
SIGNALS

Rockwell
Collins **Amateur Radio Club**

Monthly Newsletter of the

Volume 35 Issue 04

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

January 2014

RCARC Membership Meeting

Tuesday 28 January 2014
1800 — 2000

FURR's CAFETERIA
1900 N Central Expy Plano
NE Corner US75 and Park Blvd

Subject:

Christmas in January

1963, he earned his Bachelor's degree in Electronic Engineering. He was an assistant lab professor at Healds College when he met his beautiful future wife, Margoth Velez. They married March 8, 1969 in Bogota, Colombia and then enjoyed their honeymoon in Jamaica. After the honeymoon, he and his wife moved to Dallas, Texas where they have



remained and called home. He loved his work and was very proud of it and the years he spent working at Rockwell International were particularly special to him. Throughout the years he worked on a variety of advanced defense systems that have kept this country safe. He fathered three beautiful children and loved them dearly. His greatest loves were electronics, computers, and soccer. He mastered electronic, mechanical, and electrical engineering and was an avid handyman and fixer-upper. He could fix anything, which made him a very good and popular neighbor. He loved playing and watching soccer and did so his entire life...a love that he passed on to his children. He always enjoyed a good steak and every Thanksgiving and Christmas he lovingly indulged in egg nog. He was intelligent, capable, hardworking, loyal and strong willed. He had a distinctive love of science fiction - he never missed an episode or movie of Star Trek. Hernando leaves behind his wife of 45 years, Margoth Velez de Garcia; his son Sergio Garcia-Velez; his son Andres Garcia-Velez; and his daughter Diana Garcia-Velez; and many friends around the world. A memorial service was held on Saturday, January 11, 2014 at St. Elizabeth Ann Seton Catholic Church, in Plano, TX.

Bob Kirby commented: "Sure will miss Hernando. This man really knew his electronics and was quick to teach you both the theory and how to apply it if you ask about the issue or subject of interest. Hernando did much for the club in the background, never one to seek fame. RIP, Hernando."

Local Club News

Meeting Notice

The December meeting was scheduled to be a Christmas lunch on 8 December, but was cancelled due to the ice storm. The next meeting will be a "Christmas" dinner at the new Furr's Cafeteria in Plano. We will meet and eat from 1800 till 2000, but feel free to come earlier and stay later.

Hernando Garcia-Vasquez, KC5FDW—SK

Garcia-Vasquez, Hernando Age 76 of Plano, TX passed away Dec 31, 2013. For a complete obit and to leave condolences for the family please visit www.affoplano.com.

Hernando Javier Garcia-Vasquez was born and raised near the beautiful mountains of Medellin, Colombia, the son of Antonio Garcia and Carolina Vasquez. Hernando had dreams of going to college in the United States to study Electronic Engineering. In his early years, he spent his time tinkering with electronics and mechanics and enjoyed relating to and training farm animals. In 1958, he moved to San Francisco, California to pursue his career. Two years later his sister, Helena Garcia joined him in San Francisco and shortly after his parents did as well. He studied at San Francisco State University and Healds College, and in

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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.

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President's Message

VE SESSIONS

Dallas tests are held 4th Sat of each month at 1000 hrs. 13350 Floyd Rd. (Old Credit Union) Contact Bob West, WA8YCD 972.917.6362

Irving tests are held 3rd 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 17th St. East Plano. Check Repeater 147.180+ for announcements.

Greenville testing is on the Saturday after 3rd 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

**THIS
SPACE
RESERVED
FOR
PRESIDENTS
MESSAGE**

73,
Dennis Cobb
WA8ZBT
RCARC President

Secretary's Report

There was no meeting in December; hence there are no minutes to report.

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) If an employee retires or is RIFed we require this outside e-mail address to continue sending them RCARC SIGNALS and club activity information.

Straight Key Night

Straight Key Night, also known as SKN, commemorates the history and style of the straight key or bug each year during New Year 's Eve (1/1/2014 0000Z ~ 2359Z). This year was no exception, as thousands of ham radio operators flooded the airwaves with QSOs. Michael Ketchum - K5MDK, was able to get his HF rig on the air, just in time to get in on the action with a good long QSO with Danny McDonald - KE4FIG.

the key. No electronic keyers or paddles are used on this night. Just the old fashion goodness of a straight key or bug.



