



FANNIN COUNTY AMATEUR RADIO CLUB

PRESIDENT Mike Durbin, K5MJD
VICE PRESIDENT Mark Hetherington, KF5KUW
SECRETARY Robin Warren, KE5DQM
TREASURER Bill Purcell, KF5GJY
TRUSTEE Mike Durbin, K5MJD



FANHAMNEWS

Volume 1 Issue 4 - May 2017



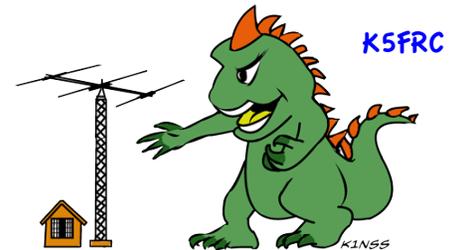
APRS is a two-way tactical real-time digital communications system between all assets in a network sharing information about everything going on in the local area. On ham radio, this means if something is happening now, or there is information that could be valuable to you, then it should show up on your APRS radio in your mobile.

APRS is the digital communications information channel for Ham radio. As a single national channel, it gives the mobile ham a place to monitor for 10 to 30 minutes in any area, at any time to capture what is happening in ham radio in the surrounding area. Announcements, Bulletins, Messages, Alerts, Weather, and of course a map of all this activity including objects, frequencies, satellites, nets, meetings, Hamfests, etc. The APRS network has grown to most countries with strong Amateur Radio populations.

APRS also supports global callsign-to-callsign messaging, bulletins, objects email and Voice because every local area is seen by the Internet System (APRS-IS)! APRS should enable local and global amateur radio operator contact at anytime-anywhere and using any device.

Like most other Ham radio systems, APRS has been fully integrated with the internet beginning with the efforts of Steve Dimse and the Sproul Brothers in 1997. Currently there are many web pages for live viewing of APRS activity such as APRS.FI, or FINDU.COM.

For more information go to <http://www.aprs.org/>.



REPEATERS

- 147.200 (100Hz tone; +600Khz offset) analog only; WIRES 21173
- 145.470 (100Hz tone; -600Khz offset) C4FM or Analog; IRLP 3602; ECHOLINK 143903; WIRES 21151; Tuesday Night Net 9:00 PM**
- 442.525 (100HZ TONE; +5.0 Mhz offset) C4FM or Analog; WIRES 21174
- 443.750 (100Hz tone; +5.0Mhz offset) C4FM or Analog; WIRES 21164

FCARC meets every third Saturday at 9:00 AM at the Bonham First Presbyterian Church (corner of Center and 7th St.).

Networks are held every Tuesday at 9:00 PM CDT on the 145.470 Mhz repeater.

Fannin County Hams Facebook: [https://www.facebook.com/search/top/?q=fannin county hams](https://www.facebook.com/search/top/?q=fannin%20county%20hams)

K5FRC Facebook: www.facebook.com/K5FRC/
Mark, KF5KUW is the administrator.

K5FRC Website: www.k5frc.org

FIND NEWS ON ARRL.ORG

FIND INFORMATION ABOUT LICENSEES ON ARRL.ORG AND QRZCQ.COM

ADD 6 HOURS TO CDT TO GET UTC
Example: 9:00 PM CDT is 3:00 AM UTC

APRIL MEETING

Patricia "Pat" Purcell of Aviamation, Inc. provided information for the Speed Air Races scheduled for May 18. Several FCARC members volunteered to be spotters.

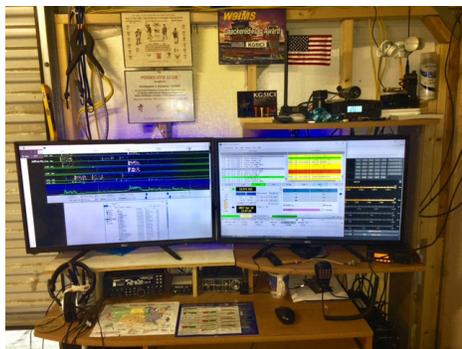


Speed Air Race volunteers from the Fannin County Amateur Radio Club: KF5KUW Mark Hetherington, KG5KKE Bob Yakel Jr., NØFOI Brian Heise, K5MJD Mike Durbin, KG5ICI Chris Hollahan - KF5SOX Jessie Brown was not available for the photograph.

K5MJD, Mike, provided current information about the damage and plans for repair of the Ivanhoe repeater antenna. Repairs will be made as soon as weather permits. Mike instructed the Speed Air Race volunteers on use of the APRS gear.

