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# SIGNALS

Rockwell  
Collins **Amateur Radio Club**

Monthly Newsletter of the

Volume 35 Issue 03

Web Site <http://www.w5rok.us>

December 2013

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## RCARC Membership Meeting

Tuesday 28 January 2014  
1700 Social      1730 Meeting  
1800 Program

Methodist Richardson Medical Center  
At Bush/Renner/Shiloh Intersection  
Second Floor Conference Room 200

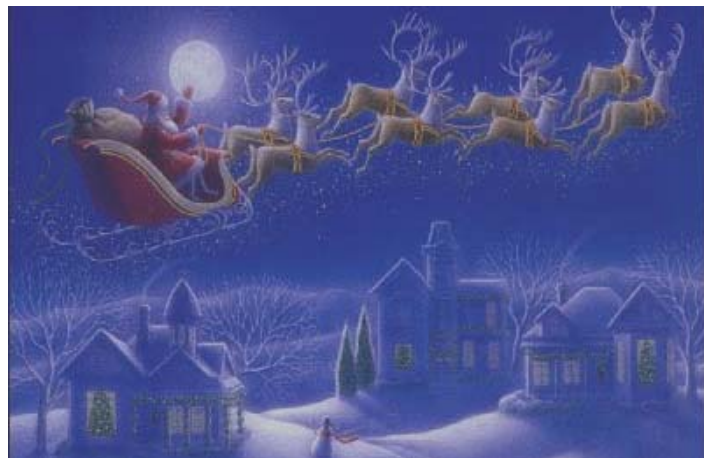
*Subject:*  
**Not yet Scheduled**

## Club News and Pending Tasks

RCARC planed purchases will continue in January. If there are club items members would like to see purchased, please contact the officers.

Please contact the club officers if you would like to help work any of the following tasks.

- Update YEASU FT-2000 & YEASU DMU software.
- Collins S-Line preventative maintenance.
- Set up ARRL Logbook of the world (LOTW) and computer logging.



**Merry Christmas to all and to all a good night.**

## Local Club News

### Meeting Notice

The December meeting was scheduled to be a lunch on 8 December, but was cancelled due to the ice storm. The next meeting will be in January 2014.



Joe Wolf N5UIC defeating gravity. Is that the Badlands behind you, Joe?



**But let's not forget the reason for the season!**

**RCARC OFFICERS**

<b>PRESIDENT</b> Dennis Cobb WA8ZBT 972.705.1457 <a href="mailto:ddcobb@rockwellcollins.com">ddcobb@rockwellcollins.com</a>	<b>VICE-PRESIDENT</b> Bob Kirby K3NT 319.360.0500 <a href="mailto:k3nt@arrl.net">k3nt@arrl.net</a>
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<b>DATABASE MGR</b> Joe Wolf N5UIC 972.705.1388 <a href="mailto:n5uic@arrl.net">n5uic@arrl.net</a>	<b>W5ROK CLUB STATION</b> 972.705.1349 461-290

**VE SESSIONS**

**Dallas** tests are held 4<sup>th</sup> Sat of each month at 1000 hrs. 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 0900. Fifth 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 1430, ending no later than 1645. **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 Janet Crenshaw, WB9ZPH at 972.302.9992.

**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.

**Richardson** The Richardson Wireless Klub (RWK) VE team hold license testing on the third Thursday of each month at St. Barnabas Presbyterian Church, 1220 West

Beltline Rd. Testing begins at 1900 hrs in room 12. Enter through the Northern most door on the east side of the church building. For further information contact Dave Russell W2DMR, at 972.690.9894 or E-mail [warhog4@tx,rr.com](mailto:warhog4@tx,rr.com).

**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 © 2013 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**

The officers of RCARC wish you and your family a Joyous Christmas and a Happy New Year.

73,  
Dennis Cobb  
WA8ZBT  
RCARC President

**Secretary's Report**

26 Nov 2013

The meeting was called to order by President Dennis Cobb WA8ZBT at 1730.