If you don't know Morse Code, there are several ways to learn. One way is to join a CW training net. Some nets meet on the 2 meter band, while others meet on 40 meters or other HF frequencies in the area. The Dallas ARC just finished up their CW Training Net, as they usually do one once or twice a year, depending on the interest. This writer was listening on the McKinney repeater a couple of weeks ago and listened to an announcement of another CW training net that is gearing up to start near Bonham. They were trying to figure out who was interested and what repeaters to use. I believe they said they would be using the McKinney repeater, which reaches the Greenville area well.

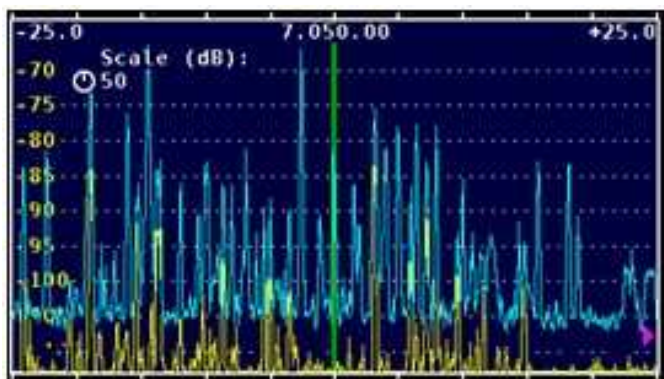
Another way to learn CW is to try out one of the free software programs. One such program called MorseCat can provide you lessons using the Farnsworth method. It also provides a text area where you can paste a large text passage for it to translate into Morse for you to copy.

No matter which method you use to learn CW, the key to learning CW is to simply GET ON THE AIR. It's kind of hard to learn to ride a bike without actually getting on one. The same is true for CW. You just got to get on the air. It may seem daunting at first, but you have to try it. Once you get over that hurdle a couple of times, it starts to get much easier, as you go. There are many CW operators who are more than happy to converse with you at slow speeds. Some of these operators belong to the SKCC or Straight Key Century Club, whose goal is to promote CW and aid other ham operators willing to learn.

Straight Key Night was a good experience for Michael. It afforded him the opportunity to setup the HF rig in a new house and fashion some sort of antenna system in order to get on the air. The band was packed that night, as seen by this spectrum snapshot provided by Dennis Cobb - WA8ZBT of Sachse, TX:



They talked just over an hour at 12 wpm (words per minute), which really slows things down quite a bit. However, the point of SKN is not to quickly rattle through Qs, but to slow down, meet new friends and just have a good time on



Dennis Cobb WA8ZBT reported that on Tuesday, December 31, 2013 at 1858 CT, this is what the 40 Meter Band looked like on Straight Key Night at his QTH.

As you can see from the pan-adaptor graphic, there were a lot of QSOs going on in the lower part of 40 meters on SKN. SKN is a great way to ring in the New Year!

For more information about SKN, go to <http://www.arrl.org/straight-key-night>.

For info about SKCC, go to <http://www.skccgroup.com/>.

(Submitted by Michael Ketchum - K5MDK)

Rockwell Collins completes acquisition of ARINC Incorporated

ARINC's Industry Standards Organization and Aerospace Systems Engineering and Support business for military is being divested

CEDAR RAPIDS, Iowa (Dec. 23, 2013) – Rockwell Collins, Inc. (NYSE: COL) today announced it has successfully completed the acquisition of ARINC Incorporated from The Carlyle Group for \$1.4 billion.

"With this move we take a major leap forward to realizing our vision of providing a richer set of seamless information management solutions that encompass the aircraft and ground-based systems," said Kelly Ortberg, CEO and president of Rockwell Collins. "The acquisition represents an exciting new growth platform for Rockwell Collins and shifts the balance of the company toward the expanding commercial aviation sector."

"Combining ARINC's high-performance, high-quality and high-assurance networks and services with our information systems onboard the aircraft strengthens our ability to deliver improved efficiency and safety, and enhanced connectivity," added Ortberg. "In addition, the acquisition opens up adjacent market opportunities by leveraging ARINC's strong presence in airport information systems and the broader transportation and security segments."

Integration process

The company expects the impact of the acquisition to be EPS accretive once certain transaction and integration costs have been incurred. The majority of integration activi-

ties are expected to be completed in six to nine months. For the near term, customers can expect business as usual, and should continue to work with their current sales representatives, customer service centers and web-based resources.