THIS SPACE IS FOR YOU TO ADVERTISE HAM ITEMS FOR SALE, TRADE OR WANTED.

FEATURED MEMBER, KG5ICI



Chris's station



KG5ICI
Antennas



KG5ICI, Chris, is a General Class and has been active since 2015. His Dad, K5YYA, got him interested in amateur radio. Chris is a retired police Sergeant from the Frisco police department. He has mostly been working JT65, a digital mode. He is also working on getting his Raspberry Pi tiny computer online as an APRS Digipeater. His HF antenna is a Hustler 6BTV and he uses a Comet GP-3 and homemade 1/4 wave ground plane for vhf/uhf. Chris is the Administrator for the Fannin County Hams Facebook.

The new 630-meter and 2,200-meter bands are not yet available for Amateur Radio use. The effective date granting these allocations has not yet been determined. It is not legal under an Amateur Radio license to transmit on either band.

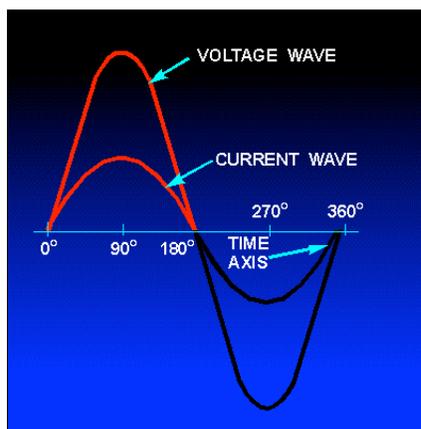
I had a great 3-week vacation visiting NM, CO, WY, SD, ND, MN, WI, IL, IA, MO and AR. I tried Echolink using EchoMac but couldn't find K5 FRC. Maybe next time.

73's Rich

AC POWER CALCULATION

Unlike DC power such as batteries, AC power is more complicated because the voltage and current in AC circuits varies in cycles and is not only affected by resistance, but it is also affected by capacitance and inductance. A 60 cycle generator produces voltage and current at a rate of 60 cycles per second. Whereas, a 150 Mhz generator, such as a transmitter, produces voltage and current at a rate of 150 million cycles per second.

When the voltage and current are in phase, they are cycling concurrent with each other as illustrated in the diagram below and the load is resistive.



One Cycle of AC Voltage and Current in Phase

In this case, power can be calculated as if it were a DC circuit. The power is called time averaged, or RMS, power (the effective power equivalent to DC power). We will deal only with effective power in this discussion.

Since the voltage and current are in-phase, we can use the simple power formulas to calculate the effective power:

$$P = E^2/R, P = I^2R, \text{ and } P = EI$$

Where P=watts, E=volts RMS and I=amps RMS

If E is 120 volts RMS and I is 5 amps RMS and R is 24 ohms, what is the effective power?



GROUNDING

From the ARRL Grounding Handbook

Flat, solid strap or heavy wire are the standard for making grounding, bonding, or high-current connections at RF. Braided strap is often used for dc and low-frequency power and grounding connections — is it ever acceptable to use braided conductors for RF?

If the connection needs to flex — for example, for grounding equipment that has to be moved frequently — and it's protected from water, it is OK to use tinned flat-weave braid. Never use a braided conductor for high-frequency connections outside or where it can get wet! Water will be drawn into the braid between the strands where it causes the individual strands to corrode, reducing the effectiveness of the braid. It is common practice to remove copper braid from old coaxial cable and use that for grounding — don't do it at RF! Coax braid works fine inside a cable but when removed from its protective jacket, rapidly begins to loosen and corrode, losing its effectiveness at RF.

TECHNICIAN COURSE

The technician courses have been cancelled for now.

RADIO IN THE PARK

The Club will be hosting a "Radio in the Park" event at Bonham State Park sometime in the near future.

USING A MAC?

Not very many amateur radio programs are available for Macintosh computers. However, you can find programs like EchoHam and EchoMac that let you connect to the Echolink system. EchoMac is built as a Universal Binary, and works on OS X 10.3.9 or later (including 10.8.x). It's available at <http://echomac.sourceforge.net/>. EchoHam allows Amateur Radio operators to use the Echolink network from their iMac. It's available at <https://itunes.apple.com/us/app/echoham/>.

Other Mac software is available from www.dxzone.com/catalog/Software/Macintosh/

Have you seen that famous rock group that has never performed together?

Their faces are on Mt. Rushmore.