

## APPENDIX E

### ADDITIONAL WWLG FIELD STRENGTH MEASUREMENTS USING THE WW3XLG TEST TRANSMITTER

NOTE: The measurements obtained using the WW3XLG Test Transmitter were previously submitted to the FCC, but the analysis of these measurements was not. The analysis of these measurements appears at the end of this appendix.

## **ENGINEERING STATEMENT**

The attached materials were prepared on behalf of M10 Broadcasting, Inc., licensee of broadcast station WWLG(AM), Baltimore, Maryland.

On June 5, 2000, WWLG filed a request for a SPECIAL FIELD TEST AUTHORIZATION pursuant to Part 73.1515 of the Commission's Rules and for the purpose of determining if the real ground conductivities differ from the Figure M-3 values in the vicinity of its permitted day facility, BP-19990521AG.

That request was granted by the Commission by letter dated June 27, 2000. Call sign WW3XLG was assigned to the SFTA facility.

Part 73.1515(c)(7) of the Commission's Rules requires WWLG to provide a report to the Commission within 60 days which shows the field data acquired during the course of the SFTA. The instant submission is in satisfaction of that requirement.

### **METHODOLOGY**

The SFTA was conducted as proposed in WWLG's letter of June 5<sup>th</sup>. Tower #6 from BP-19990521AG was driven on 1630 kHz as a conventional series-excited radiator. Tower #6 and its ground system were completed. None of the other towers authorized in BP-19990521AG (towers 1 through 5) were constructed at that time, insuring non-directional radiation. A per-kilowatt, inverse distance efficiency of 320.0 mV/m was presumed.

The SFTA transmitter was energized only when personnel were in the field and performing measurements. The SFTA transmitter was unmodulated except during identification announcements at the top of every hour. Operation during Critical Hours was avoided.

Nine measurement radials were taken on the following azimuth:

59.0 degrees True  
79.0 degrees True  
99.0 degrees True  
198.0 degrees True  
208.0 degrees True  
218.0 degrees True  
228.0 degrees True  
248.0 degrees True  
278.0 degrees True

A tabulation for each radial is included in this report. The measurements were performed by Michael Fast, J. R. Richardson and Michael Briggs.

### **UNANTICIPATED MISCELLANEOUS FINDINGS**

No reports of interference from other broadcast stations were received during the tests. However, several of the radials ran through areas served by Travelers' Information Service (TIS) transmitters on nearby channels. WWLG's technicians encountered several areas where it was not possible to obtain measurements on the SFTA transmitter because the Field Intensity Meter was overwhelmed by the strong signal provided by the nearby TIS transmitter(s).

### **ATTEST**

The measurement data presented herein were gathered under my supervision and is true and correct to the best of my knowledge and belief.



Glen T. Clark, P.E.  
Georgia registration #18713

November 13, 2000

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SPECIAL FIELD TEST AUTHORIZATION  
CALLSIGN WW3XLG  
1630 kHz  
059.0 DEGREE RADIAL

DISTANCE IN        MEASURED FIELD  
KILOMETERS        IN mV/m

0.201	5900.000
0.322	4000.000
0.483	3300.000
0.644	2200.000
0.805	1700.000
0.966	1250.000
1.127	1050.000
1.609	480.000
1.770	380.000
1.931	350.000
2.092	340.000
2.414	320.000
2.736	270.000
2.897	270.000
3.058	240.000
3.219	210.000
3.621	185.000
3.862	140.000
4.265	96.000
4.748	90.000
6.437	50.000
8.771	24.000
10.944	21.000
12.875	13.500
14.886	6.500
16.415	5.400
16.979	4.800
18.507	4.400
19.553	3.600
20.760	2.800
22.289	2.600
23.818	2.400
24.703	2.100
25.589	1.900
28.566	1.800
29.531	1.600
31.221	1.400
33.474	1.000

SPECIAL FIELD TEST AUTHORIZATION  
CALLSIGN WW3XLG  
1630 kHz  
079.0 DEGREE RADIAL

DISTANCE IN      MEASURED FIELD  
KILOMETERS      IN mV/m

0.161	8100.000
0.322	4400.000
0.483	1280.000
0.644	1200.000
0.805	800.000
0.966	500.000
1.127	600.000
1.287	580.000
1.448	540.000
1.609	480.000
1.770	400.000
1.931	340.000
2.092	300.000
2.253	280.000
2.414	240.000
2.575	210.000
2.736	195.000
2.897	140.000
3.058	180.000
3.219	205.000
4.023	160.000
4.506	120.000
6.437	90.000
6.759	120.000
9.656	42.000
10.461	31.000
12.070	23.000
12.875	18.000
16.093	6.000
16.898	4.000

