



Mid-Atlantic Amateur Radio Club

www.marc-radio.org

P.O. BOX 557
EAGLEVILLE, PA
19408

REMARCS

Next Meeting: May 21, 2013 at 7:30 PM

May/June 2013

Field Day and Annual MARC Picnic June 22-23 2013



www.arrl.org

Field Day this year is a little over a month away and plans are taking shape. Our Field Day Captain once again will be **Steve KS3K** (formerly WA2EAJ). Thanks to **Ron W3ZV**, we have secured the Lower Providence Fire Company pavilion for our site again this year. This is located at Ridge Pike and Mount Kirk Avenue, Eagleville, PA. As we did last year, we will participate in the 2A category with VHF and GOTA stations. The VHF station will be our 6-meter operation and the GOTA (Get on the Air) station will be available for newly licensed hams, contest beginners or scouts who would rather operate in a calm, no-stress atmosphere. We will have mentors available at the GOTA station to show you how everything works. It will be a great learning experience.

Yak N3MQM, our Food Captain, is working on the menu for the event. Since this is also the MARC Picnic, all MARC members and their families are invited to the picnic regardless of participation in Field Day activities. There will be no charge to members and their family members for the picnic. However, we still encourage all to help out with transporting equipment, set-up of antennas and rigs, and teardown of all equipment on Sunday. There will be limited seating available at the pavilion so please bring your own folding chairs.

We need volunteers for all aspects. Please volunteer by contacting Steve at ks3k@arrl.net.

VOX

Sal Marandola NC3U has agreed to fill the unexpired term of the club secretary due to the resignation of **Tom Freeman K3TF**. Thanks for stepping forward, Sal, and welcome to the Board.

Jim Goldman W3JG recently donated his Yaesu FT-847 HF-VHF-UHF transceiver to MARC. Last month we sent out the call and Jim answered. MARC needed another transceiver for use at Field Day, especially one that could handle 6 meters. In past years we depended on members to bring their own rigs so that we could operate on 6 meters. Thanks to Jim, we now have our own. MARC sends a BIG thank you to Jim for his generous donation!

It is with great sadness that we report the recent passing of former MARC member, **Russ Lee W3GGY**. See the full article elsewhere in this issue.

Tidbits about '73'

A palindrome is something that is the same forwards and backwards like the word 'Radar'. In binary, the number '73' is a palindrome: 1001001, which backwards is 1001001.

In Morse code, 73 is also a palindrome. _ _ _ _ _
(Compliments of W9JEF)

Inside REMARCS

1	Field Day and MARC Picnic
1	VOX
2	Minutes from the Board Meeting
4	Letter from MARC President
4	Public Service Events
4	Russ Lee W3GGY (SK)
5	MARC Equipment Loaner Program
6	Upcoming MARC Meetings
6	Kimberton Fair
6	VE Test Session
7	Hamfests and Contests

Mid-Atlantic Amateur Radio Club Meeting of the Board of Directors April 9-2013

Members Present

Bob Palin N3JIZ Dennis Silage K3DS
Steve Ikler KS3K Lou Ruh WX3I
Chris Ruhl N3GBJ Rich Russo KB3VZL
Steve Werner KD3WK

Members Absent

Doug Wilkens NE3U Dieter Hauer K3DK
Brenden McNeil W3VD Jim Biddle W3DCL

- The meeting was called to order at 7:05 PM
- The minutes of the February 12, 2013 meeting were approved unanimously
- Treasurer's Report
 - Current Balance \$15,964.26
 - Nick Fund Balance \$161.23
 - Recent Income \$695.00
 - Recent Expenses \$39.00
- Equipment Insurance – Lou will submit our current list of equipment for an insurance quote
- Upcoming Meetings
 - April 16 – Annual auction and QSL card submission
 - May 15 – Home Brew night
 - June 22/23 – Field Day and Club picnic
 - July 16 – Radio Control and Hexacopter demonstration – Michael LeBrun
 - August 19 – Pedestrian Mobile – Ed Breneiser WA3WSI
- Membership
 - Current paid membership –59. Chris N3GBJ (Membership Services) will send out an email reminder regarding dues. Chris will also review the 2012 roster and petition those members who have not renewed.
 - The Board discussed providing members with membership cards and certificates. Dennis (K3DS) will provide an option on the MARC website that will allow paid members to print their membership cards and certificates.
 - The Board discussed the option of allowing members a discount in lieu of multi-year membership payments. Several options were discussed and there was agreement that the best option is to allow payment in full for the equivalent of three years membership (\$45) while entitling the member to four years of paid status. The issue arose as to whether such an option is

MARC Info

wb3joe@marc-radio.org
<http://www.marc-radio.org>

MEMBERSHIP MEETINGS -

3rd Tuesdays, 7:30 PM (Doors open at 7:00 PM)
Council Room (large room in the front) of the
Tredyffrin Township Municipal Building, 1100
DuPortail Road, Berwyn, PA 19312-1079.
Guests Welcome, Smoke Free, Handicapped-
accessible.

