ARRL Author's Guide

By Steve Ford, WB8IMY, *QST* Editor/ARRL Publications Manager,
and Becky R. Schoenfeld, W1BXY, *QST* Managing Editor

QST

Despite the common misconception, *QST* is *not* a technical or engineering publication. *QST* is a *membership journal* that appeals to a broad cross-section of readers within the diverse Amateur Radio community. With that in mind, we're looking for articles that are likely to please the highest percentage of our readership.

Feature articles published in *QST* fall into one of two broad categories: **technical articles** and **general interest articles**. Technical articles outline a construction project, a how-to tutorial, or a technical concept. General interest articles are "everything else" — anything that's not a technical article: recaps of DXpeditions, grid expeditions, or public service activities; personal accounts of trying a new mode or style of operating; anything relating to operating or the ham radio avocation.

We look for a strong "how-to" component in technical articles as well as general interest articles. It is not enough to write up a detailed account of your club's booth at the state fair and say the booth attracted 5,000 visitors, 2,000 of whom accepted printed material about how to get licensed, and that the GOTA station was mobbed all day. What our readers really want to know is *how* you achieved that success. Therefore, the article needs specific information about the contributing factors: How your group managed the flow of visitors; how you recruited, trained, and scheduled the booth's staff; what sort of follow-up you did with the people who accepted information about how to get licensed, and so on. Whether your article is technical or general interest, readers should come away from the article with specific ideas for how to duplicate your success.

> **Important!** Send material to only one potential publisher at a time. It is our policy to automatically reject any submissions that have been sent simultaneously to other magazines or websites. Multiple submissions can lead to copyright infringement problems for publishers. By the same turn, we do not consider previously published material.

Some additional advice on how to focus your articles:

A **technical article** that has the best chance of being accepted for *QST* is one that:

♦ Presents a project or idea that is useful and engaging to most hams. Example: A description of an HF antenna that can fit in a small attic is useful to a large portion of our readership. A discussion of feedhorn design for 24 GHz transmitters is not (this type of article would be better suited to *QEX*, *QST*'s sister publication).

♦ Is written in a natural, conversational style. We like articles that speak to the reader as if the author was chatting with the reader over a cup of coffee.

♦ The best construction and tutorial articles are those that present the information in a series of steps. The following example from Dino Papas, KLØS, was extremely popular when it was published in the January 2019 issue of *QST*. On the next page, please notice how Dino broke the discussion into discrete steps …

Installing
Coax Crimp Connectors
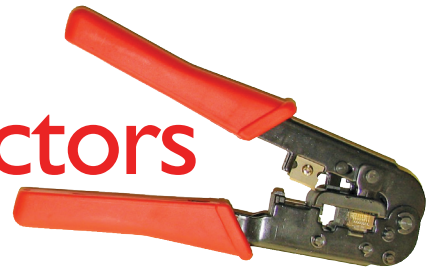
Dino Papas, KLØS

I have never liked installing coax connectors. I think this was due to the fact that I did it so infrequently, each time seemed like the first time — and we all know what *that* is like. Finally, I broke down and bought some specialty tools and coax crimp connectors, and I haven't looked back since.

Tools

I find that a ratcheting crimping tool with a set of interchangeable dies is essential for this task. The ratcheting action is necessary to apply the proper crimping force, and a selection of die sizes ensures the proper amount of crimp for a chosen connector. The tool is also useful for Anderson Powerpole connectors and wire terminals. My ratcheting crimper is part of the Andy-Crimp Pro set sold by Quicksilver Radio. The set also includes cable cutters and strippers.

Rounding out my coax tool set is DX Engineering's Coaxial Cable Tool Kit that, while intended for preparing coax for solder connectors, also makes easy work of preparing coax for crimp connectors. They also sell a ratcheting crimp tool set (DXE-UT-KIT-CRMP2) for use with Amphenol Connex crimp-on connectors.

Crimping tool photo courtesy of Appaloosa, Wikimedia Commons.

The right tools make this task a cinch.

