



May 01, 2020

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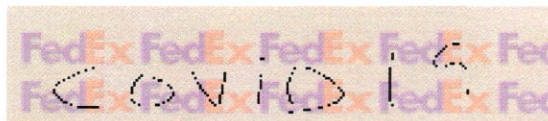
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<b>Tracking number:</b>	770104693019	<b>Ship Date:</b>	Mar 25, 2020
		<b>Weight:</b>	0.5 LB/0.23 KG

**Recipient:**  
BILL, WMOX  
451 HWY 11/80 EAST  
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**Shipper:**  
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W240DY Moment Method Engineering Analysis  
Effect on WMOX (AM)  
Construction Permit BNPFT-20180418AEW, Condition 4

This analysis is being filed on behalf of Mississippi Broadcasters, LLC Permittee of translator W240DY, facility ID 202790, BNPFT-20180418AEW, and co-owned AM station WMOG (formerly WALT AM), 910kHz, Meridian, MS. Facility ID 18229. This analysis is to satisfy Operating Condition number 4 on the above referenced Construction Permit.

An NEC Method of Moments analysis was performed by Mr. Kurt Gorman of Phasetek, Inc. to model and determine the potential effect of adding the proposed W240DY FM antenna to the WMOG tower which is 1.06km from WMOX (AM), 1010kHz, Meridian, MS. The condition specifies that the study should determine whether the addition of the proposed antenna will distort the existing WMOX directional radiation pattern by more than 2 dB. As demonstrated below, the distortion is well within the 2dB tolerance, however, it is noted that there is already some predicted distortion to the WMOX directional pattern by the presence of the existing WMOG tower without the FM antenna.

CERTIFICATION

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direct supervision, and that they are true and correct to the best of his knowledge and belief.



Bertram S. Goldman  
Goldman Engineering Management

EXHIBIT A1- Existing Vs Proposed Pattern Distortion from W240DY antenna daytime

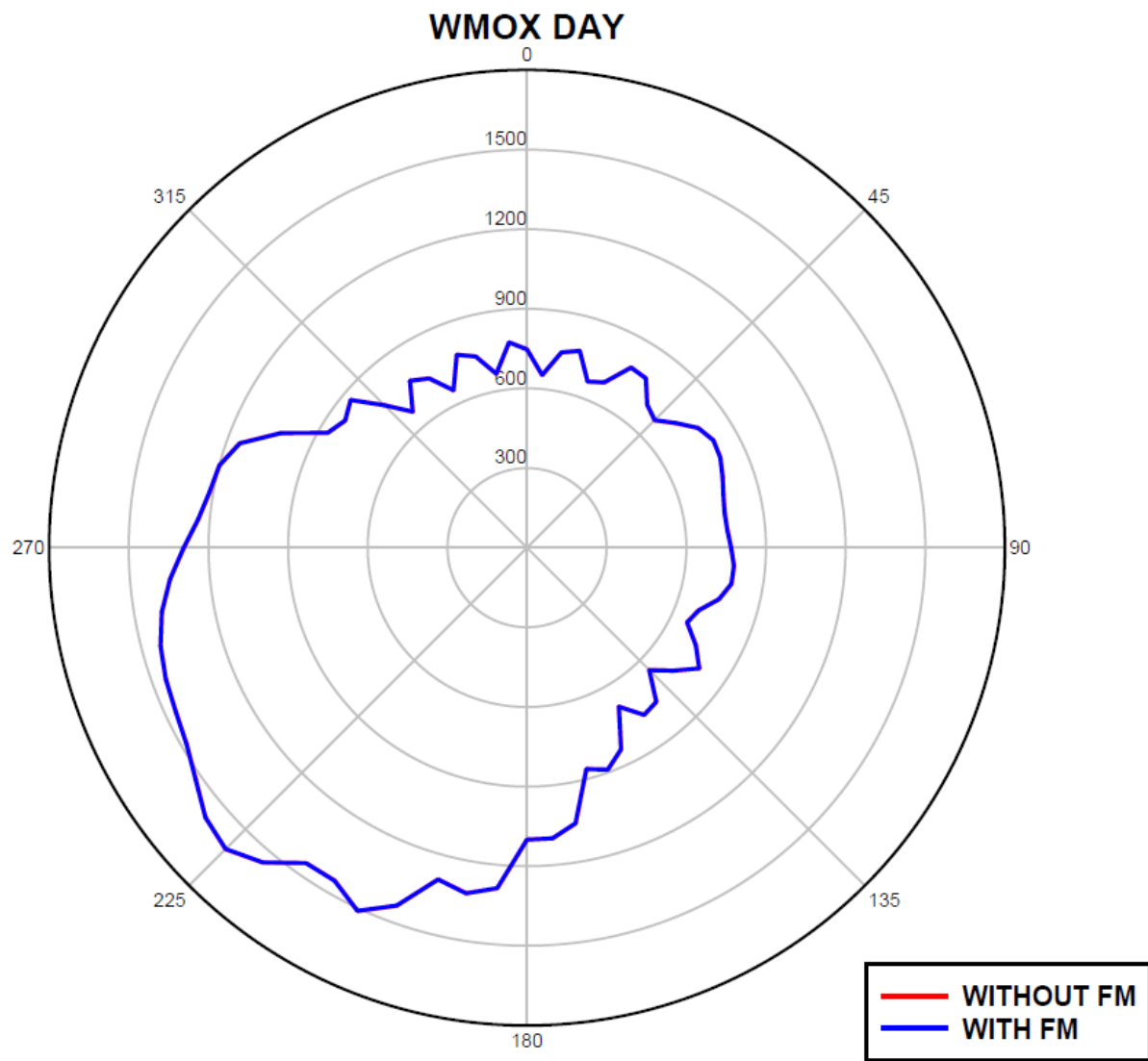
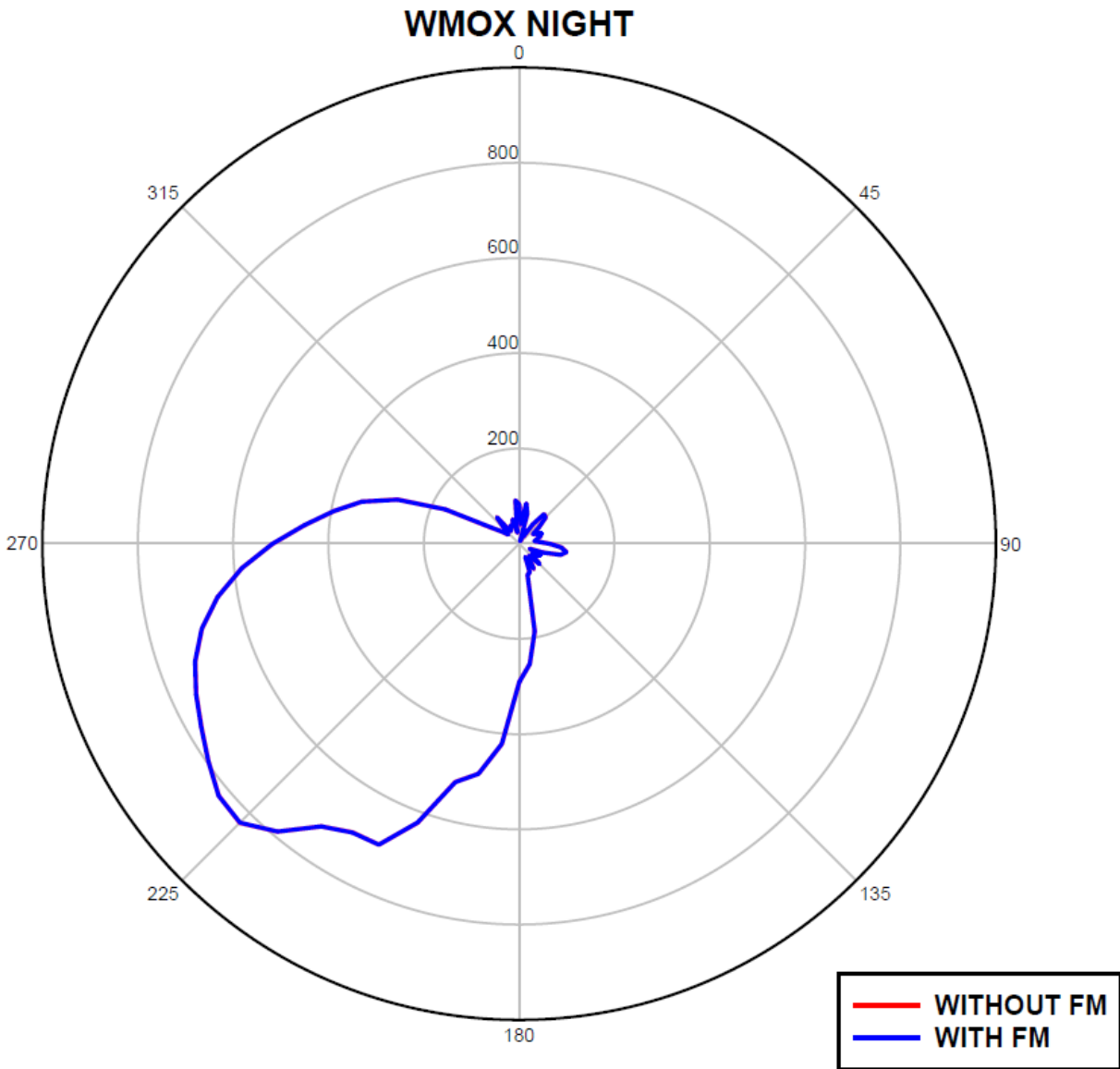


