

SIGNALS

MONTHLY NEWSLETTER

Volume 42 Issue 5

Web Site http://www.n5cxx.us

February 2021

CARC Membership Meeting

Tuesday 23 February 2021 7:00 PM NOTE THE TIME CHANGE

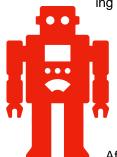
THE February 2021 MEETING WILL BE CONDUCTED BY VIDEO CONFERENCE!

Ham Station Automation By Dave Jaksa WOVX

MEETING ANNOUNCEMENT FEBRUARY 2021

Have you ever considered automating your ham station? Even partial automation will help avoid equipment damage and unnecessary surprises. Don't miss the February 23, 2021 meeting of the Collins Amateur Radio Club when the program will be "Ham Station Automation" presented by Dave Jaksa, WOVX. Topics covered are reasons to auto-

mate, what / how to automate, and operating an automated station.



Dave Jaksa, WØVX, was first licensed as a novice while in high school in suburban Chicago in early 1962. Two months later he upgraded to general and began chasing DX and contesting. In 1968, when incentive licensing became effective, he upgraded to extra class.

After finishing college in 1968 he took a job with Collins Radio in Cedar Rapids,

Iowa. With the move from W9 land to Iowa the FCC gave him a new zero district call, WAØVDX. In 1976 he dropped a couple of letters to get his current call, WØVX, which he has kept as Collins moved him to California in the mid 80's and to Texas in 1988.

From the beginning of his ham radio "career" Dave has been an active DXer and contester. He was the co-founder of the Eastern Iowa DX Association in 1975 and served several terms as president of that organization. In Texas Dave served several terms as president of the Lone Star DX Association and is a past president of the Collins ARC. He is on the Mixed, CW, and Phone DXCC honor rolls with

359 Countries confirmed. He holds the 9 Band DXCC, WAZ, and 5 Band WAS awards.

Dave holds a BSEE degree from Rose Polytechnic Institute and an MBA degree from the University of Iowa. He is now retired after 31 years with Collins and lives in Garland with his XYL Judi, WØJJ. They have 3 married daughters and 6 grandchildren. Dave is currently very active on 160 through 6 meters.

The CARC January meeting will once again be held via Zoom from 7:00 to 8:30 p.m. Zoom "doors" will open around 6:30 p.m. for attendees to socialize and adjust audio and video settings. Zoom login info will be sent via email the weekend prior to the meeting. Meeting announcements are sent from our Ham Club Online account, so if you have tight SPAM filtering set, please add hamclubonline.net to your authorized list of emails or add @hamclubonline.net to your address book so Club announcements get through.

CARC Community Service Activities

Siren Testing Dennis Cobb WA8ZBT, Frank Krizan KR1ZAN, John McFadden K5TIP and Jim Skinner WB0UNI participated in the Richardson emergency siren testing on 3 February. The February test was a total failure—no sirens worked! A partial retest was performed later in the day, but the results are not known because all sirens were not monitored. The sirens are monitored by amateur radio operators and reports made using the Richardson Wireless Klub (RWK) repeater at 147.120 MHz. Siren testing occasionally uses the University of Texas at Dallas (UTD) repeater at 145.430 MHz, which is designated as the backup repeater.

Crime Watch Patrol Jim Skinner WB0UNI participates in Richardson Duck Creek Crime Watch Patrol (CWP). CWP members, after successful completion of Richardson Police Department training, patrol their neighborhoods and report all suspicious activities to the police department.

Drive Home Net Report - FEB 2021

The Collins ARC Drive Home Net continues on Tuesdays from 5:30 to 6:00 pm on the N5CXX Repeater 441.875 MHz, +5 MHz, PL=131.8 Hz. The Net is not held on the 4th Tuesday due to the monthly membership meeting (the exception is December when Net Schedules work around the Christmas



Dinner and Christmas Eve/Day). (Continued on page 5)

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N5CXX CLUB STATION

972.705.1349 461-290

VE SESSIONS

Collins Amateur Radio Club (CARC) Test sessions take place on fourth Tuesdays, immediately following the regular CARC monthly membership meeting (about 7:30 p.m.). The test sessions are held in Conference Room A of the Methodist Richardson Medical Center, at the Bush/Renner/Shiloh intersection in Richardson. Walk-ins are welcome, but it's best to register with the lead examiner, Kerry Weeks, at weeks.kerry@gmail.com or by phone at (214) 478-3230. CANCELLED UNTIL FURTHER NOTICE

Dallas tests are held on the fourth Saturday of each month at 1000 hrs. 13350 Floyd Rd. (Old Credit Union) Contact Bob West, WA8YCD 972.917.6362

Irving tests are held on the third Saturday 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.