Step-by-Step Process

I'll illustrate the crimping process with two differently sized type N connectors (see Figure 1) and attach them to both the LMR-400 cables and the thinner LMR-240 cables.
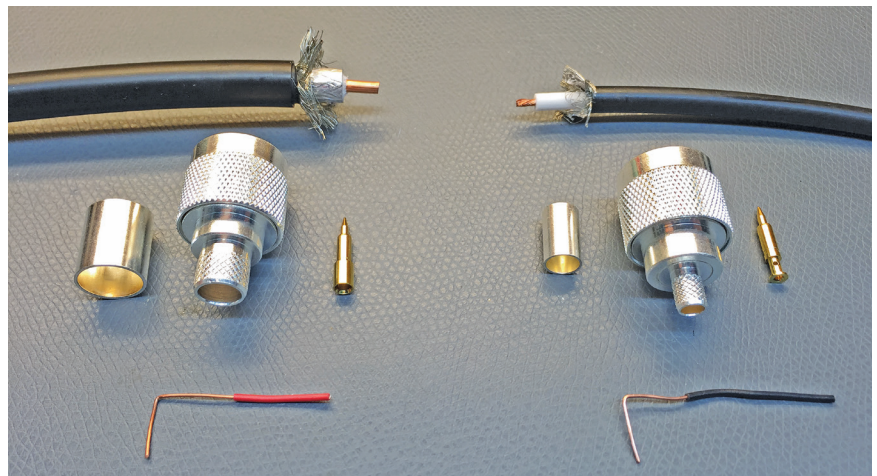

Figure 1 — On the left, a type N crimp connector for LMR-400 coax cable and, on the right, a type N crimp connector for the thinner LMR-240 coax cable. The two **L**-shaped wires at the bottom are homemade stripping gauges made by inserting a piece of wire into the connector body and bending it where it stops.

Step 1: Square the end. Cut a small piece from the cable end with a large, sharp cable cutter to get a straight, flush cut across the end. If the cutter is dull or too small, it will deform the end of the cable. Now, slip the ferrule and a length of heat-shrink tubing onto the cable (see Figure 2).

Figure 2 — Start with a square cut across the cable end and slide on the ferrule and a piece of heat-shrink tubing.

Step 2: Expose the braid. For LMR-240 cable, I use the DX Engineering green coax prep tool's **1ST CUT** opening to expose ⅝ inch of braid and aluminum shield. For LMR-400 cable, I use the similar red coax prep tool's **2ND CUT** opening to expose ¾ inch of braid and shield. Both tools make a spiral cut that proceeds until the wire end hits a stop (see Figure 3). A rubber jar-opening pad helps to grip the wire.

Figure 3 — The cable's outer covering is removed to expose the braid or shield.
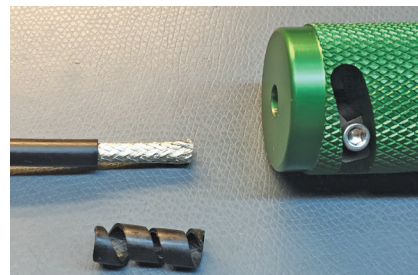
Step 3: Prepare the braid. Slide the ferrule up to the braid and pull the braid back and down tight over it. Use a sharp pick to pull the braid outwards and perpendicular to the cable. Then, use a very sharp set of cutters to trim the exposed braid length by roughly half (see Figure 4). Before crimping, the ferrule must slip over and cover the braid, so it's best not to trim the braid too short at this point. With LMR-240 cable, I carefully slice the foil shield length-wise along the dielectric on the opposite side of where the foil is split. Then, peel the cuts down to create two strips of foil and trim them to match the length of the trimmed braid. With the thicker LMR-400 cable, you can simply leave the foil in place around the dielectric.

Figure 4 — The cable braid shown trimmed and folded back.

Step 4: Prepare the exposed dielectric. Once the center insulating dielectric has been exposed, use a purpose-made measuring gauge to mark how much dielectric to remove to expose the center conductor. Make a new gauge for each type of connector by inserting piece of scrap wire into the end of the connector body until it stops. Then, bend it over the edge of the connector into an **L** shape, with the bottom leg of the **L** representing the reference length. After marking the cut position, use a conventional "finger twirl" coax stripping tool to cut the dielectric (see Figure 5). Make sure the end of the dielectric is a clean square cut.

Figure 5 — The measured amount of dielectric is marked and then removed.

Step 5: Prepare the center pin. Use the center pin to mark the depth of the center conductor necessary to have the pin sit flush to the dielectric, and then clip the center conductor at this point (see Figure 6). Before crimping or soldering the pin to the center conductor, test fit the connection to ensure the center pin comes up flush with the end of the connector by dragging your fingertip across the top and feeling for the tip's sharp point.