EXHIBIT A2- Existing Vs Proposed Pattern Distortion from W240DY antenna night



## EXHIBIT B1- Method of Moments Analysis- Day

### WMOX WIRE MODEL- WITHOUT ADDED FM- DAY

#### GEOMETRY

Wire coordinates in degrees; other dimensions in meters  
Environment: perfect ground

wire	caps	Distance	Angle	Z	radius	segs
1	none	0	0	0	.2	12
		0	0	70.		
2	none	100.	52.5	0	.2	12
		100.	52.5	70.		
3	none	200.	52.5	0	.2	12
		200.	52.5	70.		
4	none	1,283.5	259.9	0	.6	4
		1,283.5	259.9	35.		
5	none	1,283.5	259.9	35.	.375	4
		1,283.5	259.9	70.		
6	none	1,283.5	259.9	70.	.15	4
		1,283.5	259.9	105.		

Number of wires = 6  
current nodes = 48

	minimum	maximum
Individual wires	wire value	wire value
segment length	1 5.83333	4 8.75
radius	6 .15	4 .6

#### ELECTRICAL DESCRIPTION

Frequencies (MHz)

frequency	no. of	segment length (wavelengths)
no. lowest step	steps	minimum maximum
1 1.01 0	1	.0162037 .0243056

#### Sources

source	node	sector	magnitude	phase	type
1	1	1	823.264	304.9	voltage
2	13	1	2,727.74	151.5	voltage
3	25	1	1,648.73	227.4	voltage

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#### IMPEDANCE

normalization = 50.

freq	resist	react	imped	phase	VSWR	S11	S12
(MHz)	(ohms)	(ohms)	(ohms)	(deg)		dB	dB
source = 1; node 1, sector 1							
1.01	-9.8405	-61.544	62.326	260.9	****	****	****
source = 2; node 13, sector 1							
1.01	19.71	-81.203	83.561	283.6	9.517	-1.8321	-4.6322
source = 3; node 25, sector 1							
1.01	3.6833	-114.54	114.6	271.8	84.878	-.20468	-13.369

## CURRENT rms

Frequency = 1.01 MHz

Input power = 10,000. watts

Efficiency = 100. %

coordinates in degrees

current	no.	X	Y	Z	mag (amps)	phase (deg)	real (amps)	imaginary (amps)
GND	0	0	0	0	9.32891	44.	6.70832	6.48282
2	0	0	0	5.83333	8.94435	44.3	6.39655	6.25185
3	0	0	0	11.6667	8.55024	44.6	6.0919	5.99961
4	0	0	0	17.5	8.07748	44.7	5.73688	5.68629
5	0	0	0	23.3333	7.51949	44.9	5.3257	5.30845
6	0	0	0	29.1667	6.8762	45.1	4.85791	4.8665
7	0	0	0	35.	6.15009	45.2	4.33504	4.36247
8	0	0	0	40.8333	5.34473	45.3	3.75947	3.79901
9	0	0	0	46.6667	4.46368	45.4	3.13367	3.17877
10	0	0	0	52.5	3.50923	45.5	2.45916	2.50344
11	0	0	0	58.3333	2.47939	45.6	1.73454	1.77164
12	0	0	0	64.1667	1.35922	45.7	.949357	.972727
END	0	0	0	70.	0	0	0	0
GND	60.8761	-79.3353	0	23.0548	227.9	-15.466	-17.0975	
14	60.8761	-79.3353	5.83333	21.8562	227.2	-14.8468	-16.0395	
15	60.8761	-79.3353	11.6667	20.7353	226.8	-14.2052	-15.1051	
16	60.8761	-79.3353	17.5	19.4648	226.4	-13.4307	-14.0888	
17	60.8761	-79.3353	23.3333	18.0204	226.	-12.5127	-12.9679	
18	60.8761	-79.3353	29.1667	16.3983	225.7	-11.4512	-11.7376	
19	60.8761	-79.3353	35.	14.6024	225.4	-10.2502	-10.4001	
20	60.8761	-79.3353	40.8333	12.6397	225.1	-8.91514	-8.95999	
21	60.8761	-79.3353	46.6667	10.5178	224.9	-7.45171	-7.42261	
22	60.8761	-79.3353	52.5	8.24108	224.6	-5.86335	-5.79107	
23	60.8761	-79.3353	58.3333	5.80445	224.4	-4.1463	-4.062	
24	60.8761	-79.3353	64.1667	3.17264	224.2	-2.2751	-2.21123	
END	60.8761	-79.3353	70.	0	0	0	0	
GND	121.752	-158.671	0	10.1606	315.6	7.25558	-7.11299	
26	121.752	-158.671	5.83333	9.44493	315.4	6.72978	-6.62698	
27	121.752	-158.671	11.6667	8.83727	315.3	6.28627	-6.21129	
28	121.752	-158.671	17.5	8.19601	315.3	5.8208	-5.76999	
29	121.752	-158.671	23.3333	7.50509	315.2	5.32163	-5.29214	
30	121.752	-158.671	29.1667	6.76072	315.1	4.78604	-4.77505	
31	121.752	-158.671	35.	5.96355	315.	4.21465	-4.21908	
32	121.752	-158.671	40.8333	5.11607	314.9	3.60944	-3.62576	
33	121.752	-158.671	46.6667	4.22113	314.8	2.97267	-2.99685	
34	121.752	-158.671	52.5	3.28054	314.7	2.30593	-2.33337	
35	121.752	-158.671	58.3333	2.29242	314.6	1.60821	-1.63366	
36	121.752	-158.671	64.1667	1.24332	314.4	.870425	-.887813	
END	121.752	-158.671	70.	0	0	0	0	
GND	-225.083	1,263.61	0	.986527	132.7	-.669633	.724449	
38	-225.083	1,263.61	8.75	.976992	132.8	-.663273	.717344	
39	-225.083	1,263.61	17.5	.948535	132.8	-.644278	.69615	
40	-225.083	1,263.61	26.25	.901543	132.8	-.612885	.661174	
J4	-225.083	1,263.61	35.	.835221	132.9	-.568523	.611863	
2J1	-225.083	1,263.61	35.	.835221	132.9	-.568523	.611863	
42	-225.083	1,263.61	43.75	.765129	133.	-.52154	.559839	
43	-225.083	1,263.61	52.5	.677993	133.1	-.462977	.495305	
44	-225.083	1,263.61	61.25	.576494	133.2	-.394552	.420326	
J5	-225.083	1,263.61	70.	.459226	133.3	-.315204	.333969	
2J1	-225.083	1,263.61	70.	.459226	133.3	-.315204	.333969	

