

JUNE 2026

NEWSLETTER

Why You Should Not "Kerchunk" Repeaters:

Legal Requirements: In the U.S., transmitting without identifying with a call sign violates FCC regulations.

At The Key - FCRC

President - Duncan KG5NDO

Vice-President - Keith KI5VNL

Secretary—Sarah KI5PZF

Treasurer—James KI5DQ

Trustee— Mark KF5KUW

VE Testing Coordinator—Mark KF5KUW

Newsletter Editor — Mike K5MJD

Webmaster — Leo N5JEP

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CLUB WEB PAGE <https://k5frc.org/>

K5FRC REPEATERS

145.470 (100Hz tone; -600Khz offset) C4FM or Analog; IRLP 3602; ECHOLINK 143903

442.525 (100HZ TONE; +5.0 Mhz offset) C4FM or Analog; (LINKED TO 145.47)

443.750 (100Hz tone; +5.0Mhz offset) C4FM or Analog; (NCTC LINKED)

CROSS BAND IN BONHAM IS ON 445.200 SIMPLEX WITH 100Hz.TONE

Tuesday Night Net 8:00 PM - ZOOM sessions are held every Tuesday at 7:00 PM before the net

K5FRC does not and shall not discriminate on the basis of race, color, religion (creed), gender, gender expression, age, national origin (ancestry), disability, marital status, sexual orientation, or military status, in any of its activities or operations.

JUNE 2026 President's QSO



Fannin County Amateur Radio Club
President's Report

June, 2026

Summer Field Day is June 27-28 at the Bois d'Arc Creek Cowboy Church. At the moment, we will be having a potluck dinner on Saturday night. There will be a GOTA (Get On The Air) station for anybody in the general public to try, and, we already have two participating stations. I've put out the word via Fannin Hams, so if you are planning to attend please drop me a note. I'd like to fill all the available operating times for the event. The event is from 1800 UTC (12 noon CST) to 2059 UTC (2:59 PM CST). We will begin setting up around 9 AM, Saturday morning, and, the potluck will start at 5 PM.

The Tour De Paris is Saturday, July 18th. I sent out an email recently looking for operators willing to volunteer to help out the Red River Club for this event. The event, like last year, is on the same day as our June meeting. Last year we canceled our club meeting so our club members could come out to help. Are you willing to commit to this event? The Red River Club helped our club for Autumn in Bonham last year. I will be also looking for volunteers for Autumn in Bonham. Just email me to let me know.

Although we do not have many public events scheduled in the next two months, I would like to see if we can put together a regular POTA event at least once a month. Maybe a "POTA" picnic or cookout. We will also be discussing plans and improvements for the Bailey and Ivanhoe Towers at the June meeting.

Now for the "elephant in the room": Our membership and overall participation at public events. Recently there has been a decline in membership and participation in club events. I've been involved with non-profit groups long enough to understand that a core minority always participates. I also understand that life happens. If there are other reasons members are no longer participating, is there a way to collect information and make changes to attract new members and retain continuing members? I'm thinking about contacting former members or creating a phone chain to collect information. It also provides a way to contact club members who might need help of support. This should certainly be a topic for discussion at our next meeting.

A resource on the subject of club membership:

<https://clubrunner.blob.core.windows.net/00000050029/en-ca/files/sitepage/rotary-membership/understanding-why-members-leave/Understanding-Why-Members-Leave.pdf>

73 and see you at the next meeting

Duncan Berry, KG5NDO

VICE PRESIDENT REPORT

Vice-President's JUNEI QSO

June Vice-President's QSO "Random Thoughts"

