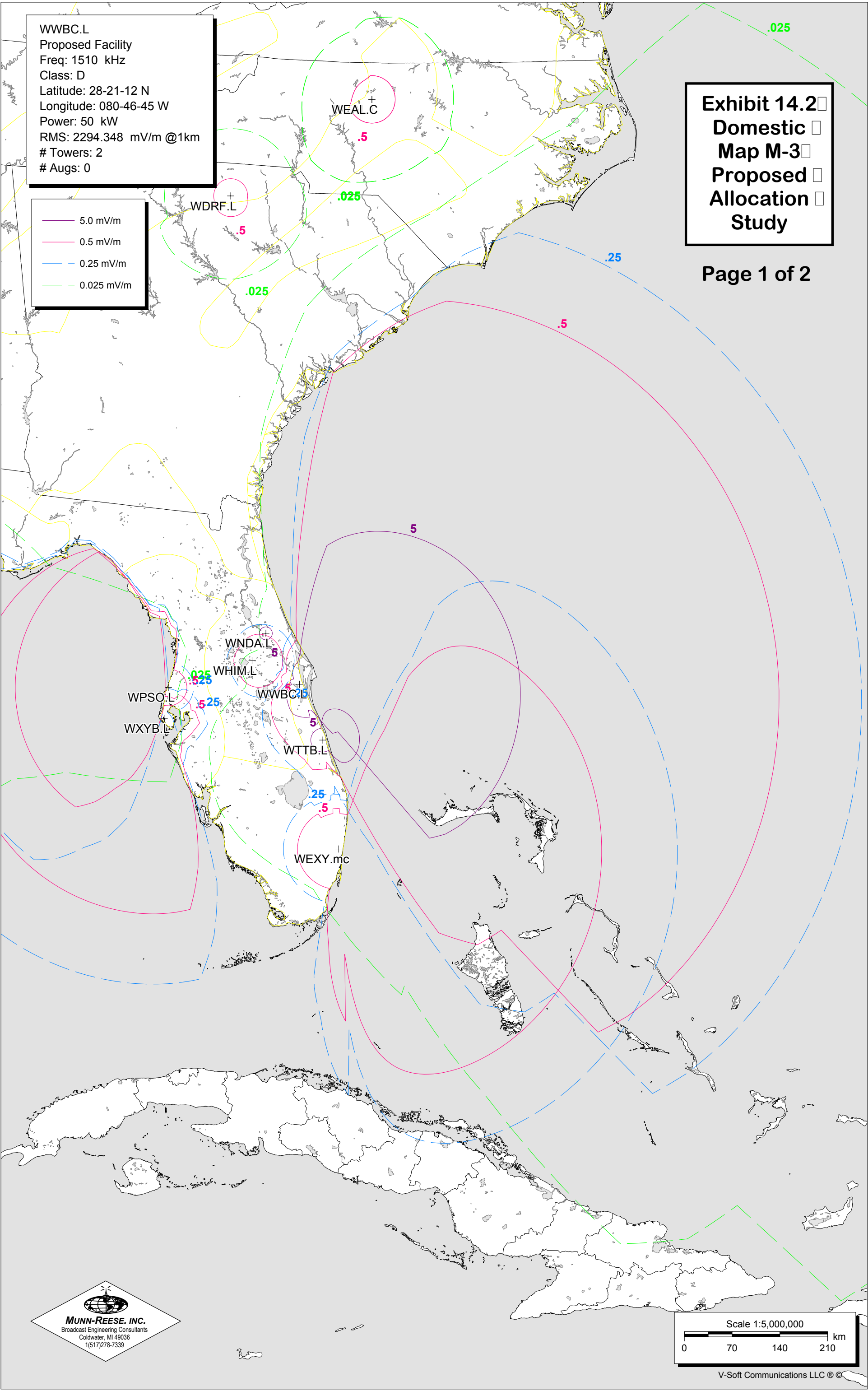
**Measurement Information has been employed as detailed in Exhibit(s) 14.5 to 14.6**

WWBC.L  
Proposed Facility  
Freq: 1510 kHz  
Class: D  
Latitude: 28-21-12 N  
Longitude: 080-46-45 W  
Power: 50 kW  
RMS: 2294.348 mV/m @1km  
# Towers: 2  
# Augs: 0

5.0 mV/m  
0.5 mV/m  
0.25 mV/m  
0.025 mV/m

Exhibit 14.2  
Domestic  
Map M-3  
Proposed  
Allocation  
Study

Page 1 of 2



# Exhibit 14.2

## Domestic Map M-3 Allocation Study

### Proposed Operation - Page 2 of 2

#### AM Daytime Study

Reference Station:

Call: WWBC.p	Freq: 1510 kHz	COCOA, FL, US
Lat: 28-21-12 N	Power: 50.0 kW	
Lng: 080-46-45 W	Theo RMS: 2294.35 mV/m @ 1km	

