

## APPENDIX H

### WPHE FIELD STRENGTH MEASUREMENTS

(Extracted from WPHE (formerly WYIS) 1980  
Full Proof of Performance - BL-19800125AA)

TABLE VII-DMeasured Field Strength Data

Station WYIS  
Hart Broadcasting Company, Inc.  
Phoenixville, Pennsylvania

690 kHz1 kWDA-DRadial 120° T

<u>Point No.</u>	<u>Dist. mi.</u>	<u>250 W-ND*</u> mV/m	<u>500 W DA-D*</u> mV/m	<u>1 kW DA-D</u> mV/m
1	0.28	310		
2	0.39	235		
3	0.49	186		
4	0.62	150		
5	0.71	124		
6	0.87	85		
7	0.98	90		
8	1.09	82		
9	1.19	75		
10	1.28	66		
11	1.55	50	110	156
12	1.60	49	123	174
13	1.70	47	120	170
14	1.80	47	122	173
15	1.84	35	86	122
16	1.97	43	108	153
17	2.37	32	77	109
18	2.62	25	62	87.7
19	2.78	25	60	84.9
20	3.16	21.5	52	73.5
21	4.53	14	31	43.8
22	5.33	13.5	27	38.2
23	5.73	8.6	18	25.5
24	6.36	5.4	12.5	17.7
25	6.72	3.7	9.4	13.3
26	7.58	3.1	7.7	10.9
27	8.02	3.6	9.0	12.7
28	8.94	3.9	9.6	13.6
29	9.88	2.1	5.0	7.07
30	10.79	2.1	5.0	7.07

TABLE VII-D  
(Continued)

Radial 120 ° T

<u>Point No.</u>	<u>Dist. mi.</u>	<u>250 W-ND*</u> mV/m	<u>500 W DA-D*</u> mV/m	<u>1 kW DA-D</u> mV/m
31	12.17	1.85	4.2	5.94
32	13.42	1.5	3.4	4.81
33	14.50	1.3	2.9	4.10
34	15.54	1.4	3.0	4.24
35	17.20	0.89	2.0	2.83
36	18.04	0.72	1.7	2.40
37	19.00	0.67	1.5	2.12
38	19.23	0.65	1.5	2.12
39	19.80	0.59	1.4	1.98
40	20.70	0.57	1.2	1.70

Average Ratio 500 W DA-D/250 W-ND = 2.348

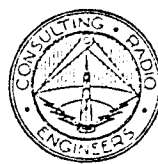
Average Ratio 1 kW DA-D/250 W-ND = 3.321