SPECIAL FIELD TEST AUTHORIZATION  
CALLSIGN WW3XLG  
1630 KHz  
099.0 DEGREE RADIAL

DISTANCE IN      MEASURED FIELD  
KILOMETERS      IN mV/m

0.161	8000.000
0.322	4500.000
0.483	1300.000
0.644	1000.000
0.805	920.000
0.966	800.000
1.127	700.000
1.287	640.000
1.448	580.000
1.609	510.000
1.770	490.000
1.931	410.000
2.092	350.000
2.736	340.000
2.897	280.000
3.058	240.000
3.219	195.000
3.701	160.000
4.345	120.000
5.633	60.000
6.035	50.000
6.759	34.000
7.242	41.000
8.047	26.000
11.909	16.000

SPECIAL FIELD TEST AUTHORIZATION

CALLSIGN WW3XLG

1630 kHz

198.0 DEGREE RADIAL

DISTANCE IN KILOMETERS	MEASURED FIELD IN mV/m
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0.322	5400.000
0.322	2650.000
0.483	1475.000
0.644	1900.000
0.805	1550.000
0.966	850.000
1.127	1000.000
1.287	900.000
1.448	660.000
1.609	580.000
1.770	510.000
1.931	540.000
2.092	450.000
2.253	425.000
2.414	370.000
2.575	390.000
2.736	320.000
2.897	280.000
3.058	270.000
3.219	280.000
7.380	39.000
8.630	22.000
10.200	23.500
10.700	13.000
11.500	14.750
15.100	18.500
12.600	15.000
16.900	10.000
21.100	4.000
18.600	6.000
23.200	7.400
25.200	4.200
33.100	4.800
35.500	2.000
39.100	1.500
43.600	1.200
46.000	0.800
50.100	0.320
56.400	0.400
60.500	0.450
64.800	0.400
69.000	0.100
72.400	0.250
75.700	0.340
78.000	0.240
81.400	0.120
83.800	0.185
87.400	0.115
91.500	0.145
101.000	0.125
111.000	0.094
120.000	0.090



132.000

0.082

154.000

0.061

SPECIAL FIELD TEST AUTHORIZATION  
CALLSIGN WW3XLG  
1630 kHz  
208.0 DEGREE RADIAL

DISTANCE IN      MEASURED FIELD  
KILOMETERS      IN mV/m

0.161	9800.000
0.290	6800.000
0.563	4600.000
0.676	3400.000
0.885	2300.000
0.998	1400.000
1.159	1150.000
1.287	1050.000
1.448	920.000
1.642	870.000
1.770	840.000
1.931	740.000
2.092	720.000
2.253	550.000
2.382	610.000
2.575	490.000
2.800	410.000
2.977	365.000
4.184	155.000
5.713	88.000
7.001	60.000
7.403	60.000
8.047	40.000
13.358	7.000
16.415	7.000
18.829	7.800
24.140	6.700
33.635	4.700
38.624	1.900
46.671	0.500
55.200	0.340
67.592	0.370
80.467	0.155
97.365	0.125
115.872	0.075
138.403	0.050
159.566	0.042
176.384	0.036
189.580	0.032
199.880	0.027
211.306	0.024
227.239	0.021
243.493	0.013
248.160	0.011
256.207	0.010

SPECIAL FIELD TEST AUTHORIZATION  
CALLSIGN WW3XLG  
1630 kHz  
218.0 DEGREE RADIAL

DISTANCE IN      MEASURED FIELD  
KILOMETERS      IN mV/m

0.161	9900.000
0.290	7100.000
0.563	5800.000
0.644	4200.000
0.805	3350.000
0.966	2400.000
1.127	1050.000
1.287	985.000
2.092	480.000
2.253	440.000
2.414	320.000
2.575	260.000
2.736	210.000
2.897	200.000
3.058	195.000
3.219	145.000
3.862	130.000
5.633	60.000
6.115	100.000
6.437	72.000
7.242	32.000
8.047	30.000
8.851	18.000
12.070	15.000
16.093	10.000
24.140	8.000
28.968	4.000
37.015	1.600
40.233	1.300
45.062	1.000
54.718	0.700
61.155	0.350
64.374	0.350
72.420	0.350
77.248	0.350
96.560	0.350
99.779	0.100
109.435	0.080
140.000	0.014
144.841	0.050
149.000	0.012
157.715	0.035
164.000	0.020
168.981	0.030
175.000	0.039
199.558	0.025
225.308	0.019

SPECIAL FIELD TEST AUTHORIZATION  
CALLSIGN WW3XLG  
1630 kHz  
228.0 DEGREE RADIAL

DISTANCE IN      MEASURED FIELD  
KILOMETERS      IN mV/m

0.161	9950.000
0.322	9800.000
0.483	3600.000
0.644	2900.000
0.805	2000.000
0.966	1810.000
1.127	1400.000
1.287	1100.000
1.448	700.000
1.609	200.000
1.770	580.000
1.931	390.000
2.092	290.000
2.253	160.000
2.414	130.000
2.575	110.000
2.736	190.000
2.897	180.000
3.058	232.000
3.219	190.000
4.023	140.000
4.828	95.000
5.633	54.000
6.115	48.000
8.047	29.000
8.851	17.000
9.334	15.000
10.944	13.000
11.587	22.000
13.679	12.000
14.484	7.200
15.289	6.800
16.415	5.300
17.703	4.800
19.312	5.200
20.117	6.800
22.531	4.500
24.945	3.800
27.037	4.000
28.646	2.500
35.405	3.200