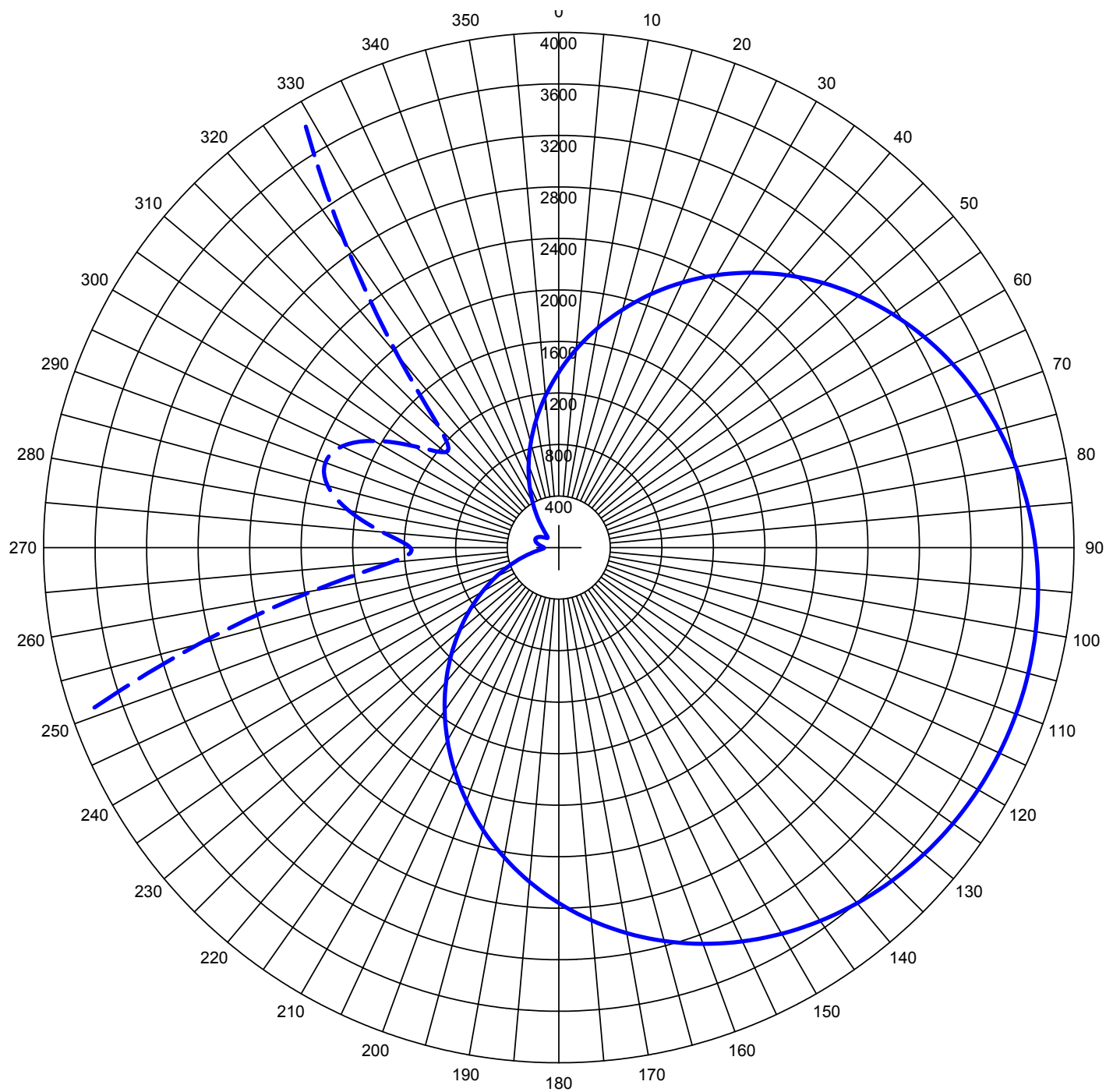
#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swch	TL Swch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	143.7	0	0	0.0	0.0	0.0	0.0
2	0.950	-124.0	60.0	110.0	80.0	0	0	0.0	0.0	0.0	0.0

Call	Freq	City	ST	Dist	Azi	In	Out
WEXY.mc	1520	WILTON MANOR	FL	249.2	165.8	-187620.00	-122880.00
WTTB.L	1490	VERO BEACH	FL	88.7	156.4	-1688.25	-1688.25
WHIM.L	1520	APOPKA	FL	77.5	295.1	-523.25	-28.75
WNDA.L	1490	DELAND	FL	89.5	325.2	62.31	62.31
WXYB.L	1520	INDIAN ROCKS	FL	203.8	253.5	114.19	116.40
WPSO.L	1500	NEW PORT RIC	FL	191.5	266.4	129.44	132.43
WEAL.L	1510	GREENSBORO	NC	859.8	6.5	269.73	205.75
WEAL.C	1510	GREENSBORO	NC	859.8	6.5	269.92	205.82
WDRF.L	1510	WOODRUFF	SC	720.2	350.0	540.28	310.02
KAGY.L	1510	PORT SULPHUR	LA	879.1	276.0	142.69	521.38

Negative values in the "In" and "Out" columns reflect km<sup>2</sup> 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.

