

### CARC Membership Meeting

Tuesday 27 July 2021 5:30 PM  
**NOTE THE TIME CHANGE**

The July 2021 MEETING WILL BE AT  
**BRATONIA PARK, LAKE LAVON,  
PRINCETON TX**

**Annual Ice Cream Social**

#### July Meeting Announcement

The July Meeting of the Collins Amateur Radio Club is our Annual Ice Cream Social ... and this year, it includes a "fly in." The Ice Cream Social is being held at the Richardson Radio Control Club's field on Lake Lavon, Bratonia Park, 6540 FM546, Princeton, Texas 75407. It takes place on Tuesday, July 27th.



A Google map with directions is available at: <https://www.google.com/maps/place/Richardson+RC+field/@33.1072817,-96.5210824,15z/data=!4m5!3m4!1s0x0:0x4ddba8ba161ac33518m2!3d33.1072817!4d-96.5210824>

If you get lost, call (214) 478-3230 for help.

A meeting announcement and registration link to RSVP was sent out about a week ago. If you didn't receive the announcement, misfiled it or just forgot, send an email ASAP to [kr5n@arrl.net](mailto:kr5n@arrl.net) with the names and call signs for yourself and other guests that you plan to bring. We need the RSVP so we can ensure we have plenty of ice cream. IF YOU'VE ALREADY SENT IN YOUR RESERVATION, THANK YOU — THERE'S NO NEED TO DO IT AGAIN.

Our gathering begins at 5:30 p.m. and will conclude at 8 p.m. The RRCC folks are planning to give us some demonstrations of model plane flying and (hopefully) offer us opportunities to grab the controls of a trainer and give flying a try.

We've been asked to provide some demonstrations of amateur radio. We plan to conduct an abbreviated version of

our Drive Home Net at 5:30 p.m. on the CARC repeater (441.875 MHz, +5 MHz, PL=131.8 Hz). If you don't make it out to the social, join us on the Net as we demonstrate our repeater and what a net is. If there's a Low Earth Orbit amateur satellite during our social time, we might be able to show how to make a satellite QSO. If you have a neat radio or radio mode that you'd like to demonstrate, bring it out, too.

There's no formal meeting planned. Just lots of great fellowship, tall-tale-tellin' and ice cream eatin'. We hope you will be able to join us for this fun event. This is a family event.

This is an in-person gathering only - there's no Zoom connection for this one. Sorry - our Ice Cream Transporter is out of service!

#### Field Day 2021

Milt Withers, AD5XD, kicked off HF operations. In the background are Frank Krizan, KR5N, and Brad Wick, W0CO, preparing for a satellite contact. Bill Fell, KK5PB, is to the right of Milt setting up our new HF Go Kit. The full Field Day Report will be posted on the CARC web site in a couple of weeks, along with a gallery of photos. We will notify Club members when the Report and photos are available. (Photos by Gene Duprey, K1GD). [More pictures on page 10.](#)



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**N5CXX CLUB STATION**

Phone Number/Mail Station  
Unavailable until further notice

**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](mailto: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 week-ends.**

**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.

**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 [rwxhamtest@gmail.com](mailto:rwxhamtest@gmail.com).

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**The Prez Sez**

with KR5N

Our first outdoor Field Day in many years was very successful. We had great weather - not too warm - a nice breeze day and night, no rain, and few mosquitos or other bugs. Collins Aerospace allowed us to use the green belt south of the southwestern parking lot in Richardson. Facilities and Security dropped by on a regular basis to see if we needed anything. We had lots of help from members and friends setting up and tearing down, along with a fair number of visitors. The mayor of Richardson, Paul Voelker, paid us a visit on Saturday and spent almost an hour discussing amateur radio, emergency communications and how our Club might fit into the overall Emcomm plan for the City.

I hope I don't leave out anyone, but I would be remiss in not saying THANK YOU to the many members and friends who participated in the success of our Field Day operation. I'm going to list the helpers and operators in alphabetical order.

Jim Brown, AF5MA - helped with setup and tear-down; facilitated info table (banner, info, etc.); achieved bonus points for publicity.

Bill Caldwell, AC5BC - helped with tear-down; official visit from NTX Section Leadership.

David Cummings, WA5TET - Sunday morning HF operator; helped with tear-down.

Gene Duprey, K1GD - helped with setup and tear-down and night-time operation.

Bill Fell, KK5PB - built up our HF Go-Kit and HF antenna kit; helped with setup and tear-down.



John Galvin, N5TIM - official visit from NTX Section Leadership.

Robert Geraldson, N5REG - helped with setup and tear-down; on-site entire weekend; brought out his Emcomm trailer for demonstration and support for relaying RadioGrams; a great ham radio ambassador to a number of visitors. Robert was our official Safety Officer for FD.

Bill Hepting, KF5FFV - Bill was out at various times and used FD as a way to learn about portable setups, FD operation, various station configurations. He should be ready for 2022!

Frank Krizan, KR5N - FD Chairman; stayed awake the entire weekend; helped with setup and tear-down; night-time operation; satellite bonus points and various other bonus points.