Figure 6 — The center pin being fitted.

Step 6: Prepare the connector. First, make sure that there is no short from the braid or shield to the center conductor, and then firmly push the connector onto the coax (see Figure 7). Next, slide the ferrule over the braid or shield until it's flush with the connector body and trim off any protruding braid strands. The connector is now ready for crimping.
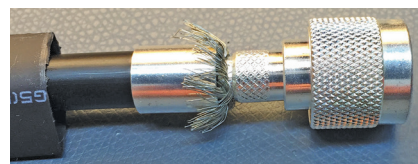

Figure 7 — The connector must be firmly pushed onto the coax.

Step 7: Crimp the connector. Select the proper die and place it over the ferrule, flush against the connector body, and then squeeze the ratcheting crimp tool handles until they automatically release, indicating the completion of the operation. Figure 8 shows an unmounted die positioned properly on a ferrule for an LMR-240 connector.

Step 8: Finishing. Slide the heat-shrink tubing over the ferrule, flush with the connector body, and set it with a heat gun. Finally, add an ID label for a professional touch (see Figure 9).

Figure 8 — An unmounted die, illustrating proper placement of ferrule for crimping.

Conclusion

Learning to crimp coax cable connectors will definitely take some practice. You can cut some scrap pieces of coax and prepare the ends for a crimp-on connector. As long as you don't solder or crimp the center conductor pin or crimp the ferrule, you can use the components over and over again until you get the hang of it. Alan Wolke, W2AEW, has an excellent You-Tube instructional video about crimping that is worth watching.[1]

[1]A. Wolke, W2AEW, **www.youtube.com/watch?v=ktQVwfo-s9w**.
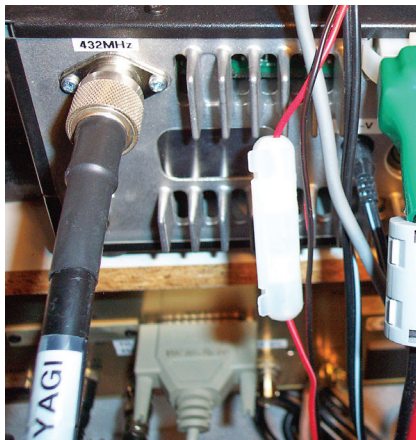

Figure 9 — LMR-400 cable with type N crimping connector, finished with heat-shrink tubing and an ID label.

Photos by the author.

Amateur Extra-class licensee and ARRL Life Member Dino Papas, KLØS, has been an Amateur Radio operator for almost 50 years. He holds a BSEE degree from the University of California at Davis and a Masters of Engineering Management from George Washington University. Dino retired as a colonel after 26 years of active duty in the US Army. He now resides with his wife Toby, KLØSS, an Amateur Radio operator and ARRL Life Member, in Williamsburg, Virginia, where he is president of the Williamsburg Area Amateur Radio Club. Dino and his wife host the club's Ham Radio Makerspace that was described in the February 2015 issue of *QST*. You can contact Dino at **kl0s@arrl.net**.

For updates to this article, see the *QST* Feedback page at www.arrl.org/feedback.

VOTE
If you enjoyed this article, cast your vote at
www.arrl.org/cover-plaque-poll

A **general-interest article** that has the best chance of being accepted for *QST* is one that:

♦ Tells an engaging story. If you're writing a story about your amateur operation from a far-flung island, give the reader a sense of what it was like to be there. In addition to the sights and sounds of your surroundings, readers will want to know about the successes and challenges you had while operating. The more you can paint a specific, detailed picture in our minds, the more likely we are to accept your article.

♦ Appeals to a national audience. Articles that are meant as advance promotion for a local event rarely work for *QST*. We tend to run promotional articles only for events that are national or global in scope (such as Hamvention®).

♦ The general-interest articles we are most likely to accept are those that "grab" readers at the beginning and pull them into interesting stories. The article on the following page by Allison McLellan, published in the November 2018 issue of *QST*, is an excellent example…

Other ARRL Publications to Write For

QEX is a technical, engineering-oriented publication. The *QEX* audience consists of hams with strong technical backgrounds, many of whom are active or retired professional engineers.

We accept a much broader range of technical material for *QEX* than *QST*. We're happy to consider any technical article, if the subject matter is relevant to Amateur Radio. That said, we still expect good writing for *QEX;* a conversational style will make your article stand out among the candidates.

