

Appendix C: Models and Files

Each model filename is a number that corresponds to a Chapter, (first number) and a specific model exercise, (second and potential third number). Some of the exercises refer to supplementary models which display an extra third number. These supplement model files corresponds to variations made on the model to verify slightly made differences. For example, file **[8-5-2.EZ]** is the second variation on EZNEC **EZ** model exercise **5** of Chapter **8**. When the file suffix is **weq** than it is a model file created with AutoEZ.

Other file suffixes as **xlsx**; **exe**; **txt** and **pdf** are self-explaining and commonly known.

File Name	Description
Chapter 2: Starting Modeling with EZNEC	
2-1.EZ	20m dipole
Chapter 3: Wires	
3-1.EZ	80m dipole 1-wire
3-1-1.EZ	80m sloped dipole
3-1-2.EZ	80m dipole 2-wires
3-1-3.EZ	80m inverted Vee
3-2.EZ	10m 3-element Yagi with equal diameters
3-2-1.EZ	20m 3-element Yagi stepped diameters
3-3.EZ	20m square loop
3-4.EZ	40m vertical with segment length tapering
3-5.EZ	2m 6-element Yagi
3-5-1.EZ	2m 4 X 6-elements stacked Yagis
3-6.EZ	10m 2-element Yagi-a
3-6.weq	10m 2-element Yagi-a
3-6-1.EZ	10m 2-element Yagi-b
3-6-1.weq	10m 2-element Yagi-b
3-6-2.EZ	10m 2-element Yagi-c
3-6-2.weq	10m 2-element Yagi-c
3-7.txt	10m 3-element Yagi ASCII file
3-8.weq	40m dipole (AutoEZ)
Chapter 4: Sources	
4-1.EZ	1-wire dipole single source
4-1-1.EZ	2-wire dipole split source
4-1-2.EZ	2-wire inverted Vee split source
4-1-3.EZ	3-wire dipole single source
4-1-4.EZ	3-wire inverted Vee single source
4-1-5.EZ	3-wire dipole-b single source
4-1-6.EZ	3-wire inverted Vee-b single source
4-2.EZ	20m Groundplane-a
4-2-1.EZ	20m Groundplane-b
4-2-2.EZ	20m Groundplane-c
4-3.EZ	80m dipole-a1
4-3-1.EZ	80m dipole-a2
4-3-2.EZ	80m dipole-b1
4-3-3.EZ	80m dipole-b2

Appendix C: Models and Files

4-3-4.EZ	80m dipole-c
4-4.EZ	40m 2-element Cardioid array
4-4-1.EZ	40m monopole
4-4-2.EZ	20m dipole array 2 sources
4-4-3.EZ	20m W8JK
4-4-4.EZ	10m ZL Special

Chapter 5: Loads

5-1.EZ	40m dipole (full size)
5-1.weq	40m dipole (full size)
5-1-1.EZ	40m dipole 1 load (center 50%)
5-1-1.weq	40m dipole 1 load (center 50%)
5-1-2.EZ	40m dipole 2 loads (off center 25%-75%)
5-1-2.weq	40m dipole 2 loads (off center 25%-75%)
5-1-3.EZ	40m dipole 2 loads (off center 33.33%-66.66%)
5-1-3.weq	40m dipole 2 loads (off center 33.33%-66.66%)
5-2.EZ	20-10m trap dipole
5-2.weq	20-10m trap dipole
5-2-1.EZ	20m dipole
5-2-2.EZ	10m dipole
5-3.EZ	80-40-20-10m trap dipole
5-3.weq	80-40-20-10m trap dipole
RX-LC.xlsx	EXCEL worksheet RX and LC conversions
Trap.exe	Program to estimate trap properties with given frequency