Non-directional unattenuated field for 250 W = 95 mV/m

Directional unattenuated field for 1 kW = 315 mV/m

\*From Proof of Performance dated August 11, 1978

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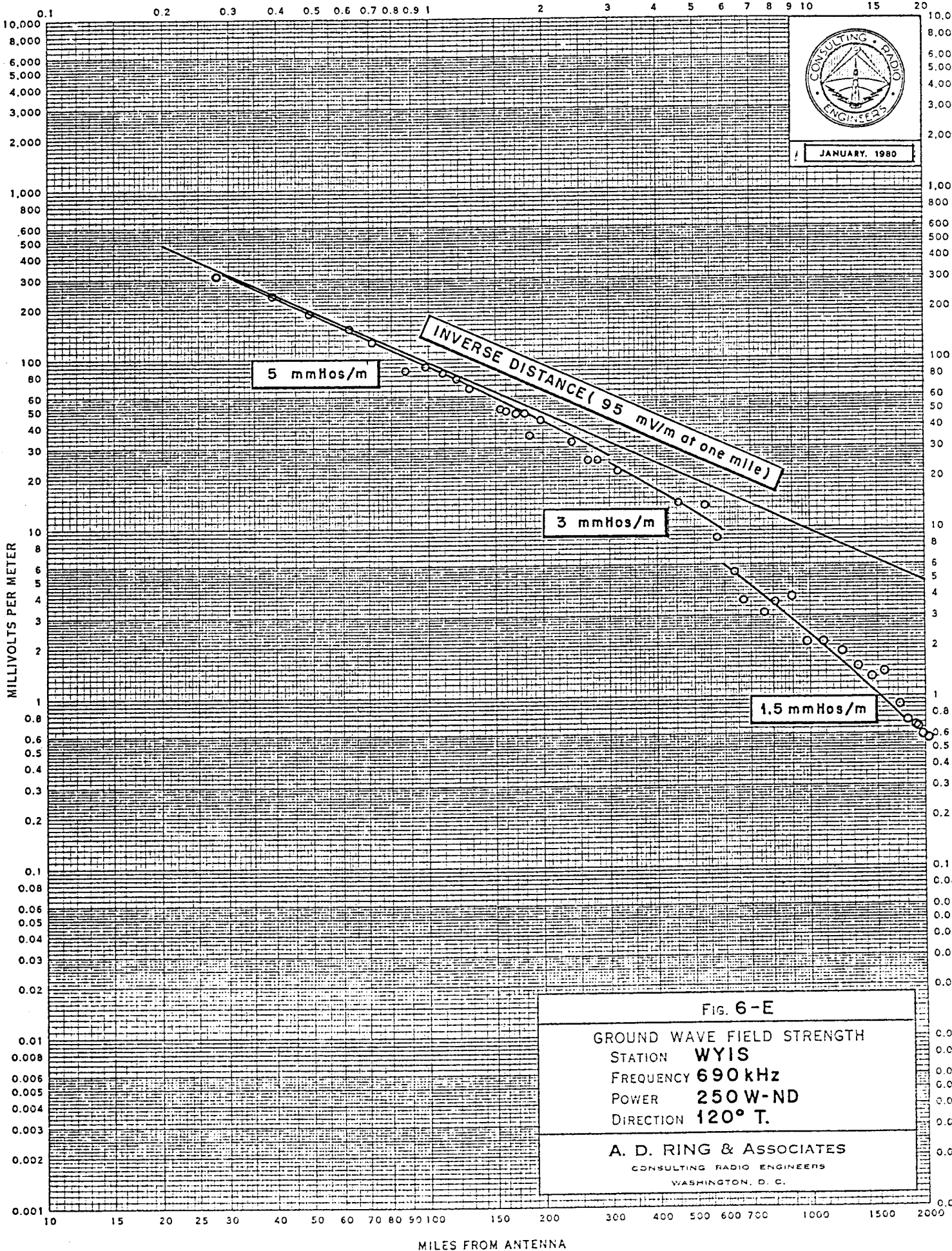


FIG. 6-E

GROUND WAVE FIELD STRENGTH  
STATION **WYIS**  
FREQUENCY **690 kHz**  
POWER **250 W-ND**  
DIRECTION **120° T.**

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TABLE VII-EMeasured Field Strength Data

Station WYIS  
Hart Broadcasting Company, Inc.  
Phoenixville, Pennsylvania

690 kHz1 kWDA-DRadial 163 ° T

<u>Point No.</u>	<u>Dist. mi.</u>	<u>250 W-ND*</u> mV/m	<u>500 W DA-D*</u> mV/m	<u>1 kW DA-D</u> mV/m
1	0.39	220		
2	0.43	195		
3	0.57	132		
4	0.67	129		
5	0.84	98		
6	1.03	72		
7	1.10	86		
8	1.20	70		
9	1.33	63		
10	1.56	51	55	77.8
11	1.66	50	54	76.4
12	1.77	44	46	65.1
13	1.88	39	40	56.6
14	1.97	36	36	50.9
15	2.07	34	39	55.2
16	2.14	28	31	43.8
17	2.53	26	28	39.6
18	3.11	17	19	26.9
19	3.48	11.5	12.5	17.7
20	4.42	8.3	9.2	13
21	4.93	7.5	8.2	11.6
22	5.39	7.1	8.0	11.3
23	5.98	6.1	7.5	10.6
24	6.58	4.9	6.0	8.49
25	7.17	3.4	4.2	5.94
26	8.17	3.3	4.0	5.66
27	8.80	2.65	3.2	4.53
28	9.22	3.0	3.6	5.09
29	9.60	2.5	3.0	4.24
30	10.47	2.4	2.85	4.03

