

\*\*\*\*\*

# SIGNALS

Rockwell  
Collins Amateur Radio Club

Monthly Newsletter of the

Volume 28 Issue 09

Web Site <http://www.collinsclubs.com/rcarc/>

June 2007

\*\*\*\*\*

## RCARC Membership Meeting

**\*Thursday\***  
**\*21 June 2007\***  
**1730 in**  
**Rockwell Collins**  
**Cafeteria**

*Subject:* Field Day 2006 Preparation and Operator Practice.

## Local Club News

**Meeting Notice** This months meeting will be dedicated to final Field Day preparation and will provide an opportunity for operator practice for those who haven't yet encountered our new radio.

### June VHF Contest Results

W5ROK operated this past weekend in the VHF Contest. The contest ran from 1 PM Saturday until 10 PM local time Sunday. W5ROK operated about 4½ hours on Sunday between 4:30 and 9:00 PM. The results are a total of 150 QSOs. The breakdown is as follows:

Freq (Mhz)	QSOs	Grids
50	115	51
144	17	10
432	12	7
1296	6	3

**Club Meeting Talk-In** Each month, we have a Talk-In on the club repeater before the membership meeting on the night of the meeting. The Talk-In is from 1700 to 1730 hours, just prior to the meeting.

## CQ Homeland Security – Local Response

June 7, 2007 – 5:46 p.m.

Major Terrorism Exercise to Include 'Hams' in Oregon Portion

*By Eileen Sullivan, CQ Staff*

Amateur radio operators—known as hams—are keying up for the next major counterterrorism exercise to be held this fall.

They have participated in previous TOPOFF exercises and have been invited to take part in the Oregon portion of the exercise in October.

TOPOFF is the federal government's largest counterterrorism exercise. This year it will be held in Arizona, Guam and Oregon and will include dirty bomb scenarios.

The Department of Homeland Security, which coordinates the TOPOFF exercises, does not include amateur radios in its exercise participants. Instead, states invite hams to participate, said DHS spokeswoman Marlene Phillips.

Hams have served critical roles during emergencies such as the attacks on the World Trade Center in 2001 and Hurricane Katrina in 2005, so it should come as no surprise that they participate in these types of exercises, said William Morris, the American Radio Relay League's section emergency coordinator for amateur radio in Oregon.

"It isn't just a bunch of guys B.S.-ing over the radio because it's fun," Morris said of the 722,000 licensed amateur radio operators in the U.S. "While we do that, the reason is so we can provide emergency communications when it's needed."

In fact, the House report on failures during Hurricane Katrina, released in Febru-

ary 2006, specifically sites amateur radios as part of the response that was actually successful.

According to the House report, the National Communications System used nearly 1,000 Amateur Radio Emergency Services volunteers to provide communications for government agencies, the Red Cross and the Salvation Army.

In Mississippi, FEMA dispatched hams to hospitals, evacuation centers and county emergency operations centers for 24-hour emergency messaging needs. Hams were especially helpful in providing situational awareness after the hurricane, House investigators were told. And hams also tracked evacuees at airports in Texas and Louisiana and helped notify families of their whereabouts.

"We can come in with all our own communications equipment and provide the service . . . at no cost," Morris said.

The key to the services hams can provide is planning ahead of time, said Dan Henderson, the regulatory information specialist for the American Radio Relay League. "The preparation end of it should never be overlooked," and that's why participation in exercises like TOPOFF is important, he said.

In the upcoming TOPOFF exercise, Morris said the hams, who are all volunteers, are limited in how they can respond to the dirty bomb because they do not have personal protective gear. As a result, any help they offer will be limited to the "cold zone," which is not radioactive, he said.