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 Don Klick KG5CK. 972.464.2889 or E-mail rwkhamtest@gmail.com.

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The Prez Sez

with KR1ZAN

Wow! Just when we thought that 2020 was behind us, the vaccines were being distributed and 2021 looked brighter, along comes the fourth-worst winter



storm on record. I've heard from a number of our members that they were affected by "rolling blackouts" (the term "rolling" is up for debate!) and frozen pipes. One thing "fer shur," this situation has opened our eyes to better preparation on the part of everyone. We, as ham radio operators, need to ensure we're better prepared for all sorts of weather-related issues that come our way.

And to top it off CARC has been notified that the Company needs our club station space for expansion of an important secure lab project. The Board has requested a video meeting with the engineer in charge of this project, but the winter storm has delayed this meeting. It looks like the club station as is will go away, but we'd like to find out what options are available for relocation. We will keep you informed on this situation.

As announced last month, CARC conducted a series of town halls (that's the current buzz word, isn't it?) in late January and early February. The slide deck used to kick off the meetings and slides showing inputs from members is available in the Member's Only portion of the CARC website (www.n5cxx.us). In the Member's Only section, you'll find a table labeled "Business." Click on the "Priorities/Club Future Discussion Notes" link to download the PDF. Your comments on the opening slides and suggestions from members are welcomed - send them to frank@krizan.org.

The CARC Board of Directors held its monthly meeting on Tuesday, February 9, 2021 via Zoom. All elected officers were in attendance.

The funding request from the Collins Aerospace Clubs and Leagues Board was approved in January and the check has been received. The monies are slated for use in the Power Plant Project, which was approved as part of the CY21 Annual Budget in November.

The Board approved the appointment of Bill Fell, KK5PB, as the Leader for the HF and VHF/UHF Go-Kits, and Kerry Weeks, K5WKS, as the Leader for the Power Plant (portable generator) Project. Bill and Kerry have been requested to come up with block diagrams and suggested parts lists as the first step in kicking off the projects. These projects were approved as part of the Annual Budget last November.

Jim Brown, AF5MA, gave a status report on the club badge order. Jim has been in contact with Rick, the Sign Man of Baton Rouge, and expects to have an estimate on the total cost shortly. Because we added a number of new members at the end of 2020 who weren't included in the original motion for ordering the badges, a revised motion will be presented to the Membership at the February meeting to cover the added cost.

Kerry, K5WKS, and Frank, KR1ZAN, reviewed the schedule of upcoming programs for CARC meetings. The full list is included in Kerry's Activities Manager Report, elsewhere in this issue of SIGNALS.

Frank, KR1ZAN, reviewed the results of the three town halls held recently. A lot of great ideas were suggested, but one theme that ran throughout was service - Service to Club members, the Company and our greater community. Frank proposed a new format for Club meetings which reduces the "business" portion of the meeting (business" is primarily being handled at the Board meetings), the addition of a "spotlight" or "poster" session (of about 15 to 20 minutes) - highlighting a topic on "service," especially related to personal preparedness - and a featured presentation on a ham topic of significant interest to our members. We plan to open the Zoom doors 30 minutes prior to each meeting and keep the doors open 30 to 45 minutes after each meeting for socializing and mentoring.

Frank also proposed the creation of Special Interest Groups so that members who want to dig deeper into a subject, skill or project can formerly get together, promote their SIG and document their activities and progress on a Club-based storage platform. The SIG concept will be described at the February meeting.

73, Frank KR1ZAN

Vice President/Membership Chairman Report

Vice President Report - The CARC will use service to guide the focus of our planned activities. One of those planned activities is to increase the CARC's contribution to Emergency Communication (EMCOM) through active participation in local VHF/UHF nets such as Skywarn and HF nets such as the Texas ARES net. I have been asked to champion the development and publication of an EMCOM plan for the CARC. Your help in preparing that plan will be important.

Membership Chairman Report - The CARC did not add any new members during this reporting period.

Current Membership - 57

Full Members - 36

Associate Members - 13

Life Members - 8

The most current roster is posted on the Members Only portion of our web site. If you need a Member ID and Password for the Members Only portion you can contact Mike Hollingsworth at (C) 972-571-6060.

