

**AM BROADCAST STATION KTNO
UNIVERSITY PARK, TEXAS
APPENDICES
JUNE 2005**

MULLANEY ENGINEERING, INC.

APPENDIX A

**Tabulations of Field Strength Measurement Data on Licensed
KTNO, 1440 kHz, University Park, TX [BL-20040827ACM]**

APPENDIX A (Sheet 1 of 6)

**Tabulations of Field Strength Measurement Data
Licensed KTNO, 1440 kHz, University Park, TX [BL-20040827ACM]**

KTNO - Buford Rd: DEC 2004

TABULATION OF FIELD INTENSITY MEASUREMENTS
BEARING IN DEGREES 27.50

POINT #	DISTANCE (MILES)	DISTANCE (KILOMETERS)	DA-DAY (MV/M)
*****	*****	*****	*****
1	20.00	32.19	9.000
2	17.50	28.16	16.500
3	15.00	24.14	19.200
4	12.50	20.12	36.000
5	10.00	16.09	40.000
6	8.50	13.68	66.000
7	7.00	11.27	86.000
8	5.50	8.85	120.000
9	5.00	8.05	124.000
10	4.50	7.24	142.000
11	4.00	6.44	176.000
12	3.50	5.63	190.000

MEASUREMENTS at POINT #1 TAKEN 12 JANUARY 2005 AT 1030 HOURS

MEASUREMENTS at POINTS #2 - #12 TAKEN 8 DECEMBER 2004 BETWEEN 1043 AND 1330 HOURS

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**Tabulations of Field Strength Measurement Data
Licensed KTNO, 1440 kHz, University Park, TX [BL-20040827ACM]**

KTNO - Buford Rd: DEC 2004

TABULATION OF FIELD INTENSITY MEASUREMENTS
BEARING IN DEGREES 58.50

POINT # *****	DISTANCE (MILES) *****	DISTANCE (KILOMETERS) *****	DA-DAY (MV/M) *****
1	20.00	32.19	5.400
2	17.50	28.16	6.200
3	10.00	16.09	18.400
4	8.50	13.68	19.600
5	7.00	11.27	23.000
6	5.50	8.85	28.000
7	5.00	8.05	31.000
8	4.50	7.24	22.400
9	4.00	6.44	34.500
10	3.50	5.63	42.000
11	3.00	4.83	49.000

MEASUREMENTS at POINTS #5, #8 TAKEN 12 JANUARY 2005 BETWEEN 1547 AND 1604 HOURS
MEASUREMENTS at ALL OTHER POINTS TAKEN 7 DECEMBER 2004 BETWEEN 1106 AND 1344 HOURS

APPENDIX A (Sheet 3 of 6)

**Tabulations of Field Strength Measurement Data
Licensed KTNO, 1440 kHz, University Park, TX [BL-20040827ACM]**

KTNO - Buford Rd: DEC 2004

TABULATION OF FIELD INTENSITY MEASUREMENTS
BEARING IN DEGREES 105.00

POINT # *****	DISTANCE (MILES) *****	DISTANCE (KILOMETERS) *****	DA-DAY (MV/M) *****
1	20.00	32.19	2.700
2	17.50	28.16	3.700
3	15.00	24.14	3.200
4	12.80	20.60	4.600
5	10.30	16.58	6.800
6	8.50	13.68	13.800
7	7.00	11.27	15.800
8	5.50	8.85	22.400
9	5.00	8.05	20.000
10	4.50	7.24	31.800
11	4.00	6.44	50.000
12	3.50	5.63	56.000
13	3.00	4.83	76.000

ALL MEASUREMENTS TAKEN 27 NOVEMBER 2004 BETWEEN 1054 AND 1416 HOURS

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**Tabulations of Field Strength Measurement Data
Licensed KTNO, 1440 kHz, University Park, TX [BL-20040827ACM]**

KTNO - Buford Rd: DEC 2004

TABULATION OF FIELD INTENSITY MEASUREMENTS
BEARING IN DEGREES 162.00

POINT # *****	DISTANCE (MILES) *****	DISTANCE (KILOMETERS) *****	DA-DAY (MV/M) *****
1	20.00	32.19	1.950
2	17.20	27.68	1.500
3	15.20	24.46	1.360
4	12.50	20.12	4.900
5	9.70	15.61	6.600
6	8.70	14.00	7.600
7	7.90	12.71	7.800
8	7.00	11.27	11.000
9	5.37	8.64	17.600
10	2.80	4.51	48.000

MEASUREMENTS at POINTS #2, #3 TAKEN 13 JANUARY 2005 BETWEEN 1300 AND 1323 HOURS
MEASUREMENTS at POINTS #1, #4 - #7 TAKEN 19 NOVEMBER 2004 BETWEEN 1445 AND 1637 HOURS
MEASUREMENTS at POINTS #8 - #10 TAKEN 26 NOVEMBER 2004 BETWEEN 1358 AND 1446 HOURS

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**Tabulations of Field Strength Measurement Data
Licensed KTNO, 1440 kHz, University Park, TX [BL-20040827ACM]**

KTNO - Buford Rd: DEC 2004

TABULATION OF FIELD INTENSITY MEASUREMENTS
BEARING IN DEGREES 205.50

POINT # *****	DISTANCE (MILES) *****	DISTANCE (KILOMETERS) *****	DA-DAY (MV/M) *****
1	3.00	4.83	31.000
2	3.50	5.63	33.000
3	4.00	6.44	24.400
4	5.20	8.37	14.400
5	5.50	8.85	11.500
6	7.00	11.27	8.600
7	8.50	13.68	7.600
8	10.00	16.09	8.600
9	12.50	20.12	5.000
10	15.00	24.14	3.900
11	17.50	28.16	2.640
12	20.00	32.19	2.300
13	22.40	36.05	1.080
14	25.00	40.23	0.900
15	27.50	44.26	0.700
16	30.00	48.28	0.640
17	34.20	55.04	0.420
18	39.50	63.57	0.260
19	44.70	71.94	0.280
20	50.10	80.63	0.130
21	55.00	88.51	0.170
22	59.50	95.75	0.140
23	70.00	112.65	0.080
24	69.60	112.01	0.076

MEASUREMENTS at POINTS #1 - #4 TAKEN 7 DECEMBER 2004 BETWEEN 1414 AND 1444 HOURS
MEASUREMENTS at POINTS #5 - #12 TAKEN 2 DECEMBER 2004 BETWEEN 1443 AND 1625 HOURS
MEASUREMENTS at POINTS #13 - #15 TAKEN 10 MAY 2005 BETWEEN 1126 AND 1203 HOURS
MEASUREMENTS at POINTS #16 - #24 TAKEN 6 MAY 2005 BETWEEN 1023 AND 1723 HOURS

APPENDIX A (Sheet 6 of 6)

**Tabulations of Field Strength Measurement Data
Licensed KTNO, 1440 kHz, University Park, TX [BL-20040827ACM]**

KTNO - Buford Rd: DEC 2004

TABULATION OF FIELD INTENSITY MEASUREMENTS
BEARING IN DEGREES 320.00

POINT # *****	DISTANCE (MILES) *****	DISTANCE (KILOMETERS) *****	DA-DAY (MV/M) *****
1	20.00	32.19	6.800
2	17.50	28.16	8.200
3	15.00	24.14	7.200
4	12.50	20.12	12.000
5	10.00	16.09	15.800
6	8.50	13.68	29.000
7	7.00	11.27	56.000
8	5.50	8.85	60.000
9	5.00	8.05	116.000
10	4.50	7.24	98.000
11	4.00	6.44	163.000
12	3.50	5.63	196.000
13	3.00	4.83	253.000