Nancy Krizan, K5NCK - brought out food and snacks Saturday afternoon.

Jim Skinner, WB0UNI - helped with setup and tear-down; night-time HF operator; helped with satellite QSO.

Mike Schmit, WA9WCC - helped with setup and tear-down.

Canyon Timmons, KG5WZE - on-site the entire weekend; helped with setup and tear-down; operated the VHF and HF stations at various times; youth bonus credit.

Kerry Weeks, K5WKS - prepared the generator power plant and power distribution; on-site entire weekend; daytime operator on VHF station; helped with setup and tear-down.

Brad Wick, W0CO - helped with setup; provided us with bonus points for served agency; Brad is a retiree of Rockwell-Collins/Alcatel Network Systems who now lives in Colorado. It was great to see Brad after quite a number of years.

Milt Withers, AD5XD - major contributor in all things Field Day; helped with setup and tear-down; lead operator on HF from start to night; loaned his radio and accessories for the HF station.

The one area we wound up short on was night-time and Sunday operators. Several of us just simply pitched in to fill the void. An After-Action Report hasn't been compiled as of yet, but once we get inputs from all those who participated we'll have some thoughts on how to improve next year's Field Day operation.

If you operated Field Day from home as a Class 1D or 1E, even if you only worked a couple of stations, you can file your report online using the web app and earn a few points for your QSOs plus 50 points for reporting on-line. Be sure to include the Club name of "Collins Amateur Radio Club" on your FD Report. Both you and the Club get the credit.

Thanks again to all who gave so much of your time to help with planning, preparation, setup, tear-down and operating. There's something about Field Day that is a great team-building exercise.

73 de Frank KR5N

**Vice President/Membership Chairman Report**

**Membership Chairman Report** - The CARC did not add any new members during this reporting period but did receive a member renewal. It is important for the overall plans of the CARC to be accomplished that our members stay current by renewing their membership. If you have any question regarding your status and/or current expiration date, please get in touch with me and I will be happy to help.

Current Membership - 55

Full Members – 42 (Includes Life and Retiree Members)

Associate Members - 13

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**

22 June 2021

President Frank Krizan KR5N called the meeting to order on-line via Zoom at 1904.

The following logged into the meeting:

Jim Brown	AF5MA
Gene Duprey	KIGD
Bill Fell	KK5PB
John Galvin	N5TIM
Bill Hepting	KF5FFV
Dave Jaksa	W0VX
Frank Krizan	KR5N
John McFadden	K5TIP
Keith Parris	WB5RBA
Jim Skinner	WB0UNI
Bill Swan	K5MWC
Kerry Weeks	K5WKS
Milt Withers	AD5XD

**Officer and Committee Reports**

The President's Report, Vice President's Report, Secretary's Report and Activity Manager's Report as included in the June 2021 CARC Newsletter were accepted as published. There was no Treasurer's Report since Treasurer Rohan Thomas KG5RCN was unable to attend.

Frank summarized the actions of the Board of Directors at their June meeting. Only one action was taken: To increase funding approval for purchase of the Club banner from \$100 to \$110; approval was unanimous. A more-detailed description of Board discussions appeared in the June newsletter.

Activity Manager Kerry Weeks K5WKS described the Annual Ice Cream Social planned for the July meeting. The event will be held at the Richardson Radio Control Club's field at Bratonia Park in Princeton. A detailed discussion included review of on-line directions to the event.

**Old Business**

There was no old business.

**New Business**

There was no new business.

**Introductions and Announcements**

None.

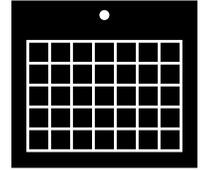
**Adjournment**

The meeting was adjourned at 1931, followed by a planning session for CARC participation in ARRL Field Day on 26/27 June.

**ACTIVITY MANAGER'S REPORT**

by Kerry Weeks, K5WKS

Last month's meeting was a discussion on the final plans for Field Day, as well as information on rules relating to operating from home or your own individual outdoor site and how to contribute your score to the Club.



The Collins ARC held its Field Day on the campus of Collins Aerospace on a grassy area next to the south-western parking lot. The weather was great - no rain and a good breeze the entire weekend. Our new generators worked great. We had excellent turnout for setup and tear-down, but we really needed more operators. Next year, I hope more of our members will contribute a few hours behind the mike or the key. Regardless, we had a wonderful time. The Richardson mayor dropped by for a visit and stayed for almost an hour. He is a real supporter of amateur radio.

We learned a number of things for future outdoor events, especially next year's Field Day. If you participated and have thoughts on how we can improve, send me your ideas at [weeks.kerry@gmail.com](mailto:weeks.kerry@gmail.com) or give me a call at (214) 478-3230.