73s.

Bill K5MWC

Secretary's Report

26 January 2021

President Frank Krizan KR1ZAN called the meeting to order on-line via Zoom at 1900.

The following logged into the meeting:

Brian Belcher WA5M Jim Brown AF5MA Gene Duprey K1GD Bill Fell KK5PB Robert Geraldon N5REG Gus Gustovich W5GUS **Bob Jones** W5BJ Frank Krizan KR1ZAN John McFadden K5TIP Keith Parris WB5RBA Dick Sander K5QY John Schroeder K5ZMJ Clarence Sebesta K5YO Jim Skinner **WB0UNI** Charlie Snodgrass KC0CD Bill Swan K5MWC Kerry Weeks K5WKS

Officer and Committee Reports

The President's Report, Vice President's Report and Activity Manager's Report as included in the January 2021 CARC Newsletter were accepted as published. There was no Secretary's Report, since there was no December 2020 meeting. President Frank Krizan KR1ZAN delivered the Treasurer's Report from Rohan Thomas KG5RCN, who could not attend.

Old Business

President Frank Krizan summarized the status of the ordering process for new Club badges. These are expected to be ordered and distributed before the next meeting.

Annual funding (CY21) as requested from the Collins Aerospace Clubs and Leagues Board (CACLB) has been approved, and funds are being distributed.

New Business

President Frank Krizan recognized and installed the slate of Club officers for the current year who were elected at the November 2020 meeting. These officers, all returning from the prior year, are listed on page 2 of this newsletter.

Announcements

President Frank Krizan recognized new CARC member Keith Parris WB5RBA from Tyler and guests John Schroeder K5ZMJ (Wichita Falls), Charlie Snodgrass KC0CD (Cedar Rapids) and Gus Gustovich W5GUS of the Garland Amateur Radio Club.

Volunteers are requested to champion the recently-funded go-kit projects. Kerry Weeks K5WKS has volunteered to lead the power plant project.

Bill Fell KK5PB discussed his work in 2004 to develop go kits for the Collin County Medical Reserve Corps. The kits were designed for VHF/UHF operations, but can be modified for HF. Bill offered the designs and his services in adapting them as needed for Club use.

Discussions on possible joint operating events with other Collins facilities have begun.

Brainstorming sessions on CARC priorities and future plans have been scheduled. All members will be notified by email.

Adjournment

The meeting was adjourned at 1931, followed by a "show and tell" program offered by members and guests:

Frank Krizan, KR1ZAN - Connector Adapter Kit Kerry Weeks, K5WKS - Handheld Radio Field Guide, Volume 2

Robert Geraldon, N5REG - HF/VHF Go Kit Jim Skinner, WB0UNI - Use of SS-30 Compound Bill Swan, K5MWC - Bits and Pieces of Collins Radio History

Activity Manager's Report

by Kerry Weeks, K5WKS

Even though with Covid restrictions we're still confined to Zoom meetings, our Club programs for 2021 are going to be excellent. We have a varied schedule lined up which should interest just about every member.

We kicked off the new year with our Annual Show and Tell with five presenters offering some great topics. The line-up included Frank Krizan KR1ZAN showing a clever coaxial connector adapter kit and several other adapters, Kerry Weeks K5WKS discussing a very handy book called the "Handheld Radio Field Guide-Vol. 2." Robert Geraldon N5REG showed off his very nice HF/VHF/UHF Go Kit, and Jim Skinner WB0UNI talked about use of Jet Lube SS-30 conductive lubricant. Bill Swan K5MWC topped off the program with Bits and Pieces of Collins Radio History. We look forward to another great lineup for Show and Tell next year.

This month's program is on "Ham Station Automation" presented by Dave Jaksa W0VX. Here's what's coming up in the next few months:

March 23 - Moonbounce Basics - EME Demonstration on 1296 MHz and 10 GHz - Al Ward W5ULA

April 27 - DMR Basics and the RWK DMR Repeater - Andrew Koenig KE5GDB

May 25 - Status of ARES/RACES in Collins and Dallas Counties- John Galvin N5TIM

We're still working on the June program, which may focus on last-minute details for Field Day and how you can participate from home. And I'm keeping my fingers crossed that we can have our Annual Ice Cream Social on July 27th.

If you'd like to do a program in 2021 or have a suggestion for a program (either a topic or the name of a speaker), let me know. How about Operating Events - which ones do you think the Club should take part in? And don't be shy about stepping up to organize our Club's involvement in a contest or Special Event.