BOARD MEETINGS -

2nd Tuesdays of even months, 7:00 PM
Paoli Hospital, Willistown Meeting Room, Paoli, PA.
Members may attend as observers.

WB3JOE REPEATERS (CTCSS or PL = 131.8 hz) -

145.130 - / 147.060 + / 147.360 + /224.420 - / 224.5 -
/445.675 - /444.050 -

The 145.13 and 147.06 2-meter repeaters are linked. The
147.36 MHz, the 224.50 MHz and the 444.050 MHz
repeaters are linked.

WEBMASTER -

Dennis Silage K3DS
k3ds@marc-radio.org 610-353-4829

2-METER NETS -

Club Net, Sundays and Wednesdays, 8:30 PM
Roundtable Net, Thursdays, 8:30 PM
These nets occur on linked 145.13 - / 147.06 + Repeaters

NET MANAGER -

Brenden McNeil W3VD
w3vd@marc-radio.org 302-319-3536

NET CONTROL OPS -

Alan K3WWT, Bob N3JIZ, Steve N1HDP, Miguel
KC2HMG, Yak N3MQM, Rob KB3WIR, Brenden W3VD,
Mike WB2UQV and Bob WB3T

DUES – Payable at the March Meeting

\$15 Full (licensed Amateurs)
\$5 Associate (unlicensed persons)
Family rate \$5/ham - after first member pays full
dues

NEWSLETTER -

The REMARCS editor is Steve KS3K
610-662-2768 ks3k@marc-radio.org
Do you have anything for REMARCS?
Please let me know.



- consistent with current MARC By Laws. Subsequent to the Board meeting, the By Laws were reviewed by Steve (KD3WK) with the conclusion that multi-year memberships are not specifically barred.
- VE Session – the next session will be May 4. It was agreed that a greater effort would be made to solicit VE test takers to become more aware of the benefits of being a member of MARC. Toward this end, Rich (KB3VZL) has revised the form, originally prepared by Bob (W3ZQN) that will be given to test takers to inform them of club benefits while allowing them to complete personal contact information.
 - Field Day and Club Picnic
 - Steve Ikler (KS3K) is Field Day Captain and Yak Yakonick (N3MQM) Food Captain
 - Generator – Lou (WX3I) to provide generator from the fire company
 - Laptop Computers – to be provided by Lou (WX3I)
 - Logging Program – will use existing copy of N3FJP program
 - Will have a 2A station plus a Get On The Air (GOTA) station
 - Scouts – Steve (KD3WK) will seek participation
 - Equipment and Repeaters – Dennis (K3DS)
 - 147.06 Antenna Replacement – pending availability of installer
 - 147.06 equipment – Dennis (K3DS) to replace certain components that are failing
 - 224.42 Repeater – Bryn Mawr Hospital – The equipment at this location is approximately 30 years old, in need of repair or replacement and there is no control unit –thus, remote access is not possible. The station is currently off the air. The Board discussion options and determined that this repeater will be taken off the air but the frequency will not be relinquished.
 - 220 Repeater – Darby Hospital – this repeater will be linked to the clubs two 2M repeaters
 - Public Service – Bob Palin (N3JIZ)
 - MS Walk – Sunday, April 21, East Goshen Park, Meet at 8:45 AM
 - Radnor Memorial Day Parade, Monday May 27, meet at Micro Center at 8 AM
 - Bob (N3JIZ) is investigating the cost of obtaining new hats and vests
 - Nets
 - Backup operators are needed
 - Membership Services Board Member
 - Chris Ruhl (N3GBJ) has agreed to serve the remaining term for this position
 - Secretary and Board Member
 - Tom Freeman (K3TF) has resigned from the club and his position as secretary
 - Steve (KD3WK) will seek to solicit another member to fill the unexpired term
 - Refreshments at Club meetings – the Board

