

October 2022



**IRLP NODE 3602**

**ECHOLINK 143902**

**VHF/UHF/HF/ATV/SSTV/DIGITAL/NBFM/WBFM/PACKET/SATELLITE/  
ETC.**

**WE HAVE IT ALL!!!**

**FANNIN COUNTY AMATEUR RADIO CLUB      K5FRC**

**OPEN REPEATERS: 145.470, 443.775, AND 442.525**

**CLUB MEETING IS EVERY 3<sup>rd</sup> SATURDAY AT THE BONHAM COWBOY CHURCH 9 AM  
WEEKLY NET (OPEN TO EVERYONE) TUESDAYS 8:00 PM ON 2 METERS 145.470**

Mike Durbin K5MJD, Editor  
email comments to [mike@k5mjd.us](mailto:mike@k5mjd.us)



**From the President**



**KF5KUW**

We are now 3/4ths the way through this fun year, 2022, and the last 1/4<sup>th</sup> is shaping up to be even more fun. We've had fun doing Winter Field Day, ARRL Field Day, and our Radio on The Lake. This weekend we are going to be having another Radio In The Park style meeting within Caddo National Grasslands, at the Lake Coffee Mill campground and boat ramp. Next month is our Spirit of Giving hotdog cooking adventure, and for December we have a great Christmas party and club meeting shaping up, to be held at the Windom Feed Sack. Make sure you bring your appetite...

The club has been involved in a lot of other activities that also are worth mentioning. Our last Technician Class finished up, and all the attendees took and passed the test to earn their

Technician license. Our presentation at the LDS church's Emergency Preparedness event helped to highlight what our amateur radio club is doing to help others in our communities during inclement weather. Some of us also participated in the Texas RACES statewide emergency response exercise, helping to make others around the state know that Fannin County is here and ready.

For me, amateur radio has been getting busier and more fun of late. Our sunspot cycle continues to improve long distance radio communications, and now the higher HF bands are active every day. Can you talk on the HF bands? YES! Even a Technician license allows you access to all of 6 meters (50.0 MHz through 54.0 MHz) as well as a portion of the 10 meter band (28.000 MHz through 28.500 MHz). So what if you want to talk on more than just those bands? Upgrade to a General license, and get access to all HF bands, and going further to becoming an Extra Class license holder will then open more frequencies within every band from 12 meters through 160 meters. We are still offering free classes to everyone...

With some help from Mike K5MJD, our club Trustee, I have finally been able to resolve all those gremlins that have plagued me trying to get my FT8 and PSK digital modes working. I was able to work South Africa on FT8 this past week on 12 meters, and I have made contacts on all bands from 10 meters through 80 meters (except 30 and 60 meters). I have been seeing amateur operator call signs from every continent except Antarctica. Which brings me to bring up amateur radio software.

There are a lot of applications and programs that are available to help you out with just about every aspect of amateur radio. Almost everyone has a computer, laptop, iPad, Kindle, Android phone, or even an iPhone. There are applications available for every one of these devices! Many great programs don't cost anything to use them.

WSJTX Is an excellent example of a free program you can use. Here is an application that can allow you to work FT8, as well as many other digital formats. FT8 is designed to work with low signal levels, so even if you don't have a great antenna up at this moment, you still might have more fun than you thought. Some of these programs can tell you when a satellite or the International Space Station is within communications range of where you are, and you can use your VHF/UHF radio to talk to them, or through them to another part of the country. And that only takes a Technician license and a handheld to make it work. Or if you want to be fancier, you can mount a mobile radio on your boat, and talk to the ISS.

And to make WSJTX even better, there are other programs that connect with WSJTX to allow you to automatically log your FT8 contacts to a centralized logging program. I use JTAAlert, which integrates with my DX Suite (all free software applications) DX Keeper logging program, which also allows me to colorize FT8 messages highlighting those stations currently broadcasting from a location that I have not communicated with previously. I also use GridTracker, another free program that will help to visually show you on a map where you have already talked to, as well as where you are currently trying to talk to when the WSJTX application is transmitting.