**Measurement Information has been employed as detailed in Exhibit(s) 14.5 to 14.6**

# Exhibit 14.3 - Polar Plot of Proposed Daytime Directional Standard Pattern



Theo RMS: 2294.348 mV/m@1km  
 Std RMS: 2409.065 mV/m@1km  
 Q: 75.027 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	143.7	0	0	0.0	0.0	0.0	0.0
2	0.950	-124.0	60.0	110.0	80.0	0	0	0.0	0.0	0.0	0.0

Call: WWBC.L  
 Freq: 1510 kHz  
 COCOA, FL, US  
 Lat: 28-21-12 N  
 Lng: 080-46-45 W  
 Power: 50.0 kW  
 Theo RMS: 2294.35 mV/m @ 1km

**Munn-Reese, Inc.**  
 Broadcast Engineering Consultants  
 Coldwater, MI 49036

# Exhibit 14.4

## Tabulation of Proposed Daytime Directional Standard Pattern

Call: WWBC.p  
 Freq: 1510 kHz  
 COCOA, FL, US  
 Lat: 28-21-12 N  
 Lng: 080-46-45 W  
 Power: 50.0 kW  
 Theo RMS: 2294.35 mV/m @ 1km

#	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	143.7	0	0	0.0	0.0	0.0	0.0
2	0.950	-124.0	60.0	110.0	80.0	0	0	0.0	0.0	0.0	0.0

### Standard Horizontal Plane Pattern

Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)	Azimuth (Deg)	Field (mV/m @1km)
0.0	1361.72	120.0	3759.60	240.0	684.49
5.0	1544.59	125.0	3735.80	245.0	538.54
10.0	1728.89	130.0	3702.12	250.0	405.99
15.0	1912.63	135.0	3658.27	255.0	289.57
20.0	2093.89	140.0	3603.86	260.0	194.09
25.0	2270.85	145.0	3538.54	265.0	130.46
30.0	2441.84	150.0	3461.96	270.0	115.19
35.0	2605.36	155.0	3373.86	275.0	137.20
40.0	2760.13	160.0	3274.05	280.0	165.69
45.0	2905.08	165.0	3162.51	285.0	185.81
50.0	3039.40	170.0	3039.40	290.0	192.89
55.0	3162.51	175.0	2905.08	295.0	185.81
60.0	3274.05	180.0	2760.13	300.0	165.69
65.0	3373.86	185.0	2605.36	305.0	137.20
70.0	3461.96	190.0	2441.84	310.0	115.19
75.0	3538.54	195.0	2270.85	315.0	130.46
80.0	3603.86	200.0	2093.89	320.0	194.09
85.0	3658.27	205.0	1912.63	325.0	289.57
90.0	3702.12	210.0	1728.89	330.0	405.99
95.0	3735.80	215.0	1544.59	335.0	538.54
100.0	3759.60	220.0	1361.72	340.0	684.49
105.0	3773.77	225.0	1182.29	345.0	841.73
110.0	3778.48	230.0	1008.30	350.0	1008.30
115.0	3773.77	235.0	841.73	355.0	1182.29

# WWBC – Cocoa, FL

## Measurement Information

Exhibit 14.5a – Summary of measured Conductivities for WWBC – Cocoa, FL

Exhibit 14.5b – Family of Curves

Exhibit 14.5c – Tabulation of Measurement for WWBC – 150.0°

Exhibit 14.5d – Graph of Measurements for WWBC – 150.0°

All measurements were taken by Mr. James M. Johnson, an independent engineer in the employ of WWBC.

