COLLINS AMATEUR RADIO CLUB
Richardson, Texas

SIGNALS
MONTHLY NEWSLETTER

Volume 43 Issue 05 **Web Site** http://www.n5cxx.us **February 2022**

CARC
Membership Meeting

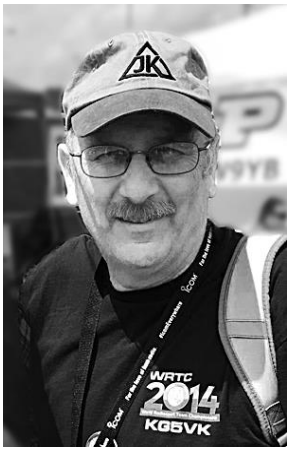
Tuesday 22 February 2022 5:30 PM
NOTE THE TIME CHANGE

The February 2022 Meeting will be at
Poor Richards Café Plano TX

Steven Lott Smith, KG5VK, ARRL North Texas Section Manager

Steven Lott Smith, KG5VK, ARRL North Texas Section Manager to Speak to Collins ARC at Tuesday, February 22nd General Meeting

Our guest of honor at the February 22nd General Meeting will be Steve Smith, KG5VK. Steve is the current Section Manager for the ARRL NTX Section. He plans to provide a brief overview of the Section Leadership team, including what the job of a Section Manager is. Steve plans to attend the CARC meeting in person and is known to bring along some good door prizes!



Steve will share his goals for the Section and discuss some current exciting happenings at League headquarters. He has asked for input on what's important to you, the ARRL members in North Texas - please send your questions, comments, frustrations, etc. to him at kg5vk@arrl.org prior to the February 22nd meeting, and he'll do his best to give you a frank and honest answer.

Steve was born in Miami, FL and was first licensed in 1972 as WN0FOI. He's lived in many places during his life. He graduated from high school in Manchester, Missouri and joined the Air Force shortly thereafter. He served in Desert Shield and Desert Storm.

He retired from active duty in 1993 and started a Professional Photography Business (Lott's Photo). Along the way, Steve has taught photography at the college level, and after moving to Paris, TX, worked for a while at Main Trading Company. He is now your full-time Section Manager. Steve has served in various elected positions in many ham clubs along the way. He's involved in the DFW Contest Club, the Lone Star DX Association, CW OPS (Life Member), the A-1 Operator's Club, and, of course, a member of the ARRL.

Steve enjoys contesting and DXing and has achieved numerous DXCC awards, including the 5-Band DXCC and the DXCC Honor Roll. Steve enjoys serving the hams of North Texas and pledges to be transparent and available to all radio amateurs. You can contact him at KG5VK@ARRL.ORG or via phone 318-470-9806.

NOTICE OF CHANGE IN ROSTER POSTINGS

This is not an April Fool's joke, but, effective April 1, 2022, the "Legacy Roster" file will no longer be maintained on the CARC website. The Roster will be a minimal list of members which includes a link to the full member's profile in Ham Club Online (HCOL).

The minimal roster will be maintained in the Member's Only section of the CARC website. You will need to know the login info to get behind the firewall. Additionally, you will need to create a login to HCOL. To view the Club Roster, you can log directly into HCOL without going through the Club website. The "minimal roster" is handy to see who's a member and verify your dues expiration date.

Questions? Bring them to any Board or membership meeting or contact the Vice-President/Membership Chairman.

You've heard of the MLB … Now, welcome the MBL … "Muncha Buncha Lunch" — every Thursday, 1 p.m. at Poor Richard's Cafe

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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 at **Poor Richards Café Plano TX**. 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.

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.

The Prez Sez

with KR5N

Please plan to attend the February 22nd meeting in-person or via Zoom. We will be reviewing the proposed changes to our Club's Constitution with the intent of adopting the revised document during this meeting. A copy of the revised Constitution was emailed to everyone about a week ago using our HamClubOnline mailer system. IF YOU DIDN'T RECEIVE A COPY OR HAVE LOST IT, SEND A REQUEST FOR A REPLACEMENT TO N5CXX@ARRL.NET . A copy will be sent to you ASAP.