Chapter 6: Transmission Lines - TL

6-1.EZ	3-element Yagi – TL match a
6-1.weq	3-element Yagi – TL match a
6-1-1.EZ	3-element Yagi – TL match b
6-1-1.weq	3-element Yagi – TL match b
6-1-2.EZ	3-element Yagi – TL match c
6-1-2.weq	3-element Yagi – TL match c
6-1-3.EZ	3-element Yagi – TL match d
6-1-3.weq	3-element Yagi – TL match d
6-2.EZ	4-element Yagi – beta match a
6-2-1.EZ	4-element Yagi – beta match b
6-2-2.EZ	4-element Yagi – beta match c
6-3.EZ	3-element phased array – beta match a
6-3-1.EZ	3-element phased array – beta match b
6-4.EZ	40m Cardioid
6-4-1.EZ	40m Cardioid - TL
6-4-2.EZ	80m Cardioid - TL
6-5.EZ	20m dipole array – TL
6-6.EZ	20m W8JK
6-7.EZ	20m ZL
6-8.EZ	10m EDZ no Match
6-8.weq	10m EDZ no Match
6-8-1.EZ	10m EDZ 450 line match
6-8-1.weq	10m EDZ 450 line match
6-8-2.EZ	10m EDZ 50 coax match
6-8-2.weq	10m EDZ 50 coax match
6-9.EZ	20m quad

Appendix C: Models and Files

6-9.weq	20m quad
6-9-1.EZ	20m quad series match
6-9-1.weq	20m quad series match

Chapter 7: Physical Transmission Lines

7-1.EZ	TL 600
7-1.weq	TL 600
7-1-1.EZ	TL 450
7-1-1.weq	TL 450
7-1-2.EZ	TL 600
7-1-2.weq	TL 600
7-2.EZ	40m OCF no feedline
7-2.weq	40m OCF no feedline
7-2-1.EZ	40m OCF quarter wl feedline
7-2-1.weq	40m OCF quarter wl feedline
7-2-2.EZ	40m OCF half wl feedline
7-2-2.weq	40m OCF half wl feedline
7-3.EZ	40m dipole - 2 loads
7-3-1.EZ	40m dipole - 2 TL stubs
7-3-2.EZ	40m dipole -2 stubs
7-3-3.EZ	40m dipole - 2ends
7-4.EZ	15m collinear EDZ
7-5.EZ	40m linear-load dipole-a
7-5-1.EZ	40m linear-load dipole-b
7-5-2.EZ	40m linear-load dipole-c
7-6.EZ	20m 2-element quad - stub
7-6-1.EZ	20m 2-element quad - TL
7-6-2.EZ	20m 2-element quad - load

Chapter 8: Transformers and Networks

8-1.EZ	20m 2-element quad
8-1-1.EZ	20m 2-element quad with transformer
8-1-2.EZ	40m folded dipole with transformer
8-2.EZ	OCF 40-20-10m
8-3.EZ	40m monopole
8-3-1.EZ	40m monopole used at 80m High pass network
8-3-2.EZ	40m monopole used at 80m Low pass network
8-3-3.EZ	40m monopole used at 20m High pass network
8-3-4.EZ	40m monopole used at 20m Low pass network
8-4.EZ	40m Cardioid source 2 with 90° phase shift
8-4-1.EZ	40m Cardioid 90° phase shift by L network
8-4-1.weq	40m Cardioid 90° phase shift by L network
8-5.EZ	40m Monopole used at 80m, AutoEZ creating Low pass network
8-5.weq	40m Monopole used at 80m, AutoEZ creating Low pass network
8-5-1.EZ	40m Monopole used at 80m, AutoEZ creating High pass network
8-5-1.weq	40m Monopole used at 80m, AutoEZ creating High pass network
8-5-2.EZ	40m Monopole used at 80m, AutoEZ creating High pass T-network
8-5-2.weq	40m Monopole used at 80m, AutoEZ creating High pass T-network
8-5-3.EZ	40m Monopole used at 80m, AutoEZ creating Low pass Pi-network
8-5-3.weq	40m Monopole used at 80m, AutoEZ creating Low pass Pi-network

Appendix C: Models and Files

Chapter 9: Adding Ground Model

9-1.EZ	20m horizontal dipole 1 ground
9-1.weq	20m horizontal dipole 1 ground
9-1-1.EZ	10m horizontal dipole 1 ground
9-1-2.EZ	10m square loop
9-1-3.EZ	10m 3-element Yagi
9-1-4.EZ	10m 2-element Yagi
9-2.EZ	10m horizontal dipole 2 grounds-island
9-2-1.EZ	10m horizontal dipole 2 grounds-beach
9-2-2.EZ	10m horizontal dipole 2 grounds-cliff
9-3.EZ	20m vertical dipole 1 ground
9-3-1.EZ	20m vertical dipole 2 grounds-beach
9-3-2.EZ	20m Ground Plane radials 45 degrees 2 grounds-beach
9-3-3.EZ	20m Ground Plane radials 45 degrees 2 grounds-cliff
9-4.EZ	20m Ground Plane radials 45 degrees 1 ground at various heights
9-4-1.EZ	20m vertical with 32 radials placed at minimal height
9-4-2.EZ	20m vertical straight connected to MININEC ground