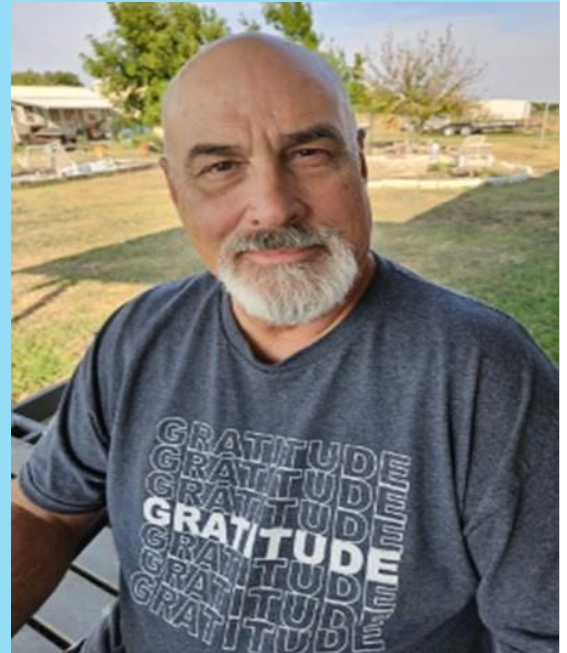
Have you ever been plagued by random thoughts that seem to just appear? I think we have all been "attacked" by these seemingly useless rabbit trails, but when you actually stop and think about things, they seem to happen for a reason.

Such was the case when I read an article in the current QSL magazine titled "Establishing a County-Wide Simplex Emergency Network". It seems that the Nassau County Florida Amateur Radio Club was in the same predicament that the K5FRC club is concerning the topic of keeping our residents safe in time of severe weather. Everyone knows that Florida is susceptible to "hurricanes" which bring very high and damaging winds that can knock out cell towers, radio antennas, etc. NCARCS, solved this problem by creating a simple system that would pass emergency traffic across the entire county that doesn't rely on the power grid, the Internet, antennas or repeaters. What a concept and one that has been a success for them.

With a price tag of \$13,000 plus for the system we want to employ with the VFD's in Fannin County, maybe we should back to the drawing board and look at what this club has done.

This system uses a program called "VaraAC" to accomplish so much with so little and might be the solution to protect our county. I have downloaded and installed the program and it is very impressive and worth a discussion.

Keith
2025 President - FCARC
73



SARAH RICHARDSON

SECRETARY REPORT

Fannin County Amateur Radio Club
Minutes of Regular Meeting MAY 2026
Bois D'Arc Creek Cowboy Church



President Duncan Berry (KG5NDO) called the meeting to order at 0902.

Vice-President Keith Mumaw (KI5VNL) led the invocation and pledge. A "round robin" of introductions of members and guests in attendance followed.

President's Report: Duncan gave us an update on the AIB for this year. Starting site and Net control has been moved to the Roy Floyd Civic Center/Armory. There are route changes and different Rest Stops. The routes have been finalized as of Friday's planning meeting, and he will share those as soon as he has them. Note Davy Crockett Day is being held in Honey Grove with it being a part of AIB routes. We had talked about operating a trailer at HG for that event and this works in our favor if we have volunteers to man the trailer in HG. MOre to work out later.

Vice-President's Report: Keith added that this is also going to be a practice exercise in ARES communication. In a report on the FirstAlert for the Bonham FD and the Volunteer FDs in the county, the expected expense is between \$12,000 - \$13,000. Keith will be contacting the various departments to assess current equipment including tower/masts, radio equipment and antenna mounting abilities. We have the previously built J-Pole antennas. One touch for a Fannin County youth interested in the emergency comms part of radio for Civil Air Patrol out of Sulphur Springs. The youth is very excited for the opportunities.

Secretary's Report: Sarah Richardson (KI5PZF) asked if the published minutes needed any corrections, none were mentioned. Mark Hetherington (KF5KUW) moved to accept the minutes as published, Dr. Mike Durbin (K5MJD) seconded, motion carried. Sarah reported on the events at the Sam Rayburn House and Bonham Heritage day, with a number of contacts made with the public. There is enough interest for a second Tech class if it starts June 1.

Treasurer's Report: James Hunt (KI5DQ) reports Checking account balance of \$6,176.11 Savings account balance of \$228.71, with neither account reflecting today's receipts. He also reminds us to do the ARRL membership or renewal through the club to keep us in good standing with ARRL. Keith Mumaw (KI5VNL) moved to accept the report, Ralf Borgardt (KI5LVS) seconded, motion carried.