MEASUREMENTS at POINTS #1 - #7 TAKEN 12 JANUARY 2005 BETWEEN 1312 AND 1509 HOURS
MEASUREMENTS at POINTS #8 - #15 TAKEN 26 NOVEMBER 2004 BETWEEN 1306 AND 1336 HOURS

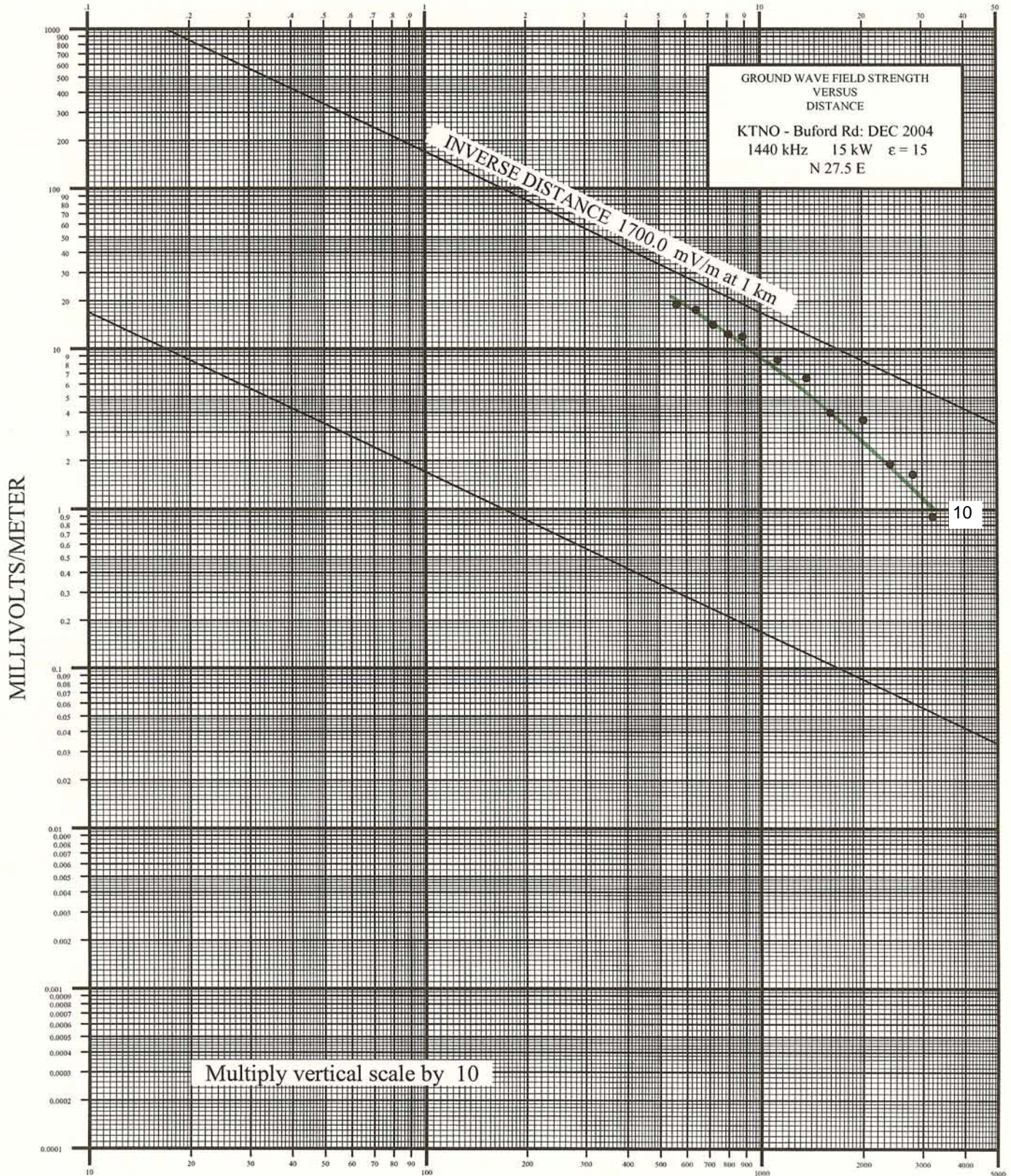
**AM BROADCAST STATION KTNO
UNIVERSITY PARK, TEXAS
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JUNE 2005**

MULLANEY ENGINEERING, INC.

APPENDIX B

**Plots of Field Strength Measurement Data on Licensed
KTNO, 1440 kHz, University Park, TX [BL-20040827ACM]**

KILOMETERS FROM ANTENNA



(Analyze Using Graph 18)

PLOT OF FIELD STRENGTH MEASUREMENT DATA
ON LICENSED KTNO, UNIVERSITY PARK, TEXAS
[BL-20040827ACM]

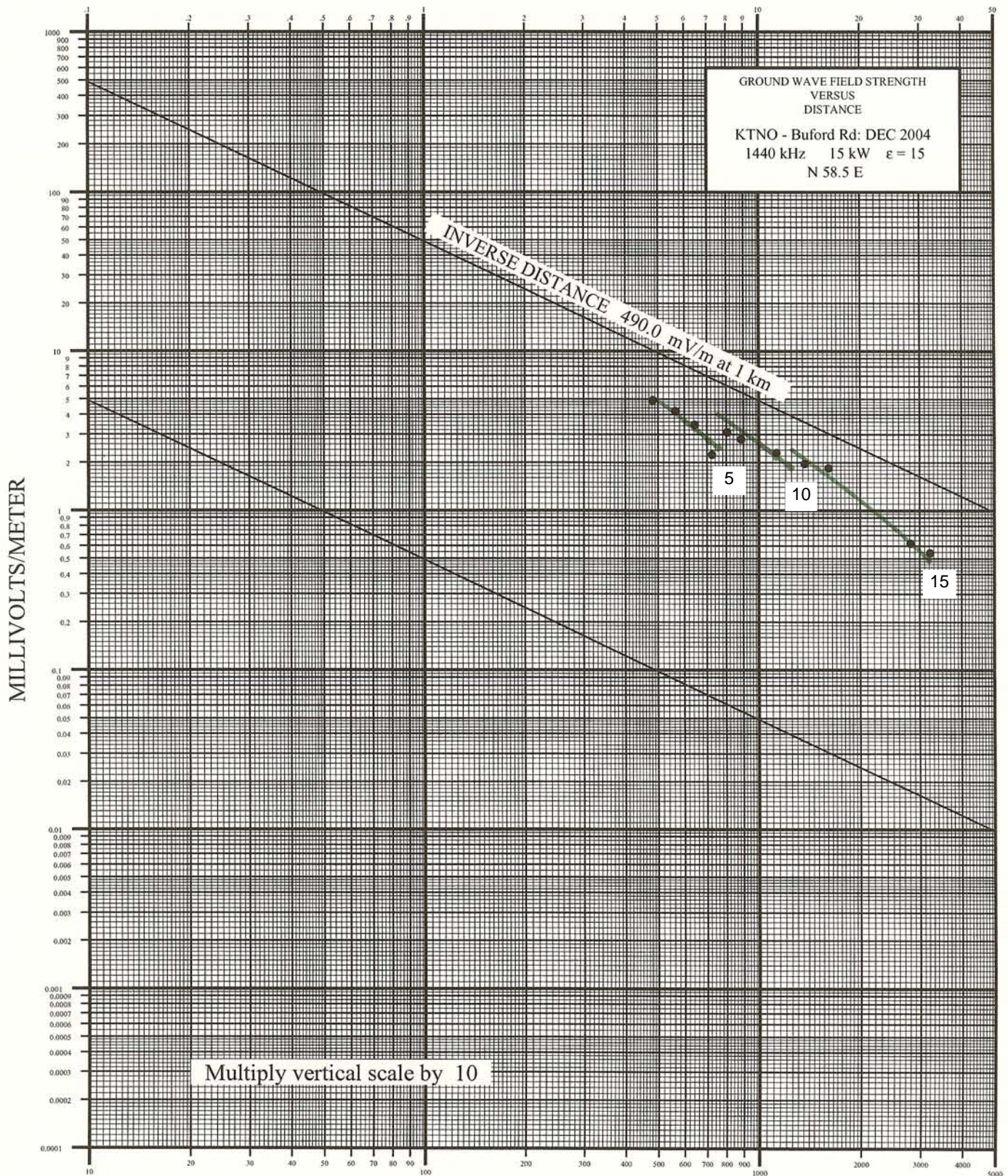
AM BROADCAST STATION
KTNO, UNIVERSITY PARK, TEXAS