### Exhibit 14.5a

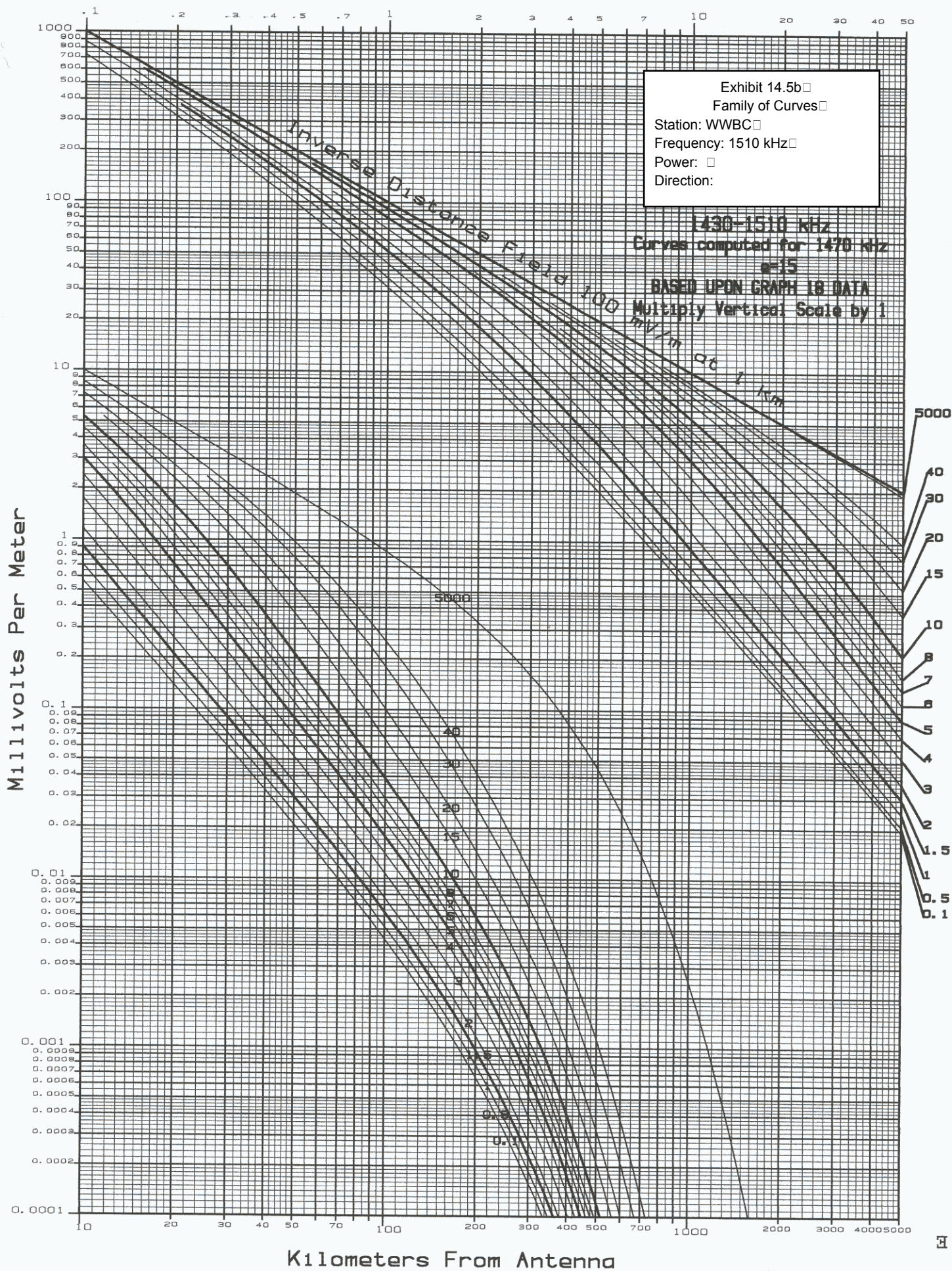
#### Summary of Measured Conductivities for WWBC- Cocoa, FL

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<u>Azimuth (° True)</u>	<u>Measured Conductivity</u>	<u>Distance</u>
150.0°	2.0:	0.00 km to 0.24 km
	6.0:	0.24 km to 9.00 km
	8.0:	9.00 km to 22.0 km
	5.0:	22.0 km to 34.9 km

