

National Contest Journal (ISSN 0899-0131) is published bimonthly in January, March, May, July, September and November by the American Radio Relay League, 225 Main St, Newington, CT 06111-1494, USA. Periodicals postage paid at Hartford, Connecticut, and at additional mailing offices. POSTMASTER: Send address changes to: National Contest Journal, 225 Main St, Newington, CT 06111-1494, USA.

Publisher

American Radio Relay League
225 Main St, Newington, CT 06111
tel: 860-594-0200
fax: 860-594-0259 (24-hour direct line)
E-Mail: hq@arrl.org
Web: www.arrl.org/

Editor

Kirk Pickering, K4RO
k4ro@k4ro.net

Managing Editor

Rick Lindquist, WW3DE
ww3de@arrl.org

NCJ Web Page

Bruce Horn, WA7BNM, Webmaster
www.ncjweb.com

ARRL Officers

President: Kay C. Craigie, N3KN

Executive Vice President:

David Sumner, K1ZZ

Contributing Editors

Gary Sutcliffe, W9XT—Contest Tips, Tricks & Techniques

Ralph Bellas, K9ZO—Contesting on a Budget

Jon Jones, N0JK—VHF-UHF Contesting!

Carl Luetzelschwab, K9LA—Propagation

Don Hill, AA5AU—RTTY Contesting

John Miller, K6MM—NCJ Profiles

Don Daso, K4ZA—Workshop Chronicles

North American QSO Party, CW

Chris Hurlbut, KL9A

1733 E Broad Ave, Spokane, WA 9927

cwnaqpmgr@ncjweb.com

North American QSO Party, SSB

Bill Lippert, AC0W

2013 6th Ave SE, Austin, MN 55912-4321

ssbnaqpmgr@ncjweb.com

North American QSO Party, RTTY

Mark Aaker, K6UFO

300 Berry St, Unit 1009, San Francisco, CA 94158-

1668

rttynaqpmgr@ncjweb.com

North American Sprint, CW

Boring Amateur Radio Club

15125 Bartell Rd, Boring, OR 97009

cwsprintmgr@ncjweb.com

North American Sprint, Phone

Christopher Tate, N6WM

12450 Del Valle Rd, Livermore, CA 94550

ssbsprintmgr@ncjweb.com

North American Sprint, RTTY

Ed Muns, W0YK

PO Box 1877, Los Gatos, CA 95031-1877

rttysprintmgr@ncjweb.com

Advertising Information Contact:

Janet Rocco, tel 860-594-0203;

fax 860-594-0303; jrocco@arrl.org

NCJ subscription orders, changes of address, and reports of missing or damaged copies should be addressed to ARRL, 225 Main St, Newington, CT 06111 and be marked **NCJ Circulation**. ARRL members are asked to include their membership control number or their QST mailing label.

Submit articles, letters and club newsletters to NCJ, Kirk Pickering, K4RO, Editor, 4502 Scenic View Dr, Pegram, TN 37143 USA

The NA Sprint and NA QSO Parties are not sponsored by ARRL.

Yearly Subscription rates: In the US \$20

US by First Class Mail \$28

International and Canada by airmail \$32

All original material not attributed to another source is copyright © 2012 by The American Radio Relay League, Inc. Materials may be excerpted from the NCJ without prior permission provided that the original contributor is credited, and the NCJ is identified as the source.

In order to insure 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 immediately. Thank you for your assistance.

2 Editorial *Kirk Pickering, K4RO*

FEATURES

3 Seeing the ARRL International DX Contest from Both Sides Now *Seppo Sisatto, OH1VR/AE6PP*

5 Diplexer/Triplexer Considerations to Manage Broadband Noise *Carl Luetzelschwab, K9LA*

6 Contesting from Tunisia *Henryk Kotowski, SM0JHF/K6JHF*

8 Game Design for Contesters — Part 2: Fun *Brooke Allen, N2BA*

12 A Brief History of the Reverse Beacon Network *Pete Smith, N4ZR*

14 Adding an IF Output to a K3 Subreceiver *Mark Sihlanick, N2QT*

16 APRS with a Smartphone *Pat Cain, K0PC*

18 An Inexpensive System for Hunting Power Line Noise *George Dubovsky, N4UA*

19 PJ4X in the 2012 ARRL International DX CW *George Wagner, K5KG*

22 Dayton Photo Gallery *Tom Roscoe, K8CX*

24 Estimation of RF Common Mode Choke Impedance vs Frequency *Tod Olson, K0TO*

27 "Sturdifying" the NE0U Easy Inverted L for 160 *Ray Fallen, ND8L*

COLUMNS

29 NCJ Profiles: Dave Leeson, W6NL and Barb Leeson, K6BL *John Miller, K6MM*

33 Correspondence *Kirk Pickering, K4RO*

35 Contest Tips, Tricks and Techniques *Gary Sutcliffe, W9XT*

36 Contesting on a Budget *Ralph Bellas, K9ZO*

37 VHF-UHF Contesting! *Jon K. Jones, N0JK*

40 Workshop Chronicles *Don Daso, K4ZA*

41 RTTY Contesting *Don Hill, AA5AU*

43 Propagation *Carl Luetzelschwab, K9LA*

ADVERTISING INDEX

Alfa Radio Ltd.: 21

Array Solutions: COVER II

Bencher: 34

Clark Electronics: 38

Collins Research: 7

DX Engineering: 45

Elecraft: COVER III

Expert Amps: 34

Green Heron Engineering LLC: 26

Idiom Press: 42

InnovAntennas America, Inc: COVER IV

International Radio INRAD: 40

K0XG Systems: 28

RF Parts: 37, 39

SuperBertha: 17

Top Ten Devices: 11

Unified Microsystems: 17