Reelfoot Amateur Radio Club

Western Tennessee • Western Kentucky • Southeastern Missouri

EmComm • Amateur Training • Public Service • License Testing • Special Events

501c4 Non-Profit Organization

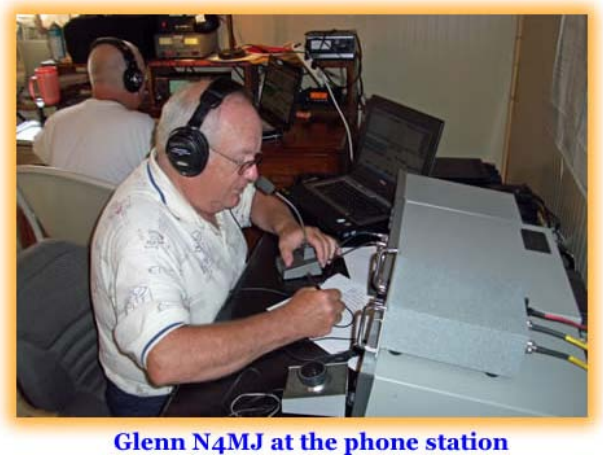
ARRL Special Services Club K4RFT

Field Day 2011

June 25-26, 2010

Prologue:

The Reelfoot Amateur Radio Club has participated in numerous ARRL Field Day events for most of the last decade, and as an event, we have always concentrated on the competition aspect of this non-contest contest. It was always great to engage in friendly competition with neighboring clubs and outfits as an annual joust. Last year saw our 2nd entry into the 3A class and we came in tops as a club in that classification in Tennessee. As time approached the 2011 event, it became apparent that participation by the membership was going to be spotty, or so we thought. A decision was made this year to concentrate on participation rather than the usual all-out effort to compete above all else. As a result of this decision, antenna systems were to be erected in a less ambitious fashion and to stick to that time-honored KISS fashion - Keep It Simple, Son ! We decided to try and slow things down and instruct newcomers in all the things that go into such a setup and how to operate in an efficient manner. In addition, for the first time, Reelfoot Amateur Radio Club decided to hold a VE testing session on the Saturday morning before the event formally started. This will now become a tradition.



Glenn N4MJ at the phone station

As last year, we setup our Field Day efforts at the grounds surrounding "The Shop" at the QTH of Glenn N4MJ. As in previous years, we had a few curve balls thrown to us by Ol' Murphy, but we all persevered and managed to put together a fine Field Day effort.

Setup:

In past years, the operational temperatures outside were in the high 90's with high humidity. In one year, 2004, we had surprisingly mild 80 degree temperatures and low humidity. This year however, we had a first - temperatures in the 70's !! This is just unheard of for Field Day in the South and this was primarily due to passing low fronts and storms. This would become an issue for the remainder of the Field Day event.

This year, we decided on NOT erecting the labor-intensive AB-577 military mast and Force 12 yagi antenna for the CW station. Instead, in keeping with the KISS principle, we decided on using the 80M doublet wire antenna on all bands. This would give up significant gain but it would relieve us from the labor of erecting such a system. *None of us are getting any younger !* Glenn N4MJ had recently purchased a 40 foot mast at a hamfest and this would be the center support for the 135 foot, center-fed, dipole doublet antenna. The ends of the antenna were supported by an available tree and the gable of "The Shop".

Christmas 2014
Field Day 2014
Hamfest 2014
Christmas 2013
Field Day 2013
Hamfest 2013
Christmas 2012
Field Day 2012
Hamfest 2012

Christmas 2011
Field Day 2011
Hamfest 2011
Event Archive

Bob K9IL cranking out CW QSO's

Having quickly erected the CW station antenna in record time, attention was turned to erecting the phone station's antennas. The main antenna would again be the directional beam known as the Spiderbeam, a three element yagi array. This was positioned again on the other side of a power line from the CW antenna and a 30 foot push-up mast was again used for support. The construction of this antenna is a bit complex but this year, we remembered how to build it ! As we were pushing this antenna up, the normally single guyed mast began to bend as the Spiderbeam caught the winds of an approaching cold front. We quickly brought the beam down and reconfigured the mast to be stiffer. We overlapped the aluminum tubing in such a way that bending was minimal, but we lost some height. The final height of the Spiderbeam was placed at 25 feet. We really didn't think we would do anything more than warm the overhead clouds with this arrangement, but there would be surprises ahead.