Related divestitures

To serve the best interests of the industry, and avoid any perceived conflicts of interest, Rockwell Collins has completed the sale of ARINC's Industry Standards Organization to SAE International simultaneously with the completion of the ARINC acquisition. In addition, due to a lack of fit with its long-term strategy, Rockwell Collins has initiated preparatory efforts to divest ARINC's Aerospace Systems Engineering and Support business, which provides military aircraft integration and modifications, maintenance, and logistics and support. In total these businesses accounted for approximately 15 percent of ARINC's FY'13 revenues.

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 a global workforce, and a service and support network that crosses 27 countries. To find out more, please visit www.rockwellcollins.com.

Safe Harbor Statement

This press release contains statements (such as projections regarding future performance) that are forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those projected as a result of certain risks and uncertainties, including those set forth in the company's SEC filings and the risks inherent in the integration of ARINC into Rockwell Collins.

(Contributed by Bob Kirby, K3NT)

Bob Lewis WN5LHJ, 1964 Novice

A little bit of "old times" with Bob Lewis, WA5ONL. This is me in my first ham shack a few days after receiving my



Novice license. This was November, 1964. I was 15 years old. My call at the time was WN5LHJ. You will probably notice the Heathkit DX-60 transmitter on the right of the desk. On top of the DX-60 are several crystals stuck in the vent holes on top. On the left side is a Lafayette HE-80 receiver, which for the time wasn't a bad receiver. The key of course is a surplus J-38. Note that there is no microphone; no phone for Novices except 2-meters, which I also did with a Heathkit Twoer; remember them? Also note the black dial phone on the edge of the desk and the analog clock on top of the receiver. I also used the desk for homework. On the far right is an aquarium. My call now is WA5ONL. At the time a Novice license was only good for one year and could not be renewed. Mine did run out due to some school commitments, and just shortly after the year I got WA5ONL, which I still have.

(Contributed by Bob Lewis WA5ONL)

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 cancelled due to cloudy weather. 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.

Rockwell Collins TacNet™ Tactical Radio receives final NSA certification

TTR opens up Link 16 networked communications to broad range of new users

CEDAR RAPIDS, Iowa (Jan. 9, 2014) – Rockwell Collins' next generation [TacNet Tactical Radio \(TTR\)](#) has received final National Security Agency certification to Top Secret, clearing the way to bring essential situational awareness to all warfighters through the smallest form factor, standalone Link 16 terminal.

"The TacNet Tactical Radio opens up Link 16 networked communications to a wide range of new users and gives warfighters the connectivity they need to successfully complete missions with increased survivability," said Mike Jones, vice president and general manager of Communication and Navigation Products for Rockwell Collins.



TTR features small size, selectable power output, superior range, integration friendly design requiring no air cooling and adaptability to any warfare environment.

TTR features small size, selectable power output, superior range, integration friendly design requiring no air cooling and adaptability to any warfare environment. TTR is integral to protecting the force by virtue of providing warfighters with a common operating picture through Link 16 networked communications. Platforms and users that can benefit from the radio include unmanned aerial systems, rotary wing aircraft, forward air controllers, military vehicles, mobile and transportable ground stations and small maritime assets that have not previously had access to Link 16 capability.

As the primary joint data link for U.S. and coalition forces, Link 16 provides near real-time, jam-resistant data communications. Link 16 also integrates command and control data including the sharing of targeting and situational awareness data among joint and coalition partners.

TTR features:

- Selectable output power with 1-, 50- and 90-watt transmission modes
- Free air convection cooling
- Volume of less than 185 cubic inches
- Weight of less than 10 pounds
- Data, imagery and Link 16 digital voice capability

To find out more about TTR, please visit <http://www.rockwellcollins.com/ttr>.

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 a global workforce, and service and support network that crosses 27 countries. To find out more, please visit www.rockwellcollins.com.

(Contributed by Bob Kirby, K3NT)

ARRL Centennial: A Century of Amateur Radio and the ARRL

This week we'll look at early Amateur Radio as seen through the viewing port of the December 1915 issue of *QST* -- the magazine's first issue -- whose cover proclaims, "An Amateur Wireless Magazine ... Price 10 cents ... *QST* de The American Radio Relay League."

The December "Radio Relay Bulletin" discusses the fact that the US and other countries face a serious situation, with war clouds on the horizon. It was obvious to the officers of the League that the service of its members as operators could become quite important. Therefore, the League sent a letter to the Secretary of the Navy, offering the services of its members in the event of a national emergency.