MARC Board of Directors 2012-2013

PRESIDENT

Steven Werner KD3WK

kd3wk@marc-radio.org 610-574-6836

VICE PRESIDENT

Stephen Ikler KS3K

ks3k@marc-radio.org 610-662-2768

SECRETARY

Sam Marandola NC3U

nc3u@marc-radio.org 610-306-2817

TREASURER

Lou Ruh WX3I

wx3i@marc-radio.org 610-630-9146

PUBLIC SERVICE

Bob Palin N3JIZ

n3jiz@marc-radio.org 610-687-4587

TECHNICAL SERVICE

Dennis Silage K3DS

k3ds@marc-radio.org 610-353-4829

MEMBERSHIP SERVICES CHAIRMAN

Chris Ruhl N3GBJ

n3gbj@marc-radio.org 484-494-7572

PUBLIC RELATIONS CHAIRMAN

Jim Biddle W3DCL

w3dcl@marc-radio.org 610-353-0880

PROGRAM CHAIRMAN

Richard Russo KB3VZL

kb3vzl@marc-radio.org 610-539-2999

MEMBERS-AT-LARGE

To 9/30/2012 -

Doug Wilkens NE3U

ne3u@marc-radio.org 610-692-6819

To 9/30/2013 -

Brenden McNeil W3VD

w3vd@marc-radio.org 302-319-3536

CALLSIGN TRUSTEES

- WB3JOE

Dennis Silage K3DS

k3ds@marc-radio.org 610-353-4829

- W3NWA

Dieter Hauer K3DK

k3dk@marc-radio.org 610-489-1920

discussed and agreed that we will again offer limited refreshments (soda and cookies) at monthly club meetings. Rich (KB3VZL) Program Chair will be responsible for this activity and he was given a budget of \$25 per meeting. Donations will be solicited from members who partake in the refreshments.

- The meeting was adjourned at 8:05 PM

Respectfully submitted by

Steve Werner/KD3WK

MARC President and Acting Secretary

Letter from the MARC President

Dear Fellow MARC Members:

I'm pleased to announce that we have a new club Secretary. **Sal Marandola, NC3U** will serve until our next annual election in September – thanks Sal.

We have a lot of activities coming up that I hope you will find interesting:

- May 21 – Club Meeting – Home Brew Night – Tom Freeman (K3TF) will be showing off his home brew VFO but you are all welcome to bring something you have made related to ham radio
- May 27 – Special Event – Radnor Memorial Day Parade – we meet at the Micro Center and we need more volunteers – please contact Bob Palin (N3JIZ) at 610-687-4587 if you can help. The Parade is always a fun event
- June 22/23 – Field Day and Club Picnic. Steve (KS3K) is our Field Day Captain and Yak (N3MQM) is in charge of food. We need volunteers to help set up, operate and take down. Please contact Steve if you can help. Contact Steve at ks3k@arri.net.
- July 7 – MARC Hamfest – Kimberton Fairgrounds. This is always a great event and the proceeds from the Hamfest allow us to keep our club dues so low. We need help on Saturday (July 6) morning with set up and we need volunteers to sell tickets and help park cars. Please contact Mike Pilotti (KF3CD) at pilottifamily@yahoo.com if you can help.
 - We also need volunteers for the Kimberton Fair where we help park cars and sell tickets. Our willingness to volunteer allows us the free use of the fairgrounds for our Hamfest – otherwise the fee would be \$900. Please contact Mike Pilotti (Pilottifamily@yahoo.com) and let Mike know when you are available to help
- July 16 – Club Meeting – Hexacopter demonstration by Michael LeBrun
- August 3 – Regularly scheduled VE test session
- August 20 – Club Meeting – Pedestrian Mobile demonstration by Ed WA3WS
- September 17- Club Meeting and Annual Elections
- We also continue to meet socially for breakfast at the

Country Squire Diner on West Chester Pike, Broomall. We meet at 9 AM on the second Saturday of the month at 9 AM.

Please join us at these events and please consider volunteering – we need your help.