The changes are minimal. For one thing: we're recommending eliminating the office of Activities Manager and replacing it with the Immediate Past President as a member of the Board of Directors. We reworded the Statement of Purpose to use the wording approved by the Club membership last year. There were several items which conflicted with other items within the Constitution and we attempted to simplify the wording or eliminate some things altogether.

The major changes are highlighted using comments in red in the revision sent to members. Once approved, the document will have the "red" comments removed and will be placed in the Members Only Section of the Club's website (n5cxx.us). If you wish to compare the proposed changes to the existing Constitution, simply access the current Constitution on the website in the Members Only Section.

I wish to thank Bill Swan, K5MWC, our Vice President, and Jim Brown, AF5MA, our Secretary, for spending hours reviewing the Constitution and recommending changes to the Board of Directors. The Board had input from one member, Bill Fell, KK5PB, and reviewed and approved a motion to present the revised Constitution to the Membership at the

February meeting. All members had been invited to attend the February Board meeting via Zoom.

You may remember that the Annual Meeting, normally held in November, was postponed until March to accommodate changes to the Constitution. March will be our Annual Meeting, which will include reports from officers reviewing 2021. We will also conduct the Election of Officers for 2022. All current officers have agreed to serve one additional year. This will require a motion to suspend the Constitution requirement on term limits. If any members wish to run for President, Vice President, Secretary or Treasurer, please make your interest known to any officer. You'll find the email addresses and phone numbers of current officers listed on the Club web site (n5cxx.us).

I look forward to seeing many of you at the February meeting, either in-person or via Zoom. In order to vote on the Constitution changes and for officers, you need to be a Full Member with dues current. If your membership expired on Dec. 31, 2021, you have been receiving emails from our VP/Membership Chairman. You may pay your dues in-person at the February meeting or mail them to Bill Swan - the instructions are on the Membership Application Form available on the web site.

73 de Frank KR5N

Vice President/Membership Chairman Report

Membership Chairman Report – No new members were added during the last reporting period.

Current Membership - 62

Full Members – 45 (Includes Life and Retiree Members)

Associate Members - 17

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.

Updated Membership renewal status - Two renewals were received and have been updated in the Ham Club On Line data base. Notices were previously sent out to those members that had an expiration date of 31 December 2021. The deadline for membership renewal is 2 March 2022. Renewal forms and payment can be sent by regular mail to the address given on the renewal form or given to me at a regular meeting:

KC5HXB	KC5HXA
K5QY	KC0RHZ
W5DTG	KK5Y
N5TIM	KC5LOP
AD5XD	WB5RDA
KI5HNR	KC5QCQ

Your continuing membership is important to the CARC. Through the skills and experiences of all of our members, our club provides fellowship, education and service opportunities.

73s,

Bill K5MWC

Secretary's Report

25 January 2022

President Frank Krizan KR5N called the meeting to order at 1736. The meeting was in-person at our new meeting site at Poor Richard's Café in Plano. Zoom access was also provided for those not able to meet in-person.

The following were present at the meeting site:

Jim Brown	AF5MA
Bill Fell	KK5PB
Paul Jarvis	KC5MVE
Frank Krizan	KR5N
John McFadden	K5TIP
Jim Skinner	WB0UNI
Bill Swan	K5MWC
Rohan Thomas	KG5RCN
Christy Thompson	
Kerry Weeks	K5WKS
Mark Wells	K9MDI

The following logged in via Zoom:

Brian Belcher	WA5M
Bob Chandler	KI5KRN
Bob Coulbourne	W4FTD
Mark Dempsky	N5MD
Clarence Sebesta	K5YO

Officer and Committee Reports

The Vice President's and Activity Manager's reports were published in the December 2021 CARC Newsletter, and no clarifications or updates were offered at the meeting. There was no Secretary's report since there was no December meeting. The Treasurer's Report was presented by Treasurer Rohan Thomas KG5RCN at the meeting.

Old Business

There was no old business.

New Business

There was no new business.

Announcements

All members present introduced themselves and offered personal status updates as they chose.

Frank Krizan announced the following:

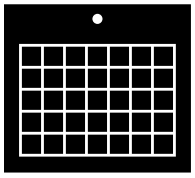
> The CARC Board of Directors will distribute a draft update to the Club Constitution and By-Laws for consideration of the membership prior to the March 2022 meeting.
>
> The March 2022 meeting will consist of a review of the past year and election of Club officers for the coming year.