The "Get On The Air" (GOTA) antenna was again Bob K9IL's two element Mosely TA-32 tri-band yagi which was mounted on a 30 foot push-up mast supported by one side of "The Shop". The 135 foot dipole doublet wire antenna was configured as a mostly flat-top antenna with the ends supported by the VHF tower and a vertical support in the field ! So the only gain antennas available during the operation would be at the phone and GOTA stations. Last year we were able to utilize Glenn N4MJ's Cushcraft A3S as the main antenna for the Digital (RTTY) station. However, this antenna sustained significant damage during a Spring wind storm and was not available. As a result, we again used a simple 135 foot dipole doublet wire antenna strung from the VHF tower to another vertical support in the field. This of course would give up significant gain as compared to last year.

Art WA4EQO at phone station

Bob K9IL's lightweight 30 foot Rohn tower would again be pressed into action as our VHF support but this year, would only support other station's wire antennas and a Cushcraft AR-270 vertical antenna. This antenna has been used successfully in past Field Day operations for Winlink radio email traffic to pass NTS messages including that specifically to our SEC. Also this antenna is used to gain the satellite contact by utilizing the International Space Station's packet digipeater to make contact with another station through it. The 6M antenna this year would be Glenn N4MJ's 5 element yagi antenna mounted about 40 feet up. This antenna would see extensive use as the E-skip season was in high gear by this time.

The CW station would this year consist of Bob K9IL's Icom IC-746 and an outboard keyer. The CMOS-4 keyer Jamie WB4YDL brings is most agreeable to Bob's style. Usually this keyer is connected to Jamie's vintage Drake B-twins - *for grid block keying !* Bob was having quite a bit of trouble making the keyer work with his Icom radio and he even brought the <*gasp*> manual ! Finally, Jamie opened up the keyer and discovered the jumper to set it to transistor keying - and all was well with the world ! Jamie's Elecraft K3/100 was again pressed into action at the digital station along with Rose W9DHD's laptop for rig control. This year, for the first time, Glenn N4MJ brought in his Ten Tec Omni VI radio with outboard tuner as the phone station. This is a beautiful station and everybody who got their hands on it appreciated this fine radio. ICE bandpass filters were utilized on the phone and digital stations to help with inter-station interference. The CW station did not seem overly affected by this interference, most likely as a result of the orientation of the wire antenna in relation to the others. The attenuators were all liberally used however. This year Jim KI4KHT again brought his Yaesu FT-897 and it was outfitted with an autotuner for the GOTA station position. This station would be the highlight station for the event and the simple method of operation was a hit for all that operated it. As with last year, the VHF station consisted of Jamie WB4YDL's Yaesu FT-847. The radio delivers 100 watts on 6M and 50 watts output on 2M. The station played a key role in gaining bonus points by connecting to the local Winlink node (KJ4AJP-10) for passage of NTS messages and a message to our

Lovely Brittany KJ4FBW at GOTA station

Section Emergency Coordinator, Lowell Bennington, WD4DJW. Also the satellite contact would be made through the ISS packet digipeater.

Estevan KJ4ETW at the GOTA station

As in previous years, the software for Field Day logging was the very easy N3FJP software except for the digital RTTY station, which used the N1MM Logger software with MMTTY engine. All stations had computer logging. Power was provided by a 10 KW generator. The exception was 5 CW contacts which were made on a 15 watt solar panel and battery for the alternative power source bonus. Also Ray N4SLY used their generator for the VHF station.

This year we did not have the shortages of coaxial cable as we had last year. The only thing pressing us against the wall was the weather.