National Contest Journal (NCJ) is a magazine for hams who love contesting. For *NCJ*, we're looking for articles that run the gamut from reviews of hardware and software, to antenna designs, to stories about your last contest operation. A friendly writing style is particularly important for *NCJ*. Remember that you are writing for a tight-knit group of competitors who deeply enjoy what they do.

Under Radio-Quiet Skies

While the world becomes increasingly connected, the National Radio Quiet Zone relies on the restriction of electronic transmissions in order to study the cosmos.

Allison McLellan

Driving past the Allegheny Mountains of West Virginia, all connections to the outside world begin to fade. Cell signals and radio broadcast channels get weaker until, eventually, they're gone completely. That is what happens when entering the United States National Radio Quiet Zone (NRQZ).

[John Stoke, photo]

The NRQZ is a 13,000-square-mile area between Virginia and West Virginia, including a small part of Maryland, where the Allegheny Mountains act as a natural barrier to radio and television broadcast. In this zone, radio service is heavily limited to avoid overwhelming the minute astronomical signals measured at the Sugar Grove Station, in Pendleton County, and the Green Bank Observatory (GBO), in Pocahontas County. This protection has lasted for decades despite an increasingly technology-driven world, preserving the NRQZ as a place to observe scientific phenomena that can't be seen anywhere else on the planet.

The History

In 1956, the State of West Virginia created State Law 37A, forming the West Virginia Radio Astronomy Zone (WVRAZ) to protect any radio astronomy facility within the state from electrical power levels above a certain threshold. It is divided into five zones, ranging in the severity of regulation on radiating devices based on proximity to an observatory. The FCC then established the National Radio Quiet Zone in 1958 to govern all fixed-based licensed transmitters throughout a 13,000 square-mile area.

Thus, a receiving station was activated as "Naval Radio Station Sugar Grove" in 1969 as part of the ECHELON surveillance program. Initially a secret program, ECHELON was spearheaded by the US government in the late 1960s with cooperation from Canada, the United Kingdom, Australia, and New Zealand to investigate communications between the Soviet Union and their allies during the Cold War. The site in Sugar Grove intercepted and processed all electronic telecommunications entering the eastern side of the US. The station's involvement with the National Security Agency received recognition during the 2013 controversy over former CIA Technical Assistant and government whistleblower Edward Snowden through reports from *The New York Times* and *The Washington Post*. Shortly thereafter, the Chief of Naval Operations ordered the base closed by 2015, citing plans for relocation. In 2017, the former Navy base was bought by an investment group for $4 million with plans to be converted into a healthcare facility.

Thirty miles west of Sugar Grove is the Green Bank Observatory in Pocahontas County, established in 1956. The site houses the Robert C. Byrd Green Bank Telescope (GBT), the world's largest fully steerable radio telescope, towering at 485 feet and weighing 17 million pounds. Measuring the radio

signature given off by all molecular matter in the universe across 0.1 – 116 GHz, it is one of the most sensitive radio telescopes in the world. It measures signals in micro-Jansky units — according to the GBO website,[1] that is less energy than what is generated by a single falling snowflake.

As the only telescope in the world that can provide the instant resolution and sky coverage necessary to understand how planets are formed, the GBT is used to study everything from comets to the origins of the universe. GBO Business Manager Mike Holstine described, "[The GBT] has found that the basic building blocks of life exist everywhere in our galaxy… This is extremely important for the formation of life."

The only designated quiet zone in the United States, the NRQZ has been so successful that it has become a model for similar quiet zones across the world. The International Telecommunication Union has even suggested forming quiet zones in space.

Life in the Quiet Zone

Those living in the NRQZ must adjust to very specific perimeters to comply with GBO operation. In areas closest to the observatory, only diesel-powered vehicles are allowed because of the interference caused by spark-ignited engines in gasoline-powered cars. Law requires that power lines be buried 4 feet underground, the use of any Bluetooth devices or microwaves are prohibited, and television is only accessible through satellite or cable through most of the area.

One technology that is not quite so impacted by Quiet Zone limitations is Amateur Radio, as operation is on completely different frequencies than those used by the telescopes. Still, a radio amateur must use low power and highly directional antennas.

