

Sep 2020



K5PRK Newsletter

Social Media

K5PRK.Net [Facebook](#) [IO Group](#)



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Sean Kelly, W5SPK

Vice President:

Tim Johnson, K5TCJ

Secretary:

Daryl Morgeson, AF5QJ

Treasurer:

Ross Watson AF5QK

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Tony Campbell, W5ADC

Communications Director:

Kipton Moravec, AE5IB

Webmaster

John Hatch, KF5BSS

Public Relations:

Brian Trant, KF5VFM

Newsletter Editor:

Neil Gould, NE5IL

Special Zoom Meeting Notice

Monday Sep 21, 2020 - 7:00 pm

Fox Hunting – Katherine Forson KT5KMF & her driver K5WFR

Join Zoom Meeting

<https://us02web.zoom.us/j/86938756849?pwd=d1hqNFVNUy9nVFlyYFlyVnkraGQ4UT09>

Meeting ID: 869 3875 6849

Passcode: 631144

One tap mobile

+13462487799,,86938756849#,,,,,0#,,631144# US (Houston)

+16699009128,,86938756849#,,,,,0#,,631144# US (San Jose)

Dial by your location

+1 346 248 7799 US (Houston)

+1 669 900 9128 US (San Jose)

+1 253 215 8782 US (Tacoma)

+1 646 558 8656 US (New York)

+1 301 715 8592 US (Germantown)

+1 312 626 6799 US (Chicago)

Meeting ID: 869 3875 6849

Passcode: 631144

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October Officer Elections

Officer Positions due in even number years:

Vice President – Tim Johnson, willing to serve again

Secretary – Officer has termed out

let Secretary Daryl know before October meeting if you would like to serve

Newsletter – Neil Gould, willing to serve again

Public Relations Director– Brian Trant willing to serve again

Communications Director– Kip Moravec, willing to serve again

Future Club Meeting Programs:

Oct 19	North Texas Section Update	Steve Smith – KG5VK
Nov 16	TBD	
Dec 21	TBD – No ‘normal’ Christmas Party	

Anyone can request to be on ballot

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2020: ACCEPTANCE OF CHAOS OR CHALLENGE TO IMPROVE

Sean P. Kelly – W5SPK

With a break in the action at Amphenol Corporation, I thought it best to share some reflections with all of you. My friends, we are now deep into the seventh month of the Coronavirus pandemic. Our use of language is littered with trite and overwrought phrases like “these challenging times” and “these uncertain times.” Our institutions demand PPE and social distancing. Our culture and practices remain self-centered and materialistic as ever. Some have called this year a moving train wreck on fire. At times, it has been hard to argue against the use of such a metaphor. However, the history of this great and blessed republic is replete with examples of such trials improving our culture, virtues and traditions. Some of our greatest historical events have fueled our most productive periods. From the Great Depression, WWII, and the 1960’s emerged a nation stronger than the previous decade. Following this trend line, 2020 may prove to be one of the greatest years on record and will lead to fantastic gains in almost every category. A quick survey of successes includes working remotely, distance learning and online collaboration. These concepts are gaining exponential support for continued use in our professional and personal lives. Other benefits include reductions in traffic and pollution. A renewed interest in biochemical research will advance treatments in a host of diseases, conditions and ailments. Excess labor (aka skilled employees laid off during quarantine), low interest rates and new technology will spur new start-ups and perhaps even new industries that will drive the economy for years to come.

Within our own great hobby, we have a renewed passion and interest for learning, testing and upgrading. The shutdowns of the past few months have successfully proven that they are an obstacle to our cultural genome. As we are social animals, the need to communicate, share information, and demonstrate improvements to our technology and environment dominates our nature. As with the argument outlined above, an opportunity has been laid before us that we must capitalize on. Your time and talent are required to make this opportunity a reality. In the days ahead, I encourage each of you to apply yourselves by volunteering to host a VE examination at a local park, host a ZOOM call with a high school physics class or have that introductory conversation with the interested party in the Kroger parking lot. The message here is simple – waste no opportunity to help a peer, a child, or your neighbor.