46	-225.083	1,263.61	78.75	.362074	133.5	-.249173	.262698
47	-225.083	1,263.61	87.5	.253248	133.7	-.174825	.183223
48	-225.083	1,263.61	96.25	.135599	133.9	-.0939504	.0977776
END	-225.083	1,263.61	105.	0	0	0	0

## RADIATION PATTERN- WMOX DAY WITHOUT ADDED FM (rms)

RADIATION PATTERN rms  
geographic coordinate system

Radial distance (meters) = 1,000.

Frequency = 1.01 MHz

Input power = 10,000. watts

Efficiency = 100. %

elevation angle	azimuth angle	E-theta mag (mv/m)	phase (deg)	E-phi mag (mv/m)	phase
0	0	748.316	64.5	0	0
0	5.	652.685	74.	0	0
0	10.	747.84	81.3	0	0
0	15.	768.984	75.6	0	0
0	20.	666.643	76.7	0	0
0	25.	686.92	86.1	0	0
0	30.	784.733	84.9	0	0
0	35.	780.647	78.8	0	0
0	40.	704.331	78.4	0	0
0	45.	679.388	84.4	0	0
0	50.	730.651	88.3	0	0
0	55.	787.889	87.3	0	0
0	60.	811.199	84.2	0	0
0	65.	804.276	81.2	0	0
0	70.	784.466	79.1	0	0
0	75.	765.93	77.8	0	0
0	80.	756.225	76.9	0	0
0	85.	757.972	76.1	0	0
0	90.	769.582	75.6	0	0
0	95.	783.122	75.5	0	0
0	100.	782.241	75.6	0	0
0	105.	748.476	74.3	0	0
0	110.	687.527	68.4	0	0
0	115.	664.637	55.6	0	0
0	120.	734.404	43.6	0	0
0	125.	792.364	38.8	0	0
0	130.	720.185	32.8	0	0
0	135.	651.027	12.7	0	0
0	140.	758.158	355.3	0	0
0	145.	768.785	348.2	0	0
0	150.	690.948	327.9	0	0
0	155.	838.633	307.7	0	0
0	160.	889.085	300.4	0	0
0	165.	862.548	281.3	0	0
0	170.	1,055.06	266.7	0	0
0	175.	1,098.95	261.1	0	0
0	180.	1,099.51	245.9	0	0



0	185.	1,287.82	235.9	0	0
0	190.	1,321.9	232.5	0	0
0	195.	1,293.17	222.2	0	0
0	200.	1,435.28	213.7	0	0
0	205.	1,510.07	212.2	0	0
0	210.	1,447.92	208.7	0	0
0	215.	1,450.22	201.7	0	0
0	220.	1,548.34	198.	0	0
0	225.	1,606.02	198.5	0	0
0	230.	1,581.11	199.8	0	0
0	235.	1,522.97	200.1	0	0
0	240.	1,479.55	199.9	0	0
0	245.	1,459.35	200.2	0	0
0	250.	1,447.58	201.9	0	0
0	255.	1,429.25	204.9	0	0
0	260.	1,396.78	209.3	0	0
0	265.	1,349.34	215.	0	0
0	270.	1,293.08	222.2	0	0
0	275.	1,242.54	231.1	0	0
0	280.	1,213.69	240.9	0	0
0	285.	1,199.5	249.9	0	0
0	290.	1,152.05	257.4	0	0
0	295.	1,023.66	265.6	0	0
0	300.	866.739	280.5	0	0
0	305.	835.721	300.7	0	0
0	310.	867.132	312.8	0	0
0	315.	761.114	322.6	0	0
0	320.	668.822	346.	0	0
0	325.	768.892	3.1	0	0
0	330.	737.432	9.1	0	0
0	335.	654.442	28.8	0	0
0	340.	774.278	42.5	0	0
0	345.	747.49	43.8	0	0
0	350.	664.874	58.8	0	0
0	355.	777.031	67.5	0	0

## EXHIBIT B2- Method of Moments Analysis- Night

### WMOX NIGHT WITHOUT FM

#### GEOMETRY

Wire coordinates in degrees; other dimensions in meters

Environment: perfect ground

wire	caps	Distance	Angle	Z	radius	segs
1	none	0	0	0	.2	12
		0	0	70.		
2	none	100.	52.5	0	.2	12
		100.	52.5	70.		
3	none	200.	52.5	0	.2	12
		200.	52.5	70.		
4	none	300.	52.5	0	.2	12
		300.	52.5	70.		
5	none	1,283.5	259.9	0	.6	4
		1,283.5	259.9	35.		
6	none	1,283.5	259.9	35.	.375	4
		1,283.5	259.9	70.		
7	none	1,283.5	259.9	70.	.15	4
		1,283.5	259.9	105.		

Number of wires = 7  
current nodes = 60

	minimum		maximum	
Individual wires	wire	value	wire	value
segment length	1	5.83333	5	8.75
radius	7	.15	5	.6

#### ELECTRICAL DESCRIPTION

Frequencies (MHz)

frequency			no. of steps	segment length (wavelengths)	
no.	lowest	step		minimum	maximum
1	1.01	0	1	.0162037	.0243056

#### Sources

source	node	sector	magnitude	phase	type
1	1	1	355.318	217.8	voltage
2	13	1	909.852	23.2	voltage
3	25	1	1,053.34	168.4	voltage
4	37	1	559.481	315.4	voltage

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#### IMPEDANCE

normalization = 50.

freq (MHz)	resist (ohms)	react (ohms)	imped (ohms)	phase (deg)	VSWR	S11 dB	S12 dB
source = 1; node 1, sector 1							
1.01	-8.8558	-61.295	61.932	261.8	****	****	****
source = 2; node 13, sector 1							
1.01	7.3732	-73.113	73.483	275.8	21.382	-.81305	-7.6768
source = 3; node 25, sector 1							
1.01	6.5531	-83.565	83.821	274.5	29.039	-.59847	-8.9033
source = 4; node 37, sector 1							
1.01	3.4643	-92.714	92.778	272.1	64.112	-.27098	-12.183