ARRL member Pat Schaffner, KC8CSE, is president of the Eight

A Builder Second Class Navy officer leads a run at the Navy Information Operations Command site in Sugar Grove in 2011. [US Navy photo, Mass Communication Specialist Second Class Joel Carlson/released]

Visitors from Far, Far Away

The uniqueness of the Quiet Zone has attracted a variety of visitors. As one of the most radio-quiet places on Earth, it is the perfect place for those who claim to have electromagnetic hypersensitivity (EHS). Surveys across California, the United Kingdom, Sweden, and Taiwan have found that about 1 to 5% of their population believe to be afflicted. While rare, those who claim to suffer from EHS experience a range of adverse symptoms, from headaches and nausea to rashes and prickling sensations on the skin, all from exposure to electromagnetic fields. Although EHS is not a medically accepted diagnosis, a few dozen wireless refugees have fled to Green Bank (population 143) since the eruption of the digital revolution through the 2000s.

The small town has also attracted international attention. Russian billionaire Yuri Milner gifted $100 million to the Search for Extraterrestrial Intelligence Center at the University of California at Berkeley, which will use part of that donation to rent the Green Bank Telescope (GBT). Yuri founded the project Breakthrough Initiatives in 2015 with his wife Julia Milner "in order to explore the universe, seek scientific evidence of life beyond Earth, and encourage public debate from a planetary perspective," according to the project website.[2] His donation will go toward taking 20% of the GBT's time over the next decade, utilizing its acute sensitivity to explore the possibilities of extraterrestrial life.

Rivers Amateur Radio Club (N8RV) in Pocahontas County. Licensees are served by eight repeaters throughout the county, and the club provides communication for events in the area. In describing limitations on Amateur Radio, Pat said, "All repeaters must be approved by the observatory — their power, location, antenna gain, and so on — in order to deploy them. If they ask us to shut down the system, we must comply."

ARRL member Rudy Marrujo, KD8WPG, is also a member of the Eight Rivers Club. When he moved to

the NRQZ 5 years ago, he saw Amateur Radio as a necessary tool. He said, "Amateur Radio gives us the opportunity to communicate with friends and neighbors, and therefore unite our community. It takes on a heightened and more significant purpose here in Pocahontas County."

There are numerous instances in which Marrujo has used Amateur Radio to call for help for members of his community, as well as for complete strangers in need of assistance. He recounted a time when two women from out of the area had

An Unlikely DXpedition

Walt Skavinsky, KB3SBC

Accompanied by fellow Amateur Radio operators Bill Stauffer, KA3RMM, and Edward Beneiser, WA3WSJ, ARRL member Walt Skavinsky, KB3SBC, received approval from the Green Bank Observatory Interference Protection Group to set up a DXpedition in the National Radio Quiet Zone.

Our crew planned to operate from Cass Scenic Railway Park atop Bald Knob Mountain, the third-highest point in West Virginia. This location falls within Zone 3 of the five smaller zones that make up the NRQZ. Zone 3 is restricted to frequencies below 30 MHz, with a power limit of 5 W.

We rode a train to the summit and spent 2 nights in a reserved caboose, built in 1949, which contained five beds, a small kitchen, and a coal stove for heat, with a lead-acid battery and solar charger providing power and lighting. Two solar panels, a charge controller, and a homebrew lead-acid battery box provided power. Setup included a homebrewed inverted **L** antenna fed with a 1:1 unun and a homebrewed G5RV. I used my Elecraft KX3 to contact stations across 80 – 10 meters, while Bill used an FT817 and a KX3. Ed utilized a pedestrian mobile pack with a modified Kulikov military antenna attached to a Buddistick coil to make CW contacts on 40 and 20 meters on his Elecraft KX2. After a 1-mile hike to the Bald Knob Fire Tower, we activated the local Summits on the Air (SOTA) summit W8V/PH-002. We also deployed a British military Clansman dipole kit, stretching 34 meters of wire per leg, to obtain our only contact on 160 meters.

Operating holiday style, our team made just over 100 contacts under somewhat challenging band conditions. This area is not a place you think of as the perfect place to operate Amateur Radio, but with a little preparation, it turned out to be a great event.

GBO Business Manager Mike Holstine under Green Bank's 140-foot telescope, with a view of the GBT. [AUI/GBO, photo]

their car break down on one of the county's rural roads, and Marrujo and his radio became their only means of assistance.