**Measurement Maps will be supplied upon request**







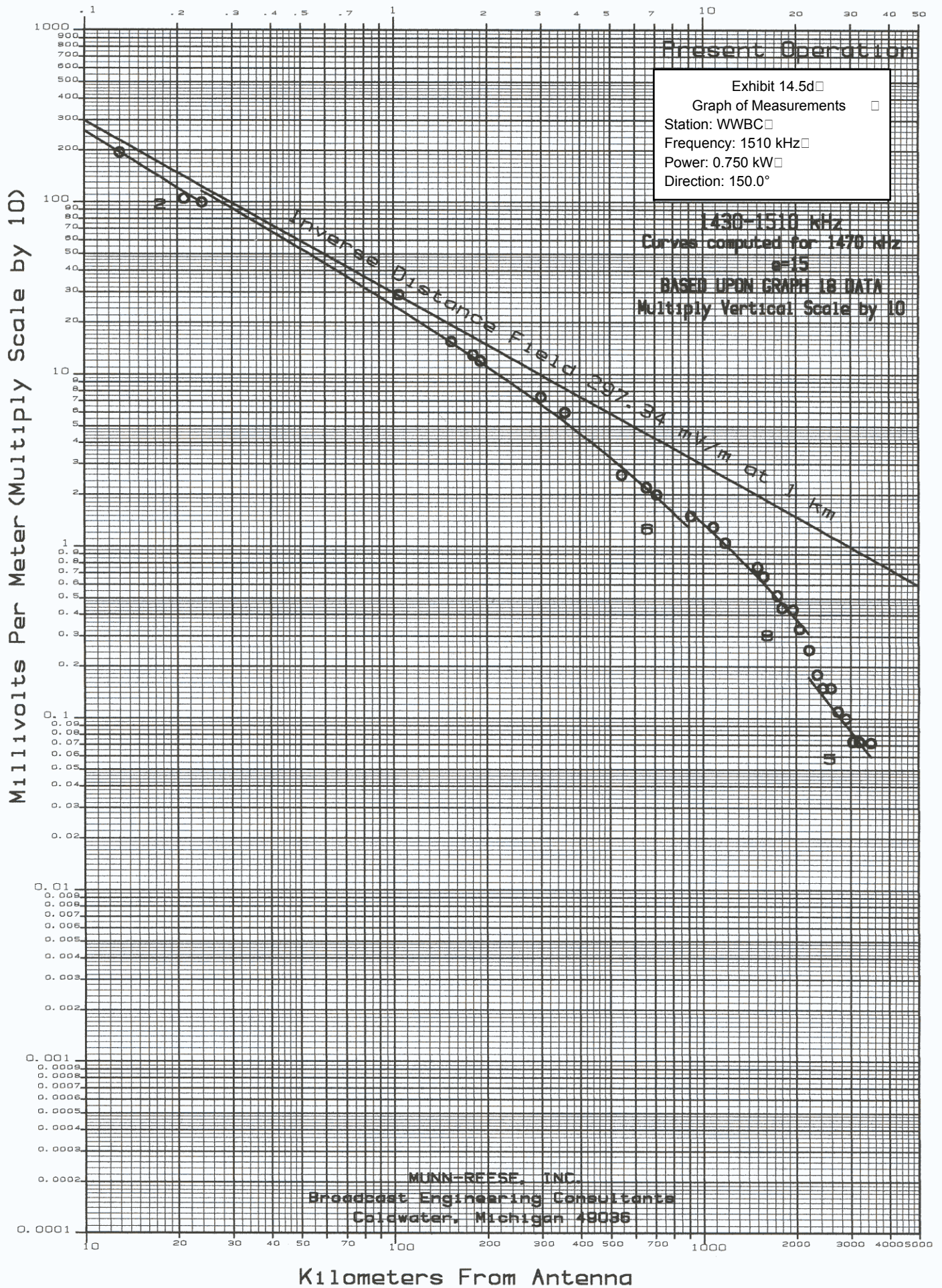
# Exhibit 14.5c

## Tabulation of Measurements

Tabulation of Field Strength Measurements						
Call: WWBC Frequency(kHz): 1510 Bearing: 150.0° Power(kW): 0.750						
Point ###	Present Operation					
	mV/m	Time	Date	mV/m	Time	Date
1	1950.000	945	12/21/03			
2	1050.000	948	12/21/03			
3	1000.000	949	12/21/03			
4	290.000	955	12/21/03			
5	155.000	1014	12/21/03			
6	130.000	1021	12/21/03			
7	120.000	1025	12/21/03			
8	74.000	1041	12/21/03			
9	60.000	1045	12/21/03			
10	26.000	1054	12/21/03			
11	22.000	1100	12/21/03			
12	20.000	1102	12/21/03			
13	15.000	1116	12/21/03			
14	13.000	1134	12/21/03			
15	10.500	1138	12/21/03			
16	7.600	1144	12/21/03			
17	6.700	1149	12/21/03			
18	5.200	1155	12/21/03			
19	4.400	1200	12/21/03			
20	4.300	1209	12/21/03			
21	3.300	1212	12/21/03			
22	2.500	1217	12/21/03			
23	1.800	1224	12/21/03			
24	1.500	1227	12/21/03			
25	1.500	1231	12/21/03			
26	1.100	1137	12/21/03			
27	1.000	1244	12/21/03			
28	0.730	1248	12/21/03			
29	0.730	1252	12/21/03			
30	0.720	1301	12/21/03			

Average Arithmetic Ratio = 0.0000

Average Logarithmic Ratio = 0.0000



# WEXY – Wilton Manor, FL

## Measurement Information

As Taken from Full Proof of Performance File No. BL-19891214AI currently on file with the Commission

**Exhibit 14.5a – Summary of measured Conductivities for WEXY – Wilton Manor, FL**

**Exhibit 14.5b – Copy of Proof Measurement for WEXY – 10.5°**

**Exhibit 14.5c – Copy of Proof Graph for WEXY – 10.5°**

**Exhibit 14.5d – Copy of Proof Measurement for WEXY – 340.0°**

**Exhibit 14.5e – Copy of Proof Graph for WEXY – 340.0°**

### **Exhibit 14.6a**

#### **Summary of Measured Conductivities for WEXY - Wilton Manor, FL**

<b><u>Azimuth (° True)</u></b>	<b><u>Measured Conductivity</u></b>	<b><u>Distance</u></b>
10.5°	5.0:	0.00 km to 9.66 km
	6.0:	9.66 km to 17.2 km
	4.0:	17.2 km to 26.3 km
340.0°	5.0:	0.00 km to 4.35 km
	4.5:	4.35 km to 23.6 km