Chapter 10: View Antenna

10-1.EZ	40m rectangle loop
10-2.EZ	20m ground plane (A)
10-2-1.EZ	20m ground plane (B)
10-2-2.EZ	20m ground plane (C)

Chapter 11: SWR

11-1.EZ	80-40-20-15-10m multiband dipoles
11-2.EZ	40-20-10m OCF dipole
11-3.EZ	300 Ohm feedline
11-4.EZ	10m quad loop
11-4-1.EZ	10m quad loop with TL as impedance transformer
11-4-2.EZ	10m quad loop with TL as impedance transformer and feedline
3-bands.txt	Three frequency bands: 40-20-10m
5-bands.txt	Five frequency bands: 80-40-20-15-10m
9-bands.txt	Nine frequency bands: 160-80-40-30-20-17-15-12-10m
HF10.txt	10m band
HF12.txt	12m band
HF15.txt	15m band
HF17.txt	17m band
HF20.txt	20m band
HF30.txt	30m band
HF40.txt	40m band
HF80.txt	80m band
HF160.txt	160m band
HFhigh.txt	High frequencies bands 20-17-15-12-10m
HFlow.txt	Low frequencies bands 16.-80-40-30m
TLDetails.pdf	SWR & loss 40m dipole using 50 or 75 Ohm coax.

Appendix C: Models and Files

Chapter 12: Far Field Patterns

12-1.EZ	10m 3-element Yagi
12-1-1.EZ	10m 2-element Yagi
12-2.EZ	40m vertical dipole
12-3.EZ	OCF 40-20-10m
12-4.EZ	40m half square
12-5.EZ	10m Yagi
12-6.EZ	10m Quad
12-7.EZ	10m folded X-Beam-a
12-8.EZ	10m Moxon
12-9.EZ	2m 12-element Yagi
12-9.weq	2m 12-element Yagi
elv050.PF	elevation plot 2-el Yagi at 0.5 WL height
elv075.PF	elevation plot 2-el Yagi at 0.75 WL height
elv100.PF	elevation plot 2-el Yagi at 1 WL height

Chapter 13: Modeling Conventions and Guidelines

13-1.EZ	10m dipole tapered element
13-2.EZ	10m 3-element Yagi
13-3.EZ	2m square loop

Chapter 14: Convergence and Average Gain

14-1.EZ	20m half wavelength dipole
14-1.weq	20m half wavelength dipole
14-2.EZ	10m one wavelength dipole
14-2.weq	10m one wavelength dipole
14-3.EZ	2m folded dipole with equal element diameter
14-3.weq	2m folded dipole with equal element diameter
14-4.EZ	2m folded dipole with unequal element diameter
14-4.weq	2m folded dipole with unequal element diameter
14-4-1.EZ	2m folded dipole with unequal element diameter with NEC-4
14-4-1.weq	2m folded dipole with unequal element diameter with NEC-4
14-5.EZ	30-17m dual band using common resonator coupling
14-5.weq	30-17m dual band using common resonator coupling
14-6.EZ	30-17m dual band using common resonator coupling, equal segment length
14-6.weq	30-17m dual band using common resonator coupling, equal segment length
14-7.EZ	10m square loop sides equal diameter
14-7.weq	10m square loop sides equal diameter
14-8.EZ	10m square loop sides unequal diameter
14-8.weq	10m square loop sides unequal diameter
14-8-1.EZ	10m square loop sides unequal diameter with NEC-4
14-8-1.weq	10m square loop sides unequal diameter with NEC-4
14-9.EZ	40m delta loop
14-9.weq	40m delta loop
14-10.EZ	40m nonsymmetrical right angle triangle
14-10.weq	40m nonsymmetrical right angle triangle
14-11.EZ	10m folded X-beam
14-11.weq	10m folded X-beam
14-11-1.EZ	10m folded X-beam with NEC-4
14-11-1.weq	10m folded X-beam with NEC-4

