

NCJ Reviews: *Up the Tower* by Steve Morris, K7LXC

Steve Morris, K7LXC, has more than 25 years of antenna and tower experience. For many years he wrote a column for *NCJ*, he moderates the "Towertalk" e-mail reflector, he operates Champion Radio - a distributor of hard-to-find equipment and tools for tower work - and has installed hundreds of amateur and commercial towers. His book, *Up the Tower* -; *The Complete Guide to Tower Construction*, reflects Steve's years of experience in the field and is a much-needed reference for contesters.

It does not take long for a new contesteer to figure out that location and antenna are the key factors in a station's effectiveness. As K1 VR says, "Big antennas, up high, are better than small ones, low." In most cases, improving an antenna farm eventually involves installing a tower. Here's where this book fills a big gap. *The ARRL Antenna Book* has so much other material to cover that the chapter on tower and antenna installation is somewhat compromised. K7LXC's book is light on antenna theory and focuses entirely on how to get your antenna where you want it.

From the outset - and repeated several times - the book emphasizes that it is *not* an OSHA-approved course in tower work. The book's foreword makes this very clear and includes a suitable disclaimer and warning. Reading and digesting this book will not make you a tower pro. In fact, the book even points out that some techniques it discusses do not meet OSHA standards. But, that's okay. There are lots of do-it-yourself books available on plumbing, wiring, carpentry and on other areas that won't make you a licensed plumber or electrician or a carpenter, but they do help you get a small job done or decide when you need to call in a professional.

The book's 246 pages are broken down into 36 chapters, although some chapters are only a page or two long. The first few chapters deal with assessing whether you *need* a tower, and, if so, what kinds of towers/supports are available. The next few chapters deal with the critical issues of planning, getting permits and even dealing with neighbors. These do indeed belong in the first part of the book, since failure to address these issues will doom any tower project before it gets started, in ad-

dition to making life in your neighborhood unpleasant. The advice here is practical and down-to-earth.

Chapter 4, "Land Use Regulation of Amateur Radio Towers," is one of a few chapters dealing with issues beyond a layman's training. This chapter contains sections of an article by attorney Wyland Dale Clift, NA 1 L, that originally appeared in *CO Magazine*.

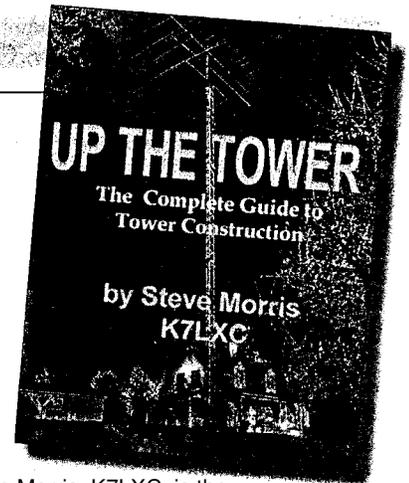
Chapter 7 addresses the question of whether you should do the work yourself or hire a contractor. It is not a simple question, and there is no universal right answer. Time, cost, safety, personal experience and 'skills all are factors in this equation.

The next few chapters cover basics, such as hardware. A few more photos would have helped here; a text description of a clevis is unsatisfying, while a photo or drawing would have worked. This part of the book also discusses corrosion prevention materials, safety equipment, tools and even rope and guys. I have done a fair amount of tower and antenna work over the years and was expecting to find something missing from the tool list. Steve did a terrific job, however, and he included numerous photos and drawings of some of the lesscommon tools and their uses.

There is an excellent chapter on the roles of the tower climber(s) and the ground crew. This should be reviewed the day before attempting *any* tower or antenna project. Tower work is dangerous, and the team must work together to prevent any problems.

It is fully halfway through the book before discussion of actual tower erection and antenna installation begins. Logically, it starts at the bottom, with a chapter on foundation! base/guy anchor design and construction. Each section includes some reference tables or charts on the relevant topic (mast materials, coax choices, waterproofing, grounding, tramping methods, etc).

Although most of the book relates to installation of fixed, guyed towers, one chapter discusses working on crank-up towers. This chapter very clearly (in bold print) advises, "Do not climb a crank-up tower unless it is totally nested and locked in the lowered position!" The author liberally sprinkles safety advice like this throughout the book.



Steve Morris, K7LXC, is the author of *Up the Tower - The Complete Guide to Tower Construction*.

While it may be tempting to end such a book at the point where installation is complete, Morris wisely continues beyond that point to cover the topics of maintenance, repair, insurance (contributed by ND8L, an insurance agent), tower removal and a reminder that "everything has a lifespan."

Two chapters are devoted to non-tower antenna installations that use trees for antenna supports. One is a reprint of a 1989 OSTarticle by Doug Brede, W3AS, on the proper use of trees. He writes from the unique perspective of a ham and former associate professor of horticulture. This is very useful information, if you want your trees to remain healthy enough to hold up your wire antennas for many years. The other chapter deals with mounting antennas - including fairly large Yagis! - in trees.

The final chapter is a potpourri of hints and kinks that don't fit easily into any of the other chapters. Even experienced tower and antenna installers will probably learn at least one new trick in this chapter. Many of these tips have been gleaned from Steve's personal experience, while others first appeared on the "Towertalk" e-mail reflector.

K7LXC is known on the "Towertalk" list for often invoking his *Prime Directive* of antenna work: "Do what the manufacturer says to do" - and the corollary, "Don't do what the manufacturer says *notto* do." Morris restates this several times in his book, and it's good advice that bears repeating.

This is a good book, and most contesters will benefit from owning it. Most radio clubs should have a copy in the library as well.

Up the Tower - The Complete Guide to Tower Construction is published by Champion Radio Products, 16541 Redmond Way #281-C, Redmond, WA 98052 USA, www.championradio.com, ISBN 978-0-615-28514-6. The price is \$35. [r]J<::J