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KILOMETERS FROM ANTENNA



(Analyze Using Graph 18)

PLOT OF FIELD STRENGTH MEASUREMENT DATA
 ON LICENSED KTNO, UNIVERSITY PARK, TEXAS
 [BL-20040827ACM]

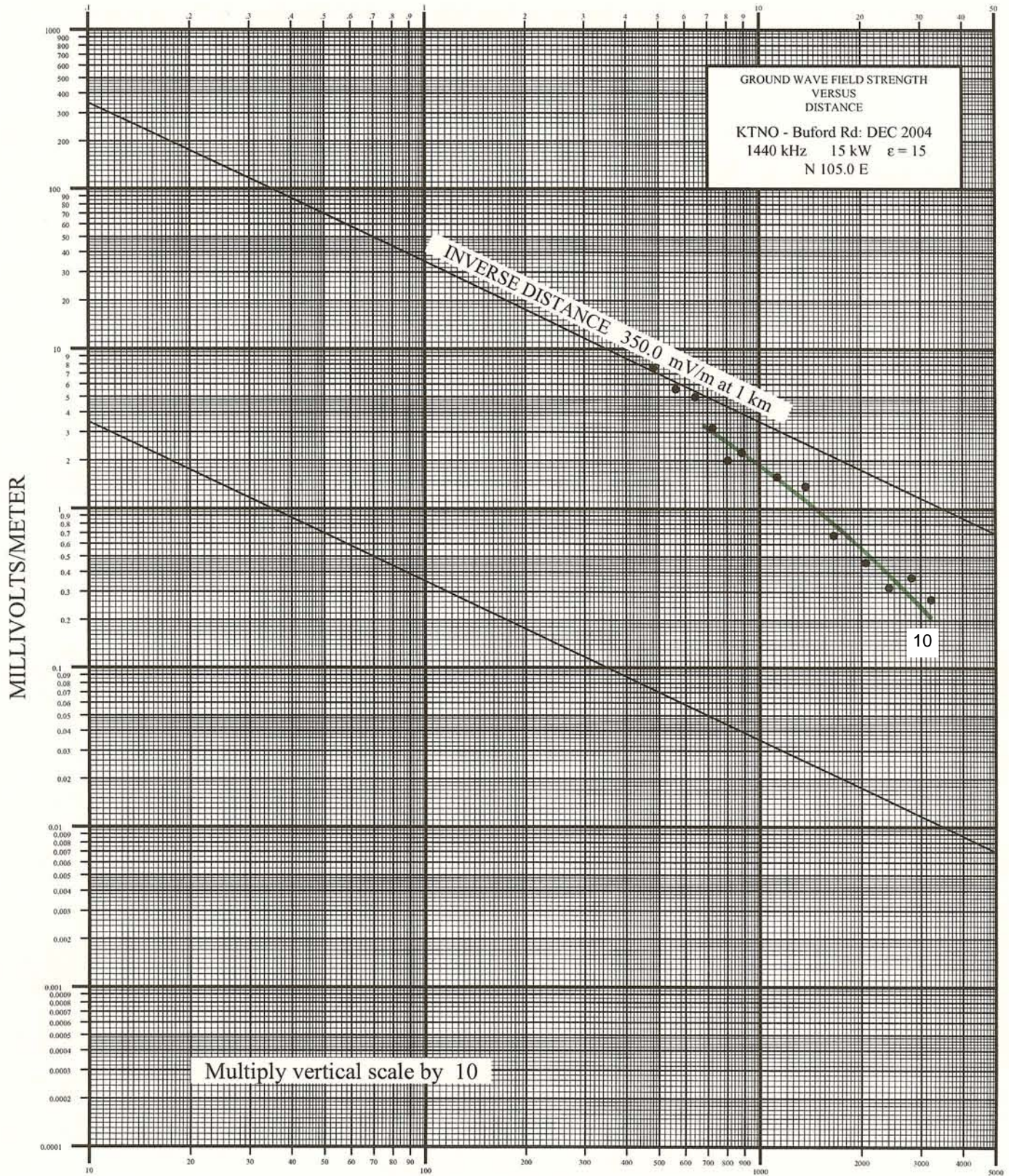
AM BROADCAST STATION
 KTNO, UNIVERSITY PARK, TEXAS

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KILOMETERS FROM ANTENNA



KILOMETERS FROM ANTENNA

(Analyze Using Graph 18)

PLOT OF FIELD STRENGTH MEASUREMENT DATA
ON LICENSED KTNQ, UNIVERSITY PARK, TEXAS
[BL-20040827ACM]