*Eileen Sullivan can be reached at [esullivan@cq.com](mailto:esullivan@cq.com).*

Source: **CQ Homeland Security** © 2007 Congressional Quarterly Inc. All Rights Reserved

VE SESSIONS**R-CARC OFFICERS****PRESIDENT**

**Bill Swan** **K5MWC**  
**462-300** **X3441**  
hswan@rockwellcollins.com

**VICE PRESIDENT**

**Bob Kirby** **K3NT**  
**319.360.0500**  
k3nt@arrl.net

**SECRETARY**

**Jim Gaston** **KD5GYD**  
**X3369**  
jrgaston@rockwellcollins.com

**TREASURER**

**Jim Skinner** **WB0UNI**  
**214.535.5264**  
wb0uni@arrl.net

**ACTIVITIES CHAIRMAN**

**Dennis Cobb** **WA8ZBT**  
**462-240** **X1457**  
wa8zbt@arrl.net

**WEBSITE MANAGER**

**Wayne Hughes** **WA0TGH**  
**461-258** **1406**  
wa0tgh@arrl.net

**REPEATER TRUSTEE**

**Steve Phillips** **K6JT**  
**972.517.3332**  
k6jt@arrl.net

**CLUB STATION**

**972.705.1349** **W5ROK**  
**461-290**

**NEWSLETTER EDITOR**

**Jim Skinner** **WB0UNI**  
**972.690.9612**  
wb0uni@arrl.net

**Dallas** tests are held 4<sup>th</sup> Sat of each month at 10:00. 13350 Floyd Rd. (Old Credit Union) Contact Bob West, WA8YCD (972) 917-6362

**Irving** tests are held 3<sup>rd</sup> Sat. of each month at 09:00. 5<sup>th</sup> and Main St. Contact Bill Revis, KF5BL 252-8015

**McKinney** VE test sessions are held at the Heard Museum the first Sunday of the month. The address is 1 Nature Place, McKinney TX. The time of the testing is 14:30, ending no later than 16:45. *Note: no tests given on holiday weekends.*

**Garland** testing is held on the fourth Thursday of each month, excluding November, and begins at 1930 sharp. Location is Freeman Heights Baptist Church, 1120 N Garland Ave, Garland (between W Walnut and Buckingham Rd). Enter via the north driveway. A HUGE parking lot is located behind the church. Both the parking lot and the Fellowship Hall are located on the east side of the church building, with big signs by the entrance door. Contact Bill Reynolds, K8DNE, 972-475-3854.

**Plano** testing is on the third Saturday of each month, 1300 hrs at Williams High School, 1717 17<sup>th</sup> St. East Plano. Check Repeater 147.180+ for announcements.

**Greenville** testing is on the Saturday after 3<sup>rd</sup> Thursday, 1000 hrs at site TBA, contact N5KA, 903.364.5306. Sponsor is Sabine Valley ARA. Repeater 146.780(-) with 118.8 tone.

**SIGNALS** is the monthly newsletter of the Rockwell Collins Amateur Radio Club, published by and for its members. The entire contents of this newsletter are copyright © 2007 by the Rockwell Collins Amateur Radio Club. Permission is hereby granted to any not for profit Amateur Radio Publication to reprint any portion of this newsletter provided both the author and Rockwell Collins Amateur Radio Club are credited.

**President's Message**

When you receive this newsletter, Field Day will only be a few days away. The program for the 21 June meeting of the RCARC will focus on final discussion and preparations for Field Day. In addition to the Field Day discussion there will be some club business to take care of.

The NERPC report, what in the heck is that? NERPC stands for the National Emergency Response Planning Committee. This committee was chartered in December of 2006 by the ARRL Board of Directors to examine the amateur radio response during large scale disasters such as Hurricanes Katrina and Rita and to make recommendations as to what changes if any should be made to ARRL Field organization. The report including some recommended action items was submitted to and approved by the Board at the January 2007 meeting. Space in the newsletter does not allow the opportunity to cover the whole document. Regardless of your support or non-support to recommendations coming from the committee the report captures in a single place the situations that can exist. The report itself is about 27 pages in length. I encourage all members of RCARC to examine and become familiar with the report. A soft copy can be saved from a link on the ARRL Web site. Should you have trouble finding it, drop me a note and I can make a file copy available.

It is getting even closer to time to construct a nominating committee to develop a slate of candidates for next year. Once the committee is formed they will be seeking to fill the slate so please consider running for an office if a member of the committee approaches you.

HamCom 2007 seemed to be successful. I was on the program for Saturday presentations so I did not get a chance to see everything in the exhibit area. What I did see however was that both the flea market and the vendor spaces all seemed to have been sold. Only a few were not occupied.

