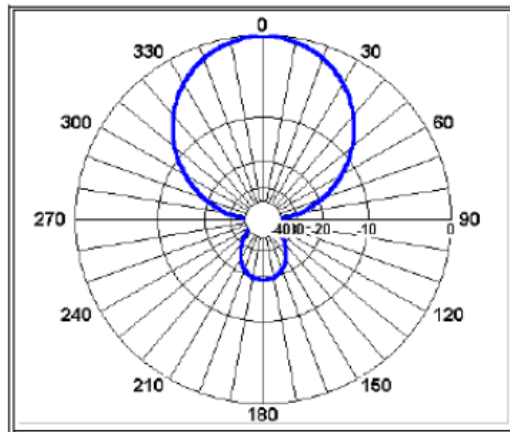


Basic Antenna Modeling A Hands-On Tutorial

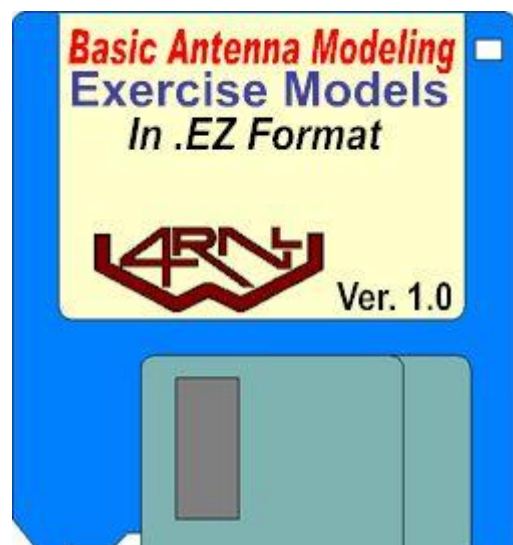


L. B. Cebik



Basic Antenna Modeling
EXERCISE MODELS
In .EZ Format
by L.B. Cebik, W4RNL (SK)

This disk (now a CD or download files) contains all of the exercise files for *Basic Antenna Modeling: A Hands-On Tutorial* in .EZ format for use with EZNEC (DOS or later versions). The book is a general introduction to modeling techniques with NEC-2 by L. B. Cebik, W4RNL (SK). The 300 exercise files for 150 antennas that accompany the book are in .EZ format. The exercise files include many different types of antennas of interest to amateur radio operators



and others. They range from Yagis to phased arrays, from ground plane verticals to antennas with capacity hats, from lower HF thin wire arrays to long UHF beams. Hence, this disk can also serve as a basic collection of useful antenna models in the .EZ format. Here is a Table of Contents of the topics covered:

<i>PART A:</i> Basic Modeling & Model Testing	<i>PART B:</i> Common Modeling Techniques, Limitations, and Work-Arounds	<i>PART C:</i> Practical Antenna Modeling
~ NEC-2 ~ Modeling Preparations ~ Basic Antenna Models ~ NEC Output Data ~ Careful Model Construction ~ Convergence Testing ~ Frequency Specification	~ Source Types and Placement ~ Tapered-Diameter Elements ~ Geometry Limitations ~ Grounds and Applications ~ Resistive Loads ~ Reactive Loads ~ Transmission Lines	~ Monopoles and Ground Planes ~ Vertically Polarized Antennas and Arrays ~ Bi-directional Wire Arrays ~ Yagis ~ Horizontal Parasitic and Phased Arrays ~ VHF/UHF Antennas ~ Special Structures

If you like to download this book and the accompanied modeling files for free. Click [Here](#)