The following were present at the meeting:

Ken Bateman	W5ISE
Charlie Beis	K5UWD
Jim Brown	AF5MA
Dennis Cobb	WA8ZBT
Larry Creech	KC5LOP
Mike Hollingsworth	W5QH
Bob Kirby	K3NT
John McFadden	K5TIP
Steve Phillips	K6JT
Mike Schmit	WA9WCC
Jim Skinner	WB0UNI
Joe Wolf	N5UIC

**Officers and Committee Reports:**

*President's Report:* There was no formal President's Report.

*Vice-President's Report:* We was no Vice-President's Report..

*Secretary's Report:* The Secretary's Report is in this newsletter.

*Treasurer's Report:* There was no Treasurer's Report.

*Website Manager's Report:* There was no Website Manager's Report.

*Station Trustee's Report:* There was no Station Trustee's Report.

*Database Manager's Report:* There was no Database Manager's Report.

#### Old Business:

Bob Kirby K3NT announced that the club bank account was being set up to include new officers as authorized signers. New signature cards have been signed. We will be ready to make club purchases soon.

#### New Business:

Mike Hollingsworth W5QH volunteered to manage the RCARC website.

President Dennis Cobb WA8ZBT explored interest in a club holiday lunch at Furr's.

Dennis also announced that Rockwell Collins badges are again available to Rockwell Collins retirees at the north guard station. These will now be non-picture badges as used for employee temporary badges. The badges will allow escort of others as needed, but Dennis urged restraint in bringing in non-employees.

The meeting was adjourned at 1755 and followed by a program on the I-Com D-Star radios by Joe Wolf.

### Kids Day is January 5!

The next Kids Day, sponsored by the ARRL and The Boring (Oregon) Amateur Radio Club, will be Sunday, January 5, from 1800 to 2400 UTC. This is an excellent opportunity to showcase Amateur Radio and Amateur Radio satellites to youngsters and let them get some hands-on experience.

Share the excitement with your own children or grandkids or youngsters in the neighborhood! For the youngsters, their positive ham radio experience may foster an interest in getting licensed one day. For veteran radio amateurs, it's a chance to share their love of Amateur Radio and their stations with the next generation.

To attract attention call "CQ Kids Day." The suggested exchange is name, age, location, and favorite color. There is no limit on operating time, and stations may work each other more than once if the operator has changed.

The suggested HF frequencies are 28.350 to 28.400 MHz, 24.960 to 24.980 MHz, 21.360 to 21.400 MHz, 18.140 to 18.145 MHz, 14.270 to 14.300 MHz, 7.270 to 7.290 MHz, and 3.740 to 3.940 MHz.

Repeater contacts (with permission of the repeater's sponsor) are okay too, and satellite contacts may provide a real thrill. Be sure to observe third-party traffic restrictions when making DX contacts.

All participants are encouraged to post stories and photos to the Kids Day Soapbox page and are eligible to receive a colorful certificate. You can download the free certificate, customized with the youngsters' names, after filling out the Kids Day Survey found on the same page as the certificate generator. Alternatively, you can send a 9 × 12 SASE to Kids Day Certificate Request, ARRL, 225 Main St, Newington, CT 06111.

*(Contributed by Frank Krizan, KR1ZAN)*

### E-Mail List and Club Roster Update

The club needs for all members to provide their preferred e-mail address, (and phone number and home address if they have changed in the last year) that is outside of rockwellcollins.com. (Please send to [wa8zbt@arrl.net](mailto:wa8zbt@arrl.net)) If an employee retires or is RIFed we require this outside e-mail address to continue sending them RCARC SIGNALS and club activity information.

### RCARC Community Service Activities

**Siren Testing.** Dennis Cobb WA8ZBT, John McFadden K5TIP and Jim Skinner WB0UNI participated in the Richardson emergency siren testing on 4 December 2013. The testing was successful with the exception on one report of a problem at one siren. The siren testing is performed on the first Wednesday of each month. The sirens are monitored by amateur radio operators and reports made using the Richardson Wireless Klub (RWK) repeater at 147.120 MHz.