Adjournment

The meeting was adjourned at 1758, followed by "show and tell" presentations by Frank Krizan, Bill Swan K5MWC and Kerry Weeks K5WKS.

Activity Manager's Report

by Kerry Weeks, K5WKS



Our January meeting was lots of fun - It was our annual Show and Tell Night. Three of our members showed four items which interested everyone. Frank Krizan, KR5N, led off with an 8-in-1 programming cable for programming HTs. It has a single USB connector and eight radio connectors ranging from a miniature simplex plug to a Kenwood-style dual plug. Frank recommended using Chirp software for programming radios.

He was followed by Bill Swan, K5MWC, who showed a Multi-tone CTCSS Encoder, which is very handy for testing items on the bench or creating CTCSS for older radios that don't have built in CTCSS generators. Bill offered the Encoder that he brought (brand new) as a door prize, and, the lucky winner was Bob Coulbourne, W4FTD.

Kerry Weeks, K5WKS, next talked about and showed a variety of end-fed half wave antennas which could handle different power levels. Kerry talked about his installation of some of these antennas, some various ways to use them and a reputable source for purchasing the EFHWs. He provided a handout which provided some info on the lengths of wire required for the antenna and a counter-poise, if needed.

Frank, KR5N, concluded the Show and Tell with a discussion of JIS (Japanese Industrial Standard) screws and screwdrivers, which are used on Kenwood and Icom radios. He pointed out that JIS looks very similar to Phillips-head screws but, if the screws are tight in the rig and a Phillips is used, you can damage the screw head. He spoke from experience. There was a lot of interest in what these screwdrivers looked like, and Frank supplied a link to a set of screwdrivers on Amazon that were good and at a reasonable price.

We will continue to meet in-person at Poor Richard's Cafe in Plano. Poor Richard's is closed at night and delighted to allow us to use part of their space. There will be no food or drink service. Access will begin about 5 pm on the 4th Tuesday of each month. Ring the doorbell at the main door to gain entrance. We will switch back to the traditional meeting times of 5:30 pm with VE testing starting after the meeting (about 7:30 pm).

I encourage you to try breakfast and/or lunch at Poor Richard's as a way to say Thanks for use of their facility. The address is: 2442 K Avenue, Plano, 75074 (southeast corner of E Park Blvd and K Avenue). Check out their web site (http://www.poorrichardscafe.com) for more info and menu.

For those who are uncomfortable with in-person meetings, we will offer the meeting audio and video via Zoom. The Zoom credentials are emailed to members the Monday prior to the meeting and are available in the Members Only Section of the Club website (n5cxx.us).

The February meeting is on Tuesday, Feb. 22nd and is our ARRL Night with Steven Lott Smith, KG5VK, the ARRL North Texas Section Manager. Be sure to attend. Steve always brings some nice door prizes. There is more info in the Meeting Announcement on Page 1.

Upcoming meeting programs:

> March 22 - Revised Annual Meeting and Election of Officers
>
> Apr 26 - Flex Radio Program with Michael Walker, VA3MW
>
> May 24 - Field Day Planning
>
> Jun 28 - Post FD / TBD
>
> Jul 26 - Ice Cream Social
>
> Aug 30 - Grounding and Bonding - Tim Duffy, K3LR (Note meeting date change to accommodate Tim)
>
> Sep 27 - TBD
>
> Oct 25 - TBD
>
> Nov 15 - Annual Meeting / Election of Officers