Do you know someone that you work with that is an amateur radio operator or has expressed an interest in amateur radio? If so I hope that you will take a moment and let them know about the

RCARC. Invite them to a meeting, take them down to the station and show them our web site. With the influx of new employees this should be an opportunity for us to grow the active employee membership base of the RCARC.

ARRL membership up for renewal or new application? See information elsewhere in this edition to get more information on how your membership application can be made through the club. Your club receives a commission for all renewals or new memberships that we process.

Well it is time to say 73s.

— · — ····· — — · — — — · — ·  
 Bill Swan,  
 K5MWC, President

## Secretary's Report

Bob Kirby, K3NT, opened the meeting at 1742 (May 24<sup>th</sup> 2007), in the RCI Cafeteria. There were some delays caused by the weather. Present at the meeting were:

Charles Beis	K5UWD
Dennis Cobb	WA8ZBT
Jim Gaston	KD5GYD
Bob Kirby	K3NT
Steve Phillips	K6JT
Jim Skinner	WB0UNI
Charles Williams	WD5IRX
Joe Wolf	N5UIC

The following business was conducted:

1. Officer Reports
  - a. President's update
    - i. Upcoming Elections. It's time for club members to start thinking about running for club office. Elections will be held at the September meeting
    - ii. Membership Contacts. Some problems have been encountered while attempting to contact club members via email. Bob Kirby, K3NT, will coordinate with Bill Swan to see if the email contact problems can be corrected through RCI IT support.
  - b. Treasurer report: Jim Skinner, WB0UNI, passed out the May Treasurer's report and it was approved.
2. Old Business
  - a. Potential Move Discussion. No new information has been obtained concerning the possible need to move the club's radio

room. We will be able to have field day in the shack at its current location.

- b. 30S-1 kW Linear Amplifier. Testing of the 30S-1 still needs to be performed before it can be sold.
3. New Business
    - a. Membership Dues Discount. Joe Wolf, N5UIC, proposed that a club membership discount be provided to those who renew membership between June and September. This will be discussed at the next eBoard meeting.

The meeting adjourned at 1805 and was followed by a discussion of Field Day.

The club circulated a survey to determine the extent of RCI's participation in Field Day. Based on feedback received from club members:

- Field day will be held at the club's radio room.
- Dinner will come from Boston Market.
- Non-members will need to pay \$5.00 for food.

Jim Skinner, WB0UNI, and Joe Wolf, N5UIC, volunteered to coordinate the food.

Joe Wolf, N5UIC, also volunteered to:

- Reserve a conference room.

Check on gate access for club members and access to the generator.

## It Seems to Us: The Field Day Bug

By David Sumner, K1ZZ

June 1, 2007

*Field Day 2007 should be one for the record books! Sunspots may not be cooperating, but every other indicator points toward an outstanding, memorable event. If you have never participated in an ARRL Field Day -- or if it's been a few years since your last outing -- make this the year you join the fun.*

Field Day (FD) always falls on the fourth full weekend of June, which makes it the 23<sup>rd</sup> and 24<sup>th</sup> this year. Explaining FD brings to mind the old story of the blind men and the elephant; their description varies widely, depending on what part of the beast they touch. If you experience FD with a group of serious competitors who

set out to maximize their score, you will think it is a contest. If you go out with your local general-interest radio club, you might think it's a picnic with a bit of radio operating and public relations thrown in. If you are new to Amateur Radio you're likely to view it as a great learning experience, and if you're an old-timer as an opportunity to renew acquaintances and share memories.

For all of us, Field Day is an opportunity to pack a lot of Amateur Radio into one weekend -- an opportunity that has become more valuable as our world has gotten busier and operating from home has become more difficult, either for lack of time or because of antenna limitations. FD gives us a chance literally to "head for the hills," preferably as part of a group; it's more fun to share the experience with others, and more rewarding to learn antenna and operating lore from one another. The operating format is to make quick contacts, exchanging your number of transmitters, operating category and ARRL section with other stations. Each station can be contacted once per band (except 60, 30, 17 and 12 meters, which are off limits) and mode (CW, phone, and digital). CW and digital contacts are worth twice as many points as phone, so there is an incentive to be able to do more than just talk (not that good phone operating is easy -- picture an Air Traffic Controller at Atlanta Airport!).