Trustee's Report: Mark Hetherington (KF5KUW) reports all repeaters working. After James' report on the north tower we will have a better idea of what we need to do there. The Bailey tower modem and weather station are ready, mainly needed to get in and do it while remembering that tower will be relocated at a later date.

Old Business:

James (KI5DQ) presented a report on the Ivanhoe/North tower, 350 ft. Lightbulbs for the tower have arrived, the harness hardware was rusty, a bandclamp caused feedline compression damage, and the feedline has been compromised by water ingress. The antenna has served us over 25 years. Plan weekend of the 23, DB224 replacement antenna for approximately \$1,700 from the quote. Dr. Mike Durbin made a motion to replace the antenna, harness (noting Comscope is the former DB antenna), Jody Lindsey (KE5GIB) seconded, motion carried.

When we move the Bailey tower, we will need money for coax/feedline especially if we can get the space to elevate the antenna. Dr. Mike made a motion to get quote an 8-bay in addition to a 4-bay. Keith Mumaw seconded, motion carried. A zoom meeting will be called for evaluation.

Radios for Technicians: Mike Lindsey (KD5UNY) recommends we define what radios we will sponsor for the new Technicians. Handitalkies being the best option.

Field Day: Per discussion last month, we will do a potluck for the event. Invite your friends and remember that we get points for the government officials who attend. Invite your friends and invite strangers.

Dr. Mike brought Boy Scouts Radio Merit badge manuals. Scouts completing the manual should be able to pass the test for Technician.

Dr. Mike Durbin made the motion to adjourn, Mike Lindsey seconded, motion passed.

Testing done after the meeting.

Attending:

KI5PZF	Sarah Richardson
K5MJD	Dr. Mike Durbin
KG5NDO	Duncan Berry
KI5VNL	Keith Mumaw
KF5KUW	Mark Hetherington
K5UG	Terry Martin
KI5LVS	Ralf Borgardt
KK5SM	Sharon McEachern
KI5DQ	James Hunt
Guest	Jim Deerman
KD5UNY	Mike Lindsey
KE5GIB	Jody Lindsey
W5JEJ	Jason Gill
KJ5PIE	Annelise Gill
Guest	Sharon Kilpatrick

June 2026 K5FRC Treasury Report

June '2026 K5FRC Treasury Report

One of the “perks” within the K5FRC club is when a newly licensed amateur radio operator receives a FREE club membership of the remaining year passing the first radio test.

One of many of the K5FRC club member benefits is the availability on loaned radio equipment. We have HF transceivers, VHF radios, power supplies, CW Keyers for member use. Also have some coax. Please contact a club officer on availability.

The City of Bonham has provided use of the Pavilion at the armory, rent free – Thank You! Although they did require a Security Cleaning Deposit of \$600, a check was mailed 10 September 2025. Now a deposit for our upcoming event.

Currently, the club has a balance of \$6338.11 in its checking account and a balance of \$228.71 in its savings account. Since our last club meeting, the club has had the following deposits (\$125.00) from club members. No expenses were noted.

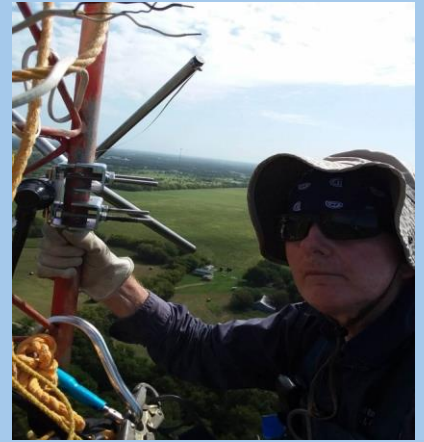
Did you know that the K5FRC amateur radio club is affiliated with the ARRL?
This is right!

With our affiliation, the K5FRC Club can receive \$20 for each NEW membership and \$5 for each RENEWAL submitted to ARRL Headquarters.

I can assist you with this process.
The '2025 form is attached.

Sidebar – will have antenna updates PP presentation during the meeting.

73's,
James
K5FRC Treasurer
KI5DQ



TRUSTEES REPORT

JUNE 2026

Trustee Report
June 2026

All repeaters are operational, with the 145.470 MHz repeater still experiencing noise. We have our fingers crossed that our tower climber will be able to resolve this noise issue soon.