I am also using this forum to make a special plea for your treasure. The end of the year is approaching, and **now is the time to make the first large scale reminder for renewal of club dues.** (Student is \$5. Individual is \$30. Family is \$40). Dues help pay monthly bills, fund capital projects already approved by the membership and hold funds in reserve for future needs. Normally, most of you would pay these dues at the Annual Christmas Party. At the PARK September Board Meeting, it was decided that there would not be a Christmas Party. However, the Board has decided we will still have a raffle. The raffle will be limited to three prizes from Ham Radio Outlet in the amounts of \$150, \$100, and \$50. Renewal of dues can be made by either Paypal through the K5PRK [web site](#) or mailing your check to the PARK Post Office. Dues must be paid Friday 4 December 2020. The drawing will be held on Monday 21 December 2020. Winners will be selected by a computer aided lottery. So as you can see, tradition and fellowship remain.

In conclusion, 2020 has been a year of tremendous loss and hardship, but the ashes of this year will become the soil that fertilizes the next decade. That is not forgetting the pain of this year, that is honoring it, and ensuring it is not wasted. One final thought regarding the use of one’s time, talent, and treasure and our great hobby

– “The mission of life is to find your gift. The purpose of life is to give it away.” ~ Pablo Picasso.

I wish you well in the faithful execution of that exercise.

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Repeater Update from **Communications Director**: [Kipton Moravec, AE5IB](#)

Since the last update on the repeater we have had two climbs.

The first one was August 29, which happened to be the hottest day of the year (104° F). Most of the work was on the antennas. David Abshire and I climbed. We took down the VHF antenna and replaced it with a dual-band antenna. You can see it in Figure 1. We were wondering if the old phasing harness may have been a cause of the static we hear on the repeater during wind and rain.



Figure 1: PARK Tri-band Antenna and new VHF/UHF Antenna

In addition, we replaced the 12 year old LMR-400 coax from the antennas to where the 1 5/8" coax comes out of the tower. There are reports that because of LMR-400 has a copper braid, with an aluminum shield on top with time and abuse (like getting stepped on) they can separate and cause problems like static during duplex operation. Other people say that was disproved. So to be safe we replaced them with RG-213. It has more loss than LMR-400 but just has a copper braid. We need another good wind and rain storm to see if we have an improvement. The one rain event we have had, there was less static, and it sounded different. Keep your ears open.

When we raised the tri-band antennas 1-2 years ago, the mast mounts were made for 2" pipe and below. We discovered the pipe on the rails that we attach to was 2.5" and they would not fit. So as a temporary measure, we used a bunch of hose clamps. We found some reasonably priced replacement and used 3 sets on the new VHF antenna on a 12' mast and the two tri-band antennas. We also got a brass pipe grounding clamp for all three and grounded the masts better. You can see the UHF antenna and other Tri-band antenna in Figure 2.

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Figure 2: PARK UHF antenna and second Tri-band antenna.

The plan was to start putting up the digital antennas after checking out the Ethernet cables that had been run when the original site was setup 12 years ago. One connector looked like it had been cut off, and another looked bad, so we replaced them. That took much longer and more tries than we thought. The original cables were wired to T-568A standard and since we did not have a chart, that is what we followed. Meanwhile, on the bottom they were replacing the connectors with T-568B standard, which is more common. Both ends have to be the same. It took a few tries to figure out what was going on before we got it right.

Meanwhile the ground crew was working downstairs. They put in the lightning arrestors for the Ethernet runs at the base and grounded them. They labeled coax so it was easier to see what coax went where. And Russel, worked on the Winlink computer to make it start the Winlink programs after a Windows update, and before someone logged in. Andrew also found and fixed a couple of bugs in the router setup.

The climb lasted 5 hours.