Our meeting this month is our Annual Ice Cream Social. It will be held at the Richardson Radio Control Club's flying field next to Bratonia Park in Princeton, TX. We've been told that they will offer some flying demonstrations and hopefully allow us to "get behind the stick" and fly a training model (which is purported to be "crash proof"). And, in return, they've asked us to offer some demonstrations of ham radio. So, if you have a special kind of radio to show off, bring it along. Festivities will get under-way at 5:30 p.m. and end by 8 p.m. You can check out their info at [www.rrcc.org](http://www.rrcc.org).

It's important that you RSVP so we can be sure to have enough Blue-Bell for everyone. See the Meeting Announcement on Page 1 of this newsletter for instructions on RSVPing and directions to the RRCC Field. We hope to see you there.

Upcoming meetings (we still haven't received approval to start in-person meetings at the hospital, so until further notice, meetings are via Zoom — with the exception of the Ice Cream Social and the December Christmas Dinner Party):

August 24 - De-mystifying the RF Exposure Evaluation for Ham Stations - Frank Krizan, KR5N

September 28 - SteppIR antennas, everything you ever wanted to know - John Walker, W1JCW

October 26 - Ionospheric Propagation Predictions - Carl Luetzelschwab K9LA

November 23 - Annual Meeting / Election of Officers

December - Christmas Dinner Party (Date and venue TBD)

If you'd like to do a program in 2022 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. Send your ideas to [weeks.kerry@gmail.com](mailto:weeks.kerry@gmail.com)



## Sporadic SIGNALS ...captured by Frank KR5N

From the AMSAT News Service:

### \* Where are the Women in STEM?

**Do you have a young lady in the family who is looking for ways to get involved in the world of science?** When it comes to science influencers, Emily Calandrelli is a household name for a new generation of space enthusiasts. If you have kids, you may know her from "Emily's Wonder Lab" on Netflix, which brought DIY science experiments into viewers' homes during the pandemic lockdown. She's also the long-running host of "Xploration Outer Space," and a speaker and the author of the Ada Lace children's book series. While Emily's communication style is fun and accessible, she has a rigorous science and engi-

neering background underpinning her work, with two master's degrees from the Massachusetts Institute of Technology.

Check out Emily's website, The Space Gal at <http://www.thespacegal.com/women-in-stem> for ideas on how to engage your youngster in the adventures of space.

[ANS thanks Via Satellite for the above information.]

**The ARRL 2020 Annual Report** has been posted ([www.arrl.org/annual-reports](http://www.arrl.org/annual-reports)) and is available to download. The report summarizes ARRL program and fiscal activity for the year.

**Duct tape is really important in space.** Among other things it was used by the crew of Apollo 13 to build their improvised carbon monoxide scrubber (called "gray tape" in the transcript). Amazingly, up until 2021 astronauts on the ISS just stuck it to the wall and had to remember where it was; SpaceX Crew-1 finally brought a duct tape dispenser which can be operated with one hand, allowing an astronaut to stabilize themselves with the other. Even more amazingly, the dispenser was designed by high school students as part of NASA HUNCH, a program that farms out tactical engineering problems to high schoolers. (ANS thanks The Prepared blog and The Orbital Index for the above information) Source: ANS-199 AMSAT News Service Weekly Bulletins for July 18

**So, what clever uses for duct tape have you come up with for amateur radio?** Send your ideas along to [kr5n@arrl.net](mailto:kr5n@arrl.net) and I'll publish them next month.

**The next QSO Today Virtual Ham Expo is a few weeks away** - Live from August 14-15, 2021 and then on-demand for 30 days. It's a great experience for those that want to improve their amateur radio knowledge and get exposed to new ideas, cutting edge ham radio technology, and practical techniques. And no need to travel - anyone can participate from their home or office! Information can be found at <https://www.qsotodayhamexpo.com>.

At the Expo, you can listen and engage with almost 100 internationally-recognized ham radio luminaries on approximately 18 different topic areas - there is something for everyone.

Topics include: Antennas and Transmission Lines, Build-A-Thons, Contesting/DX, Controllers, Digital Voice Mode, Emergency Communications, Filters and Tuned Circuits, Future of Amateur Radio, Ham History, HF Digital Modes, New License - Now What? Power Amplifiers, Propagation, Radio Astronomy, Software and Services, Space and Satellites, Test and Measurement, and Youth in Amateur Radio.

... until next month, 73 de KR5N

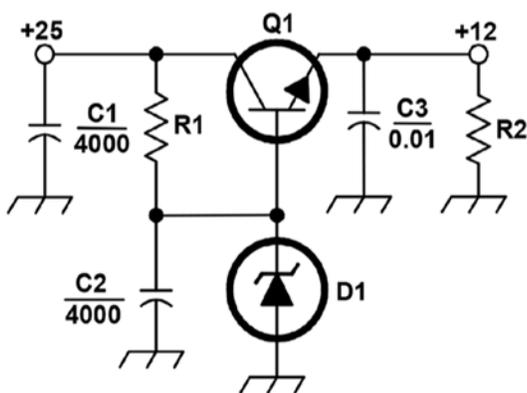
**HAM EXAM 101 - JULY 2021**

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. Who may select a desired call sign under the vanity call sign rules?
  - A. Only a licensed amateur with an Amateur Extra class license
  - B. Only a licensed amateur who has been licensed continuously for more than 10 years
  - C. Only a licensed amateur with a General or Amateur Extra class license
  - D. Any licensed amateur
  