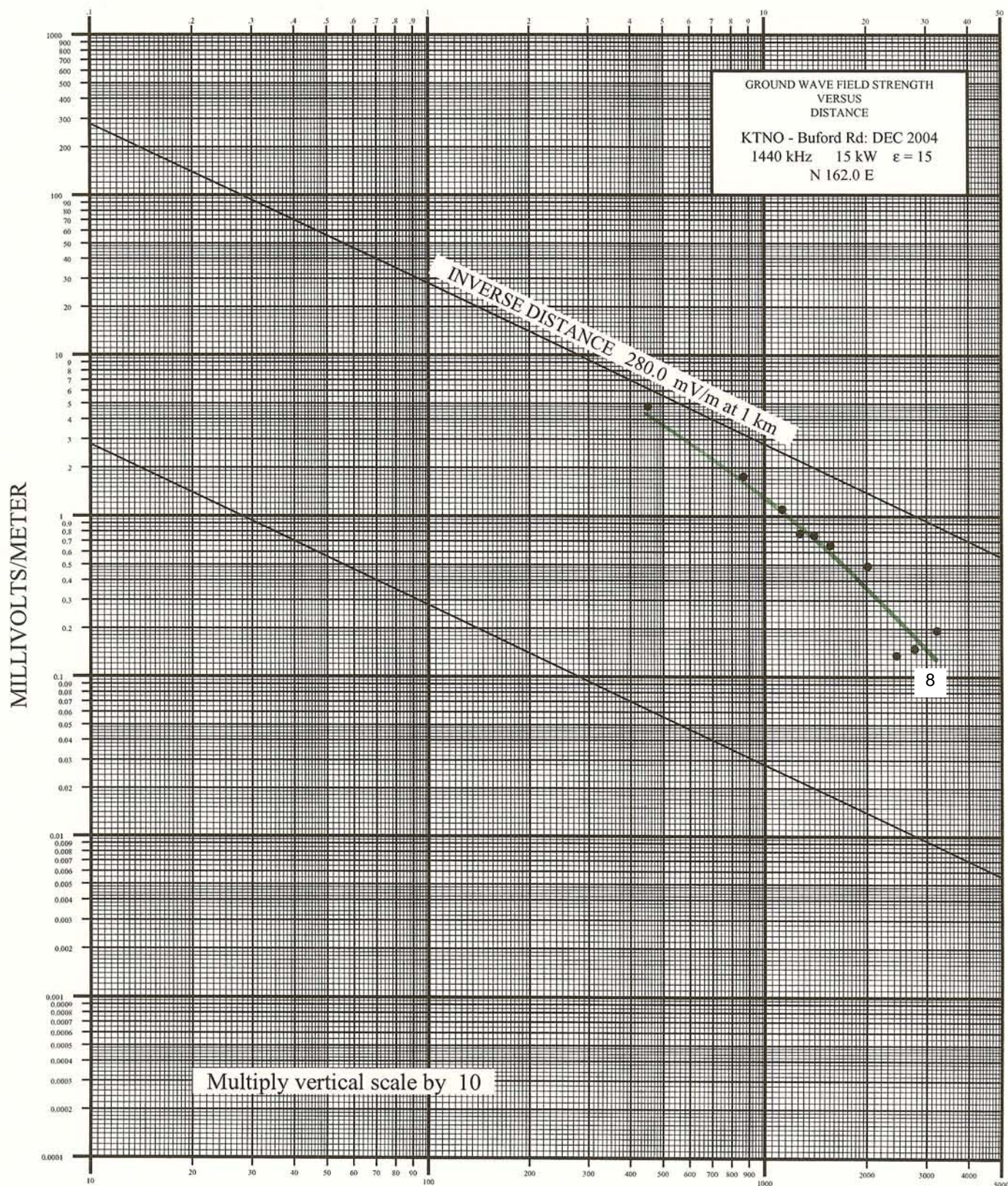
AM BROADCAST STATION
KTNQ, UNIVERSITY PARK, TEXAS

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KILOMETERS FROM ANTENNA



KILOMETERS FROM ANTENNA

(Analyze Using Graph 18)

PLOT OF FIELD STRENGTH MEASUREMENT DATA
ON LICENSED KTNO, UNIVERSITY PARK, TEXAS
[BL-20040827ACM]

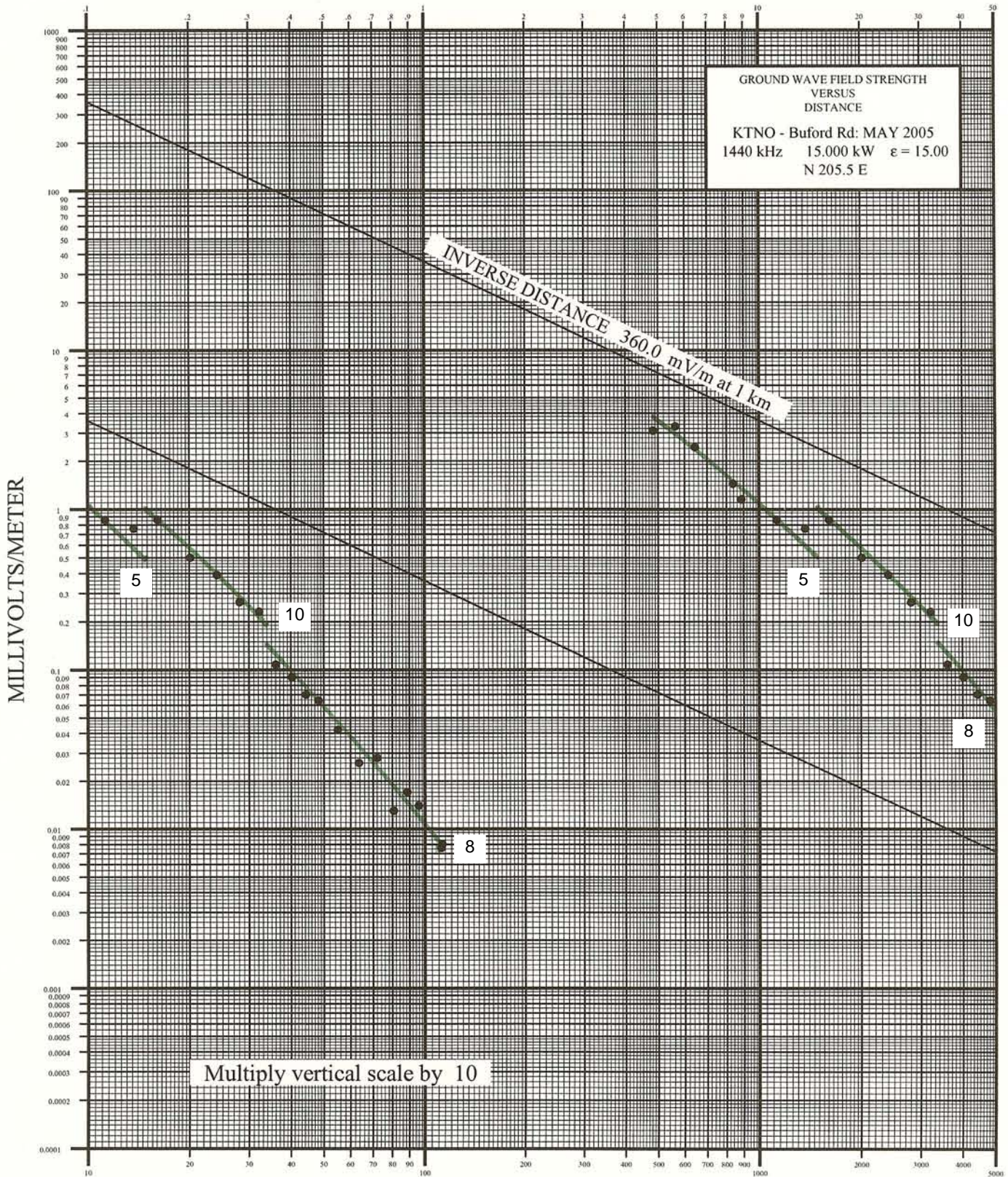
AM BROADCAST STATION
KTNO, UNIVERSITY PARK, TEXAS

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KILOMETERS FROM ANTENNA



(Analyze Using Graph 18)