One of the things we noticed was that one of the tri-band antennas was not secure. Upon closer inspection, its bracket that held the antenna had a bolt and that bolt had worn the hole bigger and allowing movement. It also started to pull the threads in the soft metal in the antenna. Showing the pictures to Tony, he came up with a way to fix it without replacing the \$300 antenna.

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Figure 3: Problems with one of the Tri-band antennas

On September 19, the next time we were able to get a crew together and we continued where we left off. This time Tony and David Abshire, did the climb. When they first got up there they were almost cold. Much different than the last climb!

There was still some unfinished antenna work. The plugs for the lightening arrestors at the top and bottom were replaced. The coax to the second tri-band antenna was replaced. We decided to remove the splitter between the repeater UHF and VHF antenna at the top, and just use the dual band antenna put in place the climb before. All the connections were resealed.

Next we started installing the digital equipment. We double checked the Ethernet runs, from the previous climb The lightning arrestors for the Ethernet were mounted and grounded, near the copper grounding block in the center of the tower.

First the camera network was installed (Green Ethernet). We have two cameras one point west and one pointing north. The POE switch was installed and grounded and the cameras came on line. Looking at the router, we could see the data rate climb. Unfortunately it looks like only one camera is getting to the video server. Both were working during 2 months of testing. I think we are exceeding our internet speed. The router said we were uploading at about 0.750 Mbps, Our ATT DSL is 7 Mbps down, and 0.7 Mbps up. So it may be our Internet connection is the problem. This will get fixed when we get the connection to Palisades (Richardson Wireless Klub, RWK) up and running. That is where the video server will be placed. COVID-19 has made it hard on them to upgrade also. There is one switch port open for expansion on this connection. Figure 4 shows the switch and cameras mounted.

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Figure 4: Cameras and POE Ethernet switch.

Next we worked on the second Ethernet run (White Ethernet). This run will have a LiteBeam pointing to K5GTX for backup Internet and a PowerBeam pointing to Palisades for the video server. We have one slot open for expansion. Both powered up fine but something happened to the LiteBeam and we could not log in. It refused the login and password. Fortunately the climbers were able to factory reset. And it came up at the factory default IP address. You can see the LiteBeam for K5GTX in Figure 5.

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Figure 5: LiteBeam pointed towards K5GTX for backup Internet

The climbers also placed the equipment for the third Ethernet run (Yellow Ethernet). This net will have a PowerBeam to the Hillcrest site (Frisco) and a LiteBeam to Medical City of Plano site (MCP). The third slot is for a future PowerBeam to McKinney Amateur Radio Klub. We did not wire these as it was getting late. The rest of the devices can be seen in Figure 6.