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#### CURRENT rms

Frequency = 1.01 MHz

Input power = 1,000. watts

Efficiency = 100. %

coordinates in degrees

current no.	X	Y	Z	mag (amps)	phase (deg)	real (amps)	imaginary (amps)
GND	0	0	0	4.05719	316.	2.91983	-2.81697
2	0	0	5.83333	3.89055	316.3	2.81369	-2.68692
3	0	0	11.6667	3.71964	316.5	2.69908	-2.55944
4	0	0	17.5	3.51454	316.7	2.55755	-2.41059
5	0	0	23.3333	3.27237	316.9	2.38742	-2.238
6	0	0	29.1667	2.99306	317.	2.18878	-2.04149
7	0	0	35.	2.67767	317.1	1.96243	-1.82175
8	0	0	40.8333	2.32767	317.3	1.70947	-1.57981
9	0	0	46.6667	1.94458	317.4	1.43095	-1.31673
10	0	0	52.5	1.52931	317.5	1.12751	-1.0332
11	0	0	58.3333	1.08093	317.6	.79841	-.728656
12	0	0	64.1667	.59282	317.7	.438677	-.398746
END	0	0	70.	0	0	0	0
GND	60.8761	-79.3353	0	8.75592	107.5	-2.62726	8.35247
14	60.8761	-79.3353	5.83333	8.33915	107.2	-2.46824	7.96551
15	60.8761	-79.3353	11.6667	7.93593	107.	-2.32675	7.58717
16	60.8761	-79.3353	17.5	7.46884	106.9	-2.172	7.14604
17	60.8761	-79.3353	23.3333	6.92995	106.8	-2.00062	6.63488
18	60.8761	-79.3353	29.1667	6.31848	106.7	-1.81195	6.0531
19	60.8761	-79.3353	35.	5.63632	106.6	-1.60636	5.40256
20	60.8761	-79.3353	40.8333	4.88644	106.5	-1.38459	4.68617
21	60.8761	-79.3353	46.6667	4.07192	106.4	-1.14748	3.9069
22	60.8761	-79.3353	52.5	3.1947	106.3	-.895575	3.0666
23	60.8761	-79.3353	58.3333	2.25285	106.2	-.628365	2.16344
24	60.8761	-79.3353	64.1667	1.23279	106.1	-.342148	1.18436
END	60.8761	-79.3353	70.	0	0	0	0
GND	121.752	-158.671	0	8.88661	253.9	-2.466	-8.5376

26	121.752	-158.671	5.83333	8.41237	253.7	-2.36532	-8.07299
27	121.752	-158.671	11.6667	7.97214	253.5	-2.26192	-7.64452
28	121.752	-158.671	17.5	7.47581	253.4	-2.13773	-7.16365
29	121.752	-158.671	23.3333	6.91407	253.3	-1.99099	-6.62121
30	121.752	-158.671	29.1667	6.28539	253.2	-1.82165	-6.01562
31	121.752	-158.671	35.	5.59142	253.	-1.6303	-5.34846
32	121.752	-158.671	40.8333	4.83503	252.9	-1.41779	-4.62249
33	121.752	-158.671	46.6667	4.01926	252.9	-1.18498	-3.84061
34	121.752	-158.671	52.5	3.14602	252.8	-.932376	-3.00468
35	121.752	-158.671	58.3333	2.21353	252.7	-.659346	-2.11305
36	121.752	-158.671	64.1667	1.20859	252.6	-.361809	-1.15316
END	121.752	-158.671	70.	0	0	0	0
GND	182.628	-238.006	0	4.26441	43.2	3.10687	2.92107
38	182.628	-238.006	5.83333	4.01525	43.1	2.93097	2.74439
39	182.628	-238.006	11.6667	3.79078	43.	2.77095	2.58687
40	182.628	-238.006	17.5	3.54308	43.	2.59312	2.41436
41	182.628	-238.006	23.3333	3.26698	42.9	2.39387	2.22319
42	182.628	-238.006	29.1667	2.96159	42.8	2.17257	2.0127
43	182.628	-238.006	35.	2.6276	42.7	1.92971	1.7834
44	182.628	-238.006	40.8333	2.26638	42.7	1.66627	1.53623
45	182.628	-238.006	46.6667	1.87936	42.6	1.38326	1.27223
46	182.628	-238.006	52.5	1.46752	42.5	1.08133	.992131
47	182.628	-238.006	58.3333	1.03011	42.5	.759884	.695485
48	182.628	-238.006	64.1667	.561116	42.4	.414397	.37832
END	182.628	-238.006	70.	0	0	0	0
GND	-225.083	1,263.61	0	.460208	55.8	.258371	.380837
50	-225.083	1,263.61	8.75	.455762	55.9	.255817	.377195
51	-225.083	1,263.61	17.5	.442487	55.9	.248197	.366323
52	-225.083	1,263.61	26.25	.420566	55.9	.235627	.348361
J5	-225.083	1,263.61	35.	.389628	56.	.217916	.32299
2J1	-225.083	1,263.61	35.	.389628	56.	.217916	.32299
54	-225.083	1,263.61	43.75	.356932	56.1	.199249	.296142
55	-225.083	1,263.61	52.5	.316284	56.2	.176123	.262709
56	-225.083	1,263.61	61.25	.268935	56.3	.149292	.223692
J6	-225.083	1,263.61	70.	.214231	56.4	.118445	.178509
2J1	-225.083	1,263.61	70.	.214231	56.4	.118445	.178509
58	-225.083	1,263.61	78.75	.168909	56.6	.0930424	.140973
59	-225.083	1,263.61	87.5	.118142	56.7	.0647886	.0987931
60	-225.083	1,263.61	96.25	.0632586	56.9	.0345082	.0530173
END	-225.083	1,263.61	105.	0	0	0	0

# RADIATION PATTERN- WMOX NIGHT WITHOUT ADDED FM (rms)

WMOX NIGHT WITHOUT FM

RADIATION PATTERN rms  
geographic coordinate system

Radial distance (meters) = 1,000.

Frequency = 1.01 MHz

Input power = 1,000. watts

Efficiency = 100. %

elevation angle	azimuth angle	E-theta mag (mv/m)	phase (deg)	E-phi mag (mv/m)	phase
0	0	83.3703	338.4	0	0
0	5.	40.9265	24.2	0	0
0	10.	85.6564	34.4	0	0
0	15.	65.634	1.	0	0
0	20.	6.59326	265.	0	0
0	25.	30.9945	116.4	0	0
0	30.	17.7639	26.	0	0
0	35.	49.7981	274.8	0	0
0	40.	81.0837	239.6	0	0
0	45.	78.6151	218.7	0	0
0	50.	53.2567	213.5	0	0
0	55.	34.9478	240.9	0	0
0	60.	42.3918	269.7	0	0
0	65.	50.2389	275.3	0	0
0	70.	47.9939	277.	0	0
0	75.	38.8085	286.	0	0
0	80.	32.7614	313.8	0	0
0	85.	43.2412	346.3	0	0
0	90.	65.9295	1.4	0	0
0	95.	88.9485	8.2	0	0
0	100.	100.804	13.4	0	0
0	105.	90.0998	18.5	0	0
0	110.	53.5753	18.	0	0
0	115.	24.543	315.	0	0
0	120.	49.2827	286.8	0	0
0	125.	42.648	318.	0	0
0	130.	35.1182	61.6	0	0
0	135.	60.7721	121.	0	0
0	140.	32.4394	144.8	0	0
0	145.	39.301	37.8	0	0
0	150.	60.5732	69.5	0	0
0	155.	30.7544	174.8	0	0
0	160.	63.8921	250.8	0	0
0	165.	66.9815	211.1	0	0
0	170.	186.806	193.2	0	0
0	175.	253.363	196.2	0	0
0	180.	289.827	177.4	0	0
0	185.	422.088	165.5	0	0
0	190.	490.346	162.8	0	0
0	195.	517.695	151.	0	0
0	200.	623.146	140.7	0	0