73/Steve

KD3WK

President – Mid Atlantic Amateur Radio Club

Public Service Events

Once again, MARC provided radio communications support for the 2013 MS Walk which was held on April 21, 2013 at the East Goshen Park. Participating for MARC were **Sam WA3LGL, Steve KD3WK, Jim K3RTU, Bob N3JIZ (Net Control) and Dieter K3DK.**



L-R: Sam WA3LGL, Steve KD3WK, Jim K3RTU, Bob N3JIZ, Dieter K3DK

Russell Lee W3GGY (SK)

A long time member of MARC, Russ, W3GGY passed away on Monday, April 30, 2013. Russ was quite active in the traffic and rag chew nets. Russ was blind, but still acted as Net Control when needed. His obituary follows:

Russell G. "Ropey" Lee

January 20, 1918 - April 30, 2013

RUSSELL G. LEE, 95, OF ROYERSFORD Russell G.

"Ropey" Lee, 95, of Royersford, husband of the late Germaine (Saemmer) Lee, passed away Tuesday, April 30, 2013 at Parkhouse Providence Pointe.

Born in Spring City, PA, he was the son of the late George W. Lee and Adda C. (Buckwalter) Lee.

Russell was a World War II Veteran, serving in the Navy as Chief Radioman, stationed aboard the destroyer escort, the USS Jacob Jones in the Atlantic Theatre. An electrician by trade, he retired from Penco Products in Oaks and moved to

Payson, AZ.

He was an avid ham radio operator (W3GGY), licensed in 1936 at 18 years of age, and a member of the Mid-Atlantic Radio Club and Reading Radio Club.

He had a great love and knowledge of trains, often reminiscing about the PA and Reading Railroads. One of his fondest memories was riding on the Spring City Trolley with his conductor father, George W. Lee.

After retirement, he traveled extensively in Europe, particularly France, and throughout the United States.

He is survived by two children, John R. Lee and Loretta L. Fox, both of Royersford; one sister, Thelma Wisler, and one sister-in-law, Marguerite Lee; two grandchildren, Michael Fox, husband of Colleen, and Dawn Wrenfrow Buchan, wife of Brian; three great-grandchildren, Hailey and Michaela Fox, and Abby Wrenfrow. Russell was predeceased by his first wife, Dorothy (Blimline) Lee, in 1970; brothers Harold and Blaine Lee, and sisters Anna Collins and Mary Bauer.

He was a member of Spring City Assembly of God Church. Russell believed death was not the end but rather the beginning of a new life with his Creator. With that in mind, his children request that friends and family choose how they wish to remember and celebrate Russell's life. There will be no service and burial will be private. Memorial contributions may be made to the charity of one's choice.

The Cattermole-Klotzbach Funeral Home, 600 Washington Street, Royersford, PA 19468 is in charge of the arrangements. View obituaries or send condolences at www.royersfordfuneralhome.com.

--

Thanks to **Ed W3BNR** for the information.

MARC Equipment Loaner Program

As announced earlier, the MARC Equipment Loaner Program is being launched this month. Rules and forms have been developed to support this program. More equipment will be added to the list of available equipment soon.

Rules

The MARC Club will lend out equipment to members to help them with their various Amateur Radio projects and activities. The following rules are to be observed so that everyone has a fair chance of borrowing the equipment needed.

1. Equipment will be loaned for up to one month at a time to a MARC member in good standing.
2. Equipment loan and return will be done at the MARC meetings every month. Loan requests should be submitted in advance to K3DS@marc-radio.org.
3. Dennis K3DS as Technical Committee Chair is the repository of all the equipment.

4. The loaned equipment is the responsibility of the borrower. If a piece of equipment is lost, not returned or broken the Board will determine costs to be charged to the borrower.

5. The person borrowing the equipment will submit an Equipment Loan Receipt available at the meeting. The Receipt contains the name of the person borrowing the equipment, a description of the equipment borrowed, date loaned out, date to be returned and is signed by both the borrower and Dennis K3DS or his designate. One copy is retained for the record and one given to the borrower.

6. When the equipment is returned, Dennis K3DS or his designate will sign both copies of the Equipment Loan Receipt with the date. The borrower may keep the copy for his or her records.

7. If the borrower wants to continue using the equipment and no one else wants to borrow it the member may keep it for a second month only by appearing in person with the equipment at the next MARC meeting. Equipment Loan Receipt are changed to indicate this one additional month.

8. All loaned equipment must be returned to Dennis K3DS or his designate at any MARC meeting before Field Day so that it is available for the club event.

9. Any discrepancies will be decided by the MARC Board.

Available Equipment

MFJ-259B SWR analyzer features a built-in 10 digit high-contrast LCD frequency counter. Reading your antennas SWR and finding its resonance has never been easier. All you do is connect your antenna, set your SWR analyzer to the frequency you want and read your SWR.