TABLE VII-E  
(Continued)

Radial 163 ° T

<u>Point No.</u>	<u>Dist. mi.</u>	<u>250 W-ND*</u> mV/m	<u>500 W DA-D*</u> mV/m	<u>1 kW DA-D</u> mV/m
31	11.1	2.2	2.5	3.54
32	12.44	1.75	1.95	2.76
33	13.77	1.24	1.36	1.92
34	15.53	1.25	1.38	1.95
35	17.10	0.66	0.72	1.02
36	18.24	0.60	0.70	0.99
37	19.13	0.52	0.57	0.81
38	20.87	0.49	0.56	0.79
39	21.47	0.48	0.55	0.78

Average Ratio 500 W DA-D/250 W-ND = 1.129

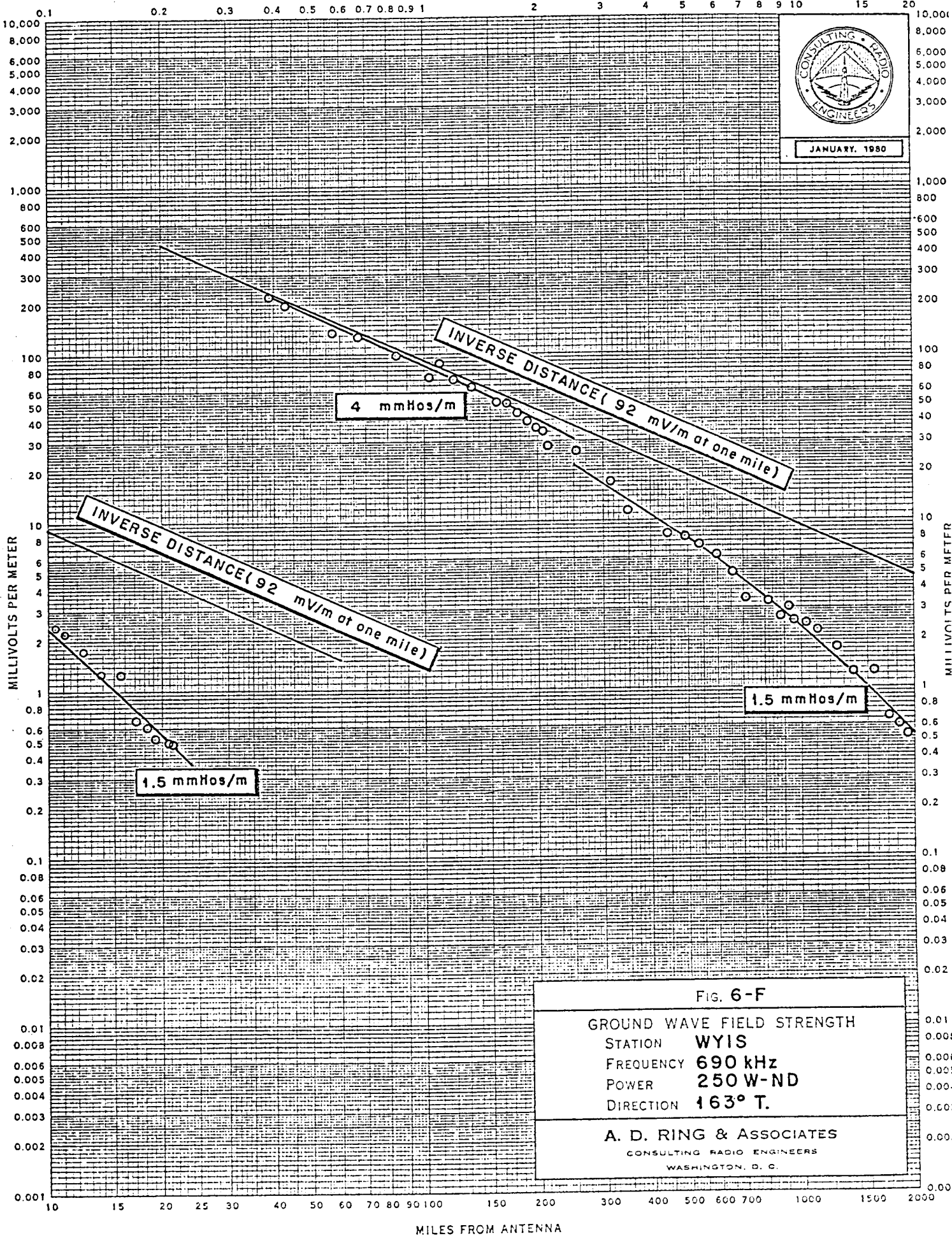
Average Ratio 1 kW DA-D/250 W-ND = 1.597

