

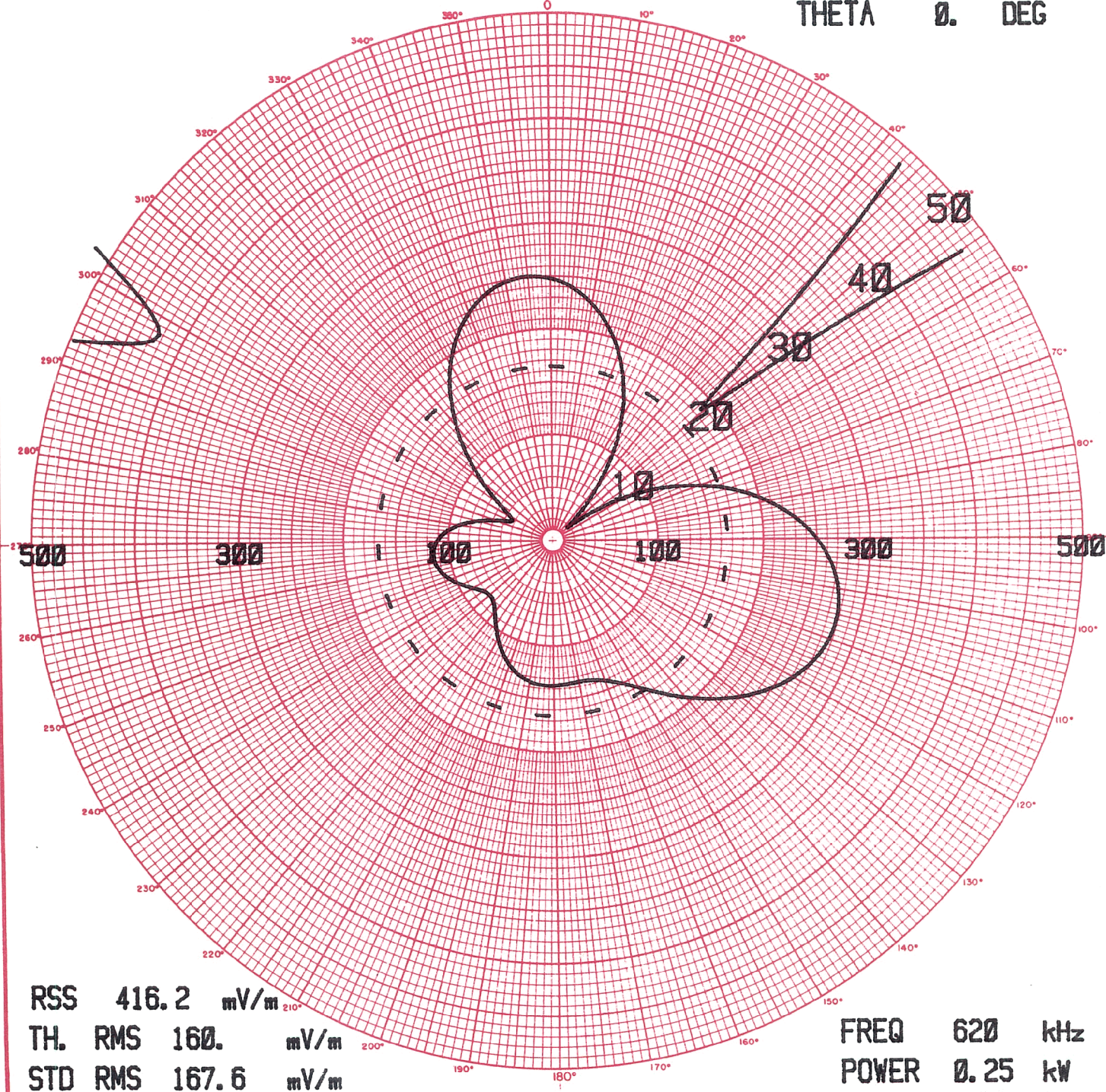
FIGURE 5-A

TABULATION OF PROPOSED NIGHTTIME
STANDARD HORIZONTAL PLANE PATTERN
(AT ONE KM)