2. What is the approximate junction threshold voltage of a conventional silicon diode?
  - A. 0.7 volts
  - B. 0.3 volts
  - C. 1.0 volts
  - D. 0.1 volt
  
3. What is the purpose of C2 in the circuit shown in Figure E7- 2?
  - A. To provide fixed DC bias for Q1
  - B. To self-resonate at the hum frequency
  - C. It is a brute force filter for the output
  - D. It bypasses rectifier output ripple around D1

**Figure E7-2**



**Need another Badge or Coffee Mug?**



Order from The Sign Man of Baton Rouge at:  
<https://www.thesignman.com/clubs/collinsarccart.html>

**CARC Community Service Activities**

**Siren Testing** Dennis Cobb WA8ZBT, Frank Krizan KR1ZAN, and Jim Skinner WB0UNI participate in the Richardson emergency siren testing. The July test was conducted on 7 July. Most sirens worked, but there were several that were partially or totally non-functional. 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. Assisting with July 7th Garland Siren Test were Bob Jones, W5BJ, and Jim Stafford, W5DTG.

**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 - JULY 2021**

The Collins ARC Drive Home Net continues on Tuesdays from 5:30 to 6:00 p.m. 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).



\*\*\* SPECIAL NOTE FOR JULY 27th \*\*\*

We will attempt to conduct an abbreviated Net from the RRCC Field on Lake Lavon as a demonstration of our repeater during our Ice Cream Social. If you're not attending the Social, join us via radio. \*\*\*

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:

JUN 22 - NO NET; GENERAL MEETING

JUN 29 - [6] KR5N Frank (NCS); KI5CYA Mark; K5WKS Kerry; K5MWC Bill; WB0UNI Jim; N5WSV George.

JUL 6 - [8] KR5N Frank (NCS); WB0UNI Jim; K5MWC Bill; K5WKS Kerry; KC5MVE Paul; K5TIP John; KI5PWN Tom; W5BJ Bob.

JUL 13 - [8] K5WKS Kerry (NCS); KR5N Frank; K5MWC Bill; WB0UNI Jim; WA5TCA Jeff; N5WSV George; W5BJ Bob; K5TIP John.

JUL 20 - [6] KR5N Frank NCS; K5WKS Kerry; W5BJ Bob; N5WSV George; WB0UNI Jim; K5GLD Randy.

Average participation for this period: 7

Average participation for the previous period: 7

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.

### **CARC Board Meeting Summary - 13 July 2021**

The meeting was preceded by an informal workshop beginning at 1900. The following were present:

- Jim Brown AF5MA (Board member)
- Bill Fell KK5PB (Non-voting participant)
- Frank Krizan KR5N (Board member and Chairman)
- Jim Skinner WB0UNI (Non-voting participant)
- Bill Swan K5MWC (Board member)
- Rohan Thomas KG5RCN (Board member)
- Kerry Weeks K5WKS (Board member)

Topics discussed during the workshop included:

1. Meeting format for future Board meetings
2. Brief review of Field Day activities and results
3. Need for a project leader for implementation of the new CARC radio room
4. Preliminary discussion of development of a CARC Strategic Plan and the need to ensure the implementation of the CARC radio room is coordinated to support goals of the Strategic Plan
5. Need for a transport assembly for the CARC-owned portable generators and support equipment

Topics discussed promoted a common understanding among all present, but led to no actionable results requiring formal approval.

The formal Board of Directors meeting was called to order at 2022. Bill Swan moved to accept the meeting agenda as developed in the workshop session; Rohan Thomas seconded the motion.

Since no motions were generated in the workshop session, and no incidental motions were raised, Kerry Weeks moved to adjourn, with a second by Bill Swan. The meeting was adjourned at 2025 by Board Chairman Frank Krizan.

### **Excerpt Two from Jack, W5TFB's Book**

*Here is the next excerpt from Jack's book. Jack makes progress in school and operates in his first ham radio contest.*

English was getting more interesting. Sue got to read her essay on an Emerson quote, which disappointed me because I thought mine was excellent. She found a personal twist in it that I couldn't have because of her vast experience with people, mostly painful, in Europe. The next week's quote, extracted from a poem by Wycherley, was

*A beauty masked, like the sun in eclipse,*

*Gathers together more gazers than if it shined out.*

Of course! This is the essence of subtlety. It is not at all about beauty or masks or astronomy or vision, it is about the hidden nuance in almost everything we experience, which is easily missed but most admired. I nailed this one. Konnie Jo told the class that I was the only one who understood the quote, and read my essay. It was short and concise, but instead of an essay I wrote a poem, a sonnet. I wish I could remember it. (Stuff like that, all my journals, books, and logs, was thrown away when I went to college. It was such a loss; it felt like they threw me away.) While she was reading it, with feeling, Sue began to cry, silently, but many tears, and later told me it was the most beautiful thing she had ever heard. I knew at the time why the teacher read it instead of me: they would have laughed at it. Boys that age are cruel. I hadn't yet learned how to be.

After that class there was a not-so-subtle change in Sue. I didn't understand it at all. We still did math OK. We were studying combinatorics (combinatorial analysis) but our roles had somehow shifted. It was just different. I didn't understand it. We did the work, wrote the reports, and presented the results.

Konnie Jo had started attending the Friday afternoon presentation. Sue told me that Mr. Roberts was after Miss Kubaca, and I said naturally, R comes after K. Sometimes some of the math faculty at a local college, Harding College (later Midwestern University), came as well.

Sue was trying to teach me what a proof is. I thought I knew, but I didn't know the style of expressing a mathematical proof in English. That is one of the hardest language translations of all, math to and from English. The mathematician Paul Halmos has an essay on that problem, about how notation gets in the way, and plain English is best. I have most of his books, one, Finite Dimensional Vector Spaces, autographed, with a kind dedication he wrote. I met him after a lecture at SMU. He used a 3 by 4 portable blackboard to give a lecture on spectral theory in Hilbert space. It was fantastic, and everything he said is true: "The best notation

is no notation. Imagine you are on a walk with a friend with no paper at hand..."

Sue and I were learning math together, and what else was going on wasn't mentioned again. I did ask her to explain why my poem was beautiful to her, but she didn't say. She blushed when I asked her. I thought it was a logical question.

Combinatorics had turned into something different entirely. I showed her a bunch of calculations I had done and showed her the numbers we had been coming up with had a pattern. Together we discovered the binomial theorem. That Friday Mr. Roberts told us about mathematical induction. I later knew much more than he knew, but this was pedestrian strength, about all we could handle, or so we thought. He told us to work on proving the binomial theorem using the tool. I was never one to be calm, and told him it is obvious. He said, "You are looking at the formula for  $(x + y)^n$ . The theorem is really about what happens to the coefficients when you go from degree  $n$  to  $n + 1$ ." Sue nodded. I was skeptical. I didn't like being behind in math again. She knew something I didn't. It was Pascal's triangle, and the binomial theorem was embedded in that, as well as the way to prove it by induction. The next week I thought I could prove the more complex multinomial theorem. I knew it was true, my formula I mean.

Sue asked me to come over for Sunday dinner. She tilted her head to the left, looking at me. Sizing me up. She had done that before when looking at me, waiting for something. I said, "I don't usually go out like this."

She said, "You have to. My parents want to meet you."

I was baffled, but said OK.

They had a nice house, with a front porch and a porch swing. Sue's room was at the front of the house (Sue had a room inside the house, with real furniture and a bed; my brother Gary and I slept in the garage, gravel floor and WW II army cots). She had a younger sister, about a year younger, with her own room. Their parents were all dressed up. I felt derisory. At the time I didn't know a better word. I do now. I felt like shit. Her father took me off and grilled me. That I could handle, just pure honesty, but I put in so much detail, especially math detail, that he couldn't understand. At one point I asked him to bring pencil and paper since there didn't seem to be a blackboard in the parlor. He didn't understand much of what I said. I guess he was satisfied that I wasn't after his daughter. I learned seven months later that it was just the opposite.

Her mother seemed meek, but the food was great. Sue's sister was nice, looked like Sue only not so serious and worried. I can't remember her name, started with B. I guess I filed her in the same slot as my grandmother, Mamma B (for Beatrice). Sue's mother was a nurse, and was in the field in the Pacific during the war. Sue told me she was a heroine. There wasn't much talk at the table. I talked about

how good the food was, and asked how the sauce for the cauliflower was made. I first used the real name, Brassica oleraceabotrytis. That didn't fly. I was taking biology and always liked to show off. I guess I did OK; they asked me over many times, not all on Sunday, and after that time they didn't dress up or grill me. Oh: Sue and I did the dishes. Her sister cleared the table and put up the clean dried dishes. The parents went into the living room and listened to the radio. I was jealous. I wanted to belong to this family. My 'family' never had a meal together or even talked. Miss B Barber could sleep in the garage. Or maybe both B and Sue. I could use B's room for my ham shack.

One odd thing happened. Just before a Friday presentation Sue and I got there a little early, and overheard Konnie Jo and Mr. Roberts in his office almost yelling at each other. Her voice carried better, and I remember her saying, "You have to let them do this. They are destroying the dynamics of my class. Everyone else has given up. You let them out of your class and they are doing marvelous things now, some you don't even understand. Why can't I do that as well?"

Sue grinned at me, head tilted left. She did not smile often. I sort of got it. Something

good was going to happen. Sue got it instantly. There was a period of silence, maybe a minute, and then Mr. Roberts said, "OK, starting Monday we will give them two class periods. That will be an hour and forty-five minutes straight. They have to do the essays on the quotes, that is a splendid idea. Give them only two days to produce their independent essays. Also, I want you to read the papers they write for me and correct English errors. It is time for their presentation."

Just as we were officially arriving, Mr. Roberts added, "Did Jack really write this sonnet? Remarkable!"

Wow! Sue gave me a big hug. We gave our proof of the multinomial theorem. We had cooked up a name for the method: double barreled induction. (You have two positive integers,  $n$  and  $m$ , and are looking for a formula for the coefficients in  $(x_1 + \dots + x_m)^n$ .) I don't know if either of them understood it. The next week was going to be fun.

I will continue with the second six weeks. For the first six weeks ever I made all A's, as did Sue. I was taking Math, English, Texas History, Shop, Drafting (they called it Mechanical Drawing), and General Science. That was divided into three parts: Biology, Physics, and Chemistry. Jerry Smith was in that class with me, and we somehow got to be the teacher's pets/gofers and set up the demonstrations. There was no lab. The school did have a huge garden that grew enough food to pay for itself. We had Biology the first and last six weeks and spent a lot of time in the garden. Back then biology was mostly naming things, and we looked up the names of unknown critters and plants. The names were scary but it was easy. I worked on an automatic system, a kind of decision tree, to attach a name to a

thing but didn't get far with it. A computer would have helped.

There was a science storage room with all kind of goodies, even a fairly complete stock of chemicals and glassware. I was bothered by the way the chemicals were stored (alphabetically!), and I found a book in the Kemp Library that helped Jerry and me arrange things so that neighbors were relatively non-reactive with each other. We made an alphabetical index, and I made a drawing showing where everything was

Jerry was a ham too, W5TFV (I was and am W5TFB). Both of us were as interested in building our own radios as we were in being on the air. That was to change. We didn't know each other but it turns out we took the test in Dallas on the same day. We each also took the Second Class Phone test, and Jerry later worked with me at Frank's shop. We had more business than we could handle during the winter when we had to be in school. In December I got a raise, 35/c an hour. Jerry started at 30/c but by the end of January he was getting 35. We were at least twice as good together as we were alone.

The only course I was marginal in was Texas History, and that A I made soon turned into a solid C. It just wasn't interesting, and I was pretty sure it wasn't true either. The textbook was conservative and I was liberal. It didn't help that the teacher was probably in the clan or at least the John Birch Society. No one seemed to know who John Birch is.

Sue was quickly learning to write English. She asked me for a reading list, and I went in the school library and picked out a couple of books: two collections of short stories by O'Henry and Salinger. I didn't think she was ready for Henry James. I also found the nice little book *Flatland*. I gave her a book of poems and stories by Poe. I knew them all and didn't need the book any more.

I have never been so productive, before or after. After a few weeks Mr. Roberts quit giving us the math problems he gave the class since we were independently getting every one of them.

If I had been aware of women (sex is probably a better word) I would have been crazy about Konnie Jo. She was short, but wore high heels, at least four inches. The other

female teachers called them prostitute shoes. She had long straight jet-black hair. If she wore makeup it was not noticeable. Konnie Jo just liked to dress up.

Across from the TV shop was a "house of ill repute". The police would complain that their radios were out, say they would be back in 30, and walk across the street. There was nothing wrong with the radios, not broken at all, and we got \$20 a pop on our contract for checking them. And if goat-ropers need love too, what's wrong with the police? One thing, I guess, is that they could finish in 30 minutes. I'm sure the establishment got the equivalent of \$20 a pop for services exchanged.

The winter and spring of 1951–2 was great. Although I missed the English class, we were doing better work on our own. Konnie Jo prepared carefully, and gave us her notes after class every day. Sue and I rehearsed the Friday afternoon presentations. Always twice. (Sue made me do that. I thought it was a waste of time, but she was right.) And then there was the report.

The library had added two subscriptions: The New Yorker, and Mathematics Magazine. MM had back issues to 1948. (The high school library held neither.) Harold Ross was editor of New Yorker, and E. B. White and James Thurber, unknown when Ross hired them, were at the height of their powers. Thurber wrote a book, *The Years with Ross*, about those times that I have somewhere.

Marshal Stone published an elementary proof of a powerful generalization of the Weire-Strauss Approximation Theorem (every continuous real function on a closed interval can be uniformly approximated by a polynomial) in 1948. I could follow it but Sue couldn't. Up until that time most proofs used complex or Fourier methods. (The proof by Lebesgue was elementary. Elementary does not mean easy.) Non-elementary proofs are just a couple of lines but take some high cost machinery.

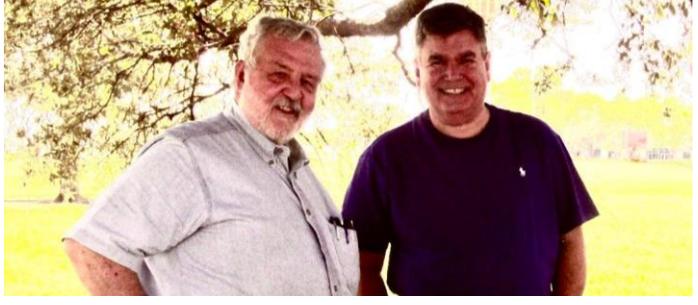
What I liked best about MM was the problems, which were on a vastly different plane than the ones we had been fooling with. I couldn't read most of them, but we could understand the combinatorial ones. There were always several expository papers.

In November, I participated in my first radio contest. The object was to make two-way contact with hams in the US and Canada; your score was the product of three factors: If less than 100 watts input power, 2, else 1, times the number of contacts, times the number of sections. Some states had several sections. Texas had two. My station at the time had a WWII surplus receiver, a BC-348, and a homebrew transmitter. The receiver had a top frequency of 18 MHz, which meant I couldn't operate on the most productive band, the 10-meter band. Jerry agreed to cover for me at work all day Saturday. The contest was two weekends, two 33-hour time periods, of which you could operate a total of 40 hours.

My transmitter had an input power of about 90 watts, and I had a ten-meter-long pipe antenna on top our house with a lot of radials. On 80 I base-loaded it. It worked well, especially for long distances. In the spring I found out, to my amazement, that I had the top score in the North Texas Section. I really didn't understand how that could be. I was even the overall Texas winner.

*To Be Continued*

*(Contributed by Steve Phillips K6JT)*



**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 must 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 [kr5n@arrl.net](mailto:kr5n@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.

**Aug 14 Shreveport-Bossier Ham-Fest**

Hosted by Shreveport Amateur Radio Association  
 Saturday 7am-2pm  
 Louisiana State Fair Agricultural Building  
 3206 Pershing Ave Shreveport LA 71109  
 Bob KB5RD 318-230-1242 or  
 Bruce KE5CPL [bdeville@aol.com](mailto:bdeville@aol.com), [www.K5SAR.com](http://www.K5SAR.com).



**Hella Hams Amateur Radio Unit  
 Tail-Gate Hamfest**

July 31, 2021  
 6:00 am – 2:00 pm

2121 Rowlett Road, Garland, Texas 75043

**Directions:** I-30 to Bobtown Rd exit north to Rowlett rd  
 Left on Rowlett rd, turn right into Hella Temple Parking lot

**Lots of Fun  
 FREE Parking!!**

Space Donation - \$15.00  
 (parking space)

**Outdoor  
 TAILGATE SALES**

Talk-in Frequency: TBA

**For more information, contact:**  
 Bill AC5BC Caldwell  
 214.500.3472  
[ac5bc2@verizon.net](mailto:ac5bc2@verizon.net)

**Upcoming Events**

<b>Daily</b>	DFW Early Traffic Net (NTS) at 6:30pm 146.88 – PL 110.9Hz
<b>Daily</b>	DFW Late Traffic Net (NTS) at 10:30pm 146.72 – PL 110.9Hz
<b>Daily</b>	Texas CW Traffic Net at 7:00pm on 3541 KHz and at 10pm on 3541 KHz <a href="http://www.k6jt.com">www.k6jt.com</a>
<b>Tuesdays</b>	Collins ARC Drive Home Net. 441.875 (+5) MHz, PL=131.8 Hz, 5:30-6:00pm (no net 4 <sup>th</sup> Tuesday.)
<b>1<sup>st</sup> Wednesday</b>	Richardson Emergency Siren Test. At noon using the Richardson Wireless Klub (RWK) repeater at 147.120 MHz.
<b>2<sup>nd</sup> Wednesday</b>	ARES North Texas HF Net Every month—3860 KHz at 8:30 pm—9:30pm

**AUGUST**

**7-8 222 MHz and Up Distance Contest.** Work as many stations as possible on the 222 MHz through 241 GHz bands using any allowable mode. Begins at 1800 UTC Saturday and ends at 1759 UTC Sunday. Details at <http://www.arrl.org/222-mhz-and-up-distance-contest>

**21-22 10 GHz & Up – Round 1.** The objective is for North American amateurs work as many amateur stations in as many different locations as possible in North America on bands from 10-GHz through Light. Amateurs are encouraged to operate from more than one location during this event. Details at <http://www.arrl.org/10-ghz-up>.

**22 Rookie Roundup – RTTY—**To encourage newly-licensed operators in North America (including territories and possessions) to operate on the HF bands and experience competitive operating. On the 80, 40, 20, 15, and 10 meter HF bands. From 1800 UTC through 2359 UTC. Details at <http://www.arrl.org/rookie-roundup>.

**SEPTEMBER**

**11-13 September VHF.** Objective: amateurs in the US and Canada (and their possessions) 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. Stations outside the US & Canada (and their possessions) may only work stations in the US (and its possessions) and Canada. Begins 1800 UTC Saturday and runs through 0259 UTC Monday. Details at <http://www.arrl.org/september-vhf>.

**18-19 10 GHz & Up – Round 2.** The objective is for North American amateurs work as many amateur stations in as many different locations as possible in North America on bands from 10-GHz through Light. Amateurs are encouraged to operate from more than one location during this event. Details at <http://www.arrl.org/10-ghz-up>.

## The Amateur's Code

by Paul M. Segal, W9EEA (1928)

The Radio Amateur is:

**CONSIDERATE** - never knowingly operating in such a way as to lessen the pleasure of others.

**LOYAL** - offering loyalty, encouragement and support to other amateurs, local clubs and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

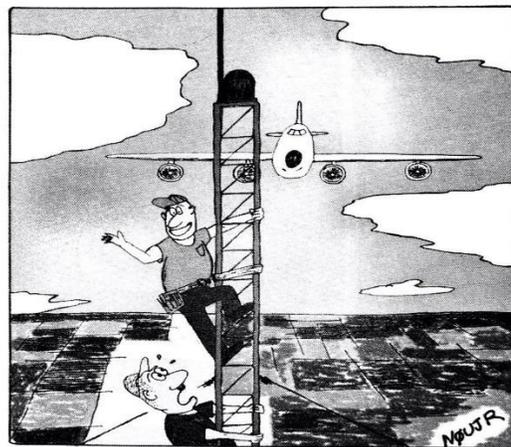
**PROGRESSIVE** - with knowledge abreast of science, a well built and efficient station, and operation beyond reproach.

**FRIENDLY** - with slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

**BALANCED** - Radio is an avocation, never interfering with duties owed to family, job, school or community.

**PATRIOTIC** - with station and skill always ready for service to country and community

Exam Answers  
1. D (T1C02)  
2. A (G6A05)  
3. D (E7D07)



"Would you believe my horoscope said that today I would have an unexpected close encounter?"

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

## PERIODIC TABLE OF MAJOR AMATEUR RADIO CONTESTS



# 2021

Multimode
CW
Digital  
off-the-air
SSB
VHF/UHF

Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
2 1800Z	3 2400Z	7 0600Z	6 0400Z	7 2400Z	3 1900Z	4 1500Z	1 varies	2 varies	5 1200Z	6 1400Z	3 1400Z	4 1400Z	7 1800Z	8 0900Z	4 0900Z	2 2358Z	3 1900Z	6 2145Z	3 2100Z	8 0300Z	3 2200Z	5 1800Z	
ARRL RTTY Roundup	NA Sprint CW	ARRL DX SSB	ARRL DX SSB	SP Polish DX	TQPI/NDE New England QSO Parties	SEANET Contest	Marconi Memorial HF	NAQP CW	CWops CW Open	California QSO Party	ARRL SS CW	ARRL 160											
9 1800Z	10 0600Z	13 0000Z	14 2400Z	14 0600Z	10 0400Z	11 0900Z	8 1300Z	9 1200Z	12 1158Z	14 0300Z	10 1200Z	11 1200Z	14 0000Z	15 2358Z	11 0000Z	12 2358Z	9 0800Z	10 0800Z	13 0000Z	14 2358Z	11 0000Z	12 2358Z	
NAQP CW	WPX RTTY	NA Sprint RTTY	JIDX CW	CQ-M DX	ARRL June VHF	IARU HF	WAE CW	WAE SSB	Oceania CW	WAE RTTY	ARRL 10												
16 1800Z	17 0600Z	20 0000Z	21 2400Z	20 1200Z	17 0600Z	18 2358Z	15 1200Z	16 1200Z	19 0900Z	20 2400Z	17 1800Z	18 2100Z	21 1800Z	22 0600Z	18 1500Z	19 1458Z	16 2100Z	17 0300Z	20 0300Z	22 0000Z	18 2358Z	18 2358Z	
NAQP SSB	ARRL DX CW	Russian DX	CQMM DX	King of Spain	All Asian CW	CQ VHF	NAQP SSB	WA/NJ/NH QSO Parties	Worked All Germany	ARRL SS SSB	RAC Winter												
16 1800Z	18 0359Z	26 2000Z	28 2200Z	27 0800Z	28 2400Z	24 1800Z	25 2158Z	20 1100Z	23 1700Z	26 1800Z	27 2100Z	24 1200Z	25 1200Z	28 1200Z	29 1200Z	25 0000Z	26 2400Z	23 0000Z	24 0000Z	27 0000Z	28 2400Z	24 2400Z	25
ARRL January VHF	CQ 160 SSB	WPX SSB	Florida QSO Party	Contest University Dayton Hamvention	ARRL Field Day	RSGB IOTA	WW Digi	CQWW RTTY															
29 2200Z	31 2198Z							29 0000Z	30 2400Z									30 0000Z	31 2400Z				
CQ 160 CW								WPX CW										CQWW SSB					

A contribution from EA3O.



Richardson, Texas  
[www.N5CXX.us](http://www.N5CXX.us)

**PO Box 830766  
 Richardson, TX 75083-0766**

**TO:**



Richardson, Texas  
[www.N5CXX.us](http://www.N5CXX.us)

**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 27 July 2021 **7:00 PM**  
**NOTE THE TIME CHANGE**  
 THE JUNE 2021 MEETING WILL BE AT  
**BRATONIA PARK, LAKE LAVON, PRINCETON TX!**

**NEXT SIGNALS INPUTS DEADLINE:**  
**→→→ 13 August 2021 ←←←**