While the FD focus is on setting up temporary portable stations operating on emergency power, stay-at-homes and mobiles also can participate. Since 2003 there has been a special category for stations operating from established Emergency Operations Centers. The goal is to show that we can communicate with one another, *no matter what*, without the need for *any* infrastructure. This is a capability that we tend to take for granted, but that is increasingly rare -- and increasingly valuable -- as the world becomes ever more dependent on complex telecommunications systems to cope with daily life. Cell phones are ubiquitous these days, and it's natural to rely on them -- but what do we do when they don't work? Most people have no answer to that question. As radio amateurs, we do -- but only if we keep our batteries charged, our equipment ready, and our operating skills honed.

This year's theme for Field Day is "Bitten by the Bug!" It's all too common to be bitten by all manner of insects at an FD site, but the "bug" we have in mind is simply enthusiasm. For many amateurs, this year's event will be the first where they can be the control operator of an HF station. Newly minted General and Extra licensees will be on all bands, and Technicians will be able to operate on 10-meter SSB and RTTY.

By the way, if you think that the lack of sunspots means there's no point setting up for 10 meters this year, think again. June is prime time for sporadic-E, and it's a rare FD that doesn't reward preparation and patience with a spate of 1000-mile contacts. You may be surprised, too, at how reliably 10 meters works for "local" QSOs out to 200 miles or so, especially if you're in a quiet location that's in the clear.

Are you getting bitten by the bug? A good next step is to *read the rules* -- even if you're a loyal FD regular, since there are some changes this year. A summary appeared in last month's *QST* on page 98. The complete, official rules are at [www.arrl.org/contests/rules/2007/fd.html](http://www.arrl.org/contests/rules/2007/fd.html). Don't know what ARRL section you're in? If you know your county, just go to [www.arrl.org/FandES/field/org/secinfo.html](http://www.arrl.org/FandES/field/org/secinfo.html). There is a link from that page to a list of standard abbreviations.

The biggest change in the rules is that it will be easier this year to earn Get-On-The-Air (GOTA) bonus points. The purpose of the GOTA station is to encourage Novices, Technicians and prospective hams under the direct supervision of a properly licensed control operator, as well as inactive hams, to get acquainted or reacquainted with HF operating. Up to 500 QSOs can be counted from this station, plus 20 bonus points for each 20 contacts made by an eligible operator (up to a maximum of 100 per operator). The bonus points double if your group provides a full-time "GOTA Coach"; see the official rules for details.

Field Day is *not* about taking risks. A need for improvisation is likely to crop up at the most carefully planned event, but safety always comes first -- especially when erecting antennas and operating generators. Always be mindful of the

safety not only of your participants, but of any visitors to your site as well.

Have fun on Field Day, and may the only bugs you encounter be friendly ones!  
(Reprinted courtesy of ARRL Website)

## Upcoming Events and Public Service Ops

**23-24 June 2007: ARRL Field Day** Field Day is open to all amateurs in the areas covered by the ARRL/RAC Field Organizations and countries within IARU Region 2. DX stations residing in other regions may be contacted for credit, but are not eligible to submit entries. The object is to work as many stations as possible on any and all amateur bands (excluding the 60, 30, 17, and 12-meter bands) and in doing so to learn to operate in abnormal situations in less than optimal conditions. A premium is placed on developing skills to meet the challenges of emergency preparedness as well as to acquaint the general public with the capabilities of Amateur Radio. The event is always the fourth full weekend of June, beginning at 1800 UTC Saturday and ending at 2100 UTC Sunday. More info at <http://www.arrl.org/contests/rules/2007/fd.html>

**14-15 July 2006: IARU HF World Championships** The object is to contact as many other amateurs, especially IARU member society HQ stations, around the world as possible using the 160, 80, 40, 20, 15 and 10 meter bands. The event is the second full weekend of July, beginning 1200 UTC Saturday and ending 1200 UTC Sunday (14-15 July 2007). Both Single and Multi operator stations may operate the entire 24-hour period. More info at <http://www.arrl.org/contests/rules/2007/iaru.html>