Weather has been fairly good this past month. We have had relatively cooler daytime temperatures, and some well needed rainfall. With all this rain and cooler temps, weeds have exploded everywhere, and our grasses are growing like weeds, too. For those with a garden, they are loving it.

Speaking of weather... We now have an operational weather station at the Bailey tower site, thanks to Mike (K5MJD), Ralf (K15LVS), and Keith (K15VNL) assisting with the installation and setup of this weather station. You can see the current conditions on our club's webpage, <https://k5frc.org/> ...



So, have you read my report these past several months? Have you checked and updated your weatherproofing on your cables and connectors? Not yet? Well, you really need to check them out, clean them if they show any corrosion or changing of color, so that they will last for many more years of service. And don't forget to check your coax and connectors within your shack, too. Just because they are not directly exposed to the elements doesn't mean that they too, need to be checked every so often.

I have been asked several times over the past few weeks why we keep hearing what sounds like someone else talking on our repeater frequency, although they are not actually going through our repeater. Tropospheric ducting is the main culprit, and I have heard conversations from Arkansas, central Texas, and Oklahoma coming across. If you don't want to hear these, make sure you have your tone turned on for RX, and with this you would only hear conversations when our repeater is keyed (as it sends out that subaudible tone to open your squelch).

Field Day is the 4th Saturday and Sunday of June, which is just around the corner. Time to come together as a club and enjoy fellowship, some good food, and lots of time to play on the radios, and get on the air. Been thinking about upgrading to a certain radio, or your first HF radio? Come check out the radios that the club has, learn how to use them, and ask your club members what are their likes and dislikes. For many of us, we have been through this process, and are willing to share with you what we discovered, what we experienced, as well as our opinion, to help you with your research.

And for those who are scared of talking on the radio, especially to someone who you do not know, don't forget there are a number of digital modes available that allow you to make contact without actually talking; let your keyboard do your talking for you... FT8 has become so widely used around the world, and is actually easy to use once you are set up correctly. Even FT8 on 6M has been very active lately, so even you technicians can have access to this fun.

MEMBERS INPUT

IT IS THAT TIME AGAIN

EIRP --- Effective Isotropic Radiated Power

An isotropic antenna is an antenna that radiates equally in all directions or perhaps better defined as an antenna that looks like a ball and radiates power equally poorly

in all directions.

This type of antenna is theoretical and does not exist in reality. Why would you want to radiate power in all directions while you want to talk in a particular direction? .Still, it's used as a reference for us to compare antennas. Again, the same logarithm progression applies to dBi as seen in the other decibel scales, dB and dBm. Why radiate to space or ground when I want to talk to the county around me?

Before we work on more of this mysterious term we need to know some basic math stuff. We use the term dB all the time but do you know the definition?

Relationship of dBW, dBm, and Watts

0dBW = 1 Watt = 1000 milliwatts = 30 dBm

$10\log(\text{Watts}) = \text{dBW}$

$10\text{LOG}(\text{Milliwatts}) = \text{dBm}$

$10^{(\text{dBW}/10)} = \text{Watts}$

$10^{(\text{dBm}/10)} = \text{milliwatts}$

Convert 1000 Watts to dBW and dBm

1000 Watts = 1,000,000 milliwatts

$\text{LOG}(1000) = 3$

$\text{LOG}(1000000) = 6$ (Note a 3dB gain when fed with a 1000 watt transmitter becomes a million watts!!)

$10\text{LOG}(1000) = 30 \text{ dBW}$

$10\text{LOG}(1000000) = 60 \text{ dBm}$

Or 30 dBW = 60 dBm = 1000 Watts

An real life example.. 100 watt transmitter to a 4 dB gain antenna with 1dB of feed line loss (Actual gain is therefore 3dBi, would become an effective radiated power equivalent to a 200 watt Isotropic antenna.

Basically if I have a 3dB gain in an antenna I can effectively double the radiated power of a an Isotropic antenna with same transmitter size....

So if I want to radiate sat 1000 watts in one certain direction I could do it in a number of ways.