Appendix C: Models and Files

14-12.EZ	20m 6-element Yagi
14-12.weq	20m 6-element Yagi
14-12-1.EZ	20m 6-element Yagi with NEC-4
14-12-1.weq	20m 6-element Yagi with NEC-4
14-13.EZ	40m 2-element Yagi
14-13.weq	40m 2-element Yagi
14-13-1.EZ	40m 2-element Yagi
14-13-1.weq	40m 2-element Yagi
14-13-2.EZ	40m 2-element Yagi
14-13-2.weq	40m 2-element Yagi
14-13-3.EZ	20m 3-element Yagi
14-13-3.weq	20m 3-element Yagi
14-13-4.EZ	20m 3-element Yagi
14-13-4.weq	20m 3-element Yagi
14-13-5.EZ	10m 3-element Yagi
14-13-5.weq	10m 3-element Yagi
14-13-6.EZ	10m 3-element Yagi
14-13-6.weq	10m 3-element Yagi
310-08H.YAG	10m 3-element Yagi

Chapter 15: AutoEZ Calculations and Variables Use

15-1.EZ	20m dipole
15-1.weq	20m dipole frequency sweep
15-1-1.weq	20m dipole convergence
15-2.EZ	Five frequency bands: 80-40-20-15-10m dipoles
15-2.weq	Five frequency bands: 80-40-20-15-10m dipoles
15-3.weq	30-17m dual band using common resonator coupling
15-4.weq	20m dipole at different heights
15-5.weq	40m delta loop varying height's
15-6.EZ	20m ZL
15-6.weq	20m ZL
15-7.EZ	10m folded X-beam-b, (tubes and wires), NEC-2
15-7.weq	10m folded X-beam-b, (tubes and wires), NEC-2
15-7-1.EZ	10m folded X-beam-b, (tubes and wires), NEC-4
15-7-1.weq	10m folded X-beam-b, (tubes and wires), NEC-4
15-7-2.EZ	10m folded X-beam-b, (only wires), NEC-4
15-7-2.weq	10m folded X-beam-b, (only wires), NEC-4

Chapter 16: Create Wires

16-1.EZ	80m dipole
16-1.weq	80m dipole
16-1-1.EZ	80m dipole catenary
16-1-1.weq	80m dipole catenary
16-1-2.EZ	80m dipole catenary optimized
16-1-2.weq	80m dipole catenary optimized
16-2.EZ	80m slant dipole
16-2.weq	80m slant dipole
16-2-1.EZ	80m slant dipole catenary
16-2-1.weq	80m slant dipole catenary
16-2-2.EZ	80m slant dipole catenary optimized
16-2-2.weq	80m slant dipole catenary optimized
16-3.EZ	Octagon 12 turn helix

Appendix C: Models and Files

16-3-1.EZ	Octagon 12 turn spiral helix
16-3-2.EZ	40m vertical with spiral hat
16-4.EZ	Create loop with EZNEC
16-4.weq	Create loop with AutoEZ
16-5.EZ	80m monopole with 32 radials
16-5.weq	80m monopole with 32 radials
16-6.EZ	20m tapper and with clamps 2-element Yagi
16-6.weq	20m tapper and with clamps 2-element Yagi
16-6-1.EZ	20m tapper and with clamps 2-element Yagi, optimized
16-6-1.weq	20m tapper and with clamps 2-element Yagi, optimized
16-7.EZ	20m 5-element Yagi (inch)
16-7.weq	20m 5-element Yagi (inch)
16-7-1.weq	20m 5-element Yagi (inch) elements resonance frequencies
16-8.EZ	20m 5-element Yagi (meter)
16-8.weq	20m 5-element Yagi (meter)
16-8-1.weq	20m 5-element Yagi (meter) dia and elements rounded
16-8-2.weq	20m 5-element Yagi (meter) elements resonance equal to inch resonance thus final converted model from Imperial to Metric
16-9.EZ	Start definitions modeling 2-meter dipole in front of wire grid
16-9-1.EZ	Second step modeling 2-meter dipole in front of wire grid
16-9-2.EZ	Third step modeling 2-meter dipole in front of wire grid
16-9-3.EZ	Final step modeling 2-meter dipole in front of wire grid
16-9-4.EZ	The 2-meter dipole with grid above ground
16-9-5.weq	Grid density WL/10 element spacing 0.5m
16-9-6.weq	Grid density WL/20 element spacing 0.5m
16-9-7.weq	Grid density WL/10 element spacing 0.3m
16-9-8.weq	Grid density WL/20 element spacing 0.35m
16-10.nec	Synth model save as NEC input file
16-10-1.ezt	Synth model save as geometry EZNEC ASCII import file
16-10-2.EZ	Grid model where every junction is a wire end
16-10-3.EZ	Grid model with also segment junctions
16-10-4.EZ	The SUV with a quarter wavelength whip on its roof
16-11.EZ	40m meander line dipole
Conversions.xlsx	EXCEL worksheet for conversions Imperial to Metric Units and vice versa