0	205.	697.421	138.1	0	0
0	210.	699.581	133.6	0	0
0	215.	724.626	125.7	0	0
0	220.	789.393	121.3	0	0
0	225.	828.966	121.2	0	0
0	230.	823.224	122.	0	0
0	235.	796.041	122.2	0	0
0	240.	769.821	122.4	0	0
0	245.	747.979	123.4	0	0
0	250.	723.434	125.9	0	0
0	255.	689.423	130.	0	0
0	260.	642.873	135.4	0	0
0	265.	584.221	142.4	0	0
0	270.	517.702	151.1	0	0
0	275.	451.774	161.7	0	0
0	280.	394.666	173.2	0	0
0	285.	341.819	182.8	0	0
0	290.	272.019	188.	0	0
0	295.	171.753	190.3	0	0
0	300.	68.4591	206.	0	0
0	305.	44.7136	268.	0	0
0	310.	30.6766	250.5	0	0
0	315.	42.6356	117.5	0	0
0	320.	72.8921	75.8	0	0
0	325.	32.3287	48.1	0	0
0	330.	34.1245	168.1	0	0
0	335.	42.8893	118.3	0	0
0	340.	39.1062	353.3	0	0
0	345.	53.2722	292.2	0	0
0	350.	23.3831	357.7	0	0
0	355.	91.504	3.	0	0
0	360.	83.3704	338.4	0	0

## WIRE MODEL- WMOX WITH ADDED FM (W240DY) DAY

### GEOMETRY

Wire coordinates in degrees; other dimensions in meters

Environment: perfect ground

wire	caps	Distance	Angle	Z	radius	segs
1	none	0	0	0	.2	12
		0	0	70.		
2	none	100.	52.5	0	.2	12
		100.	52.5	70.		
3	none	200.	52.5	0	.2	12
		200.	52.5	70.		
4	none	1,283.5	259.9	0	.6	4
		1,283.5	259.9	35.		
5	none	1,283.5	259.9	35.	.375	8
		1,283.5	259.9	70.		
6	none	1,283.5	259.9	70.	.15	14
		1,283.5	259.9	103.		
7	none	1,283.5	259.9	103.	.15	1
		1,283.5	259.9	105.		
8	none	1,283.5	259.9	103.	.02	1
		1,283.	259.9	103.		
9	none	1,283.	259.9	103.	.02	1
		1,283.	259.9	102.5		
10	none	1,283.	259.9	103.	.02	1
		1,283.	259.9	103.5		

Number of wires = 10  
current nodes = 66

	minimum		maximum	
Individual wires	wire	value	wire	value
segment length	8	.499813	4	8.75
radius	8	.02	4	.6

### ELECTRICAL DESCRIPTION

Frequencies (MHz)

frequency			no. of steps	segment length (wavelengths)	
no.	lowest	step		minimum	maximum
1	1.01	0	1	1.39E-03	.0243056

Sources

source	node	sector	magnitude	phase	type
1	1	1	823.264	304.9	voltage
2	13	1	2,727.74	151.5	voltage
3	25	1	1,648.73	227.4	voltage

## IMPEDANCE

normalization = 50.

freq (MHz)	resist (ohms)	react (ohms)	imped (ohms)	phase (deg)	VSWR	S11 dB	S12 dB
source = 1; node 1, sector 1							
1.01	-9.843	-61.544	62.326	260.9	****	****	****
source = 2; node 13, sector 1							
1.01	19.71	-81.205	83.562	283.6	9.5171	-1.8321	-4.6323
source = 3; node 25, sector 1							
1.01	3.6837	-114.54	114.6	271.8	84.861	-.20472	-13.368

## CURRENT rms

Frequency = 1.01 MHz

Input power = 10,000. watts

Efficiency = 100. %

coordinates in degrees

current no.	X	Y	Z	mag (amps)	phase (deg)	real (amps)	imaginary (amps)
GND	0	0	0	9.32902	44.	6.70813	6.48317
2	0	0	5.83333	8.94446	44.3	6.39636	6.2522
3	0	0	11.6667	8.55034	44.6	6.09171	5.99995
4	0	0	17.5	8.07758	44.7	5.73669	5.68662
5	0	0	23.3333	7.51958	44.9	5.32553	5.30875
6	0	0	29.1667	6.87629	45.1	4.85775	4.86679
7	0	0	35.	6.15017	45.2	4.33488	4.36272
8	0	0	40.8333	5.3448	45.3	3.75934	3.79924
9	0	0	46.6667	4.46374	45.4	3.13356	3.17896
10	0	0	52.5	3.50927	45.5	2.45908	2.50359
11	0	0	58.3333	2.47942	45.6	1.73448	1.77175
12	0	0	64.1667	1.35923	45.7	.94932	.972782
END	0	0	70.	0	0	0	0
GND	60.8761	-79.3353	0	23.0547	227.9	-15.466	-17.0975
14	60.8761	-79.3353	5.83333	21.8561	227.2	-14.8468	-16.0394
15	60.8761	-79.3353	11.6667	20.7352	226.8	-14.2051	-15.1051
16	60.8761	-79.3353	17.5	19.4647	226.4	-13.4306	-14.0887
17	60.8761	-79.3353	23.3333	18.0203	226.	-12.5127	-12.9678
18	60.8761	-79.3353	29.1667	16.3981	225.7	-11.4512	-11.7375
19	60.8761	-79.3353	35.	14.6023	225.4	-10.2501	-10.4001
20	60.8761	-79.3353	40.8333	12.6396	225.1	-8.91505	-8.95997
21	60.8761	-79.3353	46.6667	10.5177	224.9	-7.45167	-7.4225
22	60.8761	-79.3353	52.5	8.24102	224.6	-5.86332	-5.79102
23	60.8761	-79.3353	58.3333	5.80441	224.4	-4.14628	-4.06197
24	60.8761	-79.3353	64.1667	3.17261	224.2	-2.27509	-2.21121
END	60.8761	-79.3353	70.	0	0	0	0
GND	121.752	-158.671	0	10.1612	315.6	7.25596	-7.11344
26	121.752	-158.671	5.83333	9.44546	315.4	6.7301	-6.62741
27	121.752	-158.671	11.6667	8.83778	315.3	6.28657	-6.21171
28	121.752	-158.671	17.5	8.1965	315.3	5.82109	-5.7704
29	121.752	-158.671	23.3333	7.50556	315.2	5.3219	-5.29252
30	121.752	-158.671	29.1667	6.76115	315.1	4.78629	-4.77541
31	121.752	-158.671	35.	5.96394	315.	4.21488	-4.2194
32	121.752	-158.671	40.8333	5.11641	314.9	3.60964	-3.62603
33	121.752	-158.671	46.6667	4.22141	314.8	2.97284	-2.99708
34	121.752	-158.671	52.5	3.28076	314.7	2.30606	-2.33355