HCOL - Part 5

A useful feature of Ham Club Online is notification of im-



portant expiration dates. As hard as you've worked to pass the licensing exams for your amateur radio license, you don't want it to expire. HCOL will send you a reminder roughly 90 days before your license expiration date, which gives you plenty of time in which to renew. The easiest way to renew is via the online Universal Licensing System

(ULS). Instructions on direct mail and online renewals are available via the ARRL at http://www.arrl.org/call-sign-re-newals-or-changes. If you are an ARRL member, you can renew through them at no cost (except, as you know, the FCC has adopted a new fee of \$35 for renewals, which

hasn't gone into effect yet. If you've got a renewal coming up soon, take care of your renewal as soon as the 90-day window opens up.)

Ham Club Online will also notify you about 45 days before your membership in the Collins Amateur Radio Club expires. Renewals need to be done manually, preferably using a check for payment, and sent to Bill Swan, CARC Membership Chairman, 4406 Shadywood, McKinney, Texas 75070. We hope in a few months to be able to offer online renewals using PayPal. If you anticipate using this service, you'll need to set up a user account (it's free) with Ham Club Online (www.hamclubonline.com).

HCOL has a feature which allows special emails to be sent to groups of members who have specific skills or are part of a committee or special interest group. You may find yourself getting some of those messages sometime. One such group is ARRL Volunteer Examiners. HCOL regularly checks with the ARRL to determine which of our members are VEs registered with the ARRL-VEC.

Do you have some specific questions about Ham Club Online? Send your questions to frank@krizan.org or use the "Send Message to Club Management" feature.

Drive Home Net Report - FEB 2021

(Continued from page 1)

All stations are invited to check-in, whether a member of CARC or not. The Net is informal, operating as a roundtable. Here's the log since last month:

JANUARY 19 - [5] KR1ZAN Frank (NCS); K5WKS Kerry; KC5MVE Paul; WB0UNI Jim; NG5Y Allen.

JANUARY 26 - NO NET; GENERAL MEETING

FEBRUARY 2 - [7] KR1ZAN Frank (NCS); K5MWC Bill; K5WKS Kerry; KC5MVE Paul; WB4GHY Steve; WB0UNI Jim; K5GLD Randy.

FEBRUARY 9 - [8] KR1ZAN Frank (NCS); K5MWC Bill; KI5CYA Mark; KI5MYR/m Jeff; WB0UNI Jim; W5BJ Bob; KC5MVE Paul; K5WKS Kerry.

Participation in the Drive Home Net has been slowly increasing. When the Net began last year, the three-month average was just below four check-ins. As of Feruary 9th, the three-month average was slightly over six. We hope you'll give the Net a try, if only to add to the number of check-ins and help exercise the repeater.

The Drive Home Net is intended for comments on amateur radio topics, listing items for buy/trade/sell, asking questions or contacting others on frequency. We hope you'll give it a try soon. We've had some great conversations of late.



Sporadic SIGNALS

...captured by Frank KRIZAN

Here's a handy little pocket band chart http://k4icy.com/bandplans.htm shared by David N, KB5EXY.

But, also look into the "HamLog" app for iPhone and Android. It has a very convenient tool for showing the band plans. You can also download the ARRL band plan chart onto a smartphone (see http://www.arrl.org/files/file/ Regulatory/Band%20Chart/Band%20Chart%20-%2011X17%20Color.pdf). The nice thing is with the downloaded band-plan chart you can use the smartphone 'zoom' feature to enlarge text and image.

The March/Spring (Belton) Ham-Expo 2021 has been cancelled, per the January 2021 Newsletter posted on the www.tarc.org website and per N5ZXJ, Gerald Richmond TARC President.

We announced last month that HamCom for 2021 is cancelled, and the HamCom announcement implied that HamCom was closing its doors for good. BUT a number of North Texas club leaders and ARRL leadership are busy working on a way to resurrect what has been referred to as a "North Texas Treasure." No official word yet, but hopefully, 2022 may see the re-birth of HamCom.

Amateur Radio License Map: Here is a useful tool to help find Ham callsigns in the USA. You can also search by zip code which will show all the licensed Hams in your area in a nice map display https://haminfo.tetranz.com/map This info from David N KB5EXY is on the RWK groups.io discussion group. Someone else noted that this app shows only legit addresses and not PO Boxes.