Heads up notice: Because the first Wednesday in January is New Years Day, the next siren test will be delayed until Wednesday, January 8, 2014.

### Uno, Dos, Tres...

If you have done any amount of listening to shortwave radio outside of the ham bands, you have undoubtedly run across "numbers stations." The broadcasts from these stations consist streams of numbers or letters, often in a computer-generated female voice speaking in Spanish. Every now and then, a numbers station pops up on 30m, sending five-character groups in Morse code.

According to the Conet Project (<http://www.irdial.com/conet.htm>), "Shortwave Numbers Stations are a perfect method of anonymous, one way communication. Spies located anywhere in the world can be communicated to by their masters via small, locally available, and unmodified Shortwave receivers. The encryption system used by Numbers Stations, known as a 'one time pad' is unbreakable. Combine this with the fact that it is almost impossible to track down the message recipients once they are inserted into the enemy country, it becomes clear just how powerful the Numbers Station system is."



The Conet Project sells a CD with a number of recordings for \$55, but you can find a bunch of mp3 files at <http://www.archive.org/details/ird059> for free.

Recently there was a thread on the Glowbugs Google Group about numbers stations. One fellow mentioned "The Numbers Station," a movie released earlier this year starring John Cusack. IMDB (<http://www.imdb.com>) says that The Numbers Station is about "a disgraced black ops agent dispatched to a remote CIA broadcast station to protect a code operator. Soon, they find themselves in a life-or-death struggle to stop a deadly plot before it's too late." It's currently available for streaming on Netflix, and I watched it recently. It's kind of violent (lots of people get shot), but it's a decent thriller.

Jim, K6FWT mentioned ENIGMA 2000 (<http://www.apul64.dsl.pipex.com/enigma2000/>). The group's website describes ENIGMA 2000 as "a UK based online group, whose aims are to bring together listeners and enthusiasts who monitor and gather information on 'Number Stations' and other related radio transmissions. Through our Yahoo Group monitors can share their logs, discuss frequencies, thoughts and opinions on this most emotive subject." Jim says, "These folks are SERIOUS enthusiasts. I have heard that they surpass many intelligence services with their thoroughness. You can get in up to your eyeballs if you don't watch it."

These stations have been around since World War II. I remember as a kid in the 1960s and 1970s, reading articles about numbers stations in Popular Electronics and Electronics Illustrated. They're as much of a mystery today as they were back then.

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When he's not listening to numbers stations, Dan, KB6NU enjoys working CW on the HF bands and teaching ham radio classes. For more information about his operating activities and his "No-Nonsense" series of amateur radio license study guides, go to [www.KB6NU.Com](http://www.KB6NU.Com) or e-mail [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).

*(Contributed by Frank Krizan, KR1ZAN)*

## **DARPA selects Rockwell Collins to develop prototype for next generation of software defined radios**

CEDAR RAPIDS, Iowa (Dec. 2, 2013) - Rockwell Collins has been selected by the Defense Advanced Research Projects Agency (DARPA) to develop a direct conversion digital receiver based on photonic technology. The three-year contract for the DISARMER program is valued up to \$8.5 million.

Radio frequency (RF) sensor systems on the modern battlefield must cover many RF and microwave bands, and deliver accurately processed information. Rockwell Collins seeks to apply the photonic analog to digital converter

(ADC) technology developed under the recently completed DARPA RADER program to create a digital receiver that can accommodate X-band frequencies.

"This technology will provide the Department of Defense with the networking capability that it has been seeking for the last decade to assure spectrum superiority on the battlefield," said John Borghese, vice president of the Rockwell Collins Advanced Technology Center. "Our overall goal is to develop a first-of-its-kind radio to digitize signals at higher frequencies and with more resolution than ever before, allowing a much quicker assessment of threats."

A single DISARMER digital receiver may replace multiple pieces of equipment, enable field reconfiguration and reduce the size, weight, power and cost of both military and commercial radio systems.