SPECIAL FIELD TEST AUTHORIZATION  
CALLSIGN WW3XLG  
1630 KHZ  
248.0 DEGREE RADIAL

DISTANCE IN      MEASURED FIELD  
KILOMETERS      IN mV/m

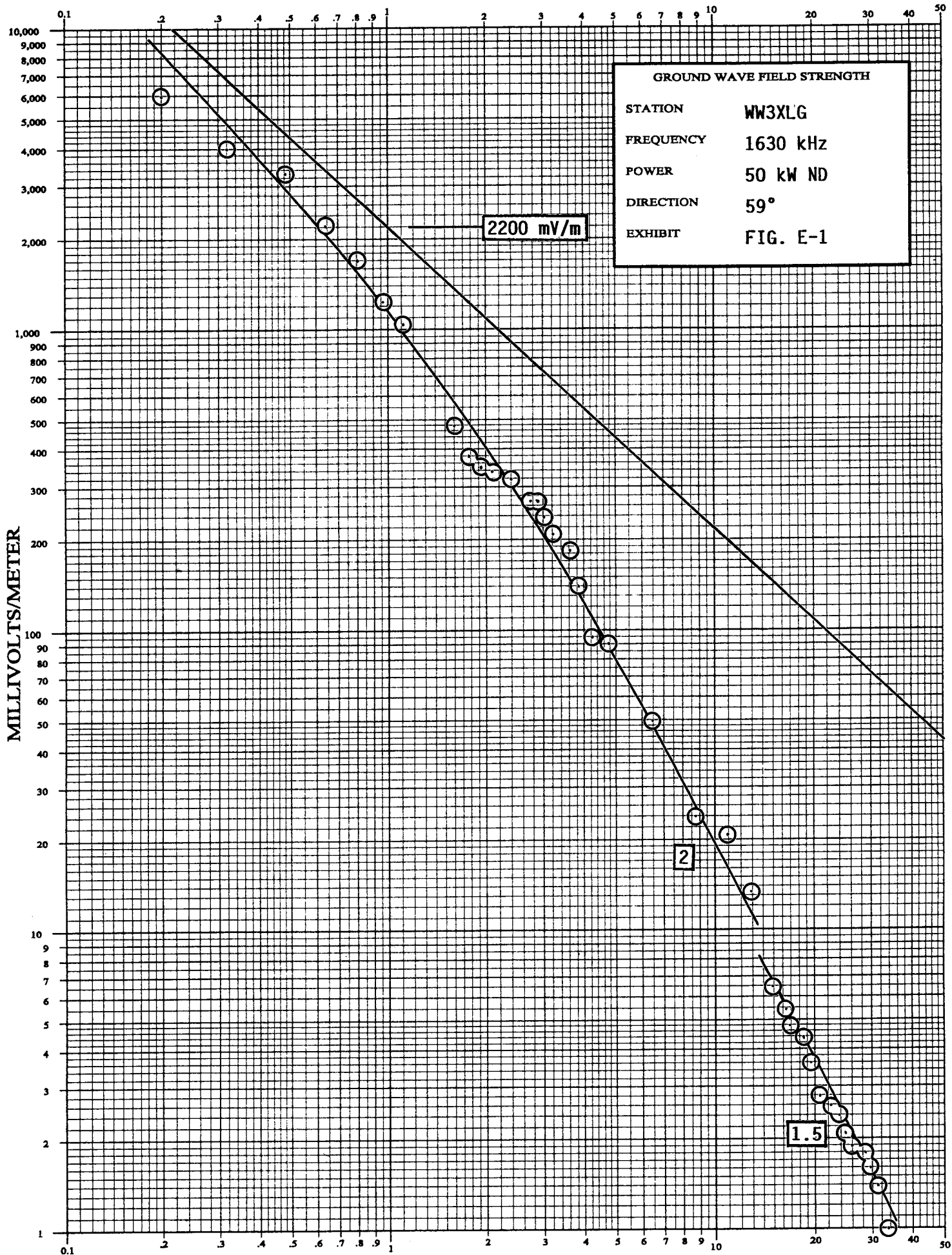
0.322	7300.000
0.451	5700.000
0.515	4400.000
0.644	2200.000
0.805	1200.000
1.448	820.000
1.609	600.000
1.770	480.000
1.931	450.000
2.092	330.000
2.253	285.000
2.736	145.000
2.897	125.000
3.058	130.000
3.219	120.000
3.782	120.000
4.989	70.000
5.552	55.000
7.644	28.000
8.771	27.000
10.702	17.000
12.472	17.000
16.254	7.000
19.183	7.200
24.269	2.500
28.888	11.900
35.245	1.300
42.487	0.600
47.154	0.400