TRUE BEAR.	FIELD MV/M	TRUE BEAR.	FIELD MV/M	TRUE BEAR.	FIELD MV/M	TRUE BEAR.	FIELD MV/M
0.0	252.2	90.0	252.4	180.0	138.7	270.0	110.5
5.0	244.3	95.0	266.9	185.0	138.5	275.0	102.4
10.0	231.2	100.0	276.4	190.0	136.4	280.0	90.5
15.0	213.4	105.0	280.8	195.0	132.0	285.0	75.4
20.0	191.1	110.0	280.1	200.0	125.3	290.0	58.9
25.0	165.0	115.0	274.5	205.0	116.6	295.0	45.4
30.0	135.5	120.0	264.5	210.0	106.5	300.0	44.5
35.0	103.3	125.0	250.8	215.0	96.2	305.0	59.9
40.0	69.4	130.0	234.3	220.0	87.1	310.0	84.4
45.0	35.9	135.0	215.9	225.0	81.1	315.0	112.1
50.0	20.0	140.0	197.0	230.0	79.4	320.0	140.3
55.0	47.9	145.0	178.9	235.0	82.5	325.0	167.4
60.0	83.0	150.0	163.0	240.0	89.0	330.0	192.2
65.0	117.9	155.0	150.6	245.0	97.0	335.0	213.7
70.0	151.1	160.0	142.4	250.0	104.9	340.0	231.2
75.0	181.9	165.0	138.2	255.0	111.1	345.0	244.2
80.0	209.4	170.0	137.2	260.0	114.5	350.0	252.1
85.0	233.0	175.0	137.9	265.0	114.4	355.0	254.8

LAT: 40° 17' 20"
 LON: 79° 42' 04"

STD AT 1 KM
 THETA 0. DEG



RSS 416.2 mV/m
 TH. RMS 160. mV/m
 STD RMS 167.6 mV/m

FREQ 620 kHz
 POWER 0.25 kW

MULLANEY ENGINEERING, INC.
 GAITHERSBURG, MARYLAND

FIGURE 5-B
 PROP. NIGHTTIME STD. HORIZ. PATTERN
 AM BROADCAST STATION WKHB
 BROADCAST COMMUNICATIONS, INC.
 IRWIN, PENNSYLVANIA

TABULATION OF ANTENNA PARAMETERS

TOWER #	HEIGHT DEGREES	FIELD RATIO	SPACING DEGREES	BEARING DEGREES	PHASING DEGREES
1	90.00	1.000	0.000	0.000	0.000
2	90.00	0.560	99.200	47.800	-148.800
3	115.00	0.720	112.100	11.500	36.800
4	90.00	1.010	65.000	328.300	177.600

FIGURE 5-C

TABULATION OF PROPOSED NIGHTTIME
STANDARD VERTICAL PLANE PATTERNS
(AT ONE KM)

BEARING	ELEVATION						
	0.0	5.0	10.0	15.0	20.0	25.0	30.0
0.0	252.2	249.4	241.2	227.9	210.5	189.8	167.0
5.0	244.3	241.6	233.5	220.7	203.7	183.6	161.4
10.0	231.2	228.6	221.0	208.8	192.7	173.6	152.6
15.0	213.4	211.0	203.9	192.6	177.7	160.1	140.6
20.0	191.1	189.0	182.6	172.5	159.1	143.2	125.7
25.0	165.0	163.1	157.6	148.8	137.2	123.4	108.3
30.0	135.5	133.9	129.4	122.1	112.5	101.2	88.7
35.0	103.3	102.1	98.6	93.0	85.6	76.8	67.3
40.0	69.4	68.6	66.1	62.2	57.1	51.2	44.7
45.0	35.9	35.4	34.0	31.7	28.8	25.5	22.1
50.0	20.0	19.7	18.8	17.4	15.6	13.8	12.0
55.0	47.9	47.4	45.8	43.3	40.0	36.1	31.8
60.0	83.0	82.1	79.4	75.1	69.5	62.8	55.3
65.0	117.9	116.6	112.8	106.7	98.7	89.1	78.4
70.0	151.1	149.5	144.6	136.8	126.4	114.1	100.4
75.0	181.9	179.9	174.0	164.6	152.1	137.2	120.8
80.0	209.4	207.1	200.3	189.4	175.0	157.9	139.0
85.0	233.0	230.5	222.9	210.8	194.8	175.8	154.7
90.0	252.4	249.6	241.4	228.3	211.0	190.5	167.7
95.0	266.9	264.0	255.4	241.6	223.4	201.7	177.7
100.0	276.4	273.4	264.5	250.3	231.6	209.2	184.5
105.0	280.8	277.8	268.8	254.5	235.6	213.1	188.2
110.0	280.1	277.1	268.3	254.2	235.5	213.3	188.7
115.0	274.5	271.6	263.1	249.5	231.5	210.1	186.2
120.0	264.5	261.8	253.8	241.0	224.0	203.7	181.1
125.0	250.8	248.4	241.0	229.2	213.5	194.8	173.8
130.0	234.3	232.1	225.5	214.9	200.8	183.8	164.8
135.0	215.9	214.0	208.2	199.0	186.6	171.6	154.6
140.0	197.0	195.4	190.5	182.5	171.9	158.9	144.1
145.0	178.9	177.5	173.4	166.8	157.8	146.7	133.9
150.0	163.0	161.9	158.5	152.9	145.3	135.8	124.8
155.0	150.6	149.6	146.7	141.9	135.3	127.0	117.3
160.0	142.4	141.5	138.8	134.4	128.3	120.7	111.7
165.0	138.2	137.3	134.6	130.3	124.3	116.8	108.1
170.0	137.2	136.2	133.4	128.8	122.6	114.9	106.1
175.0	137.9	136.8	133.8	128.8	122.2	114.2	105.0

