

David Minster, NA2AA
Publisher

Becky R. Schoenfeld, W1BXY
Editorial Director

Jen Glifort, KC1KNL
Senior Editor

Caroline Kenney
Meghan Reilly
Leanna Zwiebel
Assistant Editors

Bart Jahnke, W9JJ
Radiosport & Field Services
Manager

Rick Lindquist, N1RL
Happenings

Bob Allison, WB1GCM
Product Review Lab Testing

Steve Ford, WB8IMY
Mark J. Wilson, K1RO
Al Brogdon, W1AB
Bernie McClenny, W3UR
H. Ward Silver, N0AX
Paul Wade, W1GHZ
Jon Jones, N0JK
Rick Palm, K1CE
Joel R. Hallas, W1ZR
Barry Shackelford, W6YE
Kai Siwiak, KE4PT
Bruce Draper, AA5B
Contributing Editors

Michelle Bloom, WB1ENT
Production Supervisor

Jodi Morin, KA1JPA
Assistant Production Supervisor

Maty Weinberg, KB1EIB
Production Coordinator

David Pingree, N1NAS
Senior Technical Illustrator

Janet Rocco, W1JLR
Advertising Sales Manager

Bob Inderbitzen, NQ1R
Product Development Manager

Yvette Vinci, KC1AIM
Marketing and Sales Manager

Steve Ewald, WV1X
Field Organization Supervisor

Eric Casey, KC2ERC
Convention and Event Coordinator

9 Second Century

Why I'm An ARRL Member

30 The Tuna Tin "S" — A Bare-Bones Synthesized QRPp Transmitter

Bob Fontana, AK3Y

37 Product Review

Mark Wilson, K1RO

Yaesu FTDX101MP MF, HF, and 6-Meter Transceiver; Radioddity GA-510 Dual-Band Handheld Transceiver; Workshop Vises; Four State QRP Group Cric-Key Kit



53 Installing an In-Dash Mount for Your Mobile Rig

Glen Popiel, KW5GP

56 Sled Dogs and Ham Radio in the North Maine Woods

Derrick Ouellette, KW1A

64 January 2021 Kids Day

64 The 2021 ARRL International DX Contest

65 The 2021 ARRL Straight Key Night

65 The 2021 January VHF Contest

66 The 2021 ARRL RTTY Roundup

66 SKYWARN® Recognition Day 2020: COVID-19 Adjustments

67 2020 ARRL June VHF Contest Results

Phil Koch, K3UA

69 2020 ARRL Field Day Results

85 A Look Back — February 1971

Columns

Celebrating Our Legacy.....	91
Classic Radio.....	92
Contest Corral.....	63
Correspondence.....	24
The Doctor is In.....	49
Eclectic Technology.....	36
Feedback.....	52
Happenings.....	59
Hints & Hacks.....	51
How's DX?.....	78
Member Spotlight.....	13
Public Service.....	61
The World Above 50 MHz.....	80
Up Front.....	20
100, 50, and 25 Years Ago.....	94

Digital and Mobile Editions

ARRL members can access the digital edition via a link at www.arrl.org/qst, download our iOS app from the iTunes Store, and download our Android app from the Google Play Store.

Departments

ARRL Section Managers.....	16
ARRL VEC Honor Roll.....	84
Certificate of Code Proficiency Recipients.....	83
Convention and Hamfest Calendar.....	84
Field Organization Reports.....	62
Guide to ARRL Member Benefits.....	14
Ham Ads.....	124
Index of Advertisers.....	126
Officers, Division Directors, and Staff.....	15
QST Cover Plaque Award.....	55
Silent Keys.....	95
Special Event Stations.....	82
W1AW Qualifying Runs.....	83
W1AW Schedule.....	77
W1AW's QSL File.....	28

Write for QST

www.arrl.org/qst-author-guide
email: qst@arrl.org



Our Cover

As we approach the cold months in many areas, hams prepare their stations for some cozy indoor operating. Season's Greetings to our members, from everyone at QST!



QST (ISSN:0033-4812) is published monthly as its official journal by the American Radio Relay League, Inc., 225 Main St., Newington, CT 06111-1400, USA. Periodicals postage paid at Hartford, CT, USA and at additional mailing offices.

POSTMASTER: Send address changes to: QST, 225 Main St., Newington, CT 06111-1400, USA. Canada Post: Publications Mail Agreement #90-0901437. Canada returns to be sent to IMEX Global Solutions, 1501 Morse Ave., Elk Grove Village, IL 60007.

US & Possessions: Membership in the ARRL, including a 1-year subscription to QST, is available to individuals at \$49. Licensed radio amateurs age 21 and under and the eldest licensee in the household may qualify for the rate of \$25. Life Membership, including a subscription to QST is available at \$1,225.* Membership includes \$21 per year for subscription to QST. Membership and QST cannot be separated. Libraries and institutions, \$49 per year. Single copies \$6.95.

International

To compensate for additional postage for mailing outside the US, the following rates apply:

Canada: Membership in the ARRL, including a 1-year subscription to QST, \$76, payable in US funds. Life Membership, including a subscription to QST is available at \$1,550.* Libraries and institutions, \$62 per year.

All Other Countries: Membership in the ARRL, including a 1-year subscription to QST, \$76, payable in US funds. Life Membership, including a subscription to QST, is available at \$1,900.* Libraries and institutions, \$76 per year.

Membership without QST is available to the immediate family of a member living at the same address, and to anyone who is legally blind, for \$10 per year.

Foreign remittances should be by international postal or express money order or bank draft negotiable in the US and for an equivalent amount in US funds.

Membership in the ARRL, including a 1-year subscription to Digital QST only, is available to Canadian and International members at \$49.

Copyright © 2020 by the American Radio Relay League Inc. Title registered at the US Patent Office. International copyright secured. All rights reserved. Quedan reservados todos los derechos. Printed in the USA.

QST®, DXCC®, VUCC®, DX Century Club®, ARES®, Amateur Radio Emergency Service®, Logbook of The World®, LoTW®, and ARRL, the national association for Amateur Radio® are registered trademarks of the American Radio Relay League, Inc.

The ARRL and QST in no way warrant the products described or reviewed herein.

QST is available to blind and physically handicapped individuals from the Library of Congress, National Library Service for the Blind and Physically Handicapped. Call 1-800-424-8567 or go to www.loc.gov/nls/.

Indexed by Applied Science and Technology Index, Library of Congress Catalog Card No: 21-9421.

*Payment arrangements available. Please write for details.

In order to ensure prompt delivery, we ask that you periodically check the address information on your mailing label. If you find any inaccuracies, please contact the Circulation Department at circulation@arrl.org or **860-594-0200** immediately. Thank you for your assistance.

Reprints and permissions: permission@arrl.org

Details of our Online Privacy Policy can be found at www.arrl.org/online-privacy-policy.

Telephone: **860-594-0200**
Fax: **860-594-0259**