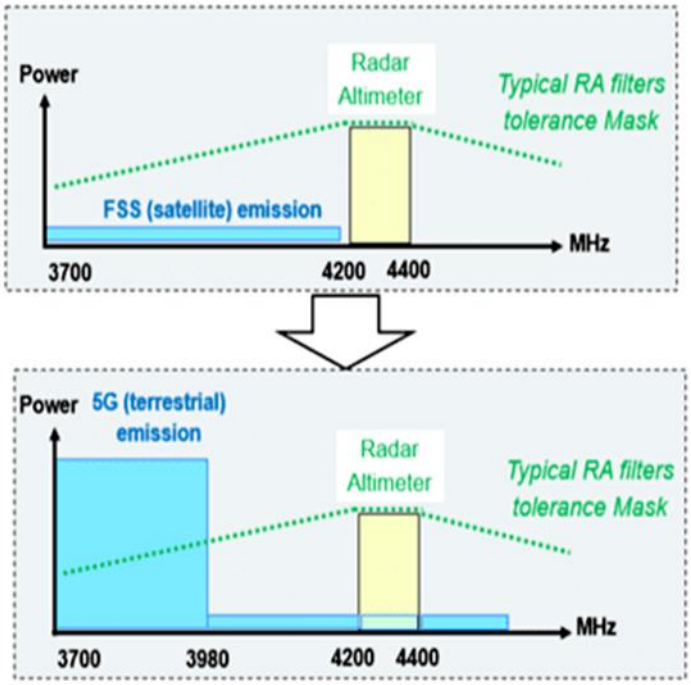
If you'd like to do a program in 2022 or have a suggestion for a program (either a topic or the name of a speaker), let me know. How about Operating Events - which ones do you think the Club should take part in? And don't be shy about stepping up to organize our Club's involvement in a contest or Special Event. Send your ideas to weeks.kerry@gmail.com

Why 5G in the US is Bad for Aviation

George Cooley NG7A Feb 2022

(Originally published in the February 2022 edition of the Signals Newsletter of the Collins Amateur Radio Club of Cedar Rapids)

Around the globe 5G is implemented on various frequencies. In the US, the FCC chose to allow 5G terrestrial emissions from 3.7 to 4.2 GHz, right next to the aviation protected band of 4.2 to 4.4 GHz that is used by radio altimeters to help planes land. As illustrated in the before and after masks, the interference is serious.



The radio altimeter design is rooted in the CWFM based ground proximity sensors that were developed by the National Bureau of Standards and the US Army (Harry Diamond Labs) to detonate WWII bombs before they auger harmlessly into the ground. The technology is perfectly suited for aircraft as radio altimeters offer much greater precision than barometric based altimeters. The problem is that these altimeters do not have much front end filtering and were never designed to co-exist with very high-power RF emissions. Back when the FCC employed scientists and engineers that actually understood what they were regulating, emission levels and appropriate guard bands were considered in frequency allocations. In the recent decades that appears to not be the case as the FCC attempted similar incompatible frequency allocations next to GPS in 2011. Thankfully the industry fought back hard and, in that case, the poor decision that may have obliterated GPS was reversed.

Radar altimeters (RA), operating at 4.2-4.4 GHz, are the only sensors onboard a civil aircraft that provide a direct measurement of the clearance height of the aircraft over the terrain or other obstacles (i.e. the Above Ground Level-AGL). This is particularly critical in low visibility approaches like Cat II or III conditions. Pilots cannot conduct the approaches if RA is malfunctioning. Furthermore, during a foggy Cat III auto-land, measurements from the radar altimeter are used to retard the throttles and pitch the aircraft to flare before it touches down. It's not hard to understand why flaring at the incorrect height or failing to do so can have disastrous consequences.

Inputs from the RA are required and used by many aircraft systems below 2500 ft AGL. The radar altimeters play a crucial role in providing situational awareness to the flight crew. The measurements from the radar altimeters are used by Automatic Flight Guidance and Control Systems (AFGCS) during instrument approaches, and to control the display of information from other systems, such as Predictive Wind Shear (PWS), the Engine-Indicating and Crew-Alerting System (EICAS), and Electronic Centralized Aircraft Monitoring (ECAM) systems, to the flight crew. Any failures or interruptions of these sensors can lead to incidents with catastrophic outcome, potentially resulting in multiple fatalities.

There is talk of lowering 5G signals near airports. However, radar altimeters are also used anywhere in proximity to ground (such as maneuvering to or from airports, especially in mountainous areas). Jamming from 5G could inhibit some functionalities of the TAWS (Terrain Alerting Warning System) reactive modes, removing the safety net against CFIT (Controlled Flight Into Terrain).