**TABULATION OF FIELD STRENGTH MEASUREMENTS**

**RADIO STATION WEXY  
WILTON MANORS, FL**

1520 KHz.

1.0/0.25Kw

DA-N

Radial 10.5 Degrees

Point No.	Dist. Mi.	1.0 Kw-ND			0.25 Kw-DA			Ratio DA/ND
		mV/m	Date	Time	mV/m	Date	Time	
1	0.10	2000.0	11/14/85	1436				
2	0.14	1350.0	11/14/85	1433				
3	0.19	900.0	11/10/85	1442				
4	0.24	620.0	11/10/85	1447				
5	0.32	380.0	11/10/85	1433	31.0	11/10/85	1433	0.082
6	0.41	310.0	11/10/85	1428	29.0	11/10/85	1428	0.094
7	0.60	260.0	11/12/85	1402	10.5	11/12/85	1402	0.040
8	0.70	195.0	11/14/85	1359	5.0	11/14/85	1359	0.026
9	0.83	150.0	11/14/85	1406	3.5	11/14/85	1406	0.023
10	0.90	158.0	11/12/85	1406	5.2	11/12/85	1406	0.033
11	1.00	150.0	11/12/85	1412	6.2	11/12/85	1412	0.041
12	1.15	74.0	11/12/85	1415	4.5	11/12/85	1415	0.061
13	1.25	120.0	11/12/85	1418	4.2	11/12/85	1418	0.035
14	1.59	82.0	11/12/85	1422	3.2	11/12/85	1422	0.039
15	1.65	76.0	11/12/85	1424	3.2	11/12/85	1424	0.042
16	1.74	56.0	11/12/85	1428	2.3	11/12/85	1428	0.041
17	1.79	66.0	11/12/85	1430	1.9	11/12/85	1430	0.029
18	1.85	61.0	11/12/85	1445	1.45	11/12/85	1445	0.024
19	2.00	64.0	11/10/85	1002	1.0	11/10/85	1002	0.016
20	2.05	48.0	11/12/85	1439	1.6	11/12/85	1439	0.033
21	2.13	57.0	11/10/85	1005	3.7	11/10/85	1005	0.065
22	2.20	45.0	11/10/85	1007	2.5	11/10/85	1007	0.056
23 MP	2.27	56.0	11/14/85	1103	2.5	11/14/85	1103	0.045
24	2.38	42.0	11/10/85	1010	5.2	11/10/85	1010	0.124
25	2.57	36.0	11/10/85	1017	2.6	11/10/85	1017	0.072
26	2.86	35.0	11/10/85	1022	4.5	11/10/85	1022	0.129
27	3.04	29.0	11/10/85	1025	1.5	11/10/85	1025	0.052
28	3.33	27.5	11/10/85	1036	0.7	11/10/85	1036	0.025
29	3.50	23.0	11/10/85	1038	0.7	11/10/85	1038	0.030
30	3.82	21.5	11/10/85	1042	0.7	11/10/85	1042	0.033
31	4.05	14.0	11/10/85	1045	1.75	11/10/85	1045	0.125
32	4.40	18.0	11/10/85	1048	0.5	11/10/85	1048	0.028
33	4.91	11.0	11/10/85	1056	2.0	11/10/85	1056	0.182
34	5.04	16.0	11/10/85	1102	1.3	11/10/85	1102	0.081
35	5.52	11.0	11/10/85	1106	0.37	11/10/85	1106	0.034
36	5.74	12.0	11/10/85	1110	0.45	11/10/85	1110	0.038
37	6.00	8.0	11/10/85	1113	0.55	11/10/85	1113	0.069
38	6.50	9.2	11/10/85	1117	0.15	11/10/85	1117	0.016
39	6.80	9.8	11/10/85	1120	0.32	11/10/85	1120	0.033
40	7.60	6.5	11/10/85	1127	0.47	11/10/85	1127	0.072