Dave, WA5TET, posted this on the RWK reflector recently: A good link on NVIS antennas courtesy KM4ACK newsletter https://duvalaresjax.org/field-operations-manual/

The ARRL has just announced that it plans to Extend Field Day Rule Waivers from 2020, Add Class D and E Power Limit. This is great news for those who don't want to risk contracting Covid-19. Read about this Rule Waiver and find links to Field Day Rules at http://www.arrl.org/news/arrl-to-extend-field-day-rule-waivers-from-2020-add-class-d-and-e-power-limit

... until next month, 73 de KR1ZAN

HAM EXAM 101 - FEB 2021

It may have been a while since you took your ham exams, or, it may have been just a few weeks ago. Each month, we'll review one question from each of the pools (Tech, General and Extra) to test your Ham Knowledge.

The correct answers are shown (upside down) elsewhere in this issue of SIGNALS.

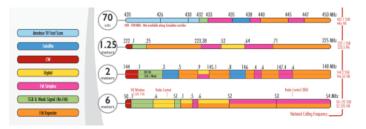
- 1. How might you obtain a list of active nodes that use
 - A. By subscribing to an online service
 - B. From a repeater directory
 - C. From online repeater lists maintained by the local repeater frequency coordinator
 - D. All of these choices are correct
- When sending CW, what does a "C" mean when added to the RST report?
 - A. Report was read from an S meter rather than estimated
 - B. B. 100 percent copy
 - C. C. Chirpy or unstable signal
 - D. Key clicks
- 3. What is the approximate physical length of an airinsulated, parallel conductor transmission line that is electrically 1/2 wavelength long at 14.10 MHz?
 - A. 13.3 meters
 - B. 8.5 meters
 - C. 7.0 meters
 - D. 10.6 meters

The 2 Meter Band: Much More Than FM

8 February 2021 by Bob KØNR

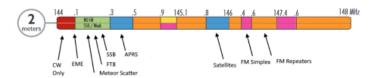
Way back in the Wayback machine, when I was working on getting my Technician license (in the 20th century), I recall looking at the frequency bands available to Techs. Technicians had operating privileges for everything above 50 MHz, which looked like a lot of useful spectrum to me. The idea at the time was that Technicians were exploring the new frontier of amazingly high frequencies. Since then, the Technician license has morphed to be the entry level license.

ICOM has a good graphic that shows all of the ham bands and shows the common subbands for various modes. I snipped out the portion that covers the most popular VHF/UHF bands (below). Wow, look at all the stuff you can do! Also, it is 4 MHz of spectrum, big enough to fit eleven 20 meter bands inside it. (Yeah, yeah, the propagation is a lot different.)



Speaking of bandwidth, take a look at the 70 cm band, with 30 MHz of spectrum. (Not shown is the 23 cm band, which spans 60 MHz.) The higher you go in frequency, the more spectrum there is.

Most people think of the 2-meter band as just FM and repeaters, but it is much more than that. I copied the 2-meter band graphic and added my own notation on the various uses of the band.



Much of the band is allocated to FM, which is consistent with the popularity of the mode. I didn't mark all of the FM segments, so refer to the color coding to see them. But there is much more than FM simplex and repeaters. Down on the low end is the CW-only segment and EME activity (Earth-Moon-Earth or moonbounce). The "weak-signal" enthusiasts tend to use the SSB portion, with the SSB calling frequency of 144.200 MHz. You may often hear CW in the SSB subband and radio hams flip back and forth between the modes depending on propagation. Meteor scatter is mostly done via the WSJT-X mode of MSK144 around 144.140 MHz.

Automatic Packet Reported System (APRS) activity is mostly on 144.390 MHz, using FM-based 1200-baud packet radios. Other packet radio usage is not shown but is usually around 145.01 MHz. The 2m band is very attractive for satellite use, with VHF propagation properties and manageable doppler shift for Low Earth Orbit (LEO) satellites. The downlink from the International Space Station (ISS) is usually 145.80 MHz.

Over time, I've used all of these 2m modes mentioned above, with the exception of EME. I am still working on that one and I hope to have a new 2m Yagi installed sometime this year that will enable it.

73 Bob K0NR

(Used by permission from KONR, https://www.k0nr.com/ wordpress/)

20-21

New Collins Building Access Restrictions

Per Security, all "non-essential" access to Collins Aerospace facilities (including employee recreation activities) is shut-down until the Covid-19 pandemic is resolved. Anyone needing access to the Club Station mudt submit an email request to Security with an explanation of who, when and why access is needed, and the Security team will review, and if approved, the person will only be allowed access via the North Gate. For contact information, send an email to kr1zan@arrl.net asking for Security contact information.