### **About Rockwell Collins**

Rockwell Collins (NYSE: COL) is a pioneer in the development and deployment of innovative communication and aviation electronic solutions for both commercial and government applications. Our expertise in flight deck avionics, cabin electronics, mission communications, information management, and simulation and training is delivered by 19,000 employees, and a global service and support network that crosses 27 countries. To find out more, please visit [www.rockwellcollins.com](http://www.rockwellcollins.com).

*(Contributed by Bob Kirby, K3NT)*

## **K5N Grid Activation Group "Great Winter DXpedition"**

By Marshall P Williams, K5QE

Hello to everyone interested in FFMA and / or grid chasing on 6M. The K5N Grid Activation Group is planning another of our "Great Winter DXpeditions". This time, we are going to EL08, just south of San Antonio.

I have been informed that the peak of the Quadrantids meteor shower is 2PM CST on January 3rd. I would really like to be on the air for the whole peak, if possible. So, a few minor changes to the original schedule are planned. We hope that we can run on the following schedule, but as always, changes may occur.

Jan 2nd - Bill-N5YA and Marshall-K5QE drive to the Gracey Ranch, just north of Pearsall, TX. Dan-N5TM and maybe George-NR5M will drive over that evening. Jan 3rd - We plan to begin setup at about 9AM and hope to be fully functional by 12 Noon. That may or may not happen. We hope to run meteor scatter(MS) through the peak of the Quads and on into the night(unless Es breaks out).

Jan 4th thru 6th - We will operate EME when the moon is favorable. This will allow a few guys that are way beyond meteor range to get that grid. When the moon is not favorable, we will operate either Es or MS as appropriate.

Jan 7th - Tear down and begin the drive home. Depending on how the group feels and on the activity, we MAY operate the early morning hours of Jan 7th. But, we will QRT and dismantle the station no later than 9PM. If we are beat down, we will QRT some time late on Jan the 6th.

I planned these dates based on the best moon times....only later did I realize that Jan 3rd and 4th are the peak of the Quadrantids meteor shower. This shower has a very quick peak, but it is very good during the peak, which we now know will be about 2PM on January 3rd. During the peak, we may run SSB meteor scatter if things are really hopping. Usually, operating SSB meteors works best on very short sequences, so I am thinking that we would do 5 second sequences, K5N always first sequence(i.e. starting 12, 2, 4, 6, 8, 10 seconds for 5 second periods). I know that the "standard" for SSB meteors is 15 sec sequences, but if we are calling CQ for 15 seconds, that can waste a lot of time. I will entertain emails telling me that I am completely out of my mind off the reflector.....HI. We will keep everyone posted as to what we are doing via the K5N private-chat page, so look for us there.

Dan-N5TM will activate our K5N private chat page for us as usual. Just go to chat.n5tm.com, login with your Call, Name, and your grid. Then click the K5N tab. If you don't enter your grid, we will not know which way to point, so be sure to enter your grid when you login.

Also, those dates are during the peak of the Winter Es season. We certainly hope that we hit some good Es and will operate Es whenever we can, excepting only our EME schedules.

For those of you that like to play around with Google Earth, the entrance to Gracey Ranch is 28° 57' 13.8"N by 99° 04' 48.7"W. That is right off Interstate 35 just north of Pearsall, TX. You can see a road lined by trees on both sides leading in to the ranch complex. The Gracey Ranch complex is right opposite the Keystone Ranch LLC which has a small square marker on the map. Just put your mouse on the small square marker and the words Keystone Ranch LLC will appear.

The station will be essentially the same as we have used before. We will have 2 x 6M5XHP with full AZ / EL. We will have a full 1500W whenever we are running EME, but will probably hold it down to about 1000W for MS or Es. The amps are a combined pair of the M2 6M1000 amplifiers. We will have a preamp in line this time, just as we did when we were in EL84. That seemed to make a huge difference in what we hear.

We have learned that for Winter DXpeditions, using a frequency high in the band does not work well if Es occurs. Hence, we will operate on 50.128MHz for everything except EME. When we operate EME, we will be on 50.195 MHz using JT65A and first sequence. Any changes will be posted on the K5N chat page, so you can always know what we are doing. That page is interactive, so you can talk to us there.