The Quiet Keepers

In an age of almost ubiquitous technology, it is a wonder how such a large area has been able to maintain radio-quiet skies — that is where the Interference Protection Group comes in. The group is comprised of several Green Bank Observatory employees who balance their responsibilities at the facility with the additional duties of maintaining a database of known RFI for observational use, planning the testing of electronics to be installed within the facility, and discussing possible mitigation techniques for upcoming technologies.

Within the 10-mile radius of the WVRAZ, the team uses a truck outfitted with equipment to monitor licensed transmission sites and seek out offending signals. They inspect Amateur Radio stations near the observatory and ensure they are maintained up to code, but the source of an interference issue is often unexpected. This past year, the crew began an intense search for RFI indicated at 1,404 MHz within 2 miles of the GBO. After several fruitless drives

through the community, an RF technician finally located the offender — a Raspberry Pi accidentally left on in a scientists' office.

Mike Holstine is also co-head of the Interference Protection Group. He said, "With the advent of the digital revolution and the interconnectivity of everything manufactured and sold today, the pressure on the Quiet Zone has become tremendous. Simply keeping up with the volume of requests for licenses is onerous. Add that to the increase in wireless communications devices in every household, and it becomes almost impossible to manage."

Everyday tools such as the tire pressure monitoring system in vehicles, LED lights, the automatic door opener at the local grocery store — essentially, anything wireless — become problematic in the NRQZ. "That being said," Holstine continued, "the Quiet Zone is still extremely quiet in comparison to any other place on the planet."

Notes
[1]**www.greenbankobservatory.org**
[2]**www.breakthroughinitiatives.org**

Allison McLellan is an Assistant Editor for *QST*. She can be reached at **amclellan@arrl.org**.

Preparing Your Manuscript

You can email your manuscript to ARRL HQ as a word-processing file attachment. Although our editorial departments work primarily in Microsoft *Word*, they can read other word-processing formats as well.

When preparing your electronic manuscript for emailing, please observe the following guidelines:

1 **DO NOT** attempt to format the document to look like a magazine page. Type your article as you would type a report.

2 **DO NOT** embed images or illustrations within the manuscript. Send them as separate image files, attached to your email (not embedded in your email).

3 **DO** include captions for all images and illustrations. Put the captions the end of your article, rather than embedded within the main text of your article. Please include the full names and call signs of people included in photos, as well as the name (and call sign, if any) of the photographer.

4 **DO** make sure your name, call sign, postal address, and email address are included within the manuscript file.

Sending Your Manuscript

Email your manuscript to:
qst@arrl.org

Please note: Our email system can only accept a total of **8 Mbytes** worth of attachments in any single message. That means that if you are sending a manuscript file plus several digital image files, you could easily exceed the limit. When this happens, the email may bounce back to you with an error message, or it may simply vanish. If you think your total may exceed 8 MBytes, send the files spread over a course of several email messages.

Also, **do not send ZIP files**. Our email security system will reject these messages.

You also have the option to send your manuscript to us by postal mail. The top of each manuscript page should have a heading that includes the author's name, a key word or two from the title, and a page number. It's is a good idea to make a copy of your article before sending it to ARRL HQ. (Material sometimes gets lost in the mail.)

Send your manuscript, including all drawings and photographs, to:
ARRL
ATTN: Editorial Dept
225 Main St.
Newington, CT 06111

Photographs

♦ We can accept color prints or slides.

♦ We can also accept digital images if the resolution is sufficient. Generally speaking, this means using at least a 4-megapixel (or greater) camera with the image resolution (sometimes referred to as "image quality") set at *maximum*. This is usually the setting that allows your camera to store the LEAST number of pictures.

♦ All photos, digital or otherwise, must include captions. Tell us what is going on in the photo, where it was taken and so on. If people are shown prominently in the photographs, you must supply their names and/or call signs. If any minors are shown in photos, we require written permission from the minor's parent or legal guardian before the minor can be depicted in *QST*. The permission release form for minors is available at **http://www.arrl.org/photo-video-release-form**. Don't write directly on the front or back of prints. Type photo credit or descriptive information on a piece of paper and tape the paper to the back of the print.

♦ **DO NOT** send images captured from websites, or scanned from magazines, newspapers, catalogs, or other media without obtaining the written permission of the author, webmaster, company, etc.

♦ **DO NOT** send prints made on color laser or inkjet printers. The color quality is not sufficient for us to use.