2007). More info at <http://www.arrl.org/contests/rules/2007/sepvhf.html>

**18-19 August 2007: ARRL 10 GHz and Up Contest** The object is for North American amateurs to work as many amateur stations in as many different locations as possible in North America on bands from 10-GHz through Light. The event is the third full weekend of August and September. The dates are 18-19

August 2007. Operations may take place for 24 hours total. The contest begins at 6:00 AM local Saturday though 12:00 midnight local Sunday. Listening times counts as operating time. Times off must be clearly indicated in the log. More info at <http://www.arrl.org/contests/rules/2007/10-GHz.html>

**8-10 September 2007: ARRL September VHF QSO Party** The object is to work as many amateur stations in as many different 2 degrees X 1 degree grid squares as possible using authorized frequencies above 50 MHz. Foreign stations work W/VE amateurs only. The event is the second full weekend of September. Begins 1800 UTC Saturday and ends 0300 UTC Monday (8-10 September

**ARRL Membership Benefits** There are "fringe" benefits for RCARC when our members join or renew through the following process.

**Renewing By Check**—After filling out the form, return it to RCARC with your check. Note the definition of New or Renewing Member at the top of the form. If you have previously been a member of ARRL but have let that membership lapse for 2 or more years then you are considered a new member and the club would get a \$15 commission. If you are renewing a current membership or one lapsed for less than 2 years, you are considered a renewing membership and would get a \$2 commission. Do not deduct the \$15 or \$2 commission—make the check out to RCARC for the full renewal amount.

**Renewing By Credit Card**—If you wish to CHARGE the renewal to a credit card note the special instructions (Box on right side of form) which indicate that you would then pay the \$15 or \$2 directly to RCARC. Your credit card would be charged for the full amount minus the appropriate commission. In this instance the check should be made out to the RCARC for the appropriate commission amount.

In both cases, return the application to RCARC regardless of payment method in order for RCARC to get credit. **The application is now available on the RCARC website!** Mail to the following address:

RC Amateur Radio Club  
Attn: Treasurer  
MS 461-290  
PO Box 833807  
Richardson TX 75083-3807



# Rockwell Collins Amateur Radio Club Field Day

Field Day is an American Radio Relay League (ARRL) sponsored operating event intended to test emergency preparedness. The two day event is held on the last full weekend of June with literally thousands of individuals and clubs "heading for the woods" to set up amateur radio stations operating on emergency power. It is a great way to introduce the fun that is happening in today's "Wireless Communications".

## RCARC Field Day 2007

**CQ Field Day, CQ Field Day, this is W5ROK, Whiskey Five Romeo Oscar Kilo calling CQ and listening.**

Yes, it is that time of year again, when many amateur radio operators think about the great outdoors and emergency operations. The RCARC is sponsoring Field Day (see <http://www.arrl.org/contests/rules/2007/fd.html>) again this year. The dates are June 23rd and 24th. The Field Day period starts 1800 UTC Saturday and ends at 2100 UTC Sunday although it ends at 1800 UTC Sunday for those, like our club, who start setup before 1800 UTC Saturday. The W5ROK clubroom will be the site of our club's operations and we will be using emergency power. Our goals are to have fun and increase our operating abilities a little. All operators or interested parties, both new and experienced, are invited.

Setup starts Saturday morning at 11:00 am local time with preparing the power, antennas and radios. Operations start at 1:00 PM CDT, and continue to 1 PM CDT Sunday. Again, all with interest are invited to join in the fun. The club has a full array of radios; antennas and equipment that covers the high, very high and ultra high frequencies. All licensed operators are invited to operate the radios. Control operators will also be available for those interested. Tear down starts Sunday at 1:05 PM CDT. Beverages and snacks provided, so folks won't go hungry or thirsty!

At 6 PM CDT Saturday night, we will have a meal with club members' immediate families invited. A dish to pass from each family would be appreciated. This has been a fantastic time to fellowship with our significant others, and have a great time. **Please RSVP to Jim Skinner @ 972-690-9612 so we can get a headcount.**

Field Day needs many volunteers. Take a look at the ARRL web site, and you can see how many things we can do. Here is a list of tasks/positions. Some already have volunteers. In addition, I'm listing some items that don't have volunteers yet. Accuracy of this list is open to question, and if I've goofed, please let me know ([K3NT@arrl.net](mailto:K3NT@arrl.net) or 972-612-4094).

