National Contest Journal

Volume 41 Number 5 ■ September/October 2013

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, WW1ME
ww1me@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 Mike Goldstein, VE3GFN—Little Pistol Pages Jon Jones, NØJK—VHF-UHF Contesting! Carl Luetzelschwab, K9LA—Propagation Ed Muns, WØYK—RTTY Contesting John Miller, K6MM—NCJ Profiles
Don Daso, K4ZA—Workshop Chronicles
North American QSO Party, CW

Chris Hurlbut, KL9A 3117A Fen Way, Bozeman, MT 59718 cwnaqpmgr@ncjweb.com North American QSO Party, SSB

North American QSO Party, SSB Bill Lippert, ACØW 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 © 2013 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.

Table of Contents



2 Editorial Kirk Pickering, K4RO

FEATURES

- 3 RTTY Spectrum Measurment Andy Flowers, KØSM
- 8 The Contesters of Hungary Henryk Kotowski, SMØJHF
- 10 K8MAD and the 2013 Michigan QSO Party lan Hill, K8MM
- **12** Failure is *Not* an Option *Tom Taormina, K5RC, and Grady Ferguson, W5FU*
- 15 A 2 Element 40 Meter Array Employing a BigIR Vertical Larry Serra, N6NC
- 20 Noise-Power Ratio Testing of HF Receivers Adam Farson, VATOJ, AB4OJ
- 25 CQ World Wide DX Contest Rules Get Complete Rewrite Rick Lindquist, WW1ME
- **26** Contesting by Remote Control *Mike Lonneke, WØYR*
- 29 Contesting in the Caribbean One More Time! Larry Reader, KE2VB
- **32** Dayton Photo Gallery *Tom Roscoe, K8CX and Hamgallery.com*
- 34 Rover Recognition Award 2013 Rick Rosen, K1DS

COLUMNS

- **35** NCJ Profiles: Bob Patten, N4BP *John Miller, K6MM*
- 38 40 Years Ago in NCJ Kirk Pickering, K4RO
- 39 Workshop Chronicles Don Daso, K4ZA
- **40** VHF-UHF Contesting! Jon K. Jones, NØJK

- **42** RTTY Contesting Ed Muns, WØYK
- **43** Contest Tips, Tricks & Techniques *Gary Sutcliffe, W9XT*
- **45** Little Pistol Pages *Mike Goldstein, VE3GFN*

ADVERTISING INDEX

Alfa Radio Ltd: 46 Array Solutions: COVER II ARRL: 47, 48 Bencher: 31

Clark Electronics: 44 DX Engineering: 9 Elecraft: COVER III Green Heron Engineering LLC: 46 InnovAntennas America, Inc: COVER IV International Radio INRAD: 7 KØXG Systems: 28

RF Parts: 41, 43 SuperBertha: 34

Unified Microsystems: 14