



## THE REPEATER

*Welcome to the monthly  
Newsletter publication of the  
Fannin County Amateur Radio Club*



### K5FRC Repeaters

(100HZ tone on output of all repeaters)

**145.470 (No tone)    IRLP 3602 ECHOLINK 143902**

**145.130 (No tone)**

**443.750 (No tone)    IRLP 7901 ECHOLINK 554534**

**Digital SSTV 446.125**

(10 MINUTE BEACON)

David Keene W5DBK, editor-in-training

Email comments to [W5DBK.dave@gmail.com](mailto:W5DBK.dave@gmail.com)

**October 2011** Volume 2 No. 10

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**Fannin Count  
 Amateur Radio  
 Club  
 Treasurer's Report  
 20 Aug 2011 - 2  
 Oct 2011**

**October,  
 2011**

<b>Checking - American Bank of Texas - Account #XXXXXX8606</b>	- Beginning Balance	\$1,341.02
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**Member Dues**

Date	Name	Sgle/Fam	Cash	Check	Amount
<b>Dues Total</b>					

**Income - Cash**

Date	From	Notes	Amount
<b>Cash Total</b>			\$0.00

**Income - Checks**

Date	From	Notes	Amount
<b>Checks Total</b>			\$0.00

**Expenses**

Date	Name	Check #	Notes	Amount
<b>Cash Total</b>				\$0.00

<b>Savings-American Bank of Texas - Account #XXXXXX0524</b>
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Date	Activity	Notes	Amount
	Beginning Blance		\$1,204.73
17-Sep-11	Roy Riales	Sgle dues     √	\$25.00
17-Sep-11	Clint Wagstaff	Sgle dues     √	\$25.00
17-Sep-11	Roy Riales	Donation for work by David Keene	\$20.00
2-Oct-11	Interest payment	Third quarter interest payment	\$0.31
<b>Savings Total</b>			\$1,275.04

<b>SUMMARY</b>
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Date	Activity	Amount
2-Oct-11	Checking	\$1,341.02
2-Oct-11	Savings	\$1,275.04
<b>Total Funds</b>		\$2,616.06

Bill Purcell, Treasurer

Mike Durbin, President

## Minutes for September 17, 2011

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The regular monthly meeting of the Fannin County Amateur Radio Club was called to order by President Mike Durbin K5MJD who led in the Pledge of Allegiance to the Flag of the United States of America. Mike welcomed the visitors and had the visitors and members introduce themselves. There were seven visitors and seventeen eligible voting members present.

In the absence of the "Acting Treasurer" Mike ask Darrell Brewer KE5JHN to read the Treasurer's Report that had also been sent out to members by e mail. Mike Lindsey KD5UNY made a motion to accept the report as posted. David Keene W5DBK seconded. The motion passed unanimously.

Mike asked for a motion to accept the minutes as they had been posted on the web site. David Reeder WAØURJ made a motion. Doug Mentzer K5DAM seconded. The motion passed unanimously.

**Radio Tower Work:** David Keene and Mike Durbin reported on tower work that needs to be done. Mike passed a picture around that shows damage to the 145.130 antenna that needs to be replaced. He reported that Chance Backest KE5DLY will be available to climb the tower some time during the first two weeks of October, (date will be announced). A *Ground Crew* will be needed to help getting the hardware hosted up to the top of the tower.

**The Bike Rally:** Mike Durbin led a discussion regarding the Bike Rally. The primary frequency will be 145.470. David Keene announced that volunteers can go by the Chamber of Commerce in Bonham, during regular business hours and pick up a Tee Shirt for their participation in the rally. He also discussed the Easy Pal and APRS set up and other equipment that will be needed. Doug Mentzer read the assignments that members have volunteered for. Mike advised all to be sure and tune in for the Tuesday night Net for any last minute updates or changes.

**Trustee's Repeater Report:** Mike Durbin reported that the repeaters are performing well and when the repairs mentioned above are completed he expects the 145.130 repeater to perform even better. He also repeated the need for a *Ground Crew* and some of the tasks they will need to perform.

**Review of RAILS System:** David Reeder brought up that the RAILS system is down at this time and asked what it will take to get it back up. Mike Durbin confirmed it is currently down. He will build a relay box for the system but then, there is no space on the controller for additional systems. He will have to switch off something, (IRLP Echo Link, the 130 repeater, the 450 repeater) to make room for it. For the new members in our club and our visitors, he explained what RAILS is, how it works and the advantages it gives us to have this capability.

There was also a discussion as to the need to update the information regarding our repeaters in the "Repeater Directories". Mike said as soon as everything is in place we will make these updates.