SPECIAL FIELD TEST AUTHORIZATION  
CALLSIGN WW3XLG  
1630 KHz  
278.0 DEGREE RADIAL

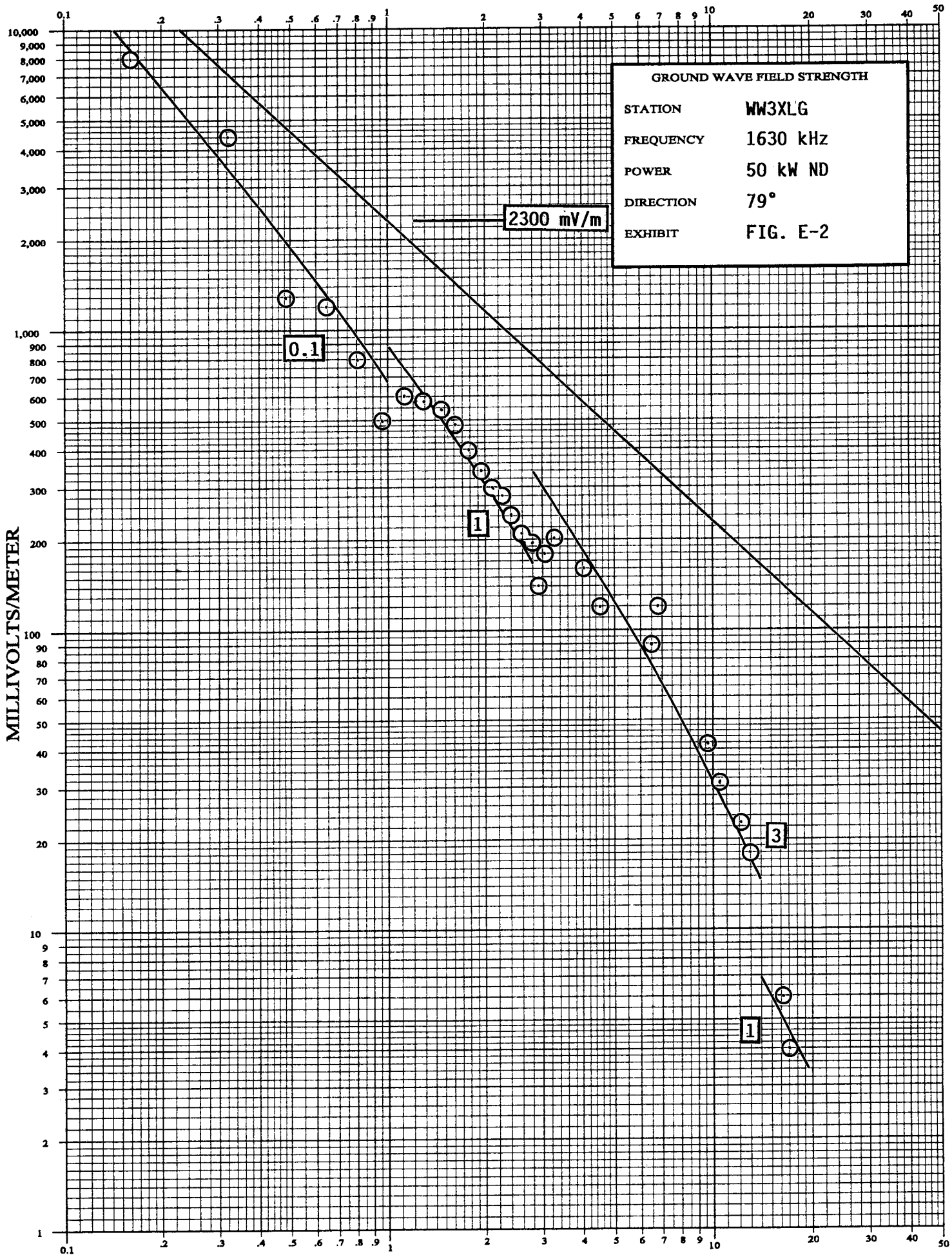
DISTANCE IN      MEASURED FIELD  
KILOMETERS      IN mV/m

0.322	2100.000
0.644	1450.000
0.805	1550.000
0.966	900.000
2.269	165.000
3.219	115.000
3.950	71.000
5.000	50.000
5.570	63.000
7.320	18.000
8.050	16.800
9.000	15.000
9.710	3.900
10.600	4.200
11.400	3.100
12.400	7.000
14.100	4.600
14.900	4.100
16.300	2.000
19.300	3.000
21.400	2.400
23.500	2.200
25.200	1.450
26.600	1.800
29.100	1.100
31.700	0.820
35.200	0.630
38.000	1.120
42.100	0.550
45.900	0.440
50.600	0.440
55.000	0.270