- **2007 Field Day Chairman** – Bob Kirby-K3NT & Dennis Cobb-WA8ZBT
- **Suggested Class:** Currently 2E (or more? Have FT2000, TS-2000, TS-50, Collins S-Line, VHF/UHF FM Xcvr , 2 computers and paper logs if required.)
- **Food Captain** – Jim Skinner-WB0UNI & Joe Wolf-N5UIC (food pick-up Saturday at 5 PM, So Far, Boston Market and water is in the lead for food choice with chicken, turkey, greens, yogurt and fruit. Note: Foods needs to be low fat with No or very low sodium content. Also low or no sugar deserts)
- **HF Station Captain**- Dennis Cobb-WA8ZBT & Bob Kirby-K3NT (Setup)
- **VHF Station Captain** – Open
- **Natural Power** (Generator) – Joe Wolf-N5UIC & Dennis Cobb-WA8ZBT (securing resources)
- **Setup**- (Starts Saturday @ 11 AM local Includes G5RV + Tuner setup) Steve Phillips-K6JT, Dennis Cobb-WA8ZBT, Bob Kirby-K3NT
- **Traffic operator** – Steve Phillips-K6JT (Moving prepared traffic on TEX at 7 PM or RN5 at 7:30 for out of state)
- **Copy W1AW Message** – Open
- **Operator Signup Times:** – Dennis-WA8ZBT, (Saturday afternoon, Sunday morning); Jim Skinner-WB0UNI (Saturday Afternoon and early evening); Steve Phillips-K6JT (Saturday 4 or5 PM till 1 AM,

Mostly CW & includes passing Traffic); Dave Jaksa-W0VX (CW high rate times Saturday afternoon and evening).

- **Public Media Relations** – Open
- **Computers Log Program Setup** – Dennis Cobb-WA8ZBT, Bob-K3NT
- **W5ROK Packet BBS Traffic count** – Steve Phillips-K6JT
- **Cleanup/Secure Station** – Open (Starts Sunday at 1 PM local)
- **Other things?** (Please let us know)

More than anything else we need operators. This includes through the day, evening, night, into the wee hours of the morning. Let's keep the RF spectrum full, and put W5ROK on the map yet again! To add your name to the schedule for operators please contact Dennis Cobb at 972-705-1457 or Bob Kirby (k3nt@arrl.net or 972-612-4094). RCARC wants to see a number of the new and upgraded hams join in. We have a friendly bunch here that will show you the ropes.

Directions to the site: US75 to Renner Rd east, to corner of Shiloh Rd. Plant will be just a block ahead on your right. Turn into plants north gate entrance from Renner Road and into the parking lot. Visitors and retirees will need to sign-in at the guard shack. A current company employee must escort all visitors.

For those interested, I'd like to generate a mailing list to keep you all up to date as to our W5ROK Field Day developments. Please send a note to Bob, [K3NT@arrl.net](mailto:k3nt@arrl.net) and I'll send any updates I receive to this list. Any and all ideas welcome, lets all make this a great club outing!

73, Bob  
K3NT, RCARC 2007 Field Day chairman,

PS - All volunteers and ideas welcome!

## RCARC 2007 Field Day Dinner

Thanks and a tip of the hat to all that responded to the RCARC 2007 Field Day Survey. Each response helps us to plan a better field day for our members and guests.

If you plan to attend the 2007 RCARC Field day dinner and have yet to RSVP, please contact Jim Skinner and let him know how many in your group will be attending and what dish, if any, you will be bringing. Field Day Dinner is planned for 6PM Saturday June 23rd near the clubroom.

At the last meeting, the club decided to leave the requested dinner costs for guests at \$5.00 each unless our food costs increase. Participating RCARC members and their immediate family members meal costs are included as part of the membership dues.

All offers to assist with the dinner are greatly appreciated. Please contact Jim Skinner-WB0UNI at 972-690-6912 or via e-mail ([jamesrose@sbcglobal.net](mailto:jamesrose@sbcglobal.net)).