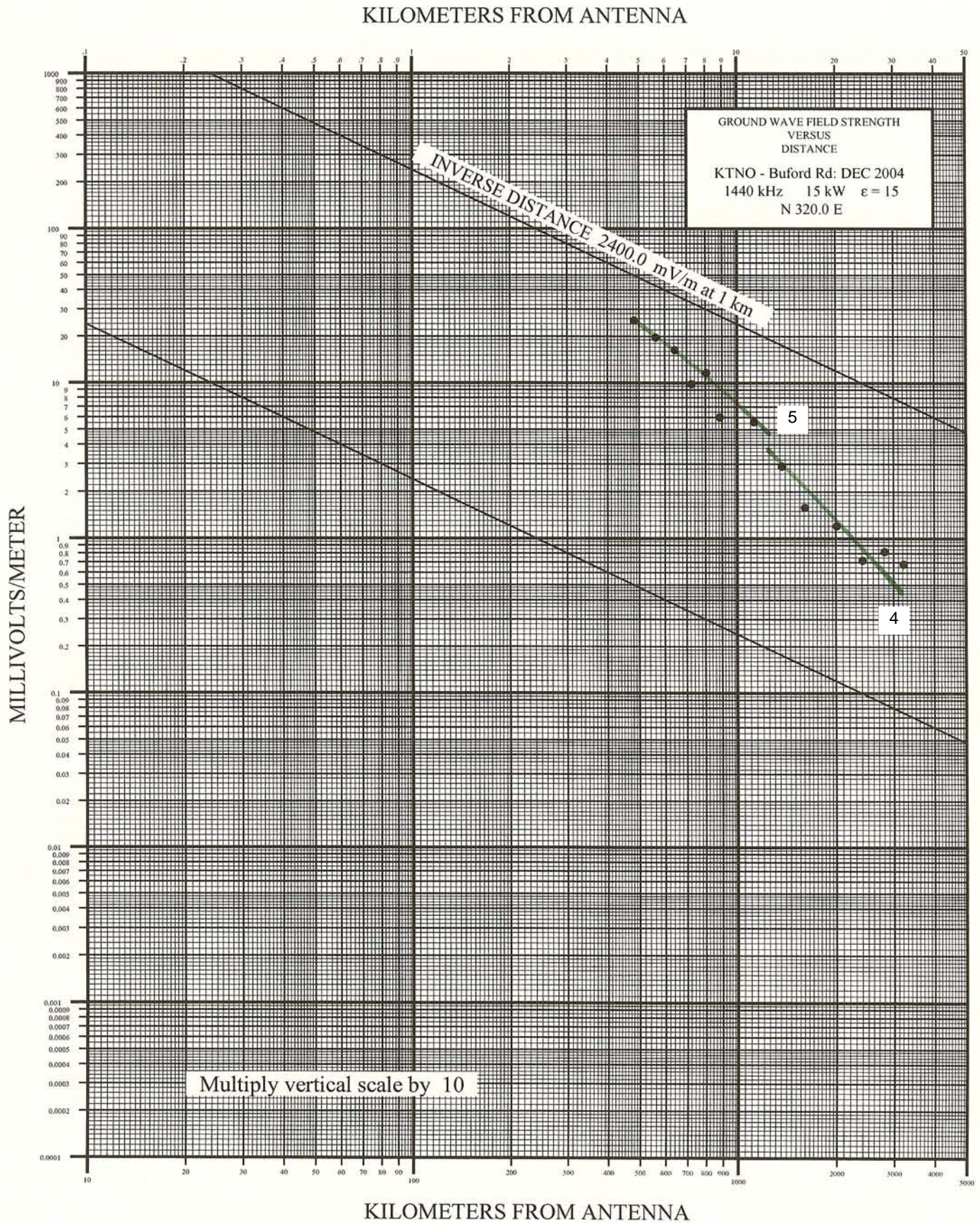
PLOT OF FIELD STRENGTH MEASUREMENT DATA
ON LICENSED KTNO, UNIVERSITY PARK, TEXAS
[BL-20040827ACM]

AM BROADCAST STATION
KTNO, UNIVERSITY PARK, TEXAS

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PLOT OF FIELD STRENGTH MEASUREMENT DATA
ON LICENSED KTNO, UNIVERSITY PARK, TEXAS
[BL-20040827ACM]

AM BROADCAST STATION
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(Analyze Using Graph 18)



**AM BROADCAST STATION KTNO
UNIVERSITY PARK, TEXAS
APPENDICES
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MULLANEY ENGINEERING, INC.

APPENDIX C

**Tabulations of Field Strength Measurement Data on Licensed
KROO, 1430 kHz, Breckenridge, TX [BL-20031027ABL]**

APPENDIX A (Sheet 1 of 3)

**Tabulations of Field Strength Measurement Data
Licensed KROO, 1430 kHz, Breckenridge, TX [BL-20031027ABL]**

KROO, BRECKENRIDGE, TX - APRIL 2005

TABULATION OF FIELD INTENSITY MEASUREMENTS
BEARING IN DEGREES 55.00

POINT # *****	DISTANCE (MILES) *****	DISTANCE (KILOMETERS) *****	N-DA (MV/M) *****
1	34.90	56.16	0.410
2	32.00	51.50	0.700
3	29.50	47.47	0.920
4	27.20	43.77	0.880
5	25.00	40.23	1.400
6	20.00	32.19	2.800
7	17.50	28.16	3.400
8	14.00	22.53	5.600
9	12.50	20.12	7.200
10	11.00	17.70	6.200
11	10.70	17.22	8.600

ALL MEASUREMENTS TAKEN 31 MARCH 2005 BETWEEN 1215 AND 1722 HOURS

APPENDIX A (Sheet 2 of 3)

**Tabulations of Field Strength Measurement Data
Licensed KROO, 1430 kHz, Breckenridge, TX [BL-20031027ABL]**

KROO, BRECKENRIDGE, TX - APRIL 2005

TABULATION OF FIELD INTENSITY MEASUREMENTS
BEARING IN DEGREES 75.00

POINT #	DISTANCE (MILES)	DISTANCE (KILOMETERS)	N-DA (MV/M)
*****	*****	*****	*****
1	35.00	56.33	0.540
2	32.60	52.46	0.840
3	30.10	48.44	1.000
4	27.20	43.77	1.030
5	25.00	40.23	1.150
6	23.00	37.01	1.200
7	16.70	26.88	3.100
8	12.40	19.96	7.200
9	8.80	14.16	10.000
10	4.00	6.44	36.000
11	2.25	3.62	60.000

ALL MEASUREMENTS TAKEN 1 APRIL 2005 BETWEEN 1311 AND 1621 HOURS

APPENDIX A (Sheet 3 of 3)

**Tabulations of Field Strength Measurement Data
Licensed KROO, 1430 kHz, Breckenridge, TX [BL-20031027ABL]**

KROO, BRECKENRIDGE, TX - APRIL 2005

TABULATION OF FIELD INTENSITY MEASUREMENTS
BEARING IN DEGREES 95.00

POINT # *****	DISTANCE (MILES) *****	DISTANCE (KILOMETERS) *****	N-DA (MV/M) *****
1	35.10	56.49	0.360
2	32.70	52.62	0.380
3	27.00	43.45	1.000
4	21.90	35.24	1.050
5	15.50	24.94	3.700
6	14.10	22.69	4.200
7	8.50	13.68	10.800