# KILOMETERS FROM ANTENNA



## KILOMETERS FROM ANTENNA

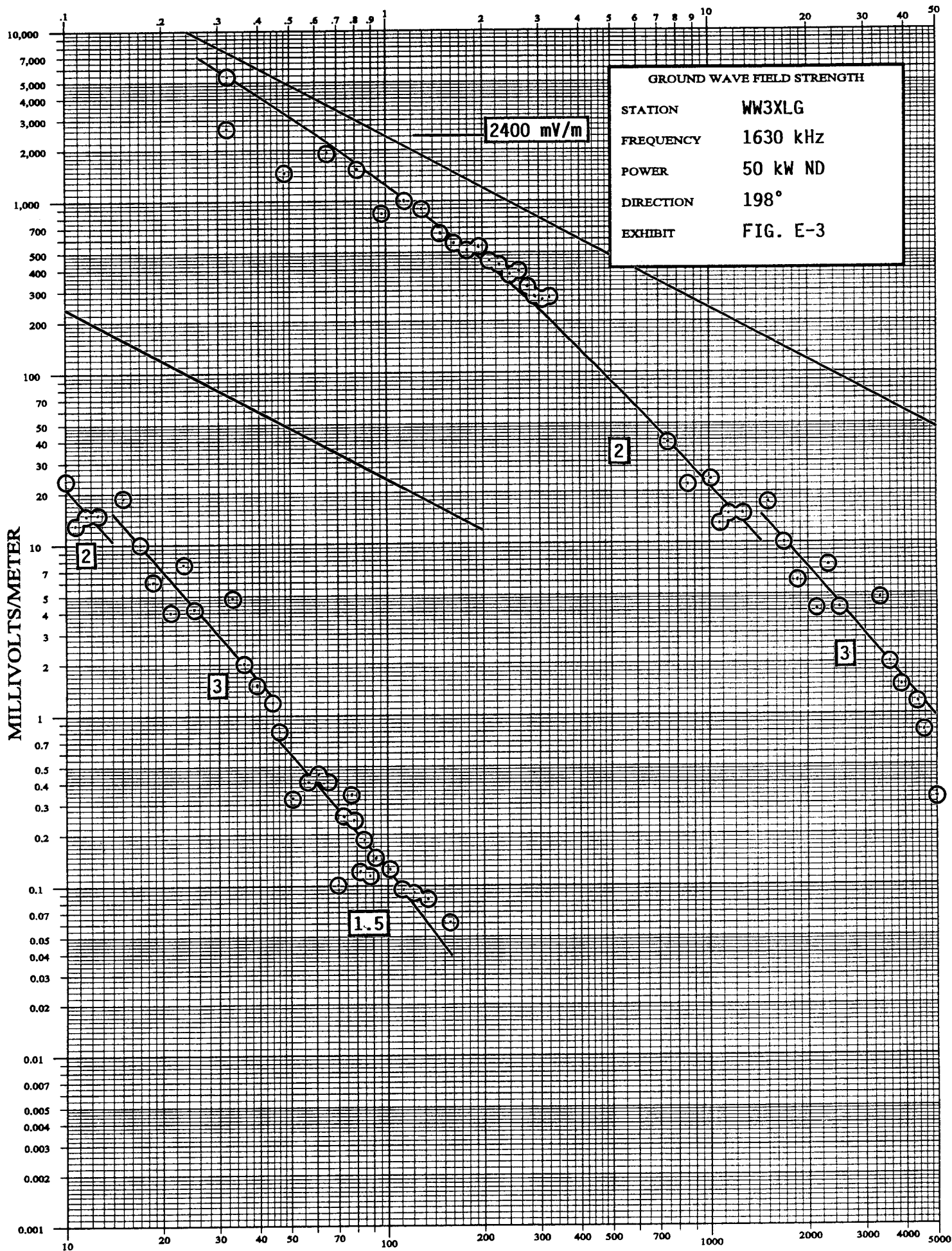


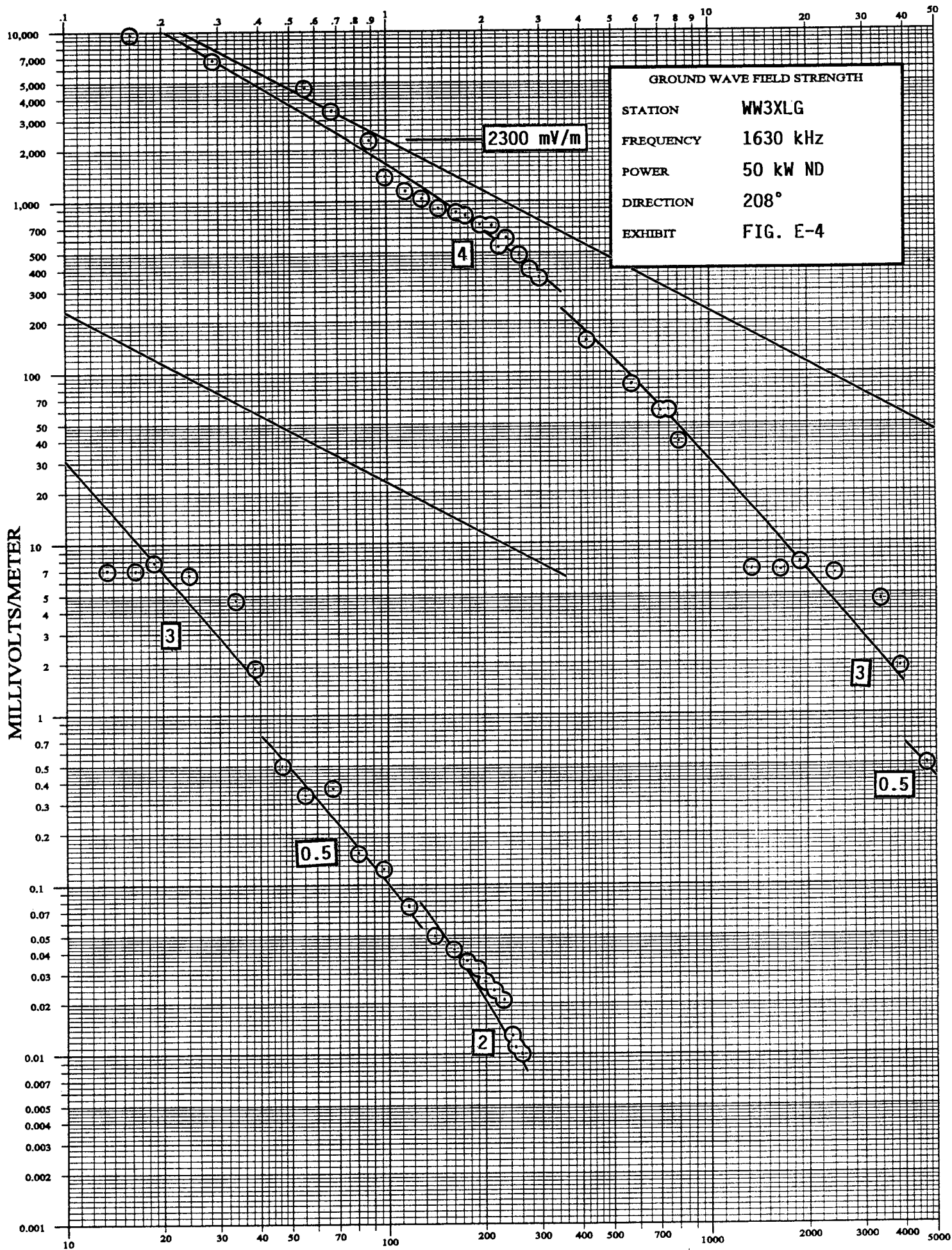