## NEW BUSINESS

**Treasurer's Position:** Darrell Brewer, sitting in for Kathy Brewer KE5SLG, Club Secretary, announced that since Carly Tassan KE5ZKV had resigned as Treasurer due to other commitments, Bill Purcell KF5GJY has been contacted and asked if he would be willing to serve as Treasurer for the remainder of this year's term. Bill has agreed to do this. Darrell Brewer KE5JHN made the motion to elect Bill as Club Treasurer. Mike Lindsey KD5UNY seconded. The motion passed unanimously.

Mike asked Bill if he had any comments he would like share. Bill noted that the club has been working to obtain a 501 c 3 "Non Profit Status" and pledged that he would work to get this accomplished. He also would like to put some procedures in place so club members who spend money on club projects can get reimbursed and can get tax deductible credit. He also would like to begin using electronic banking to save postage, printing costs, and time. Bill noted that his name and phone number is on the roster and invited anyone to call him if they have questions or suggestions.

**Membership Roster:** Mike Durbin announced that he will be posting the club roster in the near future. He will only publish member's name and call sign, (he will not publish phone numbers or any other personnel information). He also noted that when those ARRL members renew their membership in ARRL they need to renew through our club. We get many benefits, (discounts, etc) by being an ARRL Club and to maintain that status we need to have 50% or more club members to belong to ARRL.

**Change of Meeting Place:** David Reeder WAØURJ brought forth a proposal to move the club meeting place to the First Presbyterian Church of Bonham, (818 N. Main St) Fellowship Hall. He pointed out some recent problems meeting at the VA Medical Center, (stairs, security, etc). He noted that this had already been cleared with the church. The fellowship hall offers several amenities we do not have at the VA such as close in parking, a kitchen, large meeting room and others. David Reeder made the motion to move the club meeting place to the First Presbyterian Church of Bonham Fellowship Hall. David Keene W5DBK seconded. The motion passed unanimously. This will become effective at the October meeting.

Mike Durbin welcomed Clint Wagstaff KE5DLX, who came in after the meeting started. Clint has moved to Lawton, OK.

**Radio in the Park:** Mike Lindsey KD5UNY announced that he would be conducting a "Radio in the Park" on Saturday, October 1<sup>st</sup> at the City Park in Leonard and invited anyone who would like, to participate. He said they will set up several stations, (2 meter, 440 as well as HF and perhaps an Easy Pal setup). He explained that the objective of this is to introduce Ham Radio to members of the public who might be interested.

**Open Comments:** Roy Riales KE5WDG expressed his appreciation to David Keene for repairing his antenna that had broken. Roy commented that he did not realize how complicated an antenna was until he watched David repair it. David Keene's comment was, that "everyone needs to learn how to solder".

Mike Lindsey KD5UNY announced that after the meeting, he would be setting up an Easy Pal rig in the parking lot and anyone who was interested could join him there. Several expressed interest. David Keene explained to new members and visitors what Easy Pal is and how it began.

David Reeder made a motion to adjourn. Mike Lindsey seconded. Motion passed.

In the absence of the Secretary the minutes were done by:

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Darrell Brewer KE5JHN

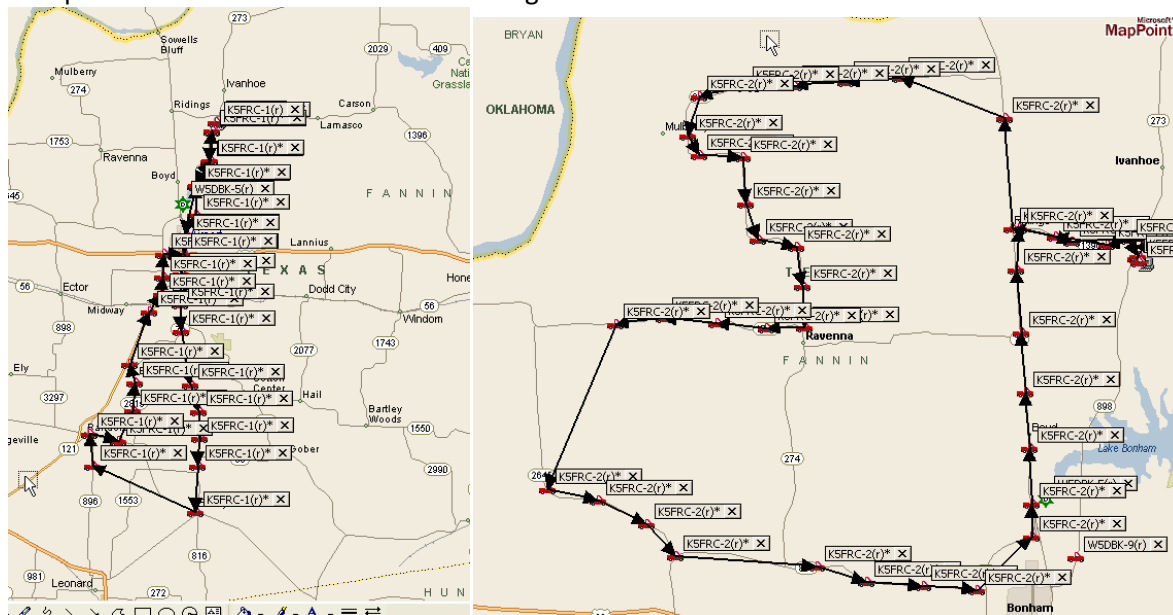
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Kathy Brewer KE5SLG  
Secretary