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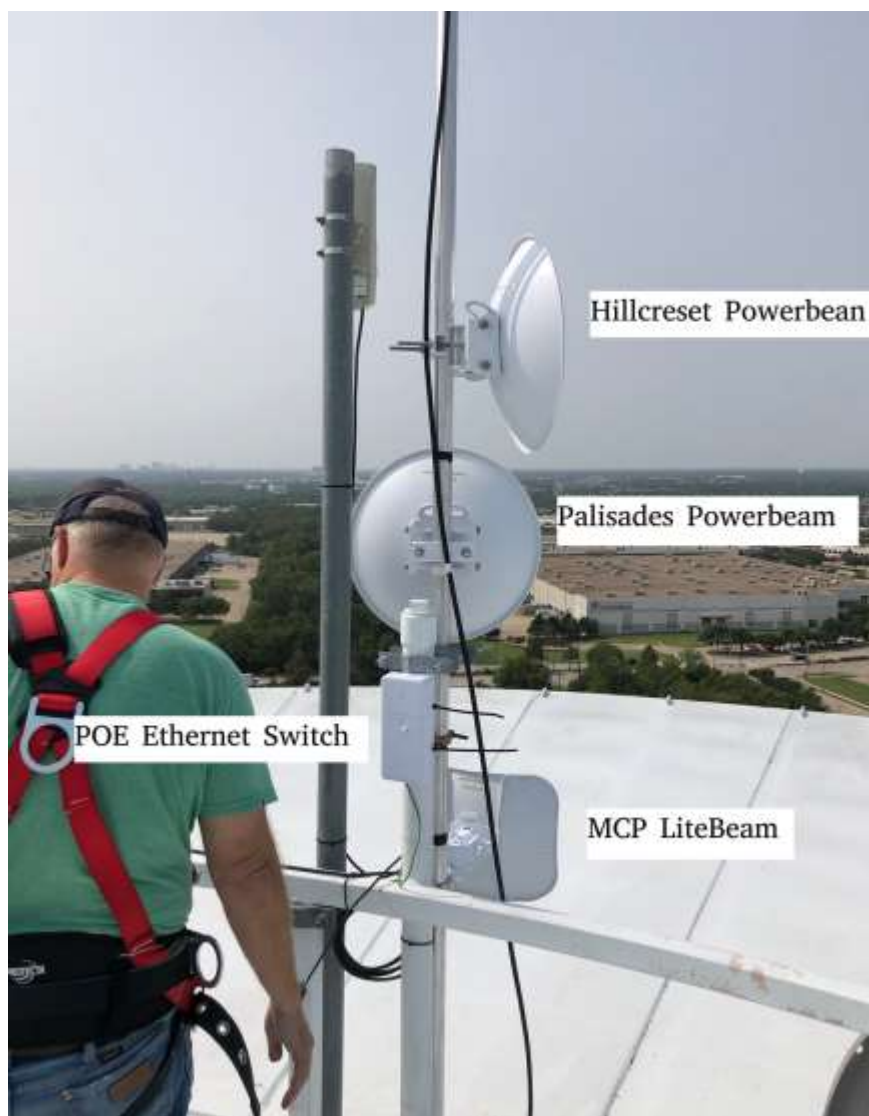


Figure 6: Hillcrest and Palisades PowerBeams, and MCP LiteBeam

As the climbers were descending, we discovered the LiteBeam to K5GTX quit working and we could not ping it. We could still talk to the Palisades PowerBeam which uses the same power supply. We will have to see what happened on the next climb.

I want to thank Dave Abshire (W5OLA, was KG5NAV) for climbing both times, and Richard Seitz (KG5HCJ) and Don Klick (KG5CK) for doing a great job roping equipment from the bottom to the top. Tony Campbell (W5ADC) for all the pre-climb work, ground support the first climb, and climbing the second time. And Russell Adams (KG5NSR) for ground help both days. Jimmy Domingez (KE5PDQ) and Andrew Koenig (KE5GDB) for their ground support on the first climb. If I missed anybody from the first climb, I am sorry. I was tired that day.

The next climb is scheduled for October 24. We still have a long list of items to do.

Communications Director: [Kipton Moravec, AE5IB](#)

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Monday Informal Club Get Together

In addition to the regular monthly meetings we have had informal Zoom meeting on most other Monday evenings. An email is sent out each Monday with the Zoom info. These meeting have been well attended and provide another way for us to keep in touch.

Tony sends out the Zoom info each Monday that there is a meeting.

Thanks to <https://www.facebook.com/groups/Amateur.Radio.Funnies>



Owl get it right next time!



For an additional
\$4.95 we will
provide a receipt
that matches
what you told
your spouse you
paid.

Who would do that? ;)



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Fox Hunting

Are you getting bored having to stay home most of the time? Not getting enough ham these days? A great way to get out of the house safely is to participate in a foxhunt. Driver and I are the current fox masters for "Wheatley", one of the Richardson Wireless Klub's two fox transmitters. We usually hide him somewhere inside Richardson, but recently Wheatley has decided to take some field trips!

One weekend every other month, Wheatley will be hidden somewhere inside the city limits of Plano. **His first field trip to Plano will be next weekend, Saturday, September 26 and Sunday, September 27.** For those of you who haven't participated yet, this is your chance!

Not to mention, there are prizes involved! After the weekends that Wheatley visits Plano, PARK will hold a drawing at their next regular club meeting for the successful hunters. The prize is currently a \$25 gift card to Ham Radio Outlet. You don't have to be a PARK member to win, but you do have to be a licensed ham.