<http://www.on5au.be/request-cebik.html>

Partial List of Models for the Tutorial

Filename (x-x.EZ)	Antenna Type	Frequency in MHz
1-1	Dipole	7.05
2-1	Dipole	28.5
2-2	Yagi, 2-el.	28.5
2-3	1/4wl vertical, gp	14.1
2-4	Quad loop	21.15
2-5	Delta loop	7.15
2-6	Half square	146.0
3-1	Dipole	14.0
3-3	1/2wl vertical dipole	24.95
3-4	Yagi, 3-el.	50.2
4-2	Yagi, 3-el.	146.0
4-6	Rectangle	3.6
4-7	Right-angle delta	7.15
4-8	Extended double Zepp	10.125
4-9	Moxon rectangle, 2-el.	10.125
5-1	134' doublet	3.5-29.7
5-2	Folded dipole	28.48
5-4	Folded X-beam,	28.5
5-5	Capacity-hat 1/4wl vertical	7.2
6-5	Yagi, 2-el.	7.1
6-7	Right-triangle,	7.1
7-1	Open-sleeve dipoles	10.125
7-2	Quad beam, 2-el.	14.175
7-3	1/4wl vertical, sloping gp	51.0
7-5	Yagi, 2-el.	14.175
7-6	Yagi, 3-el.	14.175
8-4	Inverted-Vee	14.0
8-5	Crossed dipoles	14.0, 21.0
8-7	2-element phased hor. array	28.5
9-5	3-element Yagi	21.22
9-6	Short vertical, capacity hat	10.0

10-3	Elongated quad loop	146.0
10-4	Capacity-hat vertical	3.75
11-1	16-element Yagi	432.0
11-2	2-element Yagi	7.15
11-3	2-element Moxon	7.15
11-7	6-element Yagi	21.2
12-3	3-element Yagi	225.0
12-7	Transmission	14.0
13-3	2-element Yagi, loaded	28.5
13-7	Modified extended double Zepp	7.15
13-8	2-element quad	21.22
13-9	Trap dipole	14.175, 28.5
14-2	Phased 1/4wl verticals	7.1
14-4	Dipole, TL broad-banded	7.1
14-5	Dipole, stub-loaded	14.175
15-2	Short monopole, hat loaded	3.0
16-3	3-el. vert. Yagi	7.05
16-4	Triangular vert. dipole array	7.05
16-5	1/4wl vert. phased array	10.0
16-6-1	Delta SCV	7.15
16-6-2	Rectangle SCV	7.15
16-6-3	Half square SCV	7.15
16-7	Parasitic half square array	7.15
17-1	1wl collinear	14.175
17-2	8JK end-fire	14.175
17-3	Lazy-H broadside	14.175
17-5	Collinear EDZ	21.225
17-6	EDZ Lazy-H	28.5
17-7	Sterba curtain	3.6/7.2
17-8	Vee-Beam	14.175
18-1	2-el. Yagi; dr-refl	28.5
18-2	2-el. Yagi; dr-dir	28.5
18-3	2-el. Yagi; reversible	10.125
18-4	3-el Yagi; high-gain	14.175
18-5	3-el Yagi; wide-band	14.175
18-6	5-el Yagi	14.175
18-7	6-el Yagi	14.175
18-8	4-el Yagis; (2 stacked)	14.175
18-9	4-el Yagi; 2-band	18.2; 24.95
18-10	6-el Yagi; 2-band	14.175; 21.2
19-1	2-el quad beam	21.22
19-2	5 2-el quads	14-28
19-3	2-el EDZ	28.5
19-4	2-el phased, folded dipoles	28.5
19-6	3-el phased array	24.94
19-6-2	3-el Yagi	24.94
19-6-3	4-el Yagi	24.94
19-7	5-el LPDA	19-29
20-1	6-el Yagi	51
20-2	26-el Yagi	432
20-3-1	8-el Yagi	432
20-3-2	8-el quagi	432
20-4	8-el Yagi	144.2
20-5-2	2-el half square	146
20-5-3	3-el half square	146
20-5-5	2-el bobtail	146
20-6-3	J-pole	146
20-7	Corner reflector	432
20-8-2	Turnstile	300
20-8-3	Lindenblad	300
21-1-1	Helical dipole	28.5

21-1-2	Helical 2-el Yagi	28.5
21-2-1	Cage monopole	3.7
21-2-3	Cage dipole	3.7
21-3	Triangular tower sections	-----