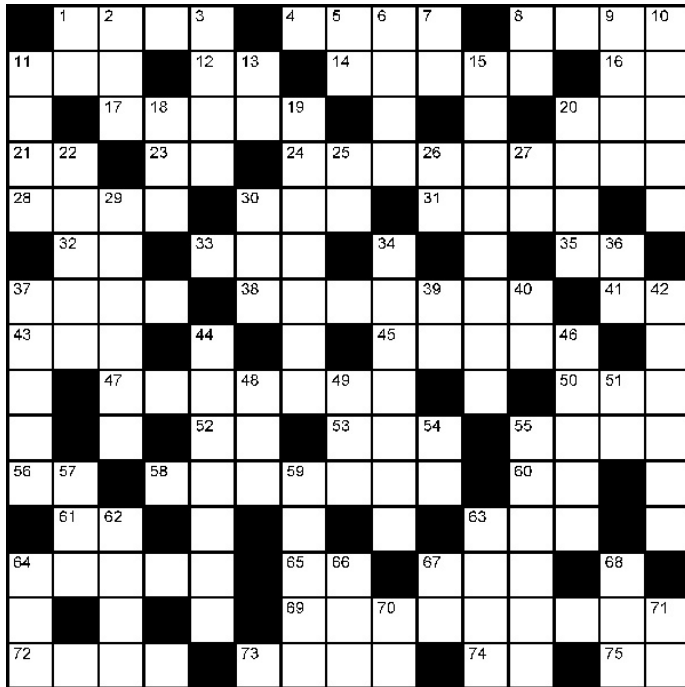
*Those that have RSVP at this time:*

Chadwick, Pat and Chad (bringing deviled eggs)  
Garcia Vasquez, Hernando  
McFadden, John & Liz (bringing bread & cobbler)  
Skinner, Rose and Jim

Cobb, Dennis and Kathy  
Jaksa, Judy & Dave  
Philips, Steve  
Wolf, Joe (bringing pies)

Please see the Field Day article in this newsletter for other latest RCARC 2007 Field Day information.

**The Amateur Radio Crossword Puzzler**



**Across**

- 1. Two-terminal thyristor
- 4. Radio parameter measured by length
- 8. Exam or puzzle
- 11. Room of iniquity
- 12. Functional
- 14. Find the answer
- 16. Direction of Japan from Europe
- 17. Bidirectional thyristor
- 20. To be victorious
- 21. A megananoamp (abbr)
- 23. Safety lab (abbr)
- 24. What dc does not do
- 28. Protective component that melts
- 30. By the way (abbr)
- 31. Unit of power
- 32. How AM BC signals travel by day (abbr)
- 33. Express of disdain for ignorance
- 35. Another abbreviation for 11 Down
- 37. Slang for integrated circuit
- 38. Impurities added to semiconductors
- 41. Another abbreviation for CTCSS
- 43. Original US long-distance telephone company
- 45. Propagation via the atmosphere
- 47. Movement of charge
- 50. Cause a program to execute
- 52. Prefix of an Iberian country
- 53. Affirmative
- 55. Most common ac shape

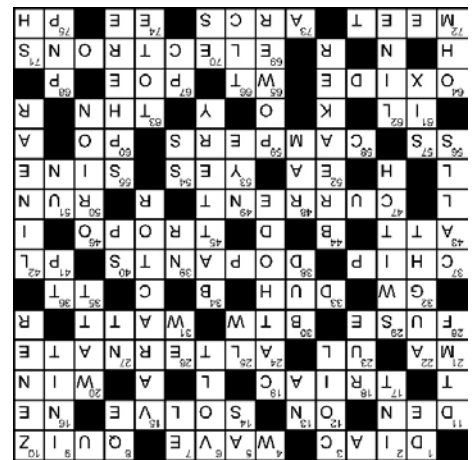
phone (abbr)