Now I need to be clear, I do not get anything for sharing these applications with you, and each application has their own primary property owner. But these are just one of many examples of what you can find out there to help you have more fun with amateur radio.

And if none of this sweetens your coffee or tea, you are still welcome to join us on our Fannin County Amateur Radio nets every Tuesday evening starting at 8:00 pm.

Mark Hetherington  
KF5KUW  
President, Fannin County Amateur Radio Club  
[www.k5frc.org](http://www.k5frc.org)

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## **VICE PRESIDENT'S REPORT**

09October2022  
K5FRC Vice-President and Safety Officer  
James Hunt - KI5DQ

# **Tips for a Safe, Spooky, and Fun Halloween**

As the spooky season creeps upon us, it's clear that Halloween will look quite different from previous years due to the pandemic. Although it may be difficult to participate in the usual festivities, check out our safety tips so your family has a fun and safe spooky season this year.

**Decorations:** Since Halloween will be spent mostly at home this year, it's a great opportunity to decorate your home with the kids. However, this means choosing products that prove to be non-hazardous to young children and babies.



- Avoid small items that could pose a choking hazard.
- Use battery powered flashlights and imitation candle lights to avoid open flames.

### **Costume safety:**

- Choose costumes without small choking hazards, or drawstrings which can pose strangulation hazards. Remove the drawstrings from costumes that have hoods and they're good to go.
- Form-fitting costumes prevent tripping and fabric catching on fire. Stay away from long trailing fabric.
- Use a COVID-19 health mask even if a costume already has a mask.
- Place reflective material on the front and back of costumes in order to see and be seen by drivers.
- If you use makeup or face paint, choose non-toxic products. When using face paint, make sure your child is not allergic by testing out a small patch beforehand – preferably a few days prior.

**Pumpkin carving** seems like a family-friendly activity, but according to the CPSC, approximately 44% of Halloween-related injuries occur from pumpkin carving. Some stores sell pumpkin carving kits marketed to children, but they can include sharp tools that may not be suitable for young children. Let young children help out in other ways like drawing the design or scooping out the pumpkin seeds.

Check if your costumes or decorations have been recalled at [cpsc.gov/recalls](https://www.cpsc.gov/recalls) or if other consumers have had incidents with them at [SaferProducts.gov](https://www.SaferProducts.gov). We hope you and your family have a fun, spooky, and safe Halloween!

[Welcome to Texoma Hamarama!](#)



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**SECRETARY'S REPORT**  
**Meeting Minutes**

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**TREASURE'S REPORT**

KI5FHN

Treasurer's Report

The current balance of the club's checking account is \$5462.53. This includes \$128 the club collected from last month's raffle and two memberships totaling \$48.

The savings account balance is \$223.92.

Thank you,  
Sharon  
KI5FHN

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## **TRUSTEE'S REPORT**

All repeaters and internet systems are fully operational. We need to schedule a time with David Keen to install the antenna tower at Lake Fannin. I will chat with Dave and have more info at the club meeting at lake Fannin this weekend.

## **ARTICLES FROM THE FIELD!! & MEMBERS COMMENTS?**

AS I have changed two batteries in lap tops in the last week I thought this would be a good chance to post this battery white paper. Best I can tell you do not leave your lap top plugged in and charging all the time. Some of the newer laptops have overcharge safety built in, however batteries will age with time and start out gasing. So watch for swelling of the battery and replace asap to avoid case or board damahe.

What happens when you leave a laptop plugged in all the time?





## **LARGE CAPACITY BATTERIES**

We all have large batteries we use everyday like those in our cars and trucks. There are several types of these large capacity batteries and this article is to help explain the required maintenance for these batteries to get the longest possible life form each type. There are also things like tractors, boats, motorcycles, and other devices that use batteries but are stored for long periods of time without being used. The care of these types are also covered in this article.