ALL MEASUREMENTS TAKEN 1 APRIL 2005 BETWEEN 1009 AND 1212 HOURS

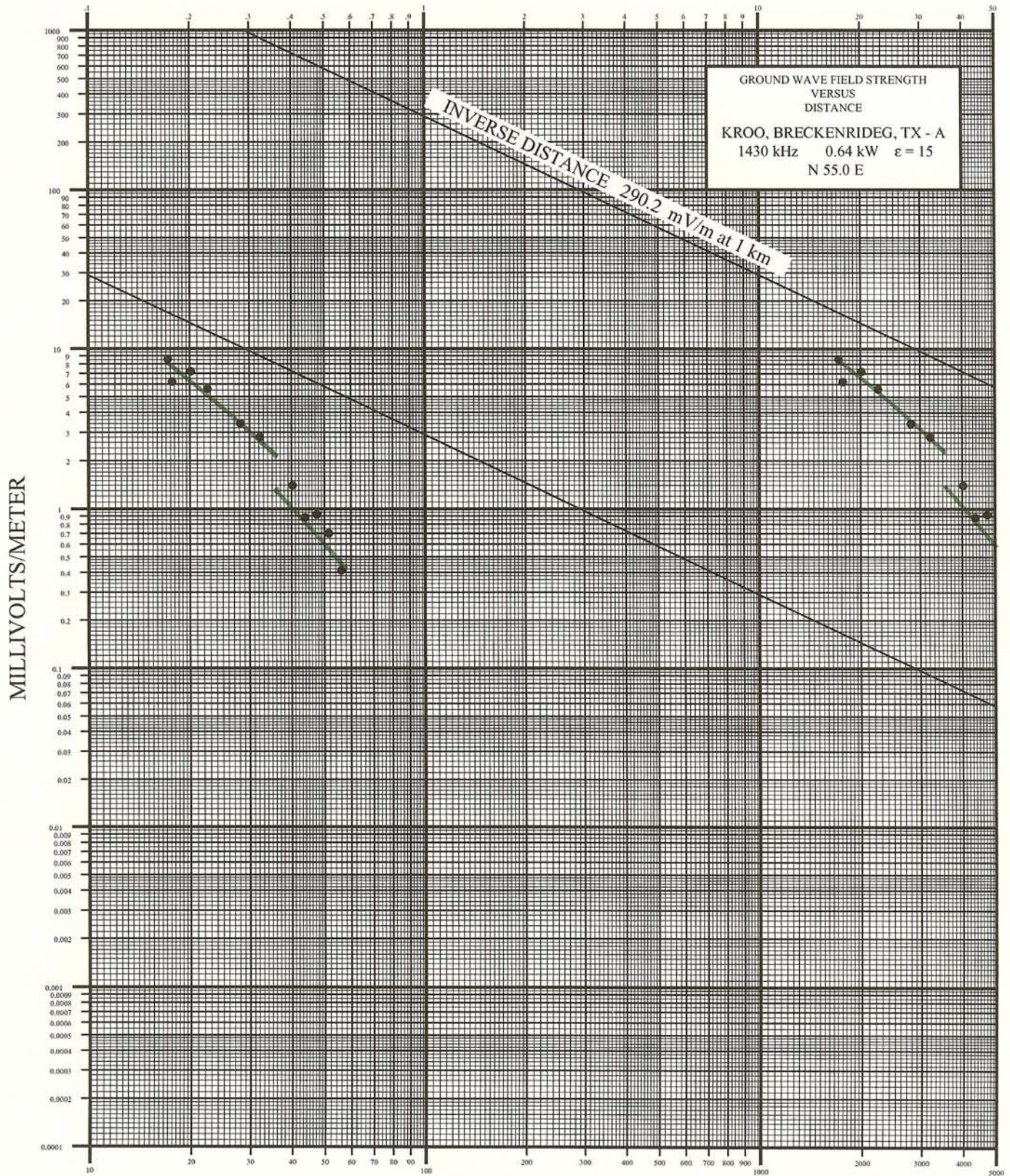
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MULLANEY ENGINEERING, INC.

APPENDIX D

**Plots of Field Strength Measurement Data on Licensed
KROO, 1430 kHz, Breckenridge, TX [BL-20031027ABL]**

KILOMETERS FROM ANTENNA



KILOMETERS FROM ANTENNA

(Analyze Using Graph 18)

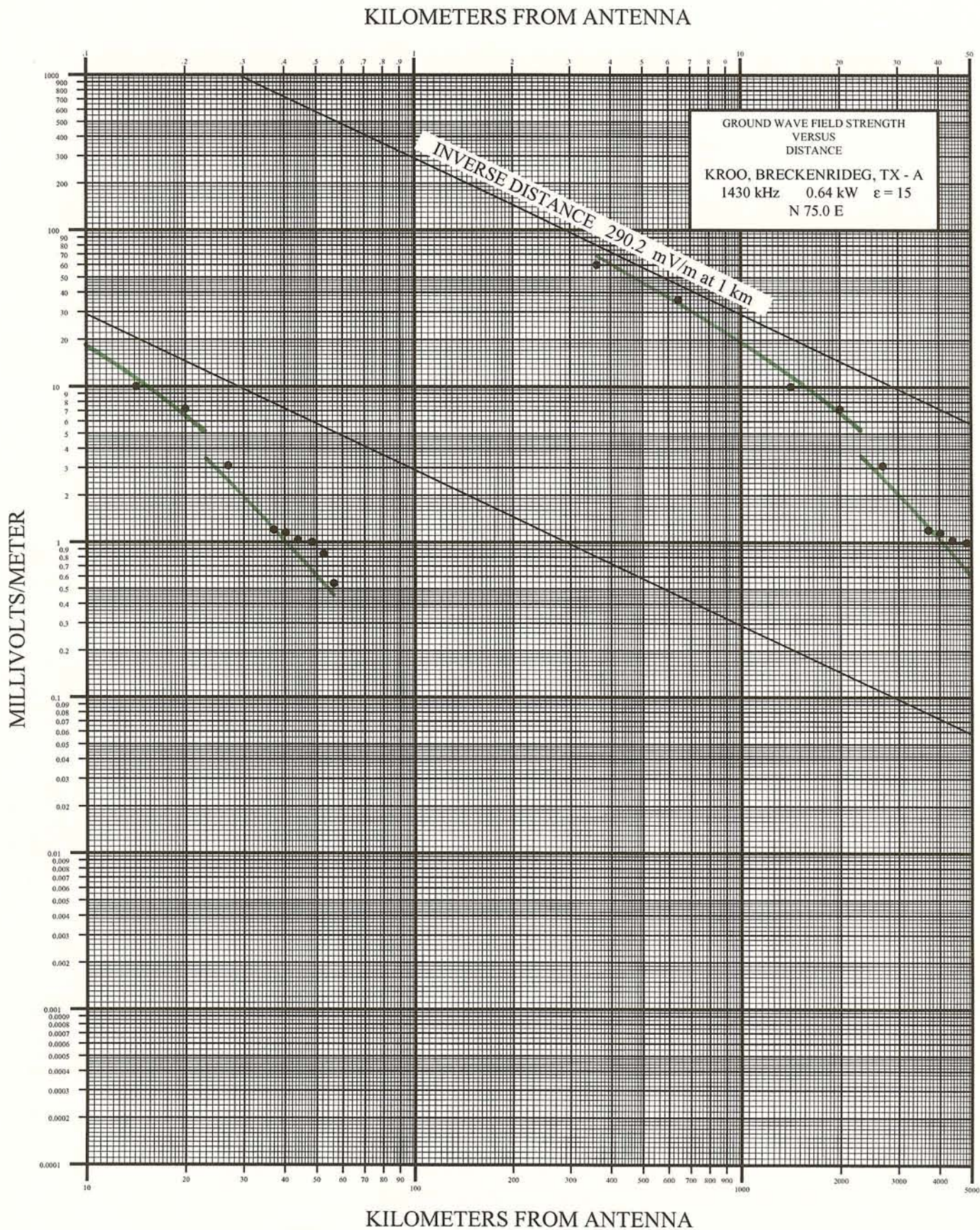
PLOT OF FIELD STRENGTH MEASUREMENT DATA
ON LICENSED KROO, BRECKENRIDGE, TEXAS
[BL-20031027ABL]