Non-directional unattenuated field for 250 W = 92 mV/m

Directional unattenuated field for 1 kW = 147 mV/m

\*From Proof of Performance dated August 11, 1978

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FIG. 6-F

GROUND WAVE FIELD STRENGTH  
 STATION **WYIS**  
 FREQUENCY **690 kHz**  
 POWER **250 W-ND**  
 DIRECTION **163° T.**

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 WASHINGTON, D. C.

TABLE VII-GMeasured Field Strength Data

Station WYIS  
Hart Broadcasting Company, Inc.  
Phoenixville, Pennsylvania

690 kHz1 kWDA-DRadial 249 ° T

<u>Point No.</u>	<u>Dist. mi.</u>	<u>250 W-ND*</u> mV/m	<u>500 W DA-D*</u> mV/m	<u>1 kW DA-D</u> mV/m
1	0.43	157		
2	0.54	135		
3	0.71	114		
4	0.80	107		
5	0.90	83		
6	1.03	82		
7	1.16	73		
8	1.23	65		
9	1.31	57		
10	1.36	60		
11	1.60	47	50	70.7
12	1.70	43	45	63.6
13	1.80	37	39	55.2
14	2.03	32	41	58
15	2.33	33	38	53.7
16	2.96	22	23.5	33.2
17	3.47	20	22	31.1
18	3.70	16	16.9	23.9
19	4.54	11	13	18.4
20	4.73	10	12	17
21	5.01	11	13	18.4
22	6.00	8.5	10.4	14.7
23	6.48	8.2	9.5	13.4
24	6.81	6.6	8.0	11.3
25	7.60	6.5	7.5	10.6
26	8.16	4.8	5.9	8.34
27	8.94	4.7	5.7	8.06
28	9.99	3.7	4.1	5.8
29	10.48	2.55	3.0	4.24
30	11.27	3.1	3.8	5.37



TABLE VII-G  
(Continued)

Radial 249 ° T

<u>Point No.</u>	<u>Dist. mi.</u>	<u>250 W-ND*</u> mV/m	<u>500 W DA-D*</u> mV/m	<u>1 kW DA-D</u> mV/m
31	11.83	2.3	2.8	3.96
32	12.35	1.8	2.2	3.11
33	13.64	1.5	1.85	2.62
34	14.16	1.45	1.85	2.62
35	15.16	1.1	1.30	1.84
36	15.38	1.12	1.35	1.91
37	16.46	1.03	1.23	1.74
38	17.03	1.05	1.26	1.78
39	18.13	0.58	0.74	1.05
40	18.83	0.53	0.64	0.91
41	20.23	0.37	0.45	0.64
42	21.42	0.33	0.40	0.57
43	22.82	0.41	0.52	0.74
44	23.27	0.45	0.53	0.75
45	23.97	0.49	0.58	0.82
46	24.83	0.46	0.57	0.81

Average Ratio 500 W DA/D250 W-ND = 1.183

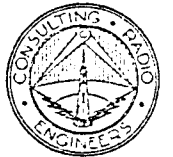
Average Ratio 1 kW DA-D/250 W-ND = 1.673

Non-directional unattenuated field for 250 W = 90 mV/m

Directional unattenuated field for 1 kW = 150.6 mV/m

\* From Proof of Performance dated August 11, 1979

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