35	121.752	-158.671	58.3333	2.29258	314.5	1.6083	-1.6338
36	121.752	-158.671	64.1667	1.24341	314.4	.870473	-.887882
END	121.752	-158.671	70.	0	0	0	0
GND	-225.083	1,263.61	0	.969982	132.1	-.650135	.719854
38	-225.083	1,263.61	8.75	.96065	132.1	-.643992	.712827
39	-225.083	1,263.61	17.5	.932803	132.1	-.625649	.691871
40	-225.083	1,263.61	26.25	.886807	132.2	-.595325	.657279
J4	-225.083	1,263.61	35.	.821525	132.2	-.552224	.608238
2J1	-225.083	1,263.61	35.	.821525	132.2	-.552224	.608238
42	-225.083	1,263.61	39.375	.789866	132.3	-.531301	.584473
43	-225.083	1,263.61	43.75	.753183	132.3	-.507022	.556968
44	-225.083	1,263.61	48.125	.712491	132.4	-.480053	.526491
45	-225.083	1,263.61	52.5	.668072	132.4	-.45057	.493262
46	-225.083	1,263.61	56.875	.620123	132.5	-.418693	.457437
47	-225.083	1,263.61	61.25	.56875	132.5	-.384481	.419108
48	-225.083	1,263.61	65.625	.513908	132.6	-.347888	.378253
J5	-225.083	1,263.61	70.	.452639	132.7	-.306917	.332692
2J1	-225.083	1,263.61	70.	.452639	132.7	-.306917	.332692
50	-225.083	1,263.61	72.3571	.43004	132.7	-.29178	.31591
51	-225.083	1,263.61	74.7143	.404897	132.8	-.274918	.297257
52	-225.083	1,263.61	77.0714	.378672	132.8	-.257306	.277824
53	-225.083	1,263.61	79.4286	.351591	132.8	-.239094	.257779
54	-225.083	1,263.61	81.7857	.32377	132.9	-.220358	.237212
55	-225.083	1,263.61	84.1429	.295274	132.9	-.201137	.216173
56	-225.083	1,263.61	86.5	.266145	133.	-.181457	.194696
57	-225.083	1,263.61	88.8571	.236401	133.	-.161329	.172796
58	-225.083	1,263.61	91.2143	.206046	133.1	-.14075	.150481
59	-225.083	1,263.61	93.5714	.17505	133.1	-.119697	.12773
60	-225.083	1,263.61	95.9286	.143342	133.2	-.0981194	.104497
61	-225.083	1,263.61	98.2857	.110775	133.3	-.0759094	.0806775
62	-225.083	1,263.61	100.643	.0770023	133.3	-.0528266	.0560241
J6	-225.083	1,263.61	103.	.0424478	133.4	-.0291541	.0308522
2J1	-225.083	1,263.61	103.	.0369369	133.4	-.025372	.0268438
END	-225.083	1,263.61	105.	0	0	0	0
2J1	-225.083	1,263.61	103.	5.51E-03	133.3	-3.78E-03	4.01E-03
J8	-224.996	1,263.12	103.	5.11E-03	133.3	-3.51E-03	3.72E-03
2J1	-224.996	1,263.12	103.	2.52E-03	133.3	-1.73E-03	1.83E-03
END	-224.996	1,263.12	102.5	0	0	0	0
2J1	-224.996	1,263.12	103.	2.59E-03	133.3	-1.78E-03	1.88E-03
END	-224.996	1,263.12	103.5	0	0	0	0

## WMOX WITH ADDED FM (W240DY) DAY

RADIATION PATTERN rms  
geographic coordinate system

Radial distance (meters) = 1,000.

Frequency = 1.01 MHz

Input power = 10,000. watts

Efficiency = 100. %

elevation angle	azimuth angle	E-theta mag (mv/m)	phase (deg)	E-phi mag (mv/m)	phase
0	0	747.261	64.5	1.354E-11	1.3
0	5.	653.57	74.1	2.578E-12	194.6
0	10.	748.073	81.3	2.665E-11	69.7
0	15.	767.824	75.6	2.011E-11	19.
0	20.	666.71	76.8	1.865E-11	151.3
0	25.	687.96	86.1	1.526E-11	351.3
0	30.	784.382	84.8	7.958E-12	273.3
0	35.	779.475	78.8	1.224E-11	182.4
0	40.	704.05	78.5	5.305E-12	41.5
0	45.	680.347	84.4	1.815E-11	268.6
0	50.	731.536	88.2	3.992E-12	30.2
0	55.	787.928	87.2	9.131E-12	104.2
0	60.	810.499	84.1	1.809E-11	267.2
0	65.	803.2	81.2	4.574E-12	13.1
0	70.	783.294	79.1	7.039E-12	164.9
0	75.	764.78	77.8	4.03E-12	35.
0	80.	755.093	76.9	2.188E-12	15.5
0	85.	756.821	76.1	1.269E-12	314.1
0	90.	768.425	75.6	2.474E-12	243.7
0	95.	782.12	75.5	3.538E-12	251.6
0	100.	781.733	75.5	5.136E-12	94.8
0	105.	748.826	74.2	9.24E-12	142.7
0	110.	688.618	68.4	6.727E-12	16.5
0	115.	665.197	55.7	5.185E-12	80.2
0	120.	733.523	43.6	4.955E-12	113.7
0	125.	791.494	38.7	1.117E-11	23.7
0	130.	720.898	32.7	4.738E-12	123.2
0	135.	651.618	12.8	2.503E-11	44.9
0	140.	757.037	355.4	7.086E-12	121.8
0	145.	768.92	348.1	2.572E-11	165.8
0	150.	691.814	327.9	1.806E-11	103.5
0	155.	837.536	307.7	1.423E-11	231.6
0	160.	889.381	300.3	2.813E-12	193.6
0	165.	863.228	281.4	2.381E-11	77.2
0	170.	1,053.95	266.7	1.861E-11	145.4
0	175.	1,099.52	261.	2.391E-11	329.5
0	180.	1,100.03	246.	1.249E-11	88.8
0	185.	1,286.72	235.9	2.903E-12	64.4
0	190.	1,322.4	232.4	1.336E-11	85.2
0	195.	1,293.97	222.2	1.693E-11	158.8
0	200.	1,434.29	213.7	1.75E-11	341.8
0	205.	1,509.74	212.1	7.638E-12	3.4
0	210.	1,449.05	208.7	1.391E-11	147.8
0	215.	1,450.6	201.7	1.153E-11	87.8

0	220.	1,547.37	198.	4.089E-12	296.8
0	225.	1,605.18	198.5	2.276E-11	352.2
0	230.	1,581.31	199.8	1.392E-11	58.8
0	235.	1,523.99	200.1	2.077E-11	240.3
0	240.	1,480.7	199.9	1.485E-12	202.1
0	245.	1,460.19	200.2	9.259E-12	29.4
0	250.	1,448.05	201.9	2.668E-12	134.3
0	255.	1,429.51	205.	4.96E-12	59.4
0	260.	1,397.02	209.3	7.354E-12	287.
0	265.	1,349.79	215.	7.957E-12	265.
0	270.	1,293.9	222.3	6.442E-12	352.9
0	275.	1,243.68	231.1	8.47E-13	313.8
0	280.	1,214.71	240.8	6.711E-12	181.3
0	285.	1,199.68	249.9	6.463E-12	207.9
0	290.	1,151.19	257.3	3.831E-12	262.2
0	295.	1,022.7	265.6	1.256E-11	19.1
0	300.	867.209	280.5	1.286E-11	295.9
0	305.	836.723	300.6	1.736E-11	37.4
0	310.	866.506	312.7	8.94E-12	30.6
0	315.	760.289	322.7	2.211E-11	165.8
0	320.	669.893	346.	1.14E-11	298.1
0	325.	768.743	3.	1.645E-11	259.2
0	330.	736.415	9.2	1.474E-11	236.3
0	335.	655.449	28.9	1.138E-11	332.3
0	340.	774.144	42.4	2.888E-11	91.7
0	345.	746.484	43.8	1.003E-11	42.6
0	350.	665.896	58.8	1.601E-11	163.
0	355.	776.896	67.4	2.244E-11	263.9
0	360.	747.261	64.5	3.411E-11	179.53

