

Software Review

ANTENNA REFERENCE – CD-ROM

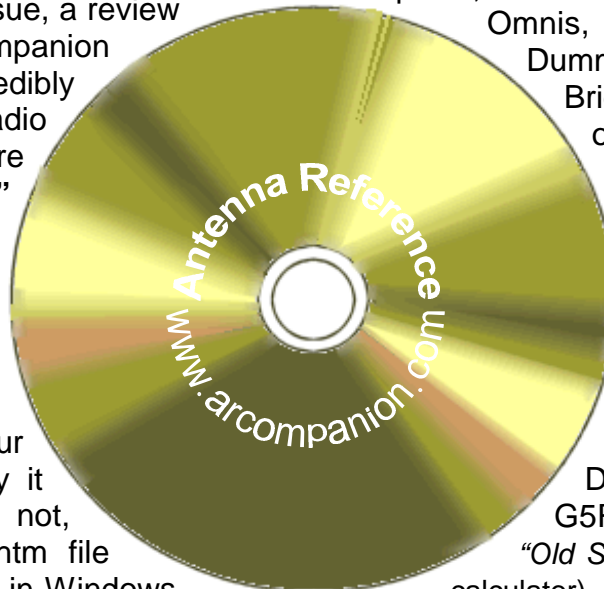
Well, he's done it again! Michael Todd Computers and Communications that is. We have had in a past issue, a review of the "Amateur Radio Companion CD-ROM" which is an incredibly good value tool for all radio enthusiasts, and now...there is the "Antenna Reference" CD ROM.

Folks, it doesn't get any better than this so, lets get down to business, what is in this CD Rom?

This CD runs with your Internet browser, with many it will load automatically, if not, simply click on the Index.htm file from your CD drive directory in Windows Explorer. You will then be greeted with the Welcome page. You will also see the day and date that you are viewing the CD. You will also see a bar with reference to: Home, Antennas, Construction, Impedance matching, data, and Files; yes, there are files, in fact entire programs that you can download from this CD. A click on Antennas reveals a selection section (as do all the reference titles). So, what's under

Antennas

Introduction – Propagation – Antenna Basics – Radiation patterns – Phasing – Transmission lines – SWR – Smith Chart (with sub menus) and a working Transmission line calculator with most types of cables listed etc. and... a user defined section as well, working right there as you view. The SWR Standing Wave Ratio page alone is a delight to the eyes, you will understand all you need to know about SWR after reading this page. The same goes for the SMITH Chart, how many of us have wanted to understand this subject better? There a 5 extra sub sections to this subject. The section on Propagation is a very well laid out long page of information, you'll be an expert after reading this! There are many hours of reading just in the section: Antennas



Next heading **Construction**

Dipoles, Verticals, loops, Arrays, Beams, Omnis, Traps, Coax Tx Lines, Dummy Loads, Simple SWR Bridge. I just loved the section on Traps. Explained in way anyone can understand, and with a working interactive calculator built-in! and, the calculator gives you the answer in Metres, Feet, and Inches! Oh Boy!

The **Dipole** section has 4 sub menus for: Basic Dipoles, (with calculator) G5RV, Windom, (with calculator. "Old SW favourite" Ed.) Zepp. (with calculator). You will also find many branching menus such as the "1:1 coax-line balun" on the Zepp page. Formulas are also a feature. You may never need to buy a construction book if you own this CD. The **Vertical** menu has 4 sub menus covering: Basic Verticals, 5/8 wave Vertical, J Pole, and Mobile. Then we have the **Loop** section covering: Basic loop, Delta loop, Spider Delta loop, Quad loop, and the Halo, ALL with working calculators. I could stay on the construction page but! There is so much more to see.

Next: **Impedance Matching**

With menus for: Baluns 1:1, Baluns 4:1, Transformers, 1/4 wave transformer, Series section, Matching stubs, Beta (Hairpin) match, Gamma match, Delta match, Omega match, T match, PI network, and Antenna Tuning Units. The section on 4:1 baluns explain how to construct with coax or wire. There are drawings and pictures to help you on your way.

DATA

The Data heading has sub menus for: Coax cable data, Wire data, Frequency & Wavelength, Plugs & Sockets. All the info you'll ever need about coax on the coax page. The Wire data section gives specs for Wire No. SWG, *(Continued on page 32.)*

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AWG / B&S, AWG Metric, $\lambda/1000\text{ft}$, λ/km . And in gauge, inches, and mm. Here you'll find the very information you need, and all on one page. The **Frequency & Wavelength** page will give you the necessary knowledge to know what the wavelength of any given frequency is. You know...the metre band, well us old timers remember when frequency used to given in metres...not to worry, simply use one of the two calculators and you'll know without having to use any math, Great!

Plugs & Sockets, there is data on Belling-Lee with clear descriptions on how-to connect to coax. BNC, both male and female connections (common on many scanners) You won't have any trouble after reading this section, very clear instructions. The same goes for the instructions on 'N' type and our old common standby, the UHF SO-239 (socket) and PL-259 (plug)

Lastly, a section dear to my heart. **FILES:**

The first page on 'Files' is a wonderfully descriptive page, taking you through the steps you may need to know about: The installation on your computer, unpacking (unzipping) etc. location etc. Why you ask? Well slap your peepers around this, a download section for PC and/or Linux of antenna files and programs, in the main antenna construction/design programs. There are 8 downloads on the Dipole antenna files and Programs page. On the Loop and Wire antenna files page, there's 8 downloads. There is a program called miniloop for small single turn antennas, another on HF wire antenna and transmission line design, yet another on Magnetic Loop antenna design. The list goes on and on. RF Design Toolbox, EZNEC, MININEC, Propagation programs. Plotting, designing, there's dozens of programs ready to download off the CD.

You would need to spend hundreds of dollars on many, many books to get the information and programs on this one CD.

There's Doc Readers, (inc. Adobe Acrobat Reader 5.05 -handy!) Archivers, Editors, Runtime programs. In the Archive section you can download: ARJ, JAR, RAR, ARCE,

LHA. I have been looking at this CD for a few weeks, and I feel I have only scratched the surface (no pun intended). This is an extremely well thought out CD.

With a price tag of Australian \$35 (approx. us \$25) where are you going to get so much for so little. ARC Antenna Reference, give yourself a treat this Christmas (and a friend!). Email Michael Todd at sales@arcompanion.com visit the website at <http://www.arcompanion.com> And don't forget to mention you saw it in CQSWN.

Written by Anthony Smith (CQSWN)