Wheatley transmits every 3 minutes on 433.25 MHz (frequency subject to change), and if you hear him, you'll understand how he got his name. If you find him, there is a QR code attached. Scan the code with your phone and it will take you to a Google Form where you can submit a log entry. Touchless! (You do have to submit the form to be entered in the drawing.)

Since many of you haven't seen Wheatley before, I have included a picture so you'll know what he looks like. Just remember, he's not going to be sitting out in the open!

Once Wheatley is safely in his hiding place, a notification will be sent out via K5RWK@groups.io. When we pick him up, another email will go out with a list of successful hunters, along with a map and a picture showing where he was hiding.

Good luck!

73
Katherine
KT5KMF



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Amateur Radio Technician License Class:

The Plano and Lucas Amateur Radio clubs will be holding our next Amateur Radio technician license class on the two consecutive Saturdays (September 19th and 26th) 2020. The exam session for this class will start at 3:00 PM on September the 26th. Unfortunately this class will be size limited to 12 to 15 students and masks will be required, due to the Corona-19 restrictions. Sorry, no walk in testing will be available for this exam session, due to sizing limitations.

The class will be held at the new training room facility on the south side of the Allen fire station #1, 310 Century Parkway, in Allen. Class will start at 8:00 am both days and will run till around 5:00 pm both days, depending on class questions and final exam completion.

There are several commercial study guides available. Our course uses a Technician Study guide by Ham Radio School Inc. by Stu Turner, which is available via Amazon, or locally at the Ham Radio Outlet store on Plano Parkway in Plano.

If you are interested in attending this class, please send a registration request email, including your name and telephone number to Mike Pruden at:

nn5zz@arrl.net

Thanks
Mike Pruden
NN5ZZ

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PARK Repeaters

The Plano Amateur Radio Klub operates five repeaters, which are located in Allen, Texas about 180 feet above ground level. All licensed amateur operators are welcome to join us on the air. All repeaters are open.

**147.180 MHz +
(PL 107.2)**

K5PRK VHF

Voice Repeater

**444.250 MHz +
(PL 79.7)**

K5PRK UHF

Voice Repeater

441.575 MHz +

DStar UHF

Digital Voice Port B

1295.000 MHz – 20.000

DStar 23cm

Digital Voice Port B

1255.000 MHz

DStar 23cm Digital Data

Broadcastify

[K5PRK 444.250](#)

[K5PRK 147.18](#)

Short Takes**VE Testing**

9/6/2020 - had one Technician test

Welcome **Philippe Lewis, KI5KTZ**, to the Ham Radio Community

Daryl AF5QJ

Analysis determines we are in Solar Cycle 25

September 15, 2020 - The solar minimum between Solar Cycle 24 and 25 - the period when the sun is least active - happened in December 2019, when the 13-month smoothed sunspot number fell to 1.8, according to the Solar Cycle 25 Prediction Panel, co-chaired by NOAA and NASA. We are now in Solar Cycle 25 with peak sunspot activity expected in 2025, the panel said.

ARRL/TAPR Digital Communications Conference: Held Online for Free

Rohde & Schwarz High Frequency (HF) Learning Center

On our learning center you'll find videos, tutorials, white papers, brochures, applications notes, quick links, and articles focused on High Frequency Test and Measurement Solutions; our portfolio of HF radios for land, air, and sea; and our HF monitoring and direction finding solutions.

This Week in Amateur Radio

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ARRL News

ARRL magazines

QST - ARRL's Monthly Membership Journal - www.arrl.org/qst

On the Air - NEW! Beginner to intermediate level help and advice - www.arrl.org/On-the-Air-Magazine

QEX - The Forum for Communications Experimenters - www.arrl.org/QEX

NCJ - National Contest Journal - www.arrl.org/NCJ

ARRL Podcasts Schedule



The latest episode of the *On the Air* podcast (Episode 9) features a discussion on how to tune HF signals and use transceiver tools to enhance reception. The *On the Air* podcast is a monthly companion to *On the Air* magazine, ARRL's magazine for beginner-to-intermediate ham radio operators.