**Down**

- 1. CW for "from"
- 2. Interrupt or Internal (abbr)
- 3. What an inductor looks like
- 5. CW prosign for "stand by"
- 6. Unit of potential
- 7. Material that gives off light when electrically stimulated (abbr)
- 8. Initials of the ship that was once the largest passenger liner ever built
- 9. To start in a known state (abbr)
- 10. Type of diode used for its reverse breakdowns
- 11. Telephone dialing tones (abbr)
- 13. Only stations from this continent may participate in ARRL Field Day
- 15. Diode used as a variable capacitor
- 18. Regret
- 19. Diode electrode noted by the bar marking
- 20. Person that invented the steam engine
- 22. Another word for "zero"
- 25. Broadcast band below AM BC (abbr)
- 26. Which way to orient a dipole for directivity north and south (abbr)
- 27. Early version of the Windows operating system
- 29. Component that's closed or open
- 30. Manufacturer of Miniboxes
- 34. Chemical producer of electrical en-

- 56. Slow-to-corrode metal (abbr)
  - 58. Popular vehicles at Field Day
  - 60. Output power (abbr)
  - 61. Load current (abbr)
  - 63. Add 'I' to get a word that means "skinny"
  - 64. What 'O' in MOS stands for
  - 65. Weight (abbr)
  - 67. Wrote quotes from ravens
  - 69. What moves in wires
  - 72. Come together
  - 73. Long sparks
  - 74. Designer of electronic stuff
  - 75. Radiotele-
- ergy
  - 36. Critical to Field Day success (abbr)
  - 37. These are heard in a pileup
  - 39. Number (abbr)
  - 40. Opposite direction of LP (abbr)
  - 42. Amplifier type needed for AM signals
  - 44. Protective component that opens
  - 46. Top of the line Ten-Tec HF rig
  - 48. Volatile memory type
  - 49. Manufacturer of keys
  - 51. In "balun", means "unbalanced"
  - 54. November contest (abbr)
  - 55. A ball-shaped object
  - 57. The magic band's meters
  - 59. Makes things go
  - 62. Voltage on the ac grid
  - 63. Haul or carry
  - 64. Unit of resistance
  - 66. Repair and maintain with care
  - 67. Computer (abbr)
  - 68. Type of bipolar transistor
  - 70. CW for "and"
  - 71. What the librarian say

**Solution to this month's Puzzler**



**Classified Ads**

**Radio Repair, Kit Building, Antenna and Computer Help.** Free Estimates; Contact Bob Kirby K3NT at [k3nt@arrl.net](mailto:k3nt@arrl.net)

# Rockwell-Collins

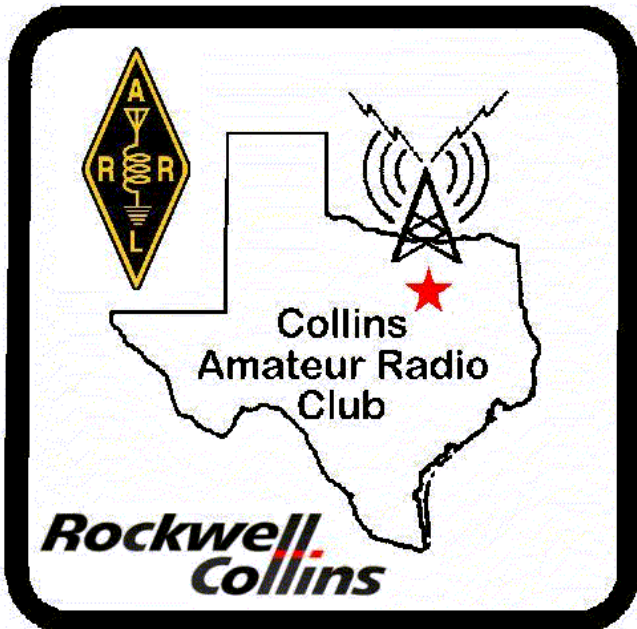
Amateur Radio Club

Mail Station 461-290

P.O. Box 833807

Richardson, TX 75083-3807

TO:



### CLUB STATIONS

(972) 705-1349

### W5ROK REPEATER

441.875 MHz +5 MHz Input

131.8 Hz PL - RX and TX

### W5ROK-1 PACKET BBS ROK Node

145.01 MHz

### MEETING

Thursday 21 June 2007

**17:30**

Rockwell Collins Cafeteria

**NEXT SIGNALS DEADLINE:  
16 July 2007**