FIGURE 5-C

TABULATION OF PROPOSED NIGHTTIME
STANDARD VERTICAL PLANE PATTERNS
(AT ONE KM)

BEARING	ELEVATION						
	0.0	5.0	10.0	15.0	20.0	25.0	30.0
180.0	138.7	137.6	134.3	129.1	122.1	113.7	104.2
185.0	138.5	137.4	134.0	128.5	121.3	112.7	103.0
190.0	136.4	135.3	131.9	126.5	119.3	110.7	101.1
195.0	132.0	130.9	127.7	122.5	115.6	107.3	98.1
200.0	125.3	124.3	121.3	116.5	110.2	102.6	93.9
205.0	116.6	115.7	113.1	108.9	103.3	96.5	88.8
210.0	106.5	105.8	103.6	100.2	95.5	89.7	83.0
215.0	96.2	95.6	94.0	91.2	87.4	82.6	76.9
220.0	87.1	86.7	85.4	83.2	80.1	76.2	71.3
225.0	81.1	80.7	79.5	77.6	74.8	71.2	66.8
230.0	79.4	79.0	77.7	75.5	72.4	68.5	63.8
235.0	82.5	81.8	80.0	77.1	73.1	68.3	62.7
240.0	89.0	88.1	85.6	81.6	76.4	70.2	63.2
245.0	97.0	96.0	92.8	87.7	81.0	73.2	64.8
250.0	104.9	103.6	99.8	93.6	85.7	76.5	66.5
255.0	111.1	109.6	105.2	98.3	89.3	78.8	67.6
260.0	114.5	112.9	108.1	100.6	90.8	79.5	67.4
265.0	114.4	112.8	107.8	100.0	89.8	78.1	65.5
270.0	110.5	108.8	103.8	96.0	85.8	74.0	61.5
275.0	102.4	100.8	96.0	88.5	78.7	67.4	55.4
280.0	90.5	89.0	84.6	77.7	68.7	58.3	47.4
285.0	75.4	74.1	70.3	64.3	56.5	47.6	38.2
290.0	58.9	57.9	54.8	50.0	43.9	37.0	29.8
295.0	45.4	44.8	42.7	39.6	35.7	31.3	27.0
300.0	44.5	44.1	43.0	41.3	39.2	36.6	33.8
305.0	59.9	59.6	58.5	56.7	54.3	51.2	47.6
310.0	84.4	83.8	82.0	79.1	75.1	70.1	64.3
315.0	112.1	111.2	108.4	104.0	97.9	90.6	82.1
320.0	140.3	139.0	135.2	129.1	120.9	111.0	99.8
325.0	167.4	165.8	160.9	153.2	142.9	130.5	116.6
330.0	192.2	190.2	184.4	175.2	162.9	148.2	131.8
335.0	213.7	211.4	204.8	194.3	180.3	163.6	145.0
340.0	231.2	228.7	221.5	209.8	194.4	176.0	155.6
345.0	244.2	241.5	233.7	221.2	204.7	185.1	163.4
350.0	252.1	249.4	241.2	228.2	211.0	190.6	167.9
355.0	254.8	252.0	243.7	230.5	213.0	192.2	169.2

FIGURE 5-C

TABULATION OF PROPOSED NIGHTTIME
STANDARD VERTICAL PLANE PATTERNS
(AT ONE KM)