We really do love to work lots of guys when we go out on one of these things, so listen up for us and try to give us a QSO.

73 de The K5N Grid Activation Group  
George-NR5M  
Dan-N5TM  
Bill-N5YA  
Marshall-K5QE

(W5ROK has worked K5QE many times in the VHF Contests)

*(Contributed by Dennis Cobb WA8ZBT)*

## Wi-Fi-FreeSpot™ Directory

The following is a link to the Wi-Fi-FreeSpot™ Directory web page:

<http://www.wififreespot.com/index.php>

The Wi-Fi-FreeSpot™ Directory is a listing of locations that offer Free Wi-Fi. USA State-by-State listings come first with [Europe](#) and other regions of the World listed further down the page.

A Wi-Fi-FreeSpot™ is a location that offers Free Wi-Fi high speed wireless internet access to their customers and guests and/or the general public. Whether you're a local resident or a business or vacation traveler just passing by, The Wi-Fi-FreeSpot™ Directory will help you find all types of Free Wi-Fi locations that are open to the general public, customers or guests.

*(Contributed by Frank Krizan, KR1ZAN)*

## New Educational Video about Amateur Radio

There is a new educational video about Amateur Radio available online. It is free to view and share and can be found at:

<http://youtu.be/ivUMIADFSDw>

It has been created for anyone who wishes to encourage youth and adults to explore the world of Ham Radio and it also can be found on the home page of the project website at [www.RadioQRV.com](http://www.RadioQRV.com).

## Wanted: Ham Stuff

This is W9NIN--I want to know if anyone has a DPDT Knife Switch. I want to use it to disconnect my open wire feeders and ground them during thunderstorms. These are also called Frankenstein Switches. I'd like to buy one, at a reasonable price of course, and you may call me at 972-430-2276, or contact my email at [beedlized@verizon.net](mailto:beedlized@verizon.net) I'd appreciate it-- Thanks and 73--Jim W9NIN

*(Contributed by Bob Kirby, K3NT)*

# Rockwell-Collins

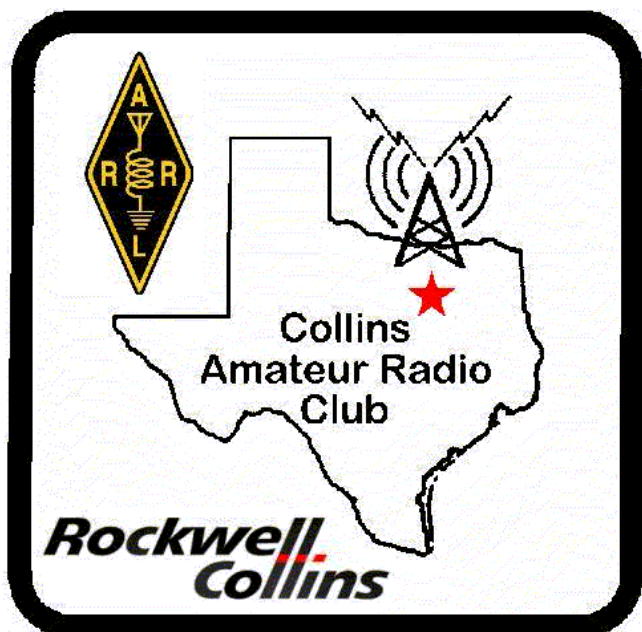
Amateur Radio Club

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

145.05 MHz

W5ROK-N1, W5ROK-N2 & W5ROK-N3 HSMM-  
MESHNET Nodes 2.4 GHz

Tuesday 28 January 2014

1700 Social      1730 Meeting

Methodist Richardson Medical Ctr  
At Bush/Renner/Shiloh Intersection  
*Second Floor Conference Room 200*

**NEXT SIGNALS INPUTS DEADLINE:**

**→→→ 17 January 2014 ←←←**