KILOMETERS FROM ANTENNA

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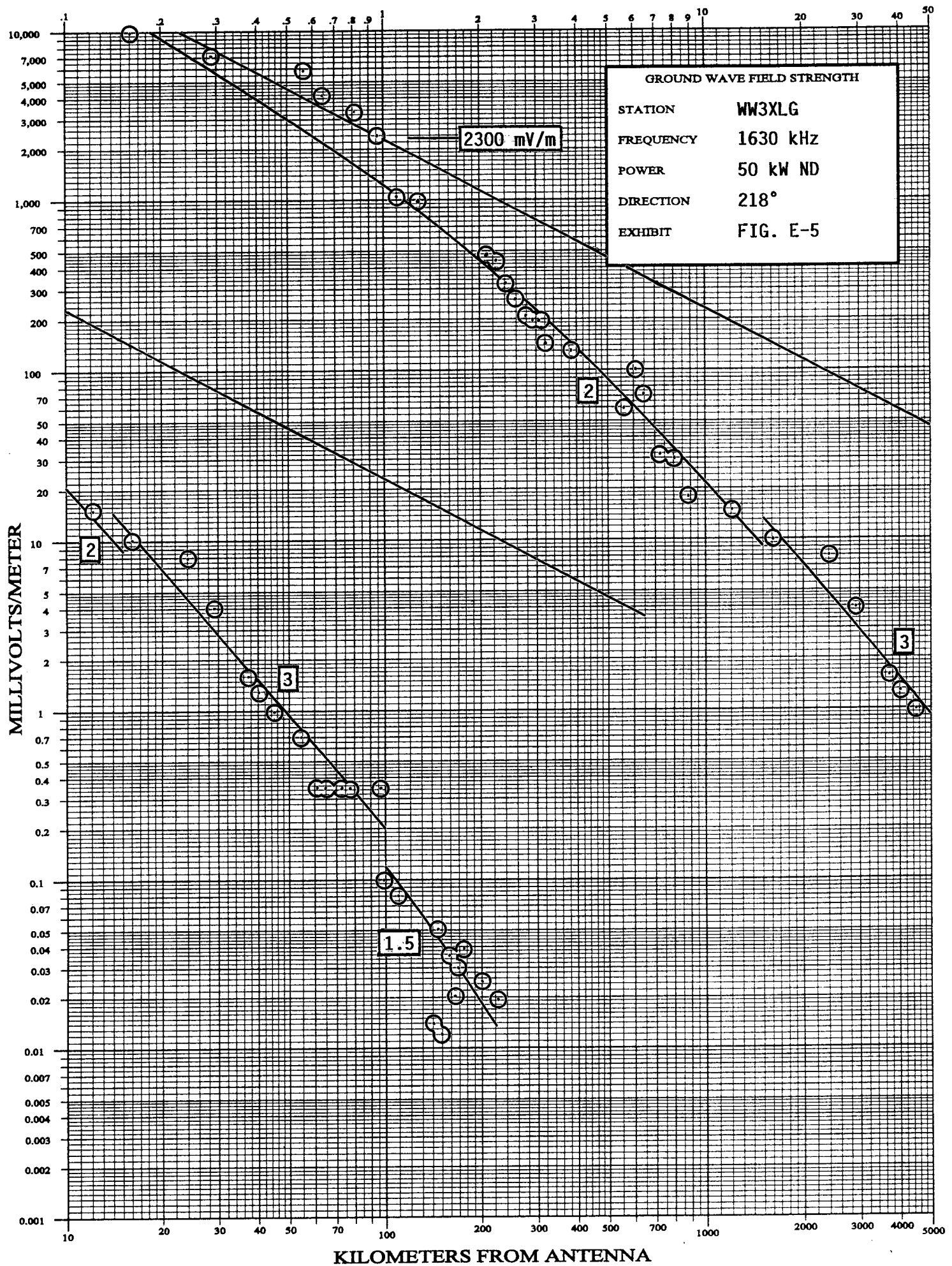
## KILOMETERS FROM ANTENNA