There are four types of batteries that fall in the category of large capacity and they are shown below:

Selection	Description

Regular	Normal "flooded batteries with Removable caps for adding water
Gel	Gel-cell batteries Non-Removable caps
Calcium*	Batteries with lead-calcium plate Construction
Maintenance Free	Batteries with non-removable caps User cannot add water to cells

\*Such as ACDELCO, and Voyager brands.

**Note that "Deep-Cycle" is not one of your choices. This is because any of the battery types listed can also be of the deep-cycle variety. This does not change the information that follows.**

The most effective way to extend the useful life of your batteries is to ensure that they remain fully charged between uses. An uncharged battery will slowly lose its ability to retain a charge through the process of sulfation. This loss of capacity can become permanent if the battery remains in a discharged or undercharged state for an extended period. Sulfation, in fact, is the primary cause of battery failure. It is very common for us that have Tractors, etc. to leave them sit for long periods of time. Now you know why those boat, and motorcycle batteries tend to not last very long.

The second leading cause of battery failure is overcharging. Forcing even a small amount of excess current into your batteries for an extended time will damage the batteries through accelerated plate corrosion and heating. Unfortunately, many battery charging and maintenance devices are not designed to be left safely attached to your batteries for more than a day or two at a time. We all have done this.. "I'll just leave the charger on the battery all year". Unless you have a good three mode charger this is just as bad as leaving it unattended.

So why not just put a full charge on the battery and store it until it is needed again? When left unattended, all batteries lose charge from internal chemical processes at a rate of 1-2% of the battery's rated amp hour capacity per day. Therefore, even if the battery is stored fully charged, it soon loses enough of its charge to be susceptible to Sulfation.

**So here is what a good charger will do for you:**

Mode 1 - Bulk Mode: The charger is in current-limit and delivers its maximum rated current to the battery. It is in this mode that the battery receives most of its recharge. When the battery voltage rises to approximately 14.7V (for a 12V system), the battery is at a 75% to 90% recharge level and the charger switches to absorption mode.

Mode 2 - Absorption Mode: The charger is in a constant-voltage mode delivering approximately 14.7V to the battery. The charger measures the amount of charging current being delivered to the battery. When the charging current drops to approximately 10% of the chargers maximum-current rating, the battery is 100% recharged and the charger switches to float mode. It is because of the absorption mode that this type of charger should not be used as a power supply

Mode 3 - Float Mode: The charger is in constant-voltage mode at a lower voltage than in absorption mode (approx. 13.8V for a 12V system). This allows the battery to draw just enough current to make up for its internal leakage current. When the charger is in this mode, the battery

may remain connected to the charger for all of the battery's service life with no damage to the battery.

**Be sure to check electrolyte levels every couple of months...**

### **EQUALIZATION:**

There is also a maintenance function that you can perform on large capacity batteries called Equalizing. **(NOTE THAT GEL CELL BATTERIES DO NOT NEED THIS AND WILL BE DMAGED OR DESROYED BY TRYING!!)**

Be Sure and check the electrolyte levels before and after you equalize as this function consumes electrolyte. Equalizations occurs under a rapid charge rate such as what would be supplied by a typical automotive charger. This is done by forcing the voltage as high as 17 volts and charging at a high current rate. This will ensure that all the individual cells (6 of them in a 12 volt battery) receive equal charges. This however will also reduce the life of your battery and should only be done when the capacity of the battery seems to have been decreased. This may not be required at all if the batteries are maintained by a good three stage charger. The disadvantage of using a 3 stage charger is if you use a device that draws current from the battery while the charger is connected. This will cause the battery charger to think the battery needs charging and revert to mode one. This is not a problem for some devices such as motorcycles, boats, tractors, etc. since they will be disconnected prior to use. Some devices such as emergency radio power could be used with the charger still connected. This is not suggested!! A simple disconnect device either automatic or manual will help the charger not to be confused and will assure that radio or other device will not see the increase in voltage due to the battery charger coming on line.

K5MJD

Michael J Durbin Ph. D. E.E.

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***NEW TO THE NEWSLETTER***

***Be the first in 2022 to submit an article for the newsletter!!***