Chapter 17: Modeling by Equations

17-1.weq	20m single square loop
17-1-1.weq	20m single square loop in resonance
17-1-2.weq	20m single square loop at various heights in meter
17-1-3.weq	20m single square loop at various heights in wavelength
17-1-4.weq	20m single square loop in resonance rotate 45°
17-2.weq	Calculation results with wire coordinate definition by an equation
17-2-1.weq	Calculation results with wire coordinate definition by a numeric value
17-3.weq	40m equilateral delta loop with three options to define the wires coordinates
17-4.weq	40m right-angle delta loop with three options to define the wires coordinates
17-5.weq	20m 3-element Quad with dimensions from 3el quad.exe program
17-5-1.weq	20m 3-element Quad with optimized driver element
17-5-2.weq	20m 3-element Quad where the driver element is at the zero point on Y axis
17-6weq	20m square loop (metric units), using numerical values in the formula
17-6-1.weq	20m square loop (imperial units), using numerical values in the formula
17-6-2.weq	20m square loop (metric units), using constants in the formula
17-6-3.weq	20m square loop (imperial units), using constants in the formula
17-7.weq	20m Moxon using constants in the formulas

Appendix C: Models and Files

17-7-1.weq	20m Moxon referring to cells containing constants in the formulas
17-7-2.weq	20m Moxon converting to metric, faulty results
17-7-3.weq	20m Moxon converting to metric, correct results
17-8.weq	hexagon loop
17-8-1.weq	Hexagon 1-turn helix
17-8-2.weq	Hexagon 12-turn helix vertically positioned, (Z axis)
17-8-3.weq	Hexagon 12-turn helix horizontally positioned, (X axis)
17-8-4.weq	Octagon 12-turn helix vertically positioned, (Z axis)
17-8-5.weq	Octagon 12-turn helix vertically positioned, (X axis)
17-8-6.weq	Decagon 12-turn helix vertically positioned, (Z axis)
17-8-7.weq	Decagon 12-turn helix vertically positioned, (X axis)
17-8-8.weq	Dodecagon 12-turn helix vertically positioned, (Z axis)
17-8-9.weq	Dodecagon 12-turn helix vertically positioned, (X axis)
17-8-10.weq	Hexadecagon 12-turn helix vertically positioned, (Z axis)
17-8-11.weq	Hexadecagon 12-turn helix vertically positioned, (X axis)
17-8-12.weq	Hexagon defining turns by using a variable
17-9.weq	10m hexagon shaped helical dipole
17-9-1.weq	10m hexadecagon shaped helical dipole
17-10.weq	80m ¼ wl vertical
17-10-1.weq	80m 1/8 wl vertical with 4-spokes hat
17-10-2.weq	80m helical vertical with 4-spokes hat
17-11.weq	10m 0.25 wavelength vertical
17-11-1.weq	10m whip with hexagon coil at the base
17-11-2.weq	10m whip with octagon coil at the base
17-11-3.weq	10m whip with decagon coil at the base
17-11-4.weq	10m whip with dodecagon coil at the base
17-11-5.weq	10m whip with hexadecagon coil at the base
17-11-6.weq	10m whip inductive load (L in µH) load at the base
Coil32.pdf	More info about formulas used for circular and noncircular single layer coils
Polygons.xlsx	Excel worksheet to compute various polygon shapes
Coil inductance.xlsx	Excel worksheet to calculate single layer coil inductance, (Wheeler formulas)
3el quad.exe	Program to compute a 3-element Quad
Square loop.exe	Program to compute a single square loop dimensions