♦ If your camera has a date-stamping function that adds the date to every photograph, please TURN IT OFF when shooting photos for possible publication.

Illustrations

Any sketches and/or schematic diagrams you supply should be as clear as possible so that our technical illustrator can work directly from them. We do not require professional line drawings from you. Even pencil drawings are acceptable if they are clear and legible.

All illustrations must include the following:

♦ Component labels and values (for example: $C3 - 10\ \mu F$)

♦ Dimensions of all construction components (PVC tubes, wires, aluminum tubes, etc.)

♦ Text captions that clearly describe what is being shown. **NOTE:** Schematic diagrams must include captions that list ALL part values.

Project Source Codes

In keeping with the spirit of Amateur Radio, ARRL supports open-source software. If your project includes a microprocessor or other device that functions with instructions that you have written, the source code must be made available *at no cost* to any reader who requests it. You can supply the code to us for distribution from the ARRL Web, or you can distribute it from your own site or via email. *QST* will not accept a project article unless the source codes are freely available to the public.

How the Article Selection Process Works

Manuscripts submitted to *QST* are reviewed by a panel of editors and, in the case of technical articles, technical advisors. In the case of specialized subject matter, manuscripts may be circulated to ARRL staff members who are experts in that subject. As mentioned earlier, manuscripts that have relevance to the highest percentage of our readership are most likely to be accepted for publication. *Decisions of the editorial committee are final.*

If you've submitted a technical article, it will be reviewed by our Technical Editorial Committee, which consists of ARRL in-house editors and a group of volunteers with expertise in various engineering disciplines. Articles are evaluated on the following criteria:

♦ Technical accuracy

♦ Quality of writing

♦ Quality of photography (if applicable)

♦ Editorial need

Every technical article submission is considered not only for *QST*, but also for *QEX*, *NCJ*, and even *The ARRL Handbook*. The committee decides which venue is best for every accepted article. However, if you want your article to be considered for one publication only (say, *QST*), please note this clearly in your submission.

General interest articles are reviewed in much the same way, except that the general interest committee is comprised strictly of ARRL Head-quarters staff. Quality of writing, photography, and editorial need are the major evaluation criteria.

The editorial committees meet once every 4-6 weeks, so please be patient.

If Your Manuscript is Accepted

If your manuscript is accepted, you will receive a notice by postal mail. Articles accepted for publication become the property of The American Radio Relay League, Inc. In other words, we acquire all rights to your article. We must do this because ARRL has sharing agreements with our IARU sister societies worldwide. To fulfill these agreements, our articles must be available for publication overseas, without copyright encumbrances from the original authors.

That said, it is important to point out that we only acquire rights to your article *as it is published in our media*. We do *not* hold rights to your ideas, designs, software, etc.

Before we can prepare a manuscript for publication, we must have your written permission to do so. This is the purpose of the *author's release form*, which is sent to accepted authors along with the acceptance letter. The release form specifies that the material you have submitted is original, except as noted; has not been submitted or published elsewhere, except as noted; and contains suitable credit for circuits or ideas borrowed from already published material. Please be sure to include your Social Security Number on the release form. If the material falls within our compensation guidelines, and you are a US citizen or resident alien, we must have your Social Security Number so that we can report the payment to the Internal Revenue Service.

Please be advised that once your article is accepted for publication, it could be up to 1 year or even longer before your article appears in print. Many factors figure into planning editorial for a monthly publication, and we are not always able to tell an author when his or her article will appear.

When your article is ready for publication, we will either post, fax, or email a copy to you (in Adobe PDF format). This will be your "proof" copy. Check it carefully for errors, and then contact us as soon as possible with any necessary changes.

Compensation

ARRL compensates authors of certain material published in *QST* according to these guidelines:

♦ Payment will be made for *QST* articles and Hints and Hacks items. Payment for articles will be at the rate of $65 per published page, or part thereof, including photographs, drawings and other related material. For *QEX* the rate is $50 per page. Authors of Hints and Hacks items will be compensated at the rate of $20 per published item. We do not pay for material published in *NCJ*.

♦ Payment will be made upon publication. ARRL and IARU officials (officers, directors, and vice directors, as well as officials of IARU member-societies), and authors of ARRL National Convention articles are not eligible for compensation. For authors who are presently under contract to ARRL (such as Contributing Editors), the provisions of the contract, and not this policy, apply.