The latest episode of the *Eclectic Tech* podcast (Episode 16) features a chat about the 222 MHz band, with QST's "The World Above 50 MHz" columnist Jon Jones, N0JK. Also, Steve Ford, WB8IMY, offers some tips on shopping for coaxial cable.



The *On the Air* and *Eclectic Tech* podcasts are sponsored by Icom. Both podcasts are available on iTunes (iOS) and Stitcher (Android), as well as on Blubrry -- [On the Air](#) | [Eclectic Tech](#).

[Comments are being accepted](#) on the *Notice of Proposed Rulemaking (NPRM)* in MD Docket 20-270, which proposes application fees for radio amateurs. Formal deadlines for comments and reply comments will be determined once the *NPRM* appears in the *Federal Register*. Comments may be filed now, however, by using the FCC's Electronic Comment Filing System ([ECFS](#)), posting to MD Docket No. 20-270.

ARRL NTX Ham of The Year Nominations are now being accepted for 2020

I am accepting nomination packages for the ARRL North Texas

Amateur of the Year award

Please title the email with the Nomination "ARRLNTX 2020 HOY"

The Nominee must be an ARRL member and Reside in North Texas

Deadline for nominations is 1 October 2020

ARRL North Texas Section

Section Manager: Steven Lott Smith, KG5VK

kg5vk@arrl.org

To celebrate their club's 50th anniversary, members of the Texas DX Society ([TDXS](#)) will operate K5DX/50 September 14 - October 13 on CW, SSB, and FT8 on 1.8 - 28 MHz.

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ARRL 2020 Simulated Emergency Test (SET) Scheduled for October 3 - 4 Weekend

The 2020 ARRL Simulated Emergency Test (SET) will take place October 3 - 4. The annual, nationwide exercise provides Amateur Radio Emergency Service (ARES) volunteers the chance to test personal emergency-operating skills and communication readiness in a simulated emergency deployment. ARRL is asking participants to adhere to Center for Disease Control (CDC) and local health department COVID-19 [guidelines](#) by staying home, maintaining safe distances when around people, and following recommended cleaning and disinfecting practices.

ARRL Learning Network's new speaker forum/seminars

<http://www.arrl.org/arrl-learning-network>

These are 30 minutes presentation with 15 minutes allotted for Question and Answer session following the presentation These presentations are online using GoToWebinar which is safe Industry standard software

[Relay Stations and the Art of Traffic Handling](#)

Aaron Hulett, K8AMH

[HF Wire Antennas](#)

George Cooley, NG7A, ARRL Life Member

[Fun with Digital Signal Modes FT4 and FT8](#)

Anthony Luscre, K8ZT

[Introduction to Computer Logging](#)

Steven Lott Smith KG5VK

[Capture the Magic of 6 Meters](#)

Jim Wilson, K5ND

[The Sport of Finding Hidden Transmitters On Foot](#)

Robert Frey, WA6EZV, ARRL Amateur Radio Direction Finding Committee

[Upcoming Webinars](#)

Getting Started with Summits on the Air

Kit Building Techniques For Success

Welcome to the World of Arduino

[2020-2021 ARRL Contest Dates PDF](#)

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Oct 17 Mentor Fest rescheduled

Time: 9:00am - 4:00pm

Location: Hella Shrine Center, 2121 Rowlett Rd., Garland, TX 75043

The Garland Hella Hams and the ARRL North Texas Section would like to invite all current and prospective Hams to attend Mentorfest! This event is a great way for Hams, especially those recently licensed, to meet and learn about a variety of subjects. Amateur radio operators have a great tradition of helping each other learn about and gain experience in the many facets of the hobby. Mentorfest is designed to build on this tradition by providing a place for Hams of all ages and experience levels to come together, exchange knowledge and make new friends while having fun and enjoying the great hobby of Amateur Radio.