For day-to-day operation, regular listening hours are suggested, to listen for stations with messages on their hooks. Lists of members and information on their stations had been circulated before that first issue; additions to that list were published in the first QST and in subsequent issues.

At that time, League membership and a subscription to QST were separate. Membership was free, and a three-month trial subscription to QST cost 25 cents. Among the blanks on the membership application are, "Is your spark gap rotary, fixed, or quenched?" "What tone has your spark?" and "Approximate wave length?" That tells you much about the then-current state of the art.

The ads in that first issue touted the various parts available for radio operators. These included the Jove Detector Holder, "for holding one or two crystals and a cat-whisker" (\$1); the Bunnell "renewable contact radio key" (\$7.50); a Stromberg-Carlson radio headset (\$8.25), and the Chambers rotary spark gap (\$12.50): "Gives a tone similar to a flute, on 60 Cycles." *Next time*: The art and science of radio advances by leaps and bounds.

(Reprinted courtesy of The ARRL Letter, 24 January 2014)

Upcoming Events

FEBRUARY	
10-14	ARRL School Club Roundup. Details at http://www.arrl.org/school-club-roundup .
12	ARES North Texas HF Net. 8:30pm to 9:30pm on 3860 KHz.
15	Skywarn Training for Dallas County in Garland at Granville Arts Center 9:00AM-12 Noon for Basic and 1:30-4:00PM for Advanced.
15-16	ARRL International DX-CW. Details at http://www.arrl.org/arrl-dx
27	Skywarn Training for Hunt County in Greenville at F. Warren Civic Center 6:30 - 8:30PM Basic Only.
MARCH	
1	Irving ARC Hamfest all day on Saturday. See http://www.irvingarc.org/iarchamfest.html
1-2	ARRL International DX-Phone. Details at http://www.arrl.org/arrl-dx .
APRIL	
5-6	Texas State Parks on the Air. Saturday & Sunday. See http://www.tsputa.com
20	Rookie Roundup-Phone. Details at http://www.arrl.org/rookie-roundup .
REGULAR ACTIVITIES	
Daily	DFW Early Traffic Net (NTS) at 6:30pm 146.88 – PL 110.9Hz
Daily	DFW Late Traffic Net (NTS) at 8:30pm 146.72 – PL 110.9Hz
Daily	DFW CW Traffic Net (NTS) at 7:00pm and at 10pm on 3541 KHz www.k6jt.com
1 st Wednesday	Richardson Emergency Siren Test. At noon using the Richardson Wireless Klub (RWK) repeater at 147.120 MHz.
2 nd Wednesday	ARES North Texas HF Net Every month—3860 KHz at 830 pm—930pm
Thursday	Sabine Valley Amateur Radio Association Net Every Thursday night at 7:00pm on the K5GVL/R 146.780 MHz (+) PL 114.8Hz

February Program Preview

Dr. Al Helfrick, K2BLA, will be presenting two papers that were given at the Digital Avionics Systems Conference in November 2012; *Aircraft Radio Corporation and its Role in*

the Development of Avionics and WWII Avionics Finds a New Home after the War.

Al, like many amateurs made use of surplus electronics in the years after the war. Like many amateurs from the period he would visit "Radio Row" in New York or Philadelphia and bring home wonderful treasures; some even brand new in the box. K2BLA actually worked for ARC for 8 years, which at the time was a division of Cessna and ARC stood for Aircraft Radio and Control, thus keeping the iconic ARC name. He also lived a mile from ARC and knew a number of the pioneers of the company and was a neighbor of ARC's founder and retired president. Just before writing the two papers he visited the ARC site and will show photographs of the site today.

This is not just another guy telling folks about ARC-5's (many of our members already know something about ARC-5's from military service and working on FIFI). When Al worked for ARC, his office was in the oldest building where ARC-5's and other stuff were designed. In fact his office was either next to or WAS Jimmy Doolittle's when the first blind flight was made in 1929.

Wanted: Ham Stuff (Corrected)

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 972-530-2276, or contact my email at beedlelized@verizon.net I'd appreciate it-- Thanks and 73--Jim W9NIN

(Contributed by Bob Kirby, K3NT)

Projects Status

The following is the status of several ongoing projects that RCARC members are involved in.