## APRS

Automatic Position Reporting System (APRS) is an AX.25 packet based amateur radio system that uses the GPS system to allow plotting a radio's position on a map. The APRS system was developed by Bob Bruninga, WB4APR, currently a senior research engineer at the US Naval Academy. He still maintains the main APRS website. The acronym "APRS" was derived from his call sign. Since its introduction in the late 1980's, the use of the APRS system has spread around the world using both RF and the internet.

We have used APRS for the past 4 or 5 years to track the service vehicles (SAG wagons) during the Autumn in Bonham Bike Rally. This year, 2011, we used 4 trackers (the transmitter and GPS carried by the SAG wagons) to plot their position on a map of Fannin County. The trackers use a GPS receiver, a 5 to 10 watt transmitter with a magmount antenna, and a TNC all packaged to be "transportable". The "command station" located at the Multipurpose Complex used a FM receiver on 144.390 mhz connected to TNC and a computer to display the tracker's position. Like any FM signal, the received signal must be near full quieting in order for the TNC to decode the data. In order to cover all of the routes, we installed a "digipeater" just for this event. The digipeater receives the tracker signal and repeats it so that the signal is strong enough to be decoded at the command station. The digipeater used an omnidirectional antenna at 160 ft elevation and a transmitter power of about 20 watts. This gave coverage over most of the routes although some data points were missed at the extreme ranges.



If you look carefully at the map on the left, near Boyd, you will see W5DBK-5. This is the digipeater. These maps are of test runs before the rally and the trackers were set to "report" every 1 minute.

The program used to plot this information is called "APRSpoint" and uses Microsoft's MapPoint "travel" program for the maps. This program is available from <http://www.aprspoint.com/> and costs \$75. The TNC "Tinytrak3+" (\$35) used in the trackers is available from <http://www.byonics.com/tinytrak/>. Byonics also has the GPS receiver (\$75) as well as

completely assembled “ready to go” trackers for about \$300. The transmitters used for the rally trackers were Radio Shack HTX-202 HT’s.

The method used for the rally was totally RF, i.e. only radios were used and no internet was used. However, if the digipeater had been set up as an “I gate” the plotting information would have been available on the internet. There are no consistent I gates in Fannin County but there are I gates in Durant, Sherman, and Melissa. If our tracker data reaches one of these I gates, then the tracker data will be available on the internet. There are many plotter websites but one widely used site is <http://aprs.fi/>. On rally day, most of our tracker data did indeed reach an “out of county I gate” via our digipeater relay station and was available on the internet. Try out the site and track “W5DBK-9” (my truck) since its 50 watts will usually reach an I gate.



These 2 photos show what is “inside the box” of the trackers. The Li batteries are under the radio.

## New Meeting Place

This Saturday, October 15, is the first time we will meet at the Bonham First Presbyterian Church at the corner of 9<sup>th</sup> and Center Street. Everyone come at 9:00 and check out the new facilities, they sound very nice.

## Program for October 15

The program for October’s meeting will be “Digital Modes”. This will be a chance to see and hear what some of the more common amateur digital look and sound like. Copies of programs required to operate these modes will be given out at the meeting.

Dave

W5DBK

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## North tower repair work

Chance KE5DLY climbed the North tower last Friday, October 7, and replaced the lightning damaged (destroyed) antenna that was used for the 443.750 and 146.130 repeaters. Both repeaters work much better now but since this type of antenna is vulnerable to lightning damage, the final answer will be to replace the antenna with a commercial grade antenna.



**Dave W5DBK**

**Paul WA5YMH**

**Chance KE5DLY**

**Mike K5MJD**

**(Not shown Jeff KF5HZR and Patsy KD5YND)**

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