- Here are some of the things you can expect at Mentorfest...
 - Formal presentations on a number of topics.
 - Local clubs providing information on their activities.
 - “Elmers” (ham-speak for mentors) available for informal discussions on just about any topic.
 - Tours of emergency communications vehicles.
 - Representatives from the ARRL, ARES/RACES, REACT, National Weather Service and others showing how you can get involved.
- Amateur License Testing - 1:00p - 4:00p

If you wish to test for a new license, or upgrade your existing license, bring \$14 and a photo ID.

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Local and Some HF Area Nets

MARC Nets

Sunday 8:00 PM – General Information Net – we ask participants about their week in ham radio and their thoughts on a question of interest to the ham community.

W5MRC Repeater, (146,740 MHz, offset -0.600 MHz, tone 110.9)

Monday 8:30 PM – Simplex net – see how far your VHF radio can go without a repeater
Along with general discussion. 146.520 MHz Since this is simplex, no offset or tone are required.

1st and 3rd Mondays 8:00 PM - The MARC Ladies Net – All radio amateurs are welcome.

W5MRC repeater (146.740 MHz, offset -0.600 MHz, tone 110.9)

Collin County ARES Nets

Collin County Amateur Radio Emergency Service conducts two training nets each month. You do not need to be an ARES member to participate, all radio amateurs are welcome.

1st Sunday 9:00 PM - Collin County ARES -

K5PRK repeater, 1(47.180 MHz, offset +0.600 MHz, tone 107.2 Hz)

3rd Sunday 9:00 PM – Collin County ARES -

W5MRC repeater, (146.740 MHz, offset -0.600 MHz, tone 110.9 Hz)

SARA (Sachse Amateur Radio Association) Nets

Wednesdays 8:00 PM – Ham Radio in Sachse –

Weekly “On-The-Air” Information Net called “Ham Radio in Sachse”.

N5LOC Repeater (145.25MHz, PL Tone 141.3Hz, Offset -0.600 MHz)

2nd and 4th Sundays 9:00 PM - Sachse Public Service Net –

ARES, RACES & Other Public Service Emergency Responders (like local CERT groups) Training.

N5LOC Repeater (145.250 PL Tone 141.3 Offset -0.60MHz)

3rd Tuesday at 7:30 pm

Simplex Net 146.40 – Temporarily suspended

GARC Nets

Thursday 8:00 PM – Info net – The Garland Amateur Radio Club holds an informal net open to all amateur radio operators. The net begins with check in and general announcements, followed by general discussion.

K5QHD Repeater (146.66 MHz, PL Tone 110.9 Hz, Offset -0.600 MHz)

North Texas Hospital Net

North Texas Hospital radio club weekly nets check in with area hospitals. Friday mornings (time TBD 8:30 am or 9 am). Jimmy Dominguez is NCS. 442.400/146.700. Regular splits PL tones 110.9/110.9. All are welcome to check in from your QTH as individual.

Attention; The North Central Texas Healthcare ARC net begins at 0830 Friday and moves to 146.700, the past Fridays the 146.700 repeater has been down, with uncertainty when the 146.700 repeater will be back online, the North Texas Central Healthcare ARC will only have the 442.400 portion of the net.

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HF Nets

Daily Net 11:00 AM – 9:00 PM – The Maritime Mobile Service Network – Any licensed ham (General Class or higher) can check in. This net is focused on assisting those who are maritime mobile and over the years, several distress calls have been handled by this net.14.300

Sunday 2:00 PM – Amateur Radio Satellite Net - Open net for licensed amateur satellite discussion and updates 14.282

Daily Net – OMISS – Focused on awards, particularly Worked All State (1:30 PM frequency 14.290) (8:00 PM frequency 7.185)

Many more nets are listed here <http://ac6v.com.htm>

Overland Bound

Weekly Net Every Friday night at 7:30 PM Central Time – A net for people who like to explore and take part in overland camping – hosted on the USA Grits-N-Gravy Conference Server (USA-GNG) Echolink Node: 591550 <http://www.usagritsngravy.net>

If you want to list your favorite net. Please send as much information as you can to newsletter@k5prk.net

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What is Amateur Radio (Ham Radio?) from ARRL

(Thanks Johnnie Young)

Amateur radio is a multifaceted hobby that includes people around the world. There are about 740,000 ham radio operators in the US. The FCC has allocated [30 different frequency bands](#) from 135 KHz to greater than 275 GHz to amateur radio operators. These frequency bands are used for many different aspects of the hobby.