1000 watts into an Isotropic antenna, 500 watts into a 3 dBi gain antenna, 250 watts into a 6 dBi gain antenna, 125 watts into a 9dBi gain antenna, or 62.5 watts into a 12dBi antenna.. Starting to see something here?

Now what do antenna manufactures like to do?

Lets define ERP - the antenna gain is expressed relative to an ideal half-wave dipole antenna.

This is why most antenna manufactures define their antenna as dBi not dBd which would define power as EIRP.

EIRP and ERP are similarly defined as the product of the power supplied to the antenna and the antenna gain (when the power and gain are represented in linear terms). The primary difference between them is that for ERP, the antenna gain is expressed relative to an ideal half-wave dipole antenna whereas with EIRP, the antenna gain is expressed relative to an ideal (theoretical) isotropic antenna.

Relationship Between ERP and EIRP:

The numeric gain of an ideal half-wave dipole antenna is 1.64 and the numeric gain of an ideal isotropic antenna is 1.0.

The gain of an ideal half-wave dipole antenna relative to an ideal isotropic antenna is $10\log 1.64$ or 2.15 dBi.

Therefore, if the antenna gain in dB is unknown, it can be determined from the gain in dBi via the following relationship: **$G_T(\text{dBd}) = G_T(\text{dBi}) - 2.15 \text{ dB}$** .

$\text{ERP} = \text{EIRP} - 2.15 \text{ dB}$

Or $\text{EIRP} = \text{ERP} + 2.15 \text{ dB}$



When you look at the gain of the antenna you are buying I bet it is in dBi which is actually 2.5 dB better than the gain in dBd.

<i>Antenna</i>	<i>Gain</i>	
	<i>dBi</i>	<i>dBd</i>
Quarter-wave ground plane or vertical	1.0	-1.1
Half-wavelength dipole	2.15	0.0
2-element Yagi array	6.0	3.9
3-element Yagi array	7.2	5.1
5-element Yagi array	9.4	7.3
8-element Yagi array	13.2	11.1
10-element Yagi array	14.8	12.7
		14.7
17-element Yagi array	16.8	

Interesting to note that FCC rules state most power in ERP not EIRP..

Here is another topic for another class.

DID YOU KNOW that you must complete a radiation hazard evaluation when renewing your license if the any of the following is true?

You must perform an RF environmental evaluation if the peak-envelope-power (PEP) input to the antenna exceeds these limits.

<i>Band</i>	<i>Power (W)</i>
160 meters	500
80	500
40	500
30	425
20	225
17	125
15	100
12	75
10	50
6	50
2	50
1.25	50
70 cm	70
33	150
23	200
13	250
SHF (all bands)	250
EHF (all bands)	250

Repeaters: Non-building-mounted antennas: If the distance between ground level and the lowest point of the antenna is less than 10 meters *and* the power is greater than 500 W ERP.

Building-mounted antennas: If the power exceeds 500 W ERP.

Note if you are running a 50 watt mobile or fixed 2 meter station with any antenna gain you fall in this category...

<http://www.arrl.org/fcc-rf-exposure-regulations-the-station-evaluation>

73s de K5MJD

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June Safety Notes

Remaining hydrated during the summer.

Key points

Dehydration can occur easily in summer due to increased sweating, leading to fatigue, dizziness, and even heat stroke if not addressed. Staying hydrated is not just about drinking water, but also consuming water-rich foods, setting hydration reminders, and watching for early signs of dehydration.

Severe dehydration symptoms like confusion, rapid heartbeat, and inability to keep fluids down require immediate medical attention.

Hydration strategies include starting the day with water, carrying a water bottle, flavoring water naturally, and hydrating before and after physical activity.

What are some early signs of dehydration to watch out for?

Early signs of dehydration can include dark yellow urine, dry lips, low energy, dizziness, or a lingering headache.

These signs can appear even if you don't feel thirsty.

Recognizing these signs early can help prevent more serious heat-related issues like heat exhaustion or dehydration-related fatigue.