## WIRE MODEL- WMOX WITH ADDED FM (W240DY) NIGHT

### GEOMETRY

Wire coordinates in degrees; other dimensions in meters

Environment: perfect ground

wire	caps	Distance	Angle	Z	radius	segs
1	none	0	0	0	.2	12
		0	0	70.		
2	none	100.	52.5	0	.2	12
		100.	52.5	70.		
3	none	200.	52.5	0	.2	12
		200.	52.5	70.		
4	none	300.	52.5	0	.2	12
		300.	52.5	70.		
5	none	1,283.5	259.9	0	.6	4
		1,283.5	259.9	35.		
6	none	1,283.5	259.9	35.	.375	8
		1,283.5	259.9	70.		
7	none	1,283.5	259.9	70.	.15	14
		1,283.5	259.9	103.		
8	none	1,283.5	259.9	103.	.15	1
		1,283.5	259.9	105.		
9	none	1,283.5	259.9	103.	.02	1
		1,283.	259.9	103.		
10	none	1,283.	259.9	103.	.02	1
		1,283.	259.9	102.5		
11	none	1,283.	259.9	103.	.02	1
		1,283.	259.9	103.5		

Number of wires = 11  
current nodes = 78

	minimum		maximum	
Individual wires	wire	value	wire	value
segment length	9	.499813	5	8.75
radius	9	.02	5	.6

### ELECTRICAL DESCRIPTION

Frequencies (MHz)

frequency			no. of steps	segment length (wavelengths)	
no.	lowest	step		minimum	maximum
1	1.01	0	1	1.39E-03	.0243056

Sources

source	node	sector	magnitude	phase	type
1	1	1	355.318	217.8	voltage
2	13	1	909.852	23.2	voltage
3	25	1	1,053.34	168.4	voltage
4	37	1	559.481	315.4	voltage

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#### IMPEDANCE

normalization = 50.

freq (MHz)	resist (ohms)	react (ohms)	imped (ohms)	phase (deg)	VSWR	S11 dB	S12 dB
source = 1; node 1, sector 1							
1.01	-8.8585	-61.296	61.933	261.8	****	****	****
source = 2; node 13, sector 1							
1.01	7.3742	-73.114	73.485	275.8	21.38	-.81314	-7.6764
source = 3; node 25, sector 1							
1.01	6.5535	-83.563	83.82	274.5	29.036	-.59852	-8.9029
source = 4; node 37, sector 1							
1.01	3.46	-92.714	92.778	272.1	64.191	-.27065	-12.188

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#### CURRENT rms

Frequency = 1.01 MHz

Input power = 1,000. watts

Efficiency = 100. %

coordinates in degrees

current no.	X	Y	Z	mag (amps)	phase (deg)	real (amps)	imaginary (amps)
GND	0	0	0	4.05713	316.	2.91991	-2.81681
2	0	0	5.83333	3.89049	316.3	2.81376	-2.68676
3	0	0	11.6667	3.71959	316.5	2.69915	-2.55928
4	0	0	17.5	3.51449	316.7	2.55762	-2.41044
5	0	0	23.3333	3.27232	316.9	2.38748	-2.23785
6	0	0	29.1667	2.99302	317.	2.18884	-2.04135
7	0	0	35.	2.67763	317.1	1.96249	-1.82163
8	0	0	40.8333	2.32764	317.3	1.70952	-1.5797
9	0	0	46.6667	1.94455	317.4	1.43099	-1.31664
10	0	0	52.5	1.52929	317.5	1.12755	-1.03313
11	0	0	58.3333	1.08091	317.6	.798432	-.728607
12	0	0	64.1667	.592811	317.7	.438691	-.398718
END	0	0	70.	0	0	0	0
GND	60.8761	-79.3353	0	8.75575	107.5	-2.62711	8.35233
14	60.8761	-79.3353	5.83333	8.33905	107.2	-2.46809	7.96544
15	60.8761	-79.3353	11.6667	7.93582	107.	-2.3266	7.58711
16	60.8761	-79.3353	17.5	7.46866	106.9	-2.17186	7.14591
17	60.8761	-79.3353	23.3333	6.92982	106.8	-2.00049	6.63479
18	60.8761	-79.3353	29.1667	6.31836	106.7	-1.81184	6.05301
19	60.8761	-79.3353	35.	5.63621	106.6	-1.60625	5.40248
20	60.8761	-79.3353	40.8333	4.88634	106.5	-1.3845	4.6861
21	60.8761	-79.3353	46.6667	4.07184	106.4	-1.1474	3.90683
22	60.8761	-79.3353	52.5	3.19463	106.3	-.895512	3.06655
23	60.8761	-79.3353	58.3333	2.2528	106.2	-.628319	2.16341
24	60.8761	-79.3353	64.1667	1.23276	106.1	-.342122	1.18434
END	60.8761	-79.3353	70.	0	0	0	0

GND	121.752	-158.671	0	8.88678	253.9	-2.46611	-8.53775
26	121.752	-158.671	5.83333	8.41254	253.7	-2.36543	-8.07314
27	121.752	-158.671	11.6667	7.97231	253.5	-2.26202	-7.64467
28	121.752	-158.671	17.5	7.47598	253.4	-2.13783	-7.1638
29	121.752	-158.671	23.3333	6.91423	253.3	-1.99109	-6.62134
30	121.752	-158.671	29.1667	6.28553	253.2	-1.82174	-6.01574
31	121.752	-158.671	35.	5.59155	253.	-1.63038	-5.34858
32	121.752	-158.671	40.8333	4.83515	252.9	-1.41786	-4.62259
33	121.752	-158.671	46.6667	4.01935	252.9	-1.18503	-3.84069
34	121.752	-158.671	52.5	3.14609	252.8	-.932419	-3.00475
35	121.752	-158.671	58.3333	2.21358	252.7	-.659379	-2.1131
36	121.752	-158.671	64.1667	1.20862	252.6	-.361828	-1.15319
END	121.752	-158.671	70.	0	0	0	0
GND	182.628	-238.006	0	4.26443	43.2	3.10674	2.92122
38	182.628	-238.006	5.83333	4.01526	43.1	2.93084	2.74454
39	182.628	-238.006	11.6667	3.79079	43.	2.77082	2.58701
40	182.628	-238.006	17.5	3.54309	43.	2.59301	2.4145
41	182.628	-238.006	23.3333	3.26699	42.9	2.39376	2.22332
42	182.628	-238.006	29.1667	2.9616	42.8	2.17246	2.01283
43	182.628	-238.006	35.	2.62761	42.7	1.92962	1.78351
44	182.628	-238.006	40.8333	2.26638	42.7	1.66619	1.53632
45	182.628	-238.006	46.6667	1.87936	42.6	1.38319	1.27232
46	182.628	-238.006	52.5	1.46752	42.5	1.08128	.992195
47	182.628	-238.006	58.3333	1.03011	42.5	.759842	.695532
48	182.628	-238.006	64.1667	.561117	42.4	.414376	.378346
END	182.628	-238.006	70.	0	0	0	0
GND	-225.083	1,263.61	0	.452477	55.2	.258332	.371483
50	-225.083	1,263.61	8.75	.448126	55.2	.255792	.36795
51	-225.083	1,263.61	17.5	.435135	55.2	.248211	.357399
52	-225.083	1,263.61	26.25	.41368	55.3	.235703	.339963
J5	-225.083	1,263.61	35.	.383228	55.3	.217982	.315194
2J1	-225.083	1,263.61	35.	.383228	55.3	.217982	.315194
54	-225.083	1,263.61	39.375	.36846	55.4	.209399	.303175
55	-225.083	1,263.61	43.75	.351348	55.4	.199471	.289235
56	-225.083	1,263.61	48.125	.332367	55.5	.188477	.273759
57	-225.083	1,263.61	52.5	.311647	55.5	.176499	.25685
58	-225.083	1,263.61	56.875	.289279	55.6	.163594	.238579
59	-225.083	1,263.61	61.25	.265316	55.6	.149797	.218982
60	-225.083	1,263.61	65.625	.239733	55.7	.135105	.198037
J6	-225.083	1,263.61	70.	.211152	55.8	.118736	.174606
2J1	-225.083	1,263.61	70.	.211152	55.8	.118736	.174606
62	-225.083	1,263.61	72.3571	.200611	55.8	.112712	.165954
63	-225.083	1,263.61	74.7143	.188882	55.9	.10602	.15632
64	-225.083	1,263.61	77.0714	.176648	55.9	.0990512	.146264
65	-225.083	1,263.61	79.4286	.164015	55.9	.0918693	.135871
66	-225.083	1,263.61	81.7857	.151037	56.	.0845048	.125185
67	-225.083	1,263.61	84.1429	.137744	56.	.0769771	.114228
68	-225.083	1,263.61	86.5	.124156	56.1	.069298	.103016
69	-225.083	1,263.61	88.8571	.110281	56.1	.0614749	.0915567
70	-225.083	1,263.61	91.2143	.0961197	56.2	.0535096	.0798482
71	-225.083	1,263.61	93.5714	.0816604	56.2	.0453966	.0678791
72	-225.083	1,263.61	95.9286	.0668692	56.3	.0371198	.0556203
73	-225.083	1,263.61	98.2857	.0516765	56.3	.0286425	.0430125
74	-225.083	1,263.61	100.643	.0359217	56.4	.0198784	.0299202
J7	-225.083	1,263.61	103.	.019802	56.5	.0109406	.0165053