The MFJ-259B gives you a complete picture of your antenna's performance. You can read antenna SWR and Complex Impedance from 1.8 to 170 MHz. Read Complex Impedance as either a series resistance and reactance ($R + jX$) or as magnitude (Z) and phase (degrees). You can determine velocity factor, coax cable loss in dB, length of coax and distance to a short or open in feet. You can read SWR, return loss and reflection coefficient at any frequency simultaneously.

Also read inductance in μH and capacitance in pF at RF frequencies. The large easy-to-read two line LCD screen and side-by-side meters clearly display your information. The

MFJ-259B has a built-in frequency counter, Ni-Cad charger circuit, battery saver, low battery warning and smooth reduction drive tuning.

The instruction manual is here:

<http://www.mfjenterprises.com/pdf/files/MFJ-259B.pdf>

Anderson Powerpole Crimp Tool - Andersen Powerpoles are becoming the new standard in DC power applications by the Amateur Radio community. Anderson Powerpoles have been adopted by most RACES (Radio Amateur Civil Emergency Service) organizations and ARES (Amateur Radio Emergency Service) units. Correct installation of Powerpoles is facilitated by a crimp tool, which can be borrowed. The equipment program can also supply **15 A or 30 A permanently bonded red/black Powerpoles** at cost or members can purchase their own.



Powerpole assembly instructions are available here:

<http://www.powerwerx.com/assembly.asp>

Upcoming General Membership Meetings

May 21, 2013, 7:30 PM – Home Brew Night - Demonstrations of members' homemade equipment or accessories. **Tom K3TF** will show us his Digital VFO Replacement for Tube Equipment.

June 18, 2013 – No regular meeting due to Field Day and Picnic on June 22-23, 2013

July 16, 2013 – Radio Control and Hexacopter Demonstration - Michael LeBrun

August 20, 2013 - Pedestrian Mobile - Ed Breneiser WA2WSI

MARC usually meets the third Tuesday of the month in the Large Meeting Room (in the front) of the Tredyffrin Township Municipal Building, 1100 DuPortail Road, Berwyn, PA 19312-1079. If unavoidable changes in the date or location of the MARC meeting is anticipated, the details will be announced on the Nets and posted on the Calendar.

Beginning at 7:30 PM and following a short round of introductions, announcements, Club reports and business, a lively technical program is provided. See the Calendar on the MARC website for details.

The schedule of Club meetings is interrupted in June because of Field Day and in December with a joyous MARC Holiday party. The current schedule of Club meetings and the topic of discussion is announced on the weekly MARC Nets.

Volunteers Needed for the Kimberton Fair July 25-27, 2013

The MARC Hamfest and Kimberton Fair for 2013 are just around the corner! Once again, the Kimberton Fire Company has offered us free use of their fairgrounds for our Hamfest if we can provide them with volunteers for their fair. Volunteers are needed to collect parking donations as cars arrive and for selling ride tickets for the amusements. The ticket sellers sit in air-conditioned booths so regardless of the heat or precipitation, they will be comfortable.

Anyone that wishes to volunteer should contact Mike Pilotti at kf3cd@arrl.net.

Here is the current schedule of shifts and volunteers:

KIMBERTON FAIR SCHEDULE FOR MARC VOLUNTEERS
NEED 4 PEOPLE FOR EACH SHIFT

THURS. JULY 25

RIDE TICKETS 6 TO 10 PM: DIETER HAUER
PARKING 6 TO 10 PM: ALLAN GLASER

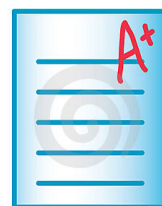
FRIDAY JULY 26

RIDE TICKETS 6 TO 10 PM: DOUG WILKENS, DIETER HAUER, CHRIS RUHL AND XYL
PARKING 6 TO 10 PM: RON KENWOOD

SAT. JULY 27

RIDE TICKETS 1 TO 5 PM: SCOTT PILOTTI, LAUREN PILOTTI, ANDREW PAVLIN, JULIA WALSH
PARKING 1 TO 5 PM: MIKE PILOTTI, DOMINIC PILOTTI, ANTHONY PILOTTI
RIDE TICKETS 5 TO 9 OR 10 PM: STEVE WERNER
PARKING 5 TO 9 OR 10 PM:

MARC Sponsored VE Test Sessions



A MARC VE Test session was held on Saturday, May 4, 2013 at the First Presbyterian Church, 113 East Airy Street in Norristown, PA.