- The Elecraft KAT500 Automatic antenna tuner is complete and in test.
- An additional bracket to support the WWII radio shelf is being installed in FIFI
- Command set vibration supports are scheduled to be installed upon delivery.
- QSL cards for KM4RC are pending.

Protect your Gear from ESD

Electrostatic discharge, or ESD for short, has been a concern for anyone involved in electronics ever since we made the transition from vacuum tubes to transistors. I was schooled about ESD when I worked as a test engineer for a company called Doric Scientific shortly after I got out of engineering school, and I wrote about it when I was an editor for Test & Measurement World magazine back in the 1990s. If anything, it's even more of a concern today as electronic components get ever smaller.

In 1991, Bryan P. Bergeron, NU1N, published a two-part series on ESD in QST. They can be read at:

Part 1: <http://www.arrl.org/files/file/Technology/tis/info/pdf/9104019.pdf>

Part 2: <http://www.arrl.org/files/file/Technology/tis/info/pdf/9105028.pdf>

His suggestions about how to prevent ESD damage are as good now as they were 20 years ago:

- Consider using a room humidifier to increase the relative humidity in your shack, or wherever you work on electronic equipment to 65% RH or higher.
- Use grounded wrist straps when handling ESD-sensitive devices.
- Use grounded, anti-ESD work mats when working on electronic equipment.
- Use a grounded soldering iron and anti-static tools.
- Use anti-static bags and containers for storing and transporting electronic equipment.
- Connect the chassis of all your gear to a good earth ground.
- Consider purchasing a desktop ionizer to neutralize static buildup on your workbench.

I might also add, consider grounding the chairs that you use in your shack or discharging yourself after getting up from the chair in your shack. I know that the worst electrostatic discharges that I experience are after I get up from my chair. You can even buy ESD-safe chairs http://www.all-spec.com/products/Benches_and_Chairs%7CChairs_and_Accessories%7CCHR-00/, but they are kind of expensive.

Personally, I use an anti-static mat that I originally purchased for use with a computer keyboard and a wrist strap that was given to me by an ESD consultant when I worked for the magazine. I use these religiously when building kits or working on any solid-state gear.

It's not hard to find anti-static products. Radio Shack sells a wrist strap for only \$1.23 <http://www.radioshack.com/product/index.jsp?productId=2103245>! You can find a whole range of anti-static products on Amazon, too. Wherever you get them, they're a good investment.

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When he's not worrying about ESD, Dan, KB6NU enjoys teaching amateur radio classes and working CW on the HF bands. For more information about his operating activities and his "No-Nonsense" series of amateur radio license study guides, go to www.KB6NU.com or e-mail cwgeek@kb6nu.com.

(Article courtesy of Dan Romanchik, KB6NU at his website www.KB6NU.com. Submitted by Frank Krizan, KR1ZAN)

Rockwell-Collins

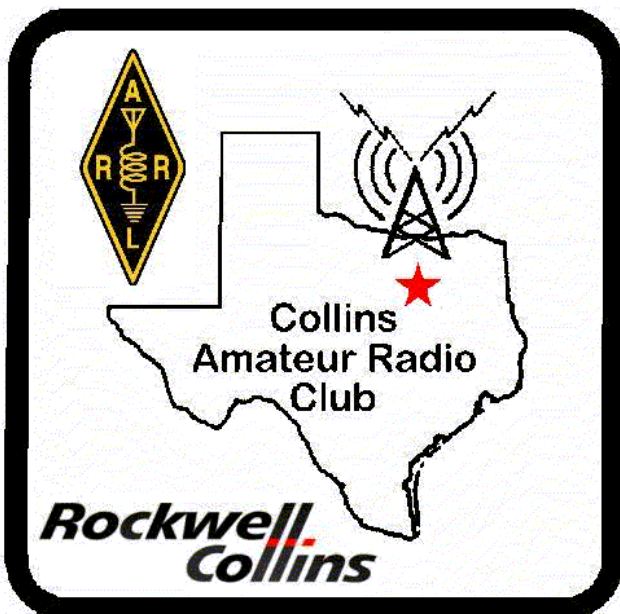
Amateur Radio Club

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

1800 — 2000

FURR's CAFETERIA

1900 N Central Expy, Plano

NE Corner US75 and Park Blvd

NEXT SIGNALS INPUTS DEADLINE:

→→→ 14 February 2014 ←←←