But serious heat-related illness, such as heat exhaustion or heat stroke, requires prompt medical care. Call your doctor, visit urgent care, or head to the emergency room if you or someone else experiences:

- Confusion or disorientation
- Dizziness or fainting
- Nausea or vomiting that prevents fluid intake
- Rapid heartbeat or breathing
- Skin that feels hot, red, or dry (even without sweating)
- Severe headache
- Muscle cramps that don't go away
- No urination for over 8 hours

When in doubt, don't wait — especially in extreme heat.

Dehydration and heat illness can escalate quickly, so it's always better to act early.

Why Summer Hydration Is Critical for Older Adults

Reduced thirst sensation: Seniors may not feel thirsty even when they need fluids.

Medications: Certain medications may increase fluid loss or affect thirst.

Experience within a real-life adventure.

During my '2024 far west adventure, I visited Death Valley National Park, a day prior Burning Man. It is known for Americas lowest, hottest and driest national park. The visit was during the early morning, was well prepared on hydration – did well.

Part of my life is safety. Always listen to those experienced Park Rangers.

These Park Rangers Knew This Karen Wasn't Coming Back

<https://www.youtube.com/watch?v=YLnFdBjIidY>

FCARC 2026 Calendar of Events and typical participating things and other HAM things

January

- 17 Regular Club Meeting
- 24-25 Winter Field Day and Chili Cookoff
- 31 Hugo Hamfest at Choctaw Agricultural Event Center

February

- 10 NWS Storm Spotter Training at Grayson College at 6p
- 21 Regular Club Meeting and Traffic net training
- ?? Emergency Preparedness event with LDS of Bonham

March

- 5 Bonham Public Library Homeschool - 1000
- 21 Regular Club Meeting
- 28 MG EXPO - trailer outside operating, with visiting inside.

April

- 18 Regular Club Meeting
- 23 Homeschool Day Sam Rayburn House Historical Site 1000 - 1500

May

- 2 Heritage Day in Bonham, with 5K
- 16 Regular Club Meeting

June

- 6 Bonham State Park event
- 20 Regular Club Meeting
- 27-28 Field Day

July

- ?? Tour de Paris - helping fellow club RRARC with comms
- 18 Regular Club Meeting

August

- 15 Regular Club Meeting

September

- 19 Regular Club Meeting
- 26? Sam Rayburn House Farm Heritage day
- 26? Davy Crockett Day at Honey Grove
- ** How cool would it be to have a trailer at each event so that even if the bands didn't cooperate we can still demonstrate radio?

October

- 3 Autumn In Bonham Bike Rally
- 17 Regular Club Meeting ** typically "Go-Box" focus and the Scouts JOTA is at this time

November

- 14 HAMfest at Civic Center/Armory
- 21 Regular Club Meeting/Spirit Of Giving is this day for 2026

December

- 19 Regular Club Meeting/Christmas Party/Officer Elections



Club Commission Reconciliation Form

For use by
ARRL
Affiliated Clubs

Complete this form and attach all membership applications with full payment.
ARRL pays commission directly to the club.

Club Name _____ Date _____
Contact Name _____ Call Sign _____
Mailing Address _____
City _____ State _____ ZIP _____
Daytime Telephone _____ E-mail _____

ARRL Affiliated Clubs can receive \$20 for each **NEW** membership and \$5 for each **RENEWAL** submitted to ARRL Headquarters. Applies to Standard Membership only. A **NEW MEMBER** is defined as any individual who has never been a member of ARRL or any individual who has not held membership for two or more years prior to the application submission. A **RENEWING MEMBER** can renew at any time, even before their current membership term expires (up to 3 years pre-paid). Memberships may not be combined with and are not eligible for any other individual promotion or special offer.

STANDARD MEMBERSHIP

Other membership types
(family, student, blind) are not
eligible for commission.

New	# _____	x \$20 = \$ _____
Renewal	# _____	x \$5 = \$ _____
Total Commission		= \$ _____

Please Make Club Commission Payment Via:

Direct Deposit to Account:

Checking Savings

Bank: _____

Acct #: _____

Routing #: _____

Check to be Mailed to:

Address: _____

Authorizing Signature for Direct Deposit: _____

ARRL ONLY: Confirmed By _____ Date _____

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