Some videos describing Amateur Radio:

<https://youtu.be/ysOq6ywTSzU>

<https://youtu.be/rs0i0h4OyMo>

https://youtu.be/5Z9136_Nhh4 - Classic Walter Cronkite video

Licensing:

There are [3 levels of ham radio licensing](#) in the US, Technician, General and Extra. Each level requires passing a multiple choice exam. The questions used for these exams are all [published on the web](#).

Study Aids:

Students can study for their license exam(s) in several different ways.

- Take a class
- Study training books. These are two of the most popular
 - [ARRL Technician Study Guide](#)
 - [Gordon West 2018 to 2022 Technician Class](#)
- View video classes
 - https://youtu.be/RGluTpM7_K8
 - https://www.youtube.com/watch?v=N6aFXH_SQUo&list=PL07A7D1C9D7BF7F48
- Take practice Exams
 - <https://www.eham.net/exams>

Taking the Exam:

Exams are offered by many clubs [around the metroplex](#). The Sachse club gives exams 9:00 [each 2nd Saturday at the Wylie Masonic Lodge](#).

Other Ham Radio Related Links:

Sachse Radio Club: <http://www.sachseradio.org/>

Largest/Oldest Ham Radio Org: <http://www.arrl.org/home>

Local Ham Radio Outlet Store <https://www.hamradio.com/locations.cfm?storeid=20>

Finding a nearby Club: <http://www.arrl.org/find-a-club>

Ham Radio Mesh Network: <https://www.arednmesh.org/aredn-advantage>

Amateur Radio Satellites: <https://www.amsat.org/>

Ham Radio Repeaters: <https://www.repeaterbook.com/>

Other videos:

HAM Radios: Quick and Easy Way to Get Into HAM Radio Hobby: <https://youtu.be/t0sMDRLGB3Q>

HAM Radio Basics- HAM 101: <https://youtu.be/Ow1hxClR5J8>

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Numerous Dave Casler Videos: <https://www.youtube.com/channel/UCaBtYooQdmNzq63eID8RaLQ>
 SPACE STATION CREW USES HAM RADIO TO CALL EARTH <HTTPS://YOUTU.BE/H73EYCYSZF8>

Listen to episodes of ARRL Audio News on your iOS or Android podcast app, or online at <https://blubrry.com/arrlaudionews/>

Various Ham Radio Activities:

- Local/Regional communications
- World wide communications using Digital network linked repeaters
- World wide radio to radio communications
- [Contests](#) – Making as many contacts as possible
- Fox hunts – Finding a hidden transmitter
- Amateur Radio Satellite
- Supporting local events
 - Races (marathons, bike races, etc.)
 - Plano balloon festival
 - Parades
 - 4th of July events
- Extending RC aircraft video and telemetry
- Amateur Radio Emergency Data network (Network when the grid goes down.)
- Winlink – Email via ham radio
- Skywarn – Storm spotters (Most storm spotters report via ham radio.)
- Amateur Radio Emergency Services (ARES)
- Radio Amateur Civil Emergency Services (RACES)
- Antenna design/building
- CW (Morse code) communications
- DXpeditions – Location in an remote area (usually islands) for a short period of time and making as many contacts as possible.
- Summit On the Air – Transmitting from mountain summits
- JOTA - Jamboree-on-the-Air – Boy Scouts
- RF experimentation. Many [Maker groups](#)
- [High altitude balloon experiment](#).