The Operation:

On Saturday morning at about 9 AM local, operators started trickling in to finish the raising of antennas and running of coax feed lines. Ottis K5BSE also started the VE testing session. We thought we were going to see more test takers - we had only one - but hopefully next year, with more advertising, we'll see more activity.

The education bonus was done by both Glenn N4MJ and Jamie WB4YDL. Jamie demonstrated how to connect a solar panel to a battery and discussed what a charge controller does. Glenn discussed how his Omni VI was set for "voice keying", a distinctly contest style of activity that is designed to preserve one's vocal chords. All stations managed to start on time - and then we had to stop. An approaching thunderstorm was sending a lot of lightning to the ground and we all unplugged and shut down until this storm passed.

Glenn N4MJ makes another phone QSO

The one thing that we forgot to pack was extension cords and power strips. We scrounged enough to do the job. In the mean time, Bob K9IL continued to operate CW on solar power at 5 watts well beyond that was required to obtain the alternate power bonus. After everything was worked out with the generator and cabling, solar power was shut down and Bob was off to the races at full power. Because this station did not have a gain antenna, and because of the orientation of the dipole antenna, bandpass filters for inter-station interference were not required. In fact Bob rarely if ever used his attenuator. Glenn N4MJ also got in on some of the CW action.

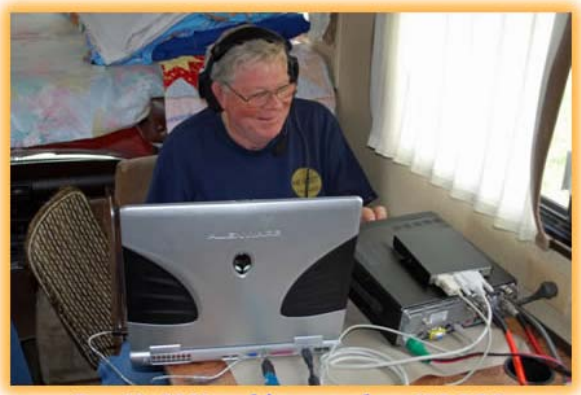
The GOTA station consisting of Jim KI4KHT's Yaesu FT-897 performed very well. This year Jim added the matching LDG autotuner which screws to the side of the radio as one compact and complete package. This year we again had ten separate operators at the GOTA station and four operators achieved the double bonus after successfully making at least 20 contacts - one, Estevan KJ4ETW managed to exceed 40 QSO's for another bonus ! Well done Estevan ! The other double bonus achievers were Brittany KJ4FBW, April KJ4ETT, and Kole Bennett. Congratulations ! Jamie and Glenn both served as "GOTA Coaches". Phillip Green N4PWG, the _Obion County Local Emergency Planning Committee chairman, also made several QSO's. We had nine operators that were less than 18 years of age and qualified for the youth bonus.

The phone station consisted of Glenn N4MJ's beautiful Ten Tec Omni VI. This radio has a separate outboard tuner and worked flawlessly into the Spiderbeam. In fact, some forgot to change coax to the wire antenna meant for use on 40M and 75M and the tuner managed to find a match on the Spiderbeam. Interestingly, this station produced no 15M contacts. The reason at the time was that we would have had four HF stations on the same band simultaneously and this would become quite messy with inter-station interference ! Instead, the phone station concentrated on 10M which decided to show up this year in a big way. With the low antenna, the phone station managed a QSO with Hawaii on Sunday morning.

Again Jamie WB4YDL and Pablo KJ4CWN held down the digital (RTTY) station. The combination of the Microham MK digital interface with the Elecraft K3 performed flawlessly in FSK mode. The

Spiderbeam at low height with approaching storms

combination of no gain antenna and decreased RTTY participation made for tough going this year and the QSO count was significantly down from last year. Plans for next year will include a light-weight gain antenna and expansion into other digital modes of operation.