BEARING	ELEVATION					
	35.0	40.0	45.0	50.0	55.0	60.0
0.0	143.1	119.1	96.1	74.7	55.6	39.3
5.0	138.2	114.9	92.6	71.9	53.5	37.6
10.0	130.5	108.5	87.3	67.7	50.3	35.3
15.0	120.2	99.8	80.3	62.2	46.2	32.4
20.0	107.4	89.2	71.7	55.6	41.2	28.9
25.0	92.5	76.8	61.7	47.8	35.4	24.8
30.0	75.7	62.8	50.5	39.1	29.0	20.3
35.0	57.4	47.6	38.3	29.6	22.0	15.5
40.0	38.1	31.6	25.4	19.8	14.8	10.5
45.0	18.8	15.6	12.8	10.2	8.0	6.1
50.0	10.3	8.9	7.8	6.7	5.8	5.0
55.0	27.4	23.0	18.8	15.0	11.6	8.8
60.0	47.5	39.6	32.1	25.2	19.1	13.9
65.0	67.3	56.1	45.3	35.4	26.6	19.2
70.0	86.1	71.7	57.8	45.1	33.8	24.3
75.0	103.5	86.2	69.5	54.2	40.6	29.1
80.0	119.1	99.2	80.0	62.4	46.8	33.5
85.0	132.6	110.5	89.2	69.6	52.2	37.4
90.0	143.8	119.9	97.0	75.8	56.9	40.9
95.0	152.5	127.3	103.1	80.7	60.8	43.8
100.0	158.6	132.6	107.6	84.4	63.8	46.1
105.0	162.0	135.7	110.4	86.9	66.0	47.9
110.0	162.8	136.8	111.6	88.2	67.2	49.1
115.0	161.1	135.8	111.3	88.4	67.8	49.8
120.0	157.3	133.2	109.7	87.6	67.6	50.0
125.0	151.6	129.0	106.9	85.9	66.8	49.8
130.0	144.5	123.7	103.2	83.6	65.5	49.3
135.0	136.4	117.6	98.9	80.8	63.9	48.5
140.0	128.0	111.2	94.3	77.8	62.0	47.6
145.0	119.9	105.0	89.8	74.7	60.1	46.5
150.0	112.5	99.3	85.6	71.8	58.3	45.5
155.0	106.3	94.4	81.9	69.2	56.6	44.4
160.0	101.6	90.6	78.9	67.0	55.0	43.4
165.0	98.4	87.8	76.6	65.1	53.7	42.5
170.0	96.3	85.8	74.8	63.6	52.5	41.7
175.0	95.0	84.4	73.5	62.4	51.4	40.9

FIGURE 5-C

TABULATION OF PROPOSED NIGHTTIME
STANDARD VERTICAL PLANE PATTERNS
(AT ONE KM)

BEARING	ELEVATION					
	35.0	40.0	45.0	50.0	55.0	60.0
180.0	94.0	83.2	72.2	61.2	50.4	40.0
185.0	92.7	81.9	70.9	60.0	49.4	39.2
190.0	90.8	80.1	69.3	58.6	48.2	38.2
195.0	88.2	77.8	67.4	57.0	46.8	37.2
200.0	84.6	74.9	65.0	55.0	45.3	36.0
205.0	80.3	71.4	62.1	52.8	43.6	34.7
210.0	75.5	67.4	59.0	50.3	41.6	33.2
215.0	70.4	63.3	55.6	47.6	39.5	31.6
220.0	65.6	59.2	52.2	44.8	37.3	29.9
225.0	61.5	55.5	49.0	42.1	35.0	28.1
230.0	58.4	52.4	46.1	39.4	32.8	26.3
235.0	56.6	50.2	43.5	36.9	30.5	24.4
240.0	56.0	48.6	41.4	34.6	28.2	22.4
245.0	56.1	47.6	39.6	32.3	25.9	20.4
250.0	56.4	46.7	37.8	30.1	23.6	18.2
255.0	56.3	45.5	35.9	27.7	21.1	16.1
260.0	55.2	43.8	33.5	25.0	18.4	13.8
265.0	52.9	41.0	30.6	22.0	15.6	11.4
270.0	48.9	37.2	26.8	18.5	12.5	8.9
275.0	43.4	32.2	22.4	14.6	9.2	6.6
280.0	36.4	26.3	17.5	10.7	6.4	5.0
285.0	28.9	20.4	13.3	8.2	5.6	5.4
290.0	23.0	17.0	12.5	9.7	8.4	7.8
295.0	23.0	19.7	17.0	14.8	12.9	11.0
300.0	30.9	27.9	24.7	21.4	18.0	14.6
305.0	43.4	38.8	33.8	28.7	23.4	18.3
310.0	57.8	50.8	43.5	36.2	28.9	22.0
315.0	72.9	63.2	53.3	43.6	34.3	25.6
320.0	87.7	75.3	62.8	50.7	39.4	29.1
325.0	101.8	86.6	71.6	57.3	44.0	32.2
330.0	114.5	96.8	79.6	63.2	48.2	34.9
335.0	125.4	105.6	86.3	68.1	51.6	37.2
340.0	134.2	112.6	91.6	72.0	54.3	38.9
345.0	140.5	117.6	95.4	74.7	56.1	40.0
350.0	144.2	120.4	97.5	76.1	57.0	40.4
355.0	145.1	121.0	97.7	76.1	56.8	40.2