

The American Radio Relay League

The American Radio Relay League, Inc., is a noncommercial association of radio amateurs, organized for the promotion of interest in Amateur Radio communication and experimentation, for the establishment of networks to provide communications in the event of disasters or other emergencies, for the advancement of the radio art and of the public welfare, for the representation of the radio amateur in legislative matters, and for the maintenance of fraternalism and a high standard of conduct.



ARRL is an incorporated association without capital stock chartered under the laws of the state of Connecticut, and is an exempt organization under Section 501(c)(3) of the Internal Revenue Code of 1986. Its affairs are governed by a Board of Directors, whose voting members are elected every three years by the general membership. The officers are elected or appointed by the Directors. The League is noncommercial, and no one who could gain financially from the shaping of its affairs is eligible for membership on its Board.

"Of, by, and for the radio amateur," ARRL numbers within its ranks the vast majority of active amateurs in the nation and has a proud history of achievement as the standard-bearer in amateur affairs.

A *bona fide* interest in Amateur Radio is the only essential qualification of membership; an Amateur Radio license is not a prerequisite, although full voting membership is granted only to licensed amateurs in the US.

Membership inquiries and general correspondence should be addressed to the administrative headquarters:

ARRL
225 Main St.
Newington, CT 06111 USA
Telephone: 860-594-0200
FAX: 860-594-0259 (24-hour direct line)

Officers

President: Rick Roderick, K5UR
P.O. Box 1463, Little Rock, AR 72203

The purpose of QEX is to:

- 1) provide a medium for the exchange of ideas and information among Amateur Radio experimenters,
- 2) document advanced technical work in the Amateur Radio field, and
- 3) support efforts to advance the state of the Amateur Radio art.

All correspondence concerning QEX should be addressed to the American Radio Relay League, 225 Main St., Newington, CT 06111 USA. Envelopes containing manuscripts and letters for publication in QEX should be marked Editor, QEX.

Both theoretical and practical technical articles are welcomed. Manuscripts should be submitted in word-processor format, if possible. We can redraw any figures as long as their content is clear. Photos should be glossy, color or black-and-white prints of at least the size they are to appear in QEX or high-resolution digital images (300 dots per inch or higher at the printed size). Further information for authors can be found on the Web at www.arrl.org/qex/ or by e-mail to qex@arrl.org.

Any opinions expressed in QEX are those of the authors, not necessarily those of the Editor or the League. While we strive to ensure all material is technically correct, authors are expected to defend their own assertions. Products mentioned are included for your information only; no endorsement is implied. Readers are cautioned to verify the availability of products before sending money to vendors.

Kazimierz "Kai" Siwiak, KE4PT

Perspectives

We Should Talk

The prospect of holding a live conversation with another randomly contacted ham somewhere else on the planet can be accompanied by the anxiety of "mic-fright." It was for me. I felt comfort hiding behind the anonymity of CW Morse code during my early ham days. Still, it was a daunting prospect to hold a conversation with someone I'd just met on-the-air.

Today, many of the more recent digital modes are geared to provide minimal scripted QSO exchanges over specific difficult propagation paths like Earth-Moon-Earth and meteor scatter. Then there is also FT8, which was designed for fast minimal exchange QSOs over HF paths. FT8 is the ultimate in hiding-behind-the-screen (literally) of anonymity — for some, the keyboard antithesis of mic-fright. While FT8 is certainly not an on-the-air conversational mode — in fact some hams prefer to not QSO with the same station more than once — it does provoke online debates that center on operational questions such as whether a final exchange of "73" is required for a QSL-worthy QSO. The keyboard conversation has shifted away from on-the-air to online. These minimal QSO exchanges serve the purpose of earning confirmations for various awards like DXCC and WAS, but they are not conversations.

Back in my Novice days, the ARRL offered a simple award, the Rag Chewers' Club (R.C.C.) certificate, earned for holding an on-the-air QSO lasting 30 or more minutes. An intent was to foster conversations instead of minimal QSO exchanges. The ARRL R.C.C. award has since been phased out, but several clubs and ham organizations have taken up that banner with their own versions of the award.

There are modes such as traditional CW, RTTY and PSK31 that support conversations. There are also the voice modes. Take the time to have an on-the-air conversation with a fellow ham. We should talk!

In This Issue:

- Eric Nichols, KL7AJ, in his Essay Series, explains resonance.
- Dave Harrison, W6IBC, describes a multi-band HF phasing receiver.
- Brian Callahan, AD2BA, conducts gaming experiments over SSTV.
- Gérald Julien Lemay, VA2GJ, explains tuned transformers.
- Gary Cobb, G3TMG, measures low-valued insertion losses with a NanoVNA.

Writing for QEX

Please continue to send in full-length QEX articles, or share a **Technical Note** of several hundred words in length plus a figure or two. QEX is edited by Kazimierz "Kai" Siwiak, KE4PT, (ksiwia@arrl.org) and is published bimonthly. QEX is a forum for the free exchange of ideas among communications experimenters. All members can access digital editions of all four ARRL magazines: QST, On the Air, QEX, and NCJ as a member benefit. The QEX printed edition is available at an annual subscription rate (6 issues per year) for members and non-members, see www.arrl.org/qex.

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Very kindest regards,
Kazimierz "Kai" Siwiak, KE4PT
QEX Editor