Ray N4SLY making another 6M QSO

The VHF station was again positioned in Ray N4SLY's camper. Several operators including Ray, Jamie WB4YDL, and Noel KJ4UNX contributed and had fun with the wild 6 meter band conditions. Another record 89 contacts were made on the phone section of the 6M band. This was 10 more QSO's than the previous year! The only thing that slowed down this effort was the approach of yet another thunderstorm. Sunday morning saw a ferocious storm with high winds, torrential rain, and much down stroke lightning. Jamie was worried that the Spiderbeam for the phone station might not make it through this storm, but as the skies parted, everything was found to still be standing and operational. Jamie handled the Winlink duties and sent NTS messages to various Field Day groups across North America as well as the Section Emergency Coordinator - all of which were confirmed. Jamie WB4YDL also managed a 2M packet digipeater contact via the ISS digipeater with a station in Connecticut on the first try. The 2M activity was all done using that 'stinger' vertical antenna on the VHF tower. All worked well and 300 bonus points were obtained through it.

Phil N4PWG at the phone station

Again the grill was kept very busy by Harold KJ4FTM who grilled chicken for dinner ! Jim KI4KHT also provided excellent barbeque with all the fixin's. The XYL's also brought great side dishes and desserts. We were all well fed ! Needless to say, the coffee pot was also kept very active !

Also Harold again brought his homebrew potato gun which he used hair spray to launch potatoes several hundred feet ! The stars were also quite bright that Saturday evening and Harold, an avid amateur astronomer, and Jamie did some "mark 1" eyeballing of the cosmos during off times.

The final sprint to the finish line was reached with some energy to spare. After the final bell, the cooler temperatures made tear down of the antennas a snap. All the logs were collected by Jamie WB4YDL on a thumb drive and another Reelfoot Amateur Radio Club Field Day event was in the books.

The Results:

This year we had 12 licensed operators participate in Field Day operations and 5 un-licensed operators. The Youth Participation bonus was obtained by4 licensed and 5 un-licensed operators. The following are the 'Bottom Line' results:

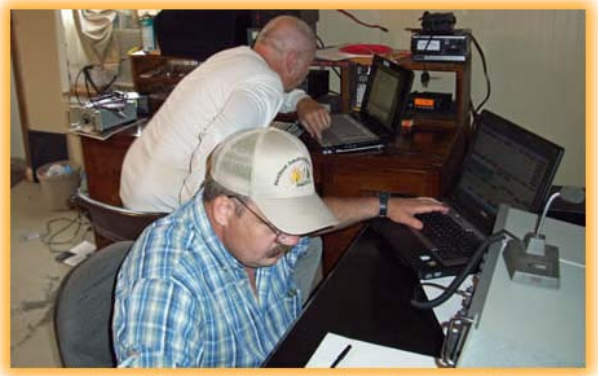
Score Summary:

	CW	Digital	Phone	Total
Total QSO's	552	56	438	1046

Band / Mode QSO Breakdown:

	CW	Digital	Phone	Total
80M	0	0	0	0
40M	157	0	20	177
20M	159	54	54	267
15M	208	1	0	209
10M	28	0	135	163
6M	0	0	89	89
Satellite	0	1	0	1
GOTA	0	0	140	140
TOTAL	552	56	438	1046

The bonus point total was 1650 -up from last year. This was due in part to originating NTS messages and site visitation by the Obion County Commissioner/Vice Mayor, Ralph Puckett and the Obion County LEPC chairman, Phillip Green N4PWG. Also a packet contact was successful via the digipeater on the International Space Station - good for the 100 point satellite bonus. The biggest part of the bonus points was the increased participation by our youth and GOTA station operators which made nearly 40 more QSO's than last year. This all combined to a total claimed score of **4958 points.** This is a substantial reduction in points than in previous years and one that was expected. However, as our goals were to increase participation and to slow the pace for the younger operators to learn, this was an entirely successful event. Congratulations to one and all !!



Harold KJ4FTM making phone QSO's

Epilogue:

This Field Day was run at a slower and less competitive pace; however, many valuable goals were achieved, the most important of which was to get "new blood" involved and in the game. Because the