AM BROADCAST STATION
KTNO, UNIVERSITY PARK, TEXAS

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(Analyze Using Graph 18)

PLOT OF FIELD STRENGTH MEASUREMENT DATA
ON LICENSED KROO, BRECKENRIDGE, TEXAS
[BL-20031027ABL]

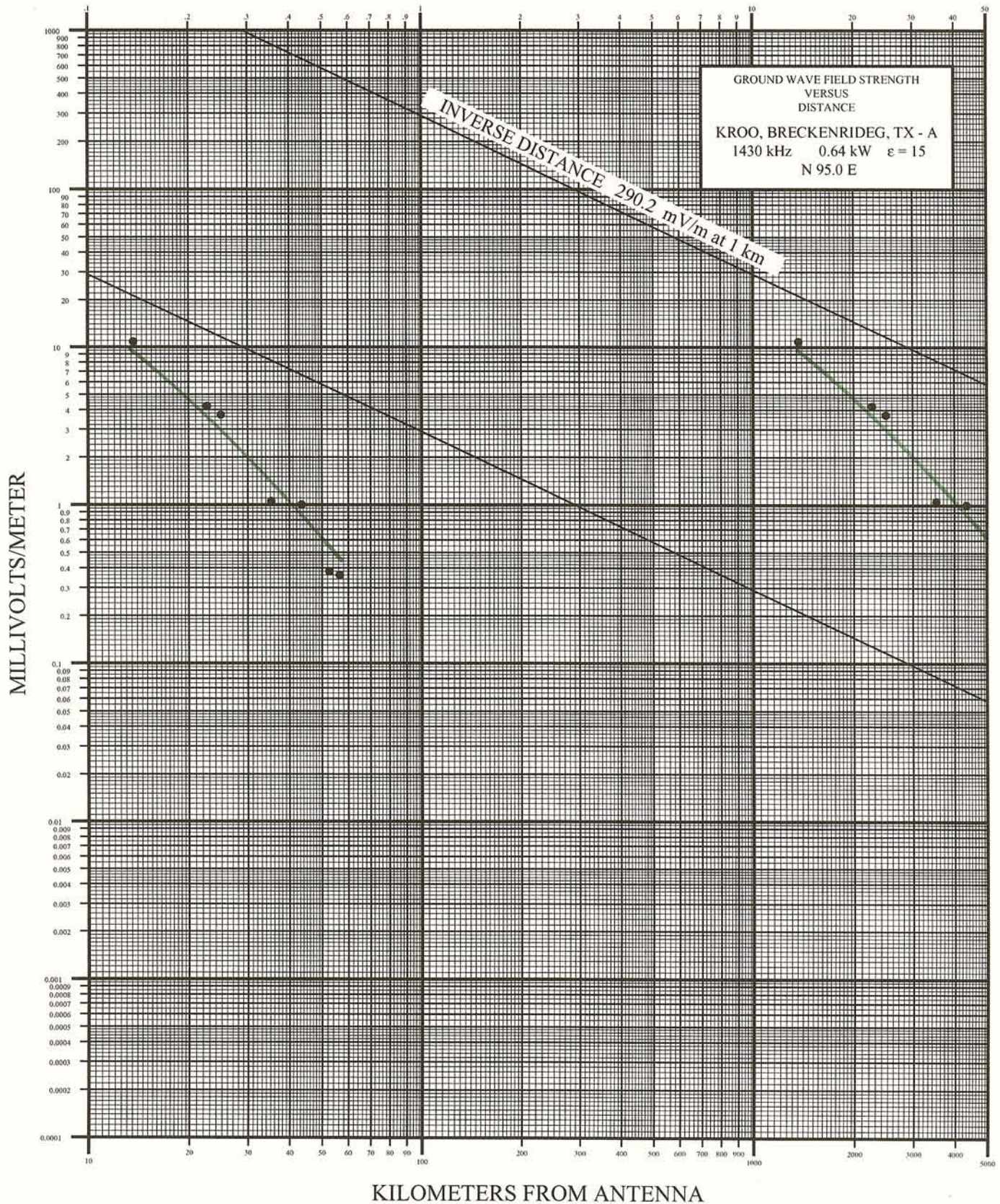
AM BROADCAST STATION
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KILOMETERS FROM ANTENNA



(Analyze Using Graph 18)

PLOT OF FIELD STRENGTH MEASUREMENT DATA
ON LICENSED KROO, BRECKENRIDGE, TEXAS
[BL-20031027ABL]

AM BROADCAST STATION
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**AM BROADCAST STATION KTNO
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MULLANEY ENGINEERING, INC.

APPENDIX E

**Tabulations of Field Strength Measurement Data on Licensed
KEES, 1430 kHz, Gladewater, TX [BL-19790717AA]**

APPENDIX A (Sheet 1 of 1)

**Tabulations of Field Strength Measurement Data
Licensed KEES, 1430 kHz, Gladewater, TX [BL-19790717AA]**

KEES, GLADEWATER, TX - MARCH 2005

TABULATION OF FIELD INTENSITY MEASUREMENTS
BEARING IN DEGREES 270.00

POINT # *****	DISTANCE (MILES) *****	DISTANCE (KILOMETERS) *****	N-DA (MV/M) *****
1	35.00	56.33	0.220
2	30.10	48.44	0.380
3	27.50	44.26	0.390
4	25.00	40.23	0.680
5	22.50	36.21	0.760
6	20.00	32.19	1.190
7	17.50	28.16	1.100
8	14.60	23.50	1.800
9	12.60	20.28	2.300
10	11.00	17.70	2.520
11	9.50	15.29	3.700
12	4.00	6.44	24.200
13	3.50	5.63	44.000
14	3.00	4.83	56.000
15	2.75	4.43	68.000
16	2.50	4.02	70.000
17	2.00	3.22	88.000
18	1.90	3.06	100.000
19	1.75	2.82	102.000
20	1.55	2.49	106.000
21	1.40	2.25	150.000
22	1.10	1.77	192.000
23	1.00	1.61	250.000

