

Communications and Technology

The subtitle on our cover each month—after *CQ Amateur Radio*—is “Communications and Technology.” For us, both the communications aspect of amateur radio and its technology aspect carry equal weight, and are critically interdependent. We could not *do* the communications that we do—whether DXing and contesting or public service and emergency communications—without the technology that goes along with it, and that very often, we develop or adapt to meet our needs. By the same token, our technology nearly always has a practical purpose ... to communicate. Without the communication aspect, there’d be little point to our technology; without our technology, there’d be little to separate ham radio from cell phones and the internet.

How we bring together these two aspects of our hobby helps define what makes amateur radio—and radio amateurs—special. In order to be effective communicators, we need to *understand* at least the basics of our technology. We need to understand enough about how radio waves travel through space to know what band to use for what purpose at what time, or what antenna will be most effective. We need to understand enough about our radios and how they work to be adaptable to changing circumstances, whether it’s a band shutting down unexpectedly during a contest or the need to build a radio network on the fly while dealing with an unfolding disaster.

This is why ham radio works “when all else fails.” It’s not because there’s something special about our technology but because there’s something special about our people. Our radios are not just tools for us. They are as important to us as what we do with them. Being able to make the best use of both our technological skills and our communications skills requires one other thing ... ongoing education. The FCC’s Basis and Purposes for amateur radio include “self-training,” which can mean learning on your own, but most often involves getting together to share knowledge and the lessons that come with experience. Not all of us can design our own gear, or build tiny radios into weather balloons or satellites, but we all can learn from those who do. It’s a part of ham radio tradition extending back more than a century. And that’s where a magazine like *CQ* comes in, helping to share our collective knowledge and experience.

This issue is our annual Technology Special. But it isn’t just a compilation of project articles. Our focus this time around is on understanding our technology better, whether it’s new, old or in between. For example, many of us use antenna modeling software to figure out what will work best in the space we have available, or how to maximize the effectiveness of existing antennas. But how many of us really understand how that software works? Or that its history really dates back to the earliest days of radio? Read W3CRI’s article on page 22 and you’ll become one of those who do.

Microcontroller-based projects have been gaining in popularity among hams in recent years, start-

*e-mail: <w2vu@cq-amateur-radio.com>

Correction

The October issue’s editorial about the Young Ham of the Year award incorrectly identified the program’s newest corporate sponsor as Radio Daze instead of **RadioWavz**. Both are actual companies and both are *CQ* advertizers. (I wrote that on the way home from the Huntsville Hamfest and must have been in a bit of a daze, HI!) We apologize for any confusion, and welcome **RadioWavz** (<<http://www.radiowavz.com/>>) to the ranks of corporate sponsors of the Newsline Young Ham of the Year Award.

ing with PICs and moving to Arduinos. XV4Y tells us about a lower-priced alternative to the Arduino called the LaunchPad, and how to put it to work in your ham projects (p. 19). W4DNN takes a somewhat tongue-in-cheek look (p. 30) at older technology and the value of keeping vintage gear in your shack and in operating condition. There’s more, of course, but you get the idea. For hams, technology and communications go hand-in-hand, and each one would be much less than it is without the other.

This message was driven home to me as I toured the New York Maker Faire in September. There’s no question that there was lots of really cool stuff there (see article, p. 13), but there was also a fair amount of technology for technology’s sake. Yes, it can be fun to build a circuit that makes lights flash, but why? What are those flashing lights going to do for you? Likewise, some of the projects on the Arduino Playground website leave me scratching my head ... such as the Poetry Reader Telephone or Vandal Spray, a digital spray paint can for automated vandalism!

Since we hams have an underlying purpose of using our technology for communicating, our projects tend to be more focused on the practical. Likewise, at *CQ*, our technology articles are designed to either help you deepen your knowledge and understanding of some subject, or to help you build a project with practical value in your ham shack. That is one thing that differentiates us from the broader community of Makers. To paraphrase the Rev. Rick Warren¹, we have a “purpose-driven” hobby. We hope you enjoy this year’s Technology Special issue.

Dashing Through the Snow...

It’s that time of year again ... cold-weather months perfect for building new projects or doing antenna work! It’s also a time when we reflect on the gifts we’ve been given (hopefully beyond those we may find under the tree) and whether we’ve used our ham radio hobby to help others and/or bring a little more purpose to our lives. From all of us at *CQ* to each of you, we wish you the very best this holiday season, whether you celebrate Christmas or another winter holiday, and the blessings of peace, good health and prosperity in the coming year.—W2VU

Note:

1. The Rev. Rick Warren <<http://rickwarren.org/>>, author, *The Purpose Driven Life* <<http://purposedriven.com/books/pdllbook/#purpose>>.