MP Monitor Point



## TABULATION OF FIELD STRENGTH MEASUREMENTS

RADIO STATION WEXY  
WILTON MANORS, FL

1520 KHz.

1.0/0.25Kw

DA-N

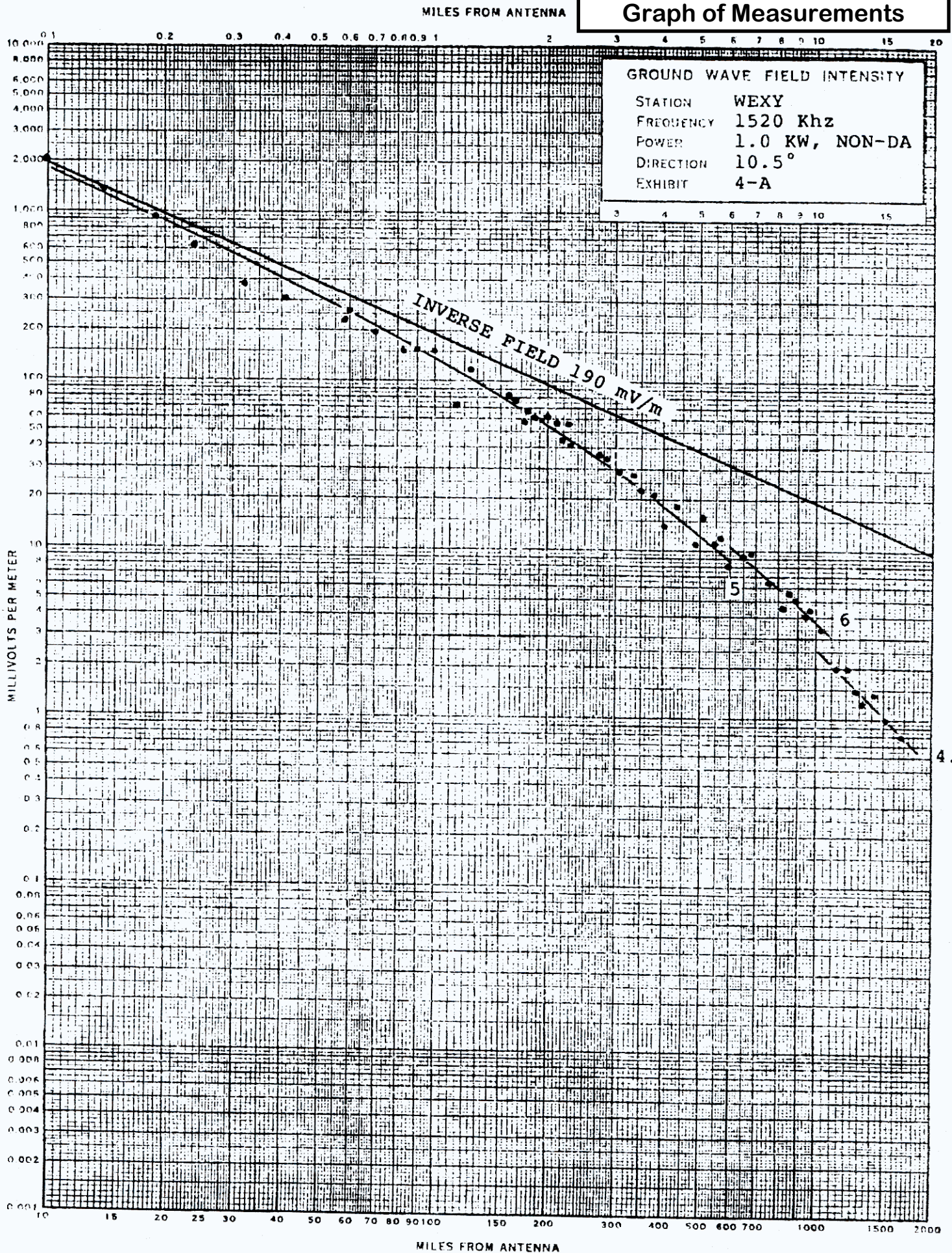
Radial 10.5 Degrees

Point No.	Dist. Mi.	1.0 Kw-ND			0.25 Kw-DA			Ratio DA/ND
		mV/m	Date	Time	mV/m	Date	Time	
41	8.32	4.6	11/10/85	1136	0.26	11/10/85	1136	0.057
42	8.60	5.6	11/10/85	1142	0.32	11/10/85	1142	0.057
43	8.96	5.1	11/10/85	1146	0.18	11/10/85	1146	0.035
44	9.46	4.0	11/10/85	1152	0.16	11/10/85	1152	0.040
45	9.74	4.4	11/10/85	1202	0.16	11/10/85	1202	0.036
46	10.42	3.4	11/10/85	1207	0.10	11/10/85	1207	0.029
47	11.45	2.0	11/10/85	1222	0.13	11/10/85	1222	0.065
48	12.09	2.0	11/10/85	1214	0.04	11/10/85	1214	0.020
49	12.84	1.5	11/10/85	1232	0.03	11/10/85	1232	0.020
50	13.44	1.25	11/10/85	1237	0.05	11/10/85	1237	0.040
51	14.42	1.4	11/10/85	1242	0.06	11/10/85	1242	0.040
52	15.30	1.0	11/10/85	1250	0.04	11/10/85	1250	0.038
53	16.35	0.8	11/10/85	1255	0.03	11/10/85	1255	0.034