ALL MEASUREMENTS TAKEN 23 MARCH 2005 BETWEEN 1107 AND 1723 HOURS

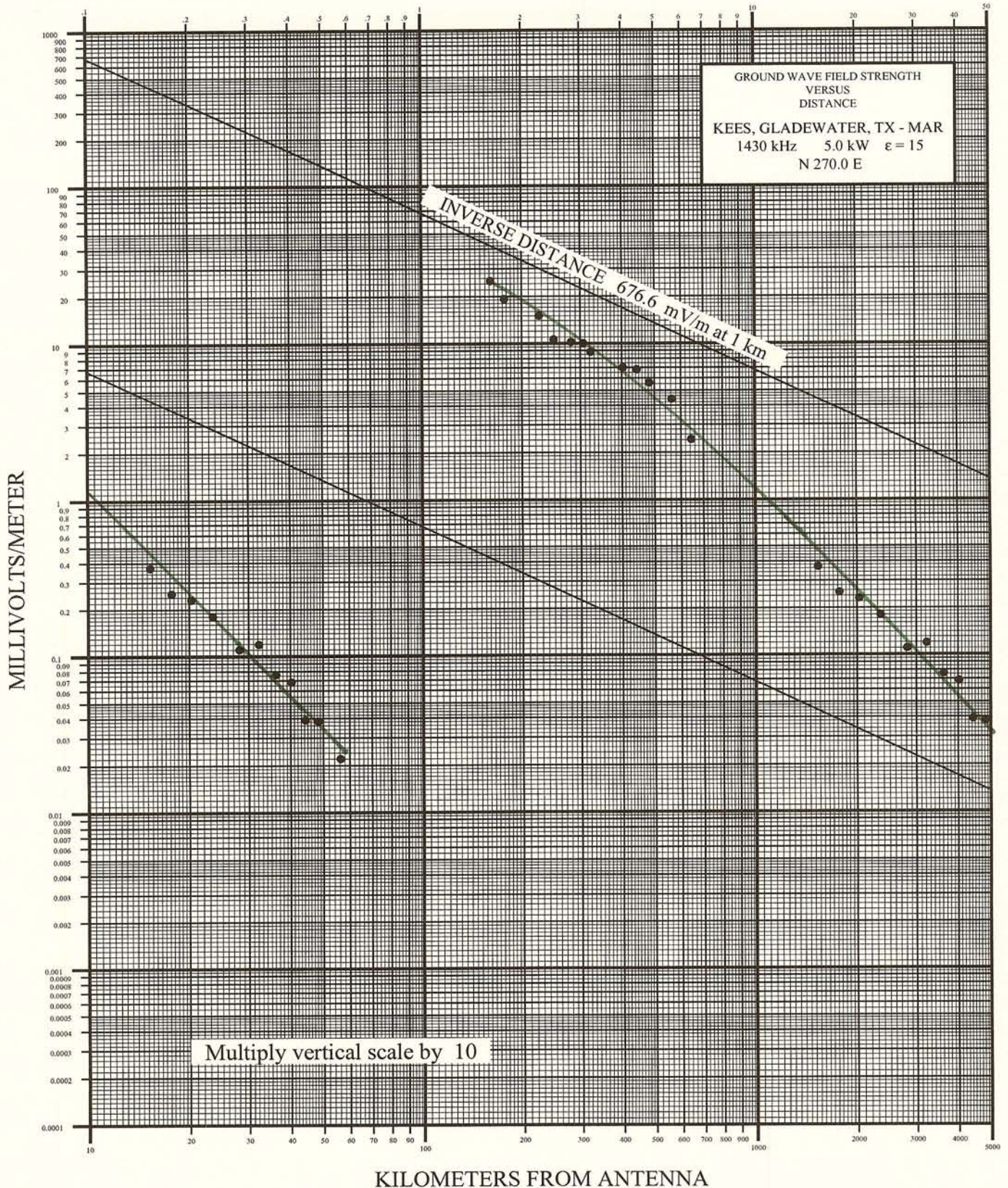
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MULLANEY ENGINEERING, INC.

APPENDIX F

**Plots of Field Strength Measurement Data on Licensed
KEES, 1430 kHz, Gladewater, TX [BL-19790717AA]**

KILOMETERS FROM ANTENNA



(Analyze Using Graph 18)

PLOT OF FIELD STRENGTH MEASUREMENT DATA
ON LICENSED KEES, GLADEWATER, TEXAS
[BL-19790717AA]

AM BROADCAST STATION
KTNO, UNIVERSITY PARK, TEXAS

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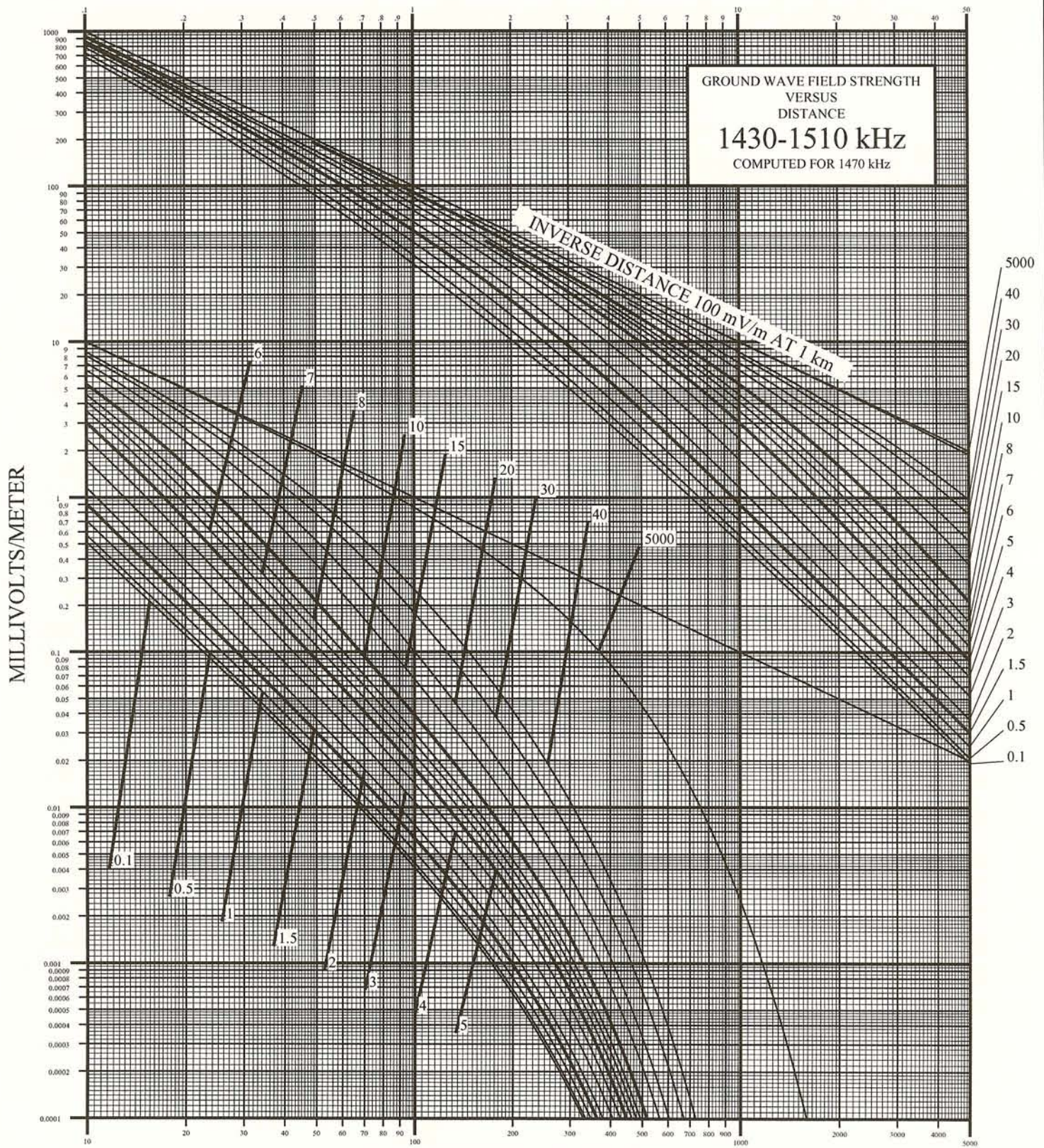
**AM BROADCAST STATION KTNO
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MULLANEY ENGINEERING, INC.

APPENDIX G

Reference Ground Conductivity Graph, Graph 18, 1430-1510 kHz

KILOMETERS FROM ANTENNA



KILOMETERS FROM ANTENNA

GRAPH 18