Technician earned	1
General earned	3
Extra earned	0
Passed an element but did not upgrade	0
Did not pass an element	0
Total candidates served	3
Total elements administered	6

No MARC members took advantage of the free test session.

The following VE's took part in the session: **Dick K3ITH (Team Leader), Doug NE3U, Ron W3ZV, Jim AB3OM and Josey WQ3E.**

The test takers that got their first licenses or upgraded were:

David DuPuy KB3ZKK (earned General)
Paul Masters KB3ZYB (earned General)
Matthew Barnard (no call, earned General)

Congratulations to all.

The next test session will be at the MARC Hamfest on Sunday July 7, 2013 and then on Saturday, August 3, 2013.

Dick K3ITH

Hamfests and Contests

The following hamfests and contests will be held in the next two months.

Hamfests

Dayton Hamvention and ARRL National Convention

Date: May 17-19, 2013

Location: Hara Arena, 1001 Shiloh Springs Road, Trotwood, Ohio

Sponsor: Dayton Amateur Radio Assn

Website: <http://www.hamvention.org>

Opens: 8 am (Fri, Sat, Sun); closes 6pm Fri, 5pm Sat, 1pm Sun

Cost: 3-day ticket \$20 in advance (14 May), \$25 at door, kids 12U free, HS students free at Will Call window

VE Testing: Free; Friday 2:30, Saturday 9:30 am and 1:30 pm; contact exams@hamvention.org (NOTE: Pre-registration is required only if special testing accommodations are needed)

Firecracker Hamfest and Eastern Pennsylvania (EPA) Section Convention Expo

Date: July 6, 2013

Location: Harrisburg Area Community College Fire Training Grounds, 3599 Industrial Road, Harrisburg PA 17110; I81 to Exit 67 (Farm Show Rt 22 East); follow Rt. 22 about 3000 ft, turn Right at light; continue on Wildwood Park Dr, road becomes Industrial Road. Hamfest/Convention 3/4 mile on Right

Sponsor: Harrisburg Radio Amateurs Club,

Website: <http://hrac.tripod.com/> | [On-line flyer](#) |

Opens: 8:00 am, Vendor Setup 6-9 pm day prior or 6:00 am day of; Independence Day celebration at Riverfront after hamfest

Cost: \$5 (XYL, kids free) or \$10 per carload; Tailgate: \$5 per space, Tables: \$12 (\$15 after 01 June)

Other: DXCC & WAS card checking on-site; Special Event Station W3W

Valley Forge Hamfest and Computer Fair

Date: July 7, 2013

Location: Kimberton, PA, Fire Co. Fair Grounds, Route 113, south of the intersection with Route 23

Sponsor: Mid-Atlantic Amateur Radio Club (MARC)

Website: <http://www.marc-radio.org/>

Opens: 8 am, Sellers 7 am

Cost: \$6 (ULS, kids free); Tailgate: \$6 (plus admission); indoor table w/electric: \$10 1-4 tables, \$8 for 5 or more (plus admission)

VE Testing: Arrive at 9:45 AM, starts 10 AM; [Testing Info](#)

Contests

EU PSK DX Contest

1200Z, May 18 to 1200Z, May 19

Find Rules at:

http://www.epc-ru.ru/index.php?option=com_content&task=view&id=1144&Itemid=79

CQ WW WPX Contest, CW

0000Z, May 25 to 2359Z, May 26

Find Rules at:

<http://www.cqwp.com/rules.htm>

ARRL June VHF Contest

1800Z, Jun 8 to 0259Z, Jun 10

Find Rules at:

<http://www.arrl.org/june-vhf>

ARRL Field Day

1800Z, Jun 22 to 2100Z, Jun 23

Find Rules at:

<http://www.arrl.org/field-day>

RAC Canada Day Contest

0000Z-2359Z, Jul 1

Find Rules at:

<http://www.rac.ca/en/rac/programmes/contests/files/2012%20RAC%20Canda%20Day%20Contest%20Rules%20-%20English%20and%20French.pdf>

North American QSO Party, RTTY

1800Z, Jul 20 to 0600Z, Jul 21

Find Rules at:

<http://www.ncjweb.com/naqprules.php>