AVERAGE RATIO = 0.051

# Exhibit 14.6c

## Graph of Measurements





## TABULATION OF FIELD STRENGTH MEASUREMENTS

RADIO STATION WEXY  
WILTON MANORS, FL

1520 KHz.

1.0/0.25Kw

DA-N

Radial 340 Degrees

Point No.	Dist. Mi.	1.0 Kw-ND			0.25 Kw-DA			Ratio DA/ND
		mV/m	Date	Time	mV/m	Date	Time	
1	0.12	1200.0	11/14/85	1437				
2	0.20	850.0	11/14/85	1438				
3	0.23	700.0	11/10/85	1502				
4	0.30	490.0	11/10/85	1505	42.0	11/10/85	1505	0.086
5	0.37	440.0	11/10/85	1458	29.0	11/10/85	1458	0.066
6	0.41	400.0	11/10/85	1455	21.0	11/10/85	1455	0.053
7	0.46	360.0	11/10/85	1452	17.0	11/10/85	1452	0.047
8	0.55	280.0	11/14/85	1010	22.0	11/14/85	1010	0.079
9	0.61	260.0	11/14/85	1012	21.0	11/14/85	1012	0.081
10	0.66	230.0	11/14/85	1015	17.5	11/14/85	1015	0.076
11	0.78	190.0	11/14/85	1025	13.0	11/14/85	1025	0.068
12	0.94	190.0	11/14/85	1019	12.5	11/14/85	1019	0.066
13	1.08	155.0	11/14/85	1412	12.5	11/14/85	1412	0.081
14	1.15	120.0	11/10/85	0956	10.5	11/10/85	0956	0.088
15	1.34	95.0	11/14/85	1422	7.0	11/14/85	1422	0.074
16	1.48	82.0	11/10/85	0952	7.5	11/10/85	0952	0.091
17	2.02	43.0	11/10/85	0943	3.6	11/10/85	0943	0.084
18	MP 2.13	46.0	11/14/85	1040	3.4	11/14/85	1040	0.074
19	2.22	38.0	11/10/85	0938	3.7	11/10/85	0938	0.097
20	2.35	43.0	11/10/85	0933	4.2	11/10/85	0933	0.098
21	2.50	34.5	11/10/85	0931	3.1	11/10/85	0931	0.090
22	2.60	36.5	11/10/85	0929	2.6	11/10/85	0929	0.071
23	2.79	31.0	11/10/85	0925	2.5	11/10/85	0925	0.081
24	3.02	25.0	11/09/85	1521	2.1	11/09/85	1521	0.084
25	3.20	31.0	11/09/85	1515	2.5	11/09/85	1515	0.081
26	3.54	21.5	11/09/85	1518	2.0	11/09/85	1518	0.093
27	3.64	27.0	11/09/85	1520	1.7	11/09/85	1520	0.063
28	4.32	15.0	11/09/85	1501	1.15	11/09/85	1501	0.077
29	4.60	12.0	11/09/85	1458	0.8	11/09/85	1458	0.067
30	4.94	12.8	11/09/85	1455	0.7	11/09/85	1455	0.055
31	5.17	12.2	11/09/85	1453	0.7	11/09/85	1453	0.057
32	5.42	12.0	11/09/85	1448	0.50	11/09/85	1448	0.042
33	5.61	11.5	11/09/85	1444	0.56	11/09/85	1444	0.049
34	6.02	9.5	11/09/85	1438	0.7	11/09/85	1438	0.074
35	6.32	8.4	11/09/85	1434	0.28	11/09/85	1434	0.033
36	6.50	7.4	11/09/85	1431	0.48	11/09/85	1431	0.065
37	6.82	7.0	11/09/85	1428	0.4	11/09/85	1428	0.057
38	7.43	4.9	11/09/85	1421	0.4	11/09/85	1421	0.082
39	7.80	4.9	11/09/85	1417	0.29	11/09/85	1417	0.059
40	8.41	3.6	11/09/85	1358	0.32	11/09/85	1358	0.089

MP Monitor Point

## TABULATION OF FIELD STRENGTH MEASUREMENTS

 RADIO STATION WEXY  
 WILTON MANORS, FL

1520 KHz.

1.0/0.25Kw

DA-N

Radial 340 Degrees

Point No.	Dist. Mi.	1.0 Kw-ND			0.25 Kw-DA			Ratio DA/ND
		<u>mV/m</u>	<u>Date</u>	<u>Time</u>	<u>mV/m</u>	<u>Date</u>	<u>Time</u>	
41	8.69	3.1	11/09/85	1359	0.31	11/09/85	1359	0.100
42	8.96	3.0	11/09/85	1403	0.16	11/09/85	1403	0.053
43	9.68	2.5	11/09/85	1349	0.18	11/09/85	1349	0.072
44	10.30	2.5	11/09/85	1346	0.16	11/09/85	1346	0.064
45	11.70	1.7	11/09/85	1340	0.15	11/09/85	1340	0.088
46	12.4	1.37	11/09/85	1324	0.07	11/09/85	1324	0.051
47	14.51	1.2	11/09/85	1303	0.08	11/09/85	1303	0.067

AVERAGE RATIO = 0.072



# Exhibit 14.6e

## Graph of Measurements