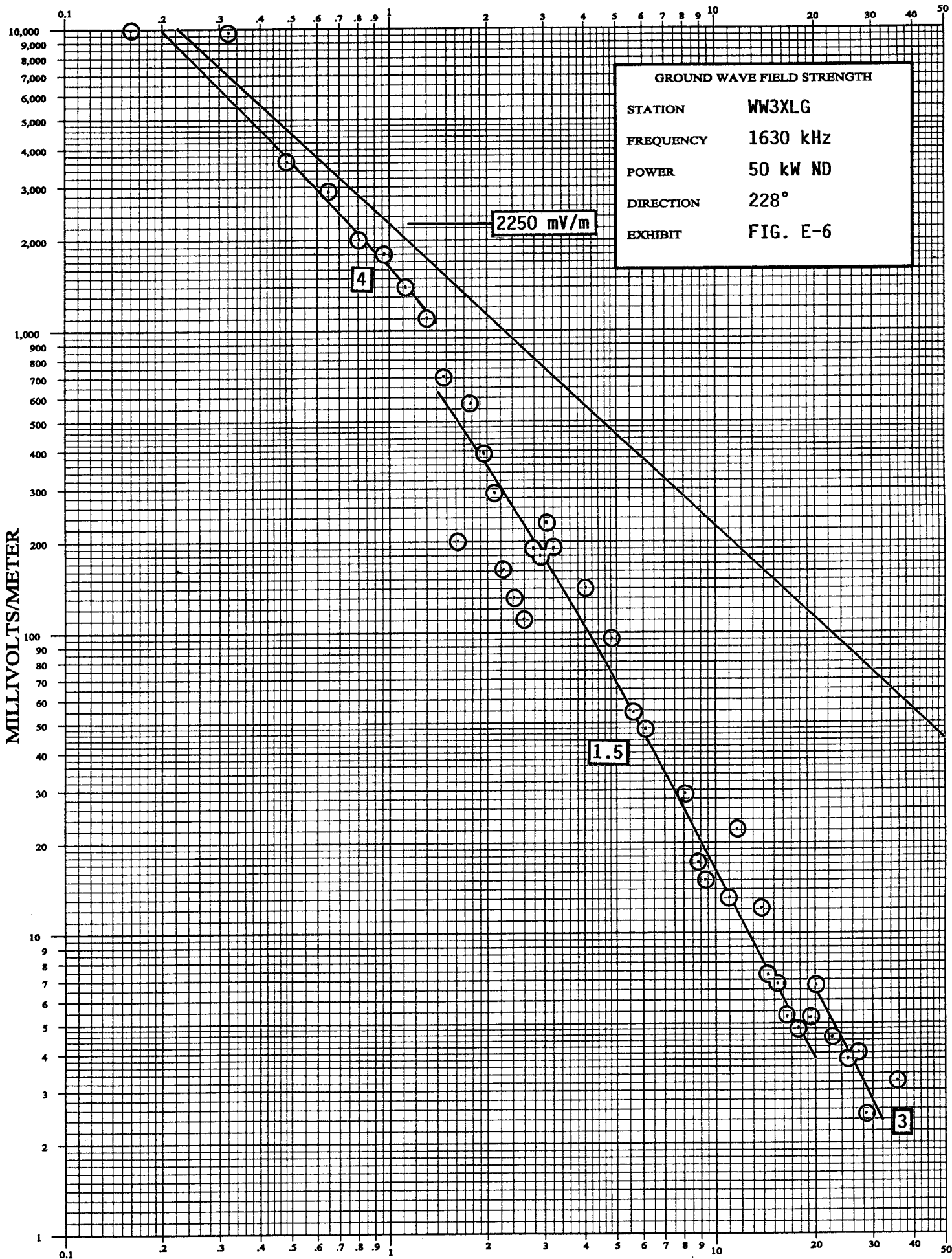
KILOMETERS FROM ANTENNA

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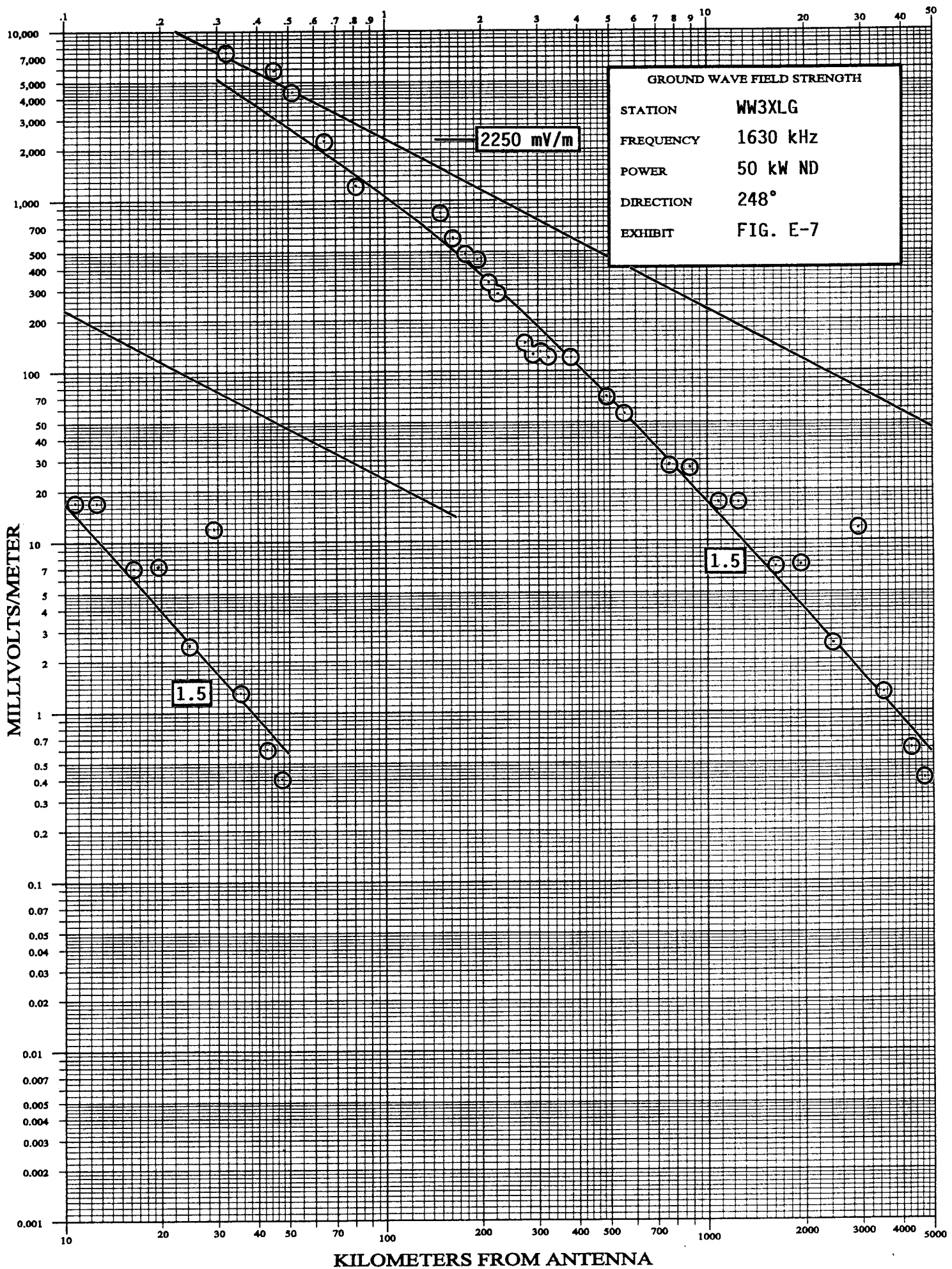


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# KILOMETERS FROM ANTENNA







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## KILOMETERS FROM ANTENNA