Setup_Coil32v11.6.0.812.exe Install Coil32

Chapter 18: Special Cases

18-1.EZ	80- 40m dual band crossed dipoles
18-1.weq	80- 40m dual band crossed dipoles
18-1-1.EZ	80m crossed dipoles for broadband characteristics
18-1-1.weq	80m crossed dipoles for broadband characteristics
18-1-2.weq	80m dipole resonant at 3.5625 MHz
18-1-3.weq	80m crossed resonant at 3.8875 MHz
18-2.EZ	6m turnstile dipoles, 2 sources
18-2.weq	6m turnstile dipoles, 2 sources
18-2-1.EZ	6m turnstile dipoles, 1 sources and 1 connection line 90°
18-2-1.weq	6m turnstile dipoles, 1 sources and 1 connection line 90°
18-3.EZ	Multiple dipoles source placement method (A)
18-3.weq	Multiple dipoles source placement method (A)
18-3-1.EZ	Multiple dipoles source placement method (B)
18-3-1.weq	Multiple dipoles source placement method (B)
18-3-2.EZ	Multiple dipoles source placement method (C)
18-3-2.weq	Multiple dipoles source placement method (C)

Appendix C: Models and Files

18-3-3.EZ	Multiple dipoles source placement method (D)
18-3-3.weq	Multiple dipoles source placement method (D)
18-3-4.EZ	Multiple dipoles source placement method (E)
18-3-4.weq	Multiple dipoles source placement method (E)
18-4.weq	Random wire antenna model for multiple bands
18-4-1.weq	Random wire antenna model for multiple bands with 600 ohm feedline
18-4-2.weq	Longwire antenna for single band
18-4-3.weq	Longwire antenna for single band with Zepp feed
18-4-4.weq	Terminated longwire using Laport method
18-4-5.weq	Terminated longwire using Laport method with Zepp feed
18-4-6.weq	Terminated longwire using MININEC ground model A
18-4-7.weq	Terminated longwire using NEC-2 model B
18-4-8.weq	Terminated longwire using NEC-4 model C
18-4-9.weq	Terminated longwire using NEC-4 model D
18-5.weq	Variable length Zepp feeding system
18-6.weq	Beverage MININEC ground
18-6-1.weq	Beverage K6STI method
18-6-2.weq	Beverage ON4UN method
18-6-3.weq	Beverage ground rods NEC-4
18-7.EZ	Double half-delta loop
18-7.weq	Double half-delta loop
18-8.EZ	Log periodic with using physically modeled transmission lines
18-8.weq	Log periodic with using physically modeled transmission lines
18-8-1.EZ	Log periodic with using EZNEC TL option
18-8-1.weq	Log periodic with using EZNEC TL option
18-9.EZ	40m magnetic loop
18-9.weq	40m magnetic loop
18-9-1.EZ	20m magnetic loop square shape
18-9-1.weq	20m magnetic loop square shape
18-9-2.EZ	20m magnetic loop circular shape
18-9-2.weq	20m magnetic loop circular shape
18-10.EZ	80m monopole MININEC ground model
18-10.weq	80m monopole MININEC ground model
18-10-1.EZ	80m monopole NEC-2 real high accuracy ground
18-10-1.weq	80m monopole NEC-2 real high accuracy ground
18-10-2.EZ	80m monopole NEC-2 real high accuracy ground tapered wires
18-10-2.weq	80m monopole NEC-2 real high accuracy ground tapered wires
18-10-3.EZ	80m monopole NEC-4 real high accuracy ground and rod
18-10-3.weq	80m monopole NEC-4 real high accuracy ground and rod
18-10-4.EZ	80m monopole NEC-4 real high accuracy ground, buried radials
18-10-4.weq	80m monopole NEC-4 real high accuracy ground, buried radials
Endfed patterns.pdf	random, longwire antenna radiation pattern & data
longwire.xlsx	EXCEL worksheet to calculate a longwire length

Chapter 19: AutoEZ Optimizer

19-1.weq	20m dipole
19-1-1.weq	20m square loop
19-2.weq	15m 2-element driver-reflector Yagi start values to optimize
19-2-1.weq	15m 2-element driver-reflector Yagi optimized
19-3.weq	15m 2-element driver-director Yagi start values to optimize
19-3-1.weq	15m 2-element driver-director Yagi optimized
19-4.weq	15m 3-element Yagi start values to optimize
19-4-1.weq	15m 3-element Yagi optimized

