

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:

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Officers

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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

QEX Joins the ARRL Online Offerings, Social DXing

QEX Online edition is now available as an ARRL member benefit. The printed edition of *QEX* is still be available to all subscribers including non-members at the usual subscription rates. *QEX* Online edition is the same as the printed magazine, but features full color. It joins the ARRL suite of digital magazines — *QST* Online, *On the Air*, and *NCJ* Online — that are all ARRL member benefits. In addition to the current issue, you will also find the January/February and March/April issues loaded onto the online platform.

For *QEX* authors that means a greatly expanded audience! For readers it represents access to the premier amateur radio technical journal for communications experimenters.

Amateur radio has been described as the original social media. We hams interact socially on a global scale with other hams from the comfort and the isolation of our arm chairs. We are sometimes rewarded by DXCC, WAS and other awards. Most importantly, we also use the medium for local as well as distant social and intellectual interaction. Social interaction takes on an added importance for our psychological well being. In today's reality isolation is a vital weapon in the fight against a dangerous global pandemic. Please check in with your ham friends by radio or by telephone or by whatever means is available to you. Keep up that connection during this time.

Let's make sure that an isolated friend, ham, or family member is not overlooked or forgotten. Stay in good health.

In This Issue

Jacek Pawlowski, SP3L, describes more new broadband wire antennas in this Part – 2.

Steve Stearns, K6OIK, explores general uniform transmission lines having complex characteristic impedance and propagation constant.

Bob DePierre, K8KI, extends the matching range of an 80 m antenna.

Andrew J. Anderson, VK3CV/WQ1S, gets on the 122 GHz band with a simple transverter.

Writing for QEX

Keep the full-length *QEX* articles flowing in, or share a **Technical Note** of several hundred words in length plus a figure or two. Let us know that your submission is intended as a **Note**. *QEX* is edited by Kazimierz "Kai" Siwiak, KE4PT, (kswiak@arrl.org) and is published bimonthly. The content is driven by you, the reader and prospective author. *QEX* is a forum for the free exchange of ideas among communications experimenters. All ARRL members can enjoy *QEX* Online edition as a member benefit. The printed edition annual subscription rate (6 issues per year) for members and non-members is \$29 in the United States. First Class mail delivery in the US is available at an annual rate of \$40. For international subscribers, including those in Canada and Mexico, *QEX* printed edition can be delivered by airmail for \$35 annually, see www.arrl.org/qex.

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Very kindest regards,

Kazimierz "Kai" Siwiak, KE4PT

QEX Editor