FYI—Until further notice, masks are now required inside all Collins buildings. Also, a temperature check is required before entering the property. During busy hours there is a manned tent near the north gate where the temperature check is performed. During off hours, there is a place at the north gate for a self-check.



"Well Al...I guess it's safe to say that your high voltage power supply must be working..."

"NØUJR and His Friends" Cartoons used by Permission from Greg Trook, NØUJR

Upcoming Events

Daily	DFW Early Traffic Net (NTS) at 6:30pm 146.88 – PL 110.9Hz
Daily	DFW Late Traffic Net (NTS) at 10:30pm 146.72 $-$ PL 110.9Hz
Daily	Texas CW Traffic Net at 7:00pm on 3541 KHz and at 10pm on 3541 KHz www.k6jt.com $$
Tuesdays	Collins ARC Drive Home Net. 441.875 (+5) MHz, PL=131.8 Hz, $5:30-6:00\mathrm{pm}$ (no net 4^{th} Tuesday.)
1 st Wednes- day	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 8:30 pm—9:30pm

FEBRUARY

International DX—CW Objective: To encourage W/VE stations to expand knowledge of DX propagation on the HF and MF bands, improve operating skills, and improve station capability by creating a competition in which DX stations may only contact W/VE stations. W/VE amateurs: Work as many DX stations in as many DXCC entities as possible on the 160, 80, 40, 20, 15, and 10 meter bands. DX stations: Work as many W/VE stations in as many of the 48 contiguous states and provinces as possible. The event runs 48 hours, from 0000 UTC Saturday through 2359 UTC. Details at http://www.arrl.org/arrl-dx.

MARCH

6-7 International DX—Phone Objective: To encourage W/VE stations to expand knowledge of DX propagation on the HF and MF bands, improve operating skills, and improve station capability by creating a competition in which DX stations may only contact W/VE stations.

W/VE amateurs: Work as many DX stations in as many DXCC entities as possible on the 160, 80, 40, 20, 15, and 10 meter bands.

The event runs 48 hours, from 0000 UTC Saturday through 2359 UTC Sunday. Details at http://www.arrl.org/arrl-dx

APRIL

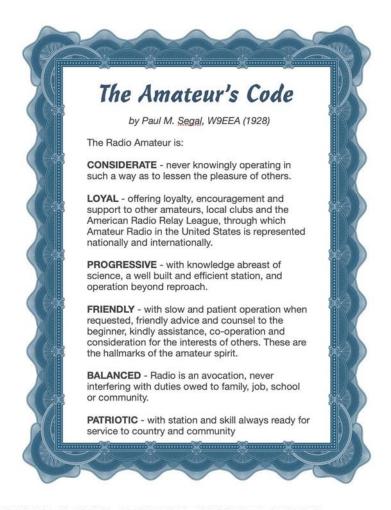
Rookie Roundup—Phone Mission: To encourage newly-licensed operators ("Rookies") to operate on the HF bands and experience competitive Amateur Radio operating.

Objective: Rookies exchange information with as many other stations as possible on the 80, 40, 20, 15, and 10 meter HF bands. Rookie entrants are encouraged to read "HF Contesting – Good Practices, Interpretations and Suggestions."

The event runs from 1800 UTC through 2359 UTC. Details at http://www.arrl.org/rookie-roundup.

18

1. D (T8C09) 2. C (G2C07) 3. D (E9F06)



PERIODIC TABLE OF MAJOR AMATEUR RADIO CONTESTS





Richardson, Texas

PO Box 830766 Richardson, TX 75083-0766

TO:



CLUB STATION

(972) 705-1349

N5CXX REPEATER

441.875 MHz +5 MHz Input 131.8 Hz PL - RX and TX

N5CXX-1 PACKET BBS COL Node

145.05 MHz

N5CXX-N1, NRCXX-N2 & N5CXX-N3 HSMM-MESHNET Nodes 2.4 GHz

Membership Meeting

Tuesday 23 February 2021 7:00 PM

NOTE THE TIME CHANGE

THE FEBRUARY 2021 MEETING WILL BE CONDUCTED BY VIDEO CONFERENCE!

NEXT SIGNALS INPUTS DEADLINE:

→→→ 12 March 2021 ←←←