2J1	-225.083	1,263.61	103.	.0172311	56.5	9.52E-03	.0143634
END	-225.083	1,263.61	105.	0	0	0	0
2J1	-225.083	1,263.61	103.	2.57E-03	56.4	1.42E-03	2.14E-03
J9	-224.996	1,263.12	103.	2.38E-03	56.4	1.32E-03	1.99E-03
2J1	-224.996	1,263.12	103.	1.18E-03	56.4	6.5E-04	9.79E-04
END	-224.996	1,263.12	102.5	0	0	0	0
2J1	-224.996	1,263.12	103.	1.21E-03	56.4	6.68E-04	1.01E-03
END	-224.996	1,263.12	103.5	0	0	0	0

## WMOX WITH ADDED FM (W240DY) NIGHT

RADIATION PATTERN rms  
geographic coordinate system

Radial distance (meters) = 1,000.

Frequency = 1.01 MHz

Input power = 1,000. watts

Efficiency = 100. %

elevation angle	azimuth angle	E-theta mag (mv/m)	phase (deg)	E-phi mag (mv/m)	phase
0	0	82.8461	338.5	3.703E-12	273.8
0	5.	41.4509	24.4	6.555E-12	0.0
0	10.	85.5049	34.1	5.327E-12	269.6
0	15.	65.086	1.	9.909E-12	11.2
0	20.	6.04189	264.8	1.346E-11	327.8
0	25.	30.7178	115.6	8.363E-12	71.9
0	30.	17.4512	24.7	7.103E-12	88.3
0	35.	49.7301	274.1	1.011E-11	19.8
0	40.	80.7077	239.3	3.831E-12	292.5
0	45.	78.1039	218.7	3.16E-12	12.
0	50.	52.9976	214.	3.286E-12	304.7
0	55.	35.3396	241.4	4.921E-12	7.
0	60.	42.8454	269.3	1.457E-12	225.3
0	65.	50.427	274.7	3.16E-12	142.2
0	70.	47.9481	276.3	1.407E-12	168.1
0	75.	38.5492	285.2	2.388E-12	66.6
0	80.	32.2744	313.3	1.515E-12	52.
0	85.	42.6834	346.2	1.251E-12	173.4
0	90.	65.3818	1.4	1.791E-12	44.
0	95.	88.4435	8.1	2.176E-12	159.9
0	100.	100.459	13.2	3.035E-13	14.
0	105.	90.0832	18.2	1.048E-12	268.6
0	110.	53.9895	17.6	3.066E-12	114.1
0	115.	24.6014	316.3	5.949E-12	177.7
0	120.	48.7421	286.8	4.159E-13	216.3
0	125.	42.2703	317.6	5.602E-12	161.5
0	130.	34.64	61.2	1.362E-11	133.8
0	135.	60.4545	120.6	9.513E-12	242.8
0	140.	32.7362	144.1	8.302E-12	139.3
0	145.	38.8396	38.2	5.92E-12	267.8
0	150.	60.18	69.2	7.003E-12	267.
0	155.	30.3805	174.1	1.56E-12	123.
0	160.	63.7711	250.3	5.013E-12	88.
0	165.	67.3406	211.5	9.804E-12	342.
0	170.	186.28	193.2	4.018E-12	343.7
0	175.	253.511	196.1	1.767E-11	278.6
0	180.	290.122	177.5	1.96E-11	6.
0	185.	421.56	165.5	8.097E-12	139.7
0	190.	490.496	162.8	3.793E-12	95.2
0	195.	518.089	151.1	6.242E-12	120.7
0	200.	622.681	140.7	8.406E-12	273.5
0	205.	697.224	138.1	6.691E-12	283.4
0	210.	700.082	133.6	8.21E-13	141.1
0	215.	724.791	125.8	9.215E-12	184.8



0	220.	788.925	121.4	5.849E-12	10.
0	225.	828.558	121.1	4.744E-12	121.4
0	230.	823.307	122.	3.674E-12	1.4
0	235.	796.5	122.2	9.492E-12	241.9
0	240.	770.335	122.4	8.202E-12	89.1
0	245.	748.349	123.4	4.119E-12	55.8
0	250.	723.642	126.	5.516E-12	164.2
0	255.	689.539	130.	1.335E-12	301.8
0	260.	642.996	135.5	2.348E-12	194.3
0	265.	584.45	142.4	3.662E-12	176.2
0	270.	518.102	151.1	2.754E-12	354.4
0	275.	452.3	161.7	1.377E-12	300.
0	280.	395.074	173.1	4.131E-12	269.1
0	285.	341.799	182.7	4.743E-12	286.
0	290.	271.565	187.9	4.399E-12	183.9
0	295.	171.306	190.4	5.095E-12	80.6
0	300.	68.6933	206.4	9.042E-13	346.2
0	305.	44.86	267.3	2.258E-12	124.5
0	310.	30.2796	249.8	3.692E-12	241.9
0	315.	42.5984	116.8	3.154E-12	200.5
0	320.	72.4444	75.6	1.287E-11	94.4
0	325.	31.9205	48.7	8.581E-12	222.5
0	330.	34.192	167.2	3.476E-12	318.6
0	335.	42.487	117.8	4.555E-12	316.1
0	340.	38.8167	352.7	1.907E-11	2.1
0	345.	52.7354	292.1	5.675E-12	59.9
0	350.	23.9108	357.9	1.218E-11	325.4
0	355.	91.3372	2.7	6.563E-12	210.1
0	360.	82.8461	338.5	1.51E-11	92.