Additional distractions for crews are probable. False alarms such as “too low gear,” “too low flaps,” “don’t sink,” ”terrain," "pull up” and other alerts increase workload and degrade trust in systems.

A big concern is that GPWS would not trigger an alert when it should have done so, which can result in CFIT event!

During “iron dome” exercises near Tel Aviv airport, one airline experienced several radar altimeter interference events that triggered inappropriate activations of EGPWS terrain warnings and the autopilot landing flare erroneously activated at around 1500 feet above ground level. Had this occurred in bad weather, the probability of losing the aircraft would have been high.

While this example was caused by military jamming devices, the source of interference doesn't matter, for ultimately the onboard equipment reacts similarly. There is a major risk that 5G ground systems in the 3.7–4.2 GHz band will interfere with radar altimeters of civil aircraft and degrade safety.

Slow Speed CW Contest Website

There is a 1-hour slow speed CW Contest on every Friday afternoon and every Sunday night. Here is the Website. http://www.k1usn.com/sst.html. (*Dennis Cobb WA8ZBT*)

Minutes of CARC Board of Directors Meeting

8 February 2022

President Frank Krizan KR5N called the meeting to order on-line via Zoom at 1905.

The following logged into the meeting:

Jim Brown	AF5MA
Bill Fell	KK5PB (Non-Voting Participant)
Frank Krizan	KR5N
Bill Swan	K5MWC
Rohan Thomas	KG5RCN
Kerry Weeks	K5WKS

Pre-Meeting Workshop

All Directors and other members present participated in a pre-meeting workshop beginning at 1905 to discuss a range of topics and develop motions as needed for action by the Board at the formal meeting summarized below.

Topics covered in the workshop included the following:

- All reviewed a draft of revision E of the CARC Constitution as prepared by Bill Swan K5MWC and Jim Brown AF5MA. A number of changes were proposed and most accepted. The resulting draft was formally approved as noted below.
- Frank Krizan indicated that the Club has the opportunity to see an overview and demonstration of the FlexRadio product line following the April general meeting. All agreed that this should be pursued.

Board Actions

Jim Brown AF5MA moved to accept the agenda as presented; Kerry Weeks K5WKS seconded. There were no objections.

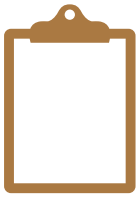
It was moved by Kerry Weeks K5WKS and seconded by Bill Swan that the revision of the CARC Constitution finalized in the pre-meeting workshop be approved for submittal to the general membership for final approval at the regular February 2022 meeting. There were no objections.

Adjournment

Moved at 2023 by Bill Swan and seconded by Rohan Thomas.

Drive Home Net Report - February 2022

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 Tuesdays of the monthly membership meeting or on Tuesdays of social events and holidays.



All stations are invited to check in, whether a member of CARC or not. The Net is informal, operating as a Roundtable.

THIS MONTH'S LOG:

JAN 25 - NO NET; GENERAL MEETING

FEB 1 - [6] KR5N Frank NCS; WB0UNI Jim; K5WKS Kerry; KI5KRN Bob; K5MWC Bill; KC5MVE Paul.

FEB 8 - [8] KR5N Frank NCS; WB0UNI Jim; KI5KRN Bob; K5WKS Kerry; N5WSV George; K5MWC Bill; KC5MVE Paul; N5REG Robert.

FEB 15 - [7] KR5N Frank NCS; K5WKS Kerry; KI5KRN Bob; WB0UNI Jim; K5MWC Bill; KC5MVE Paul; K5YO Clarence.

Average participation for this period: 7

Average participation for the previous period: 6

Net record for check-ins: 9

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.

February CARC VE Test Session Report

ARRL VE Test Sessions are held immediately following the monthly CARC Meeting at Poor Richard's Cafe, 2442 K Avenue, Plano TX 75074.

All levels of exams are being offered, BUT YOU MUST REGISTER IN ADVANCE IN ORDER TO BE ASSURED A SEAT. We also need to know who's coming in case we have to cancel due to Covid-19 declarations.

