

Harold Kramer, WJ1B Publisher

Steve Ford, WB8IMY Editor

Joel P. Kleinman, N1BKE Managing Editor

Joel R. Hallas, W1ZR Technical Editor

Larry D. Wolfgang, WR1B Senior Assistant Technical Editor

Steve Sant Andrea, AG1YK Assistant Editor

S. Khrystyne Keane, K1SFA Happenings

> Mark J. Wilson, K1RO Product Review

Bob Allison, WB1GCM **Product Review Lab Testing**

> Rick Palm, K1CE Public Service

Mary M. Hobart, K1MMH At the Foundation

> Sean Kutzko, KX9X Radiosport

Bill Moore, NC1L DX and VHF/UHF Century Clubs

John Troster, W6ISQ Paul L. Rinaldo, W4RI Al Brogdon, W1AB Bernie McClenny, W3UR John Dilks, K2TQN H. Ward Silver, NØAX Gene Zimmerman, W3ZZ Paul Wade, W1GHZ Contributing Editors

Michelle Bloom, WB1ENT **Production Supervisor**

Jodi Morin, KA1JPA Assistant Production Supervisor

> Maty Weinberg, KB1EIB **Production Coordinator**

Sue Fagan, KB10KW Graphic Design Supervisor

David Pingree, N1NAS Senior Technical Illustrator

Carol Michaud, KB1QAW Technical Illustrator

Nancy G. Hallas, W1NCY Élaine Lengyel Proofreaders

Debra Jahnke, K1DAJ **Business Services Manager QST** Advertising

Bob Inderbitzen, NQ1R Marketing Manager

Amy Hurtado, KB1NXO Circulation Manager

Diane Szlachetka, KB1OKV Advertising Graphics Designer

In This Issue January 2012 Volume 96 Number 1

Technical

A Transistor Tester in a Tin 30

Alan Bloom, N1AL

Build this handy little piece of test equipment using a time-honored Amateur Radio tradition.

Revisiting the Four Stage 75 Meter SSB Superhet 32 David Harrison, W6IBC

Watch out, CW ops! This nifty homebrew receiver is for the phone bands.

A 2 Meter and 70 cm Portable Tape Measure Beam 37 John Portune, W6NBC

Your VHF/UHF signals will measure up with this easy-to-make antenna.

Moving Yet Another Band Lower with that HF Loop 40 Dave Robertson, KE5QWP

Make that single antenna perform extra duty by adding bands.

Providing Power for Your Pet Project 43

Joel R. Hallas, W1ZR

How to choose the right power supply for your project de jour.

A Low-Impact Mobile Installation 45

Thomas E. Nolan, W3EX

When it comes to the family vehicle, sometimes discrete works best.

Product Review 48

Mark Wilson, K1RO

WiNRADiO WR-G31DDC Excalibur software defined receiver; AvMap G6 APRS navigation system; TE Systems 1410G 2 meter linear amplifier



News and Features

It Seems to Us 9

The Year Ahead

This Just In 12

Joel P. Kleinman, N1BKE

Special award bestowed at Pacificon 2011; Inside HQ; Media Hits; more.

The Sixth Annual On-Line Auction 55

S. Khrystyne Keane, K1SFA

After a week of frenzied bidding, the ARRL On-Line Auction closed with a bang of the Internet gavel.

DXing for the Little Pistol 65

Robert S. Logan, NZ5A

Hone up on these tips on how a small station can be successful at making DX contacts.

Vintage Low Power Radios 67

Ralph E. Taggart, WB8DQT

Everything old is new again when you choose a vintage QRP transmitter.

High Tide on Tarawa 70

Bill Vanderheide, N7OU

Wash that DX right out of the air with this tale of a South Pacific DXpedition.

Sorry, Old Man, You're Not in the Log 72

Steve Sant Andrea, AG1YK

Use recommended phonetics to communicate more clearly.

Building a Dream Novice Station 73

Kim Johnson, KCØJQH

Have fun bringing back the station of your youth.

The DIY Magic of **Amateur Radio 75**

Allen Pitts, W1AGP

How the ARRL is inviting other "Do-It-Yourselfers" to explore the art and science of Amateur Radio.

Happenings 76

S. Khrystyne Keane, K1SFA

Results of the ARRL Board elections; ARRL: the FCC's new BPL regulations don't go far enough; President Obama nominates two for FCC; a gaggle of Cal Poly freshmen earn their ticket; more.

Our Cover

When the weather outside is frightful, ARRL Lab Test Engineer Bob Allison, WB1GCM, heads to the workbench. Here, he can not only repair his existing gear, he can build new and exciting things for his shack, such as this QRP SSB/CW receiver kit. Whether you are an experienced homebrewer or are using that soldering gun for the first time, you are certain to discover something that will inspire you to go to your workbench as you thumb through this special DIY issue of QST. Happy building!

Radiosport

Contest Corral 83

H. Ward Silver, NØAX

2011 ARRL UHF Contest Results 84

John (JK) Kalenowsky, K9JK

2012 School Club Roundup 86





Columns

82
99
24
58
96
93
60
63
87
13
97
80
62
56
20
94
89
102

Departments

Convention and Hamfest Calendar 10	00
Feedback	69
Field Organization Reports1	02
Guide to ARRL Member Services	14
Ham Ads1	54
Index of Advertisers1	56
New Products 31, 36, 44,	47
QuickStats1	58
Silent Keys10	03
Special Events	92
Strays61, 92, 99, 10	03
W1AW Schedule	99

Interested in Writing for QST?

www.arrl.org/qst-author-guide e-mail: qst@arrl.org

January 2012 Volume 96 Number 1

QST (ISSN:0033-4812) is published GST (ISSN:0033-4812) is published monthly as its official journal by the American Radio Relay League, Inc, 225 Main Street, Newington, CT 06111-1494, USA. Periodicals postage paid at Hartford, CT, USA and at additional publisher officials. additional mailing offices.

POSTMASTER: Send address changes to: *QST*, 225 Main St, Newington, CT 06111-1494, USA. Canada Post: Publications Mail Agreement #40612608, Canada Returns to be sent to Bleuchip International, PO Box 25542, London, ON N6C 6B2.

US & Possessions: Membership in the ARRL, including a one year subscription to *QST*, is available to individuals at \$39. Licensed radio amateurs age 21 and under and the eldest licensee in the household may qualify for the rate of \$20. Life Membership, including a subscription to *QST* is available at \$975.* Membership includes \$15 per year for subscription to *QST*. Membership and *QST* cannot be separated. Libraries and institutions, \$39 per year. Single copies \$5.

International

To compensate for additional postage for mailing outside the US, the following

Canada: Membership in the ARRL including a one year subscription to QST, \$49, payable in US funds. Life Membership, including a subscription to QST is available at \$1225.* Libraries and institutions, \$49 per year.

All Other Countries: Membership in the ARRL, including a one year subscription or QST, \$62, payable in US funds. Life Membership, including a subscription to QST is available at \$1550.* Libraries and institutions, \$62 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 \$8 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

Copyright © 2011 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® and ARRL, the national Radio® are registered trademarks of the American Radio Relay League, Inc.

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

QST is available to blind and physically handicapped individuals on audio cassette from the Library of Congress, National Library Service for the Blind and Physically Handicapped. Call 1-800-424-8567

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 assis-

Reprints and permissions: permission@arrl.org

See page 14 for detailed contact information.

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