Appendix C: Models and Files

19-5.weq	Penta band 2-element Quad start settings
19-5-1.weq	Penta band 2-element Quad optimized upon 10 variables
19-5-2.weq	Penta band 2-element Quad successively optimized upon 2 variables from 10m toward 20m
19-5-3.weq	Penta band 2-element Quad successively optimized upon 2 variables from 20m toward 10m
19-5-4.weq	ARRL model from the book
19-5-5.weq	ARRL book model [19-5-4.weq] successively optimized upon 2 variables starting 10m toward 20m and target 50 jX 0 ohm
19-5-6.weq	Penta band Quad [19-5.weq] successively optimized upon 2 variables from 10m toward 20m and target 50 jX 0 ohm
19-5-7.weq	Penta band Quad [19-5.weq] successively optimized upon 2 variables from 10m toward 20m and target 50 jX 0 ohm, but with unequal stub length
19-6.weq	12-17-30m close spaced dipoles (coupled resonator principle)
19-7.EZ	20-15-10m MYY triband (from W4RNL, L.B. Cebik)
19-7-1.weq	20-15-10m MYY triband (inch)
19-7-2.weq	20-15-10m MYY triband (rounded meter)
19-7-3.weq	20-15-10m MYY triband (inch), optimized
19-7-4.weq	20-15-10m MYY triband (rounded meter), optimized
19-8.weq	80m dipole resonant at 3.6 MHz
19-8-1.weq	80m dipole resonant at 3.9 MHz
19-8-2.weq	80m dipole broadband by using open sleeve principle
19-9.weq	40m dipole
19-9-1.weq	40-15m dual band dipole
19-9-2.weq	40-15m dual band dipole with optimized hat position
19-10.weq	80m full size vertical
19-10-1.weq	80m vertical fixed 12m length and optimized spokes hat
19-10-2.weq	80m vertical fixed 12m radiator length and optimized spokes hat
19-10-3.weq	80m vertical fixed spoke length and optimized radiator length
19-10-4.weq	80m vertical fixed with circumference wire hat and optimized radiator length
19-11.weq	80m vertical with loading coil
19-12.weq	20m dipole to demonstrate automatic Antenna Tuning Unit
19-13.weq	40m vertical
19-13-1.weq	80m using L networks with 40m vertical
19-13-2.weq	30m using L networks with 40m vertical
19-13-3.weq	20m using L networks with 40m vertical
19-13-4.weq	80-40-30-20m multiband vertical using L networks using a 40m vertical
19-14.weq	80m vertical resonant at 3.775 MHz
19-14-1.weq	80m broadband vertical CW and SSB DX segments
19-14-2.weq	80m vertical used on 40m by using L network
19-14-3.weq	80-40m broadband vertical
19-14-4.weq	80m vertical used on 160m with L network 1.825 MHz
19-14-5.weq	80m vertical used on 160m with L network 1.875 MHz
19-14-6.weq	80m vertical used on 160m with L network 1.925 MHz
19-14-7.weq	80m vertical used on 160m with L network 1.975 MHz
19-14-8.weq	160m broadband vertical using four L networks with 80m monopole
19-14-9.weq	160-80-40m multi and broadband vertical
Sample Quad B.weq	To demonstrate changing the optimizer response by changing weight

Chapter 20: Tables and Graphs

20-1.weq	20m tapered dipole, wire definitions from center to tips
20-1-1.weq	20m tapered dipole, wire definitions from tip to tip

Appendix C: Models and Files

20-1-2.weq	20m tapered dipole height test
20-2.EZ	20m 3-element Yagi far and near field tests
20-2.weq	20m 3-element Yagi far and near field tests
20-2-1.weq	20m 6-element Yagi far and near field tests
D20m15.13	IONCAP/VEOCAP type 13 dipole
Y20m3E15.13	IONCAP/VEOCAP type 13 3-element Yagi
Y20m6E15.13	IONCAP/VEOCAP type 13 6-element Yagi
colors.CON	VOAAREA color setting for SDBW
VoaPlt.GPH	VOAAREA S-meter range settings
Voautils_install.exe	Program to specify VOACAP-VOAAREA parameters
Voautils manual.pdf	Manual
Color Illustration	Figures 17.7d – 17.12k – 20.6d – 20.6c – 20.7c – 20.7d – 20.7e – 20.7f

Appendix A: Units Conversion and Tables

Conversions.xlsx	EXCEL worksheet for conversions Imperial to Metric Units and vice versa.
------------------	--

Appendix B: Miscellaneous

Pentaband Quad Square-a.weq	see "Use of Non-English Language Excel"
Pentaband Quad Square-b.weq	see "Use of Non-English Language Excel"