

## 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/](http://www.arrl.org/qex/) or by e-mail to [qex@arrl.org](mailto: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

### Keep Talking

In the July/August *Perspectives* I mentioned traditional CW, RTTY and PSK31 as examples of key and keyboard modes that can support conversations on the HF bands rather than just rapid fire minimalist exchanges of modes like FT8.

The column resonated with several hams. Most notably Donald S. Brant Jr., N2VGU, was quick to remind me of the JS8 conversational mode in the JS8Call application by Jordan Sherer, KN4CRD. JS8 is indeed a clever mode implemented in the JS8Call application, and it encourages conversations and rag chewing activity over weak signal paths. JS8Call was brought to the attention of *QST* readers by Steve Ford, WB8IMY, in his "Eclectic Technology" *QST* columns of January 2019 and May 2022. Steve notes that the JS8Call application was built upon the open source WSJT-X software framework, and it employs many aspects of FT8, but it uses the mode in a way that can support keyboard-to-keyboard conversations. It brings the highly popular FT8 technology to the conversationalist.

Our rules and regulations are designed to provide an amateur radio service having fundamental purposes that include the continuation and extension of our unique ability to enhance international goodwill, and to advance skills in both the communication and technical phases of the art. Good ideas, like FT8, can spawn other good ideas, like JS8, that exemplify the fundamental principles of ham radio. Let's keep talking.

### In This Issue:

- Harry Bloomberg, W3YJ, displays a waterfall on a remote station.
- Benjamin Neveu controls an SSB receiver with a smartphone.
- Brian Callahan, AD2BA, reviews the CW Record Protocol.
- H. Lawrence Serra, N6NC, explains enhanced 40 m propagation over the North Pacific.
- John Stanley, K4ERO, verifies the short/open method of measuring S11.
- R. Evans Wetmore, K3VFA, presents satellite path link calculations.
- Eric Nichols, KL7AJ, in his Essay Series, solves parallel complex circuits.

### 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, ([ksiwiak@arrl.org](mailto:ksiwiak@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*, *OTA*, *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](http://www.arrl.org/qex).

Would you like to write for *QEX*? We pay \$50 per published page for full articles and *QEX* Technical Notes. Get more information and an Author Guide at [www.arrl.org/qex-author-guide](http://www.arrl.org/qex-author-guide). If you prefer postal mail, send a business-size self-addressed, stamped (US postage) envelope to: *QEX* Author Guide, c/o Maty Weinberg, ARRL, 225 Main St., Newington, CT 06111.

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