Contact Kerry Weeks, K5WKS, at 214-478-3230 or via email: weeks.kerry@gmail.com to register. Kerry will discuss the exam fees, what you need to do prior to the exam and what to bring to the test session. More info is available at: http://www.arrl.org/what-to-bring-to-an-exam-session

No test session was held in December due to our Christmas party and no regular meeting. No candidates presented for testing at the January 2022 meeting.

If you are an ARRL VE and would like to volunteer for future test sessions, contact Kerry at the email/phone shown above. If you are accredited through another VEC, Kerry can give you info on how to get accredited with the ARRL VEC.

CARC Community Service Activities

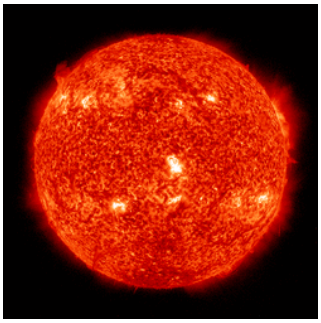
Siren Testing Dennis Cobb WA8ZBTand Jim Skinner WB0UNI participate in the Richardson emergency siren testing. The February test was cancelled due to inclement weather. The sirens are monitored by amateur radio operators and reports made using the Richardson Wireless Klub (RWK) repeater at 147.120 MHz. Siren testing occasionally uses the University of Texas at Dallas (UTD) repeater at 145.430 MHz, which is designated as the backup repeater. The Garland siren test was also cancelled.

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.

The K7RA Solar Update

02/18/2022

A sunspot group emerged on February 10, two more on February 11, two more on February 14 and three more on February 16, when the daily sunspot number rose to 111 — the highest value for this reporting week and well above the weekly average of 75.3. The average for the previous week was 83.9. On February 17 another new sunspot region emerged, but the daily sunspot number declined from 111 to 103.



The 111 sunspot number was the highest since the end of 2021, when sunspot numbers went as high as 147 following a few days of no sunspots at all.

On Thursday, February 17, the Daily Sun image on Spaceweather.com showed seven sunspot groups, the whole earth-facing side of the sun peppered with spots.

Average daily solar flux declined from 126 to 110.1. Average daily planetary A index went from 14.4 to 13, and average daily middle latitude A index declined just 1.3 points to 8.3.

Why do we care about sunspot numbers? Because high values correlate with greater density in the ionosphere, which gives us better propagation at higher frequencies. Sixty-four years ago, sunspot numbers were so high that hams saw worldwide around-the-clock propagation on 10 meters. Sunspot numbers were never that high before or since. That was the peak of Solar Cycle 19. Newly licensed hams thought it would always be like that. It never was.

Predicted solar flux over the next month was downgraded from February 16 – 17 forecasts, and is 95 on February 18 – 19; 98 on February 20; 102 on February 21 – 23; 105 on February 24; 108 on February 25 – 27; 110 on February 28; 115 on March 1 – 2; 112 and 110 on March 3 – 4; 108 on March 5 – 8; 105 on March 9 – 11; 103 on March 12 – 13; 100 on March 14; 98 on March 15 – 16; 102 on March 17 – 19; 104 on March 20 – 22, 108 on March 23 – 26, and 110 on March 27.

Predicted planetary A index is 5 on February 18 – 19; 18, 15, and 12 on February 20 – 22; 10, 8, and 10 on February 23 – 25; 15 and 10 on February 24 – 25; 5 on February 26 – March 2; 12, 15, 10, and 8 on March 3 – 6; 5 on March 7 – 10; 15, 12, and 10 on March 11 – 13; 5 on March 14 – 18; 8, 5, 12, 15, 18, and 10 on March 19 – 24, and 5 on March 25 – 29.

Here's the "Weekly Commentary on the Sun, the Magnetosphere, and the Earth's Ionosphere" for February 10, from F.K. Janda, OK1HH.

"Solar activity has reached a moderate level, including occurrence of M-class flares. The activity on the far side of the sun was greater, as evidenced by CME observations beyond the eastern limb of the solar disk, which do not affect Earth's ionosphere.

"We observed exceptionally poor conditions of ionospheric propagation on 80 and, especially, 160 meters on the night of February 14-15, UTC. The cause was a several-day decrease in solar radiation (X-ray level), accompanied by a decrease in the speed of the solar wind, as a source of ionization by particles. The improvement started on the morning of February 15, beginning from the eastern direction when the ionosphere was irradiated by the sun again.

"Solar activity is expected to rise only slowly in the coming days, reaching a flat quasi-peak maximum in early March. The activity of Earth's magnetic field should increase irregularly and only slightly again on February 20 – 21 and 24 – 25 (February 22 – 24, according to other sources), causing only the usual fluctuations in propagation conditions."

Check out this video about ViewProp, a promising new propagation analysis tool. There is also an email list. — Thanks to The ARRL Contest Update.

Sunspot numbers for February 10 – 16 were 78, 86, 54, 53, 72, 73, and 111, with a mean of 75.3. The 10.7-centimeter flux was 118, 113.1, 110.5, 105.4, 106.5, 114.3, and 102.9, with a mean of 110.1. Estimated planetary A indices were 21, 20, 13, 15, 8, 5, and 9, with a mean of 13. Middle latitude A index was 12, 12, 10, 9, 6, 3, and 6, with a mean of 8.3.

For more information concerning radio propagation, visit the ARRL Technical Information Service, read "What the Numbers Mean…," and check this propagation page by Carl Luetzelschwab, K9LA.

A propagation bulletin archive is available. For customizable propagation charts, visit the VOACAP Online for Ham Radio website.

(Courtesy ARRL.NET Latest News, 02/18/2022)

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 asking for Security contact information.

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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.

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, 5:30-6:00pm (no net 4th Tuesday.)
1st Wednesday	Richardson Emergency Siren Test. At noon using the Richardson Wireless Klub (RWK) repeater at 147.120 MHz.
2nd Wednesday	ARES North Texas HF Net Every month—3860 KHz at 8:30 pm—9:30pm

FEBRUARY

19-20 **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

5-6 **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

10 **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.

"Well the only thing I can figure out is that somehow the pressure regulator on the speech compressor must have stuck closed!"

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

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.

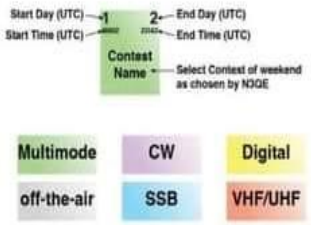
FRIENDLY - with slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

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

PERIODIC TABLE OF SELECT AMATEUR RADIO CONTESTS

2022



Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1 Straight Key Night	5 NA Sprint CW	5 ARRL DX SSB	2 SP Polish DX	7 7QP/IN/DE/ New England QSO Parties	4 Tisza Cup CW	2 Marconi Memorial HF	6 NAQP CW	3 CWOps CW Open	1 California QSO Party	5 ARRL SS CW	2 ARRL 160
8 ARRL RTTY Roundup	12 CQ WPX RTTY	14 NA Sprint RTTY	9 JIDX CW	14 CQ-M DX	11 ARRL June VHF	9 IARU HF	13 WAE CW	10 WAE SSB	8 Oceania CW	12 WAE RTTY	10 ARRL 10
15 NAQP CW	19 ARRL DX CW	19 Russian DX	16 CQMM DX	19 Contest University Dayton Hamvention	18 All Asian CW	16 CQ WW VHF	20 NAQP SSB	17 WA/NJ/NH/TX QSO Parties	15 Worked All Germany	19 ARRL SS SSB	17 RAC Winter
22 NAQP SSB	25 CQ 160 SSB	26 CQ WPX SSB	23 SP DX RTTY	28 CQ WPX CW	25 ARRL Field Day	23	27 WW Digi	24 CQ WW RTTY	22	26 CQ WW CW	23 Happy Holidays
28 CQ 160 CW			30 Florida QSO Party			30 RSGB IOTA			29 CQ WW SSB		

COLLINS AMATEUR RADIO CLUB

Richardson, Texas
www.N5CXX.us

PO Box 830766
Richardson, TX 75083-0766

TO:

COLLINS AMATEUR RADIO CLUB

Richardson, Texas
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 22 February 2022 5:30 PM

NOTE THE TIME CHANGE

THE FEBRUARY MEETING WILL BE AT

Poor Richards Café Plano TX

NEXT SIGNALS INPUTS DEADLINE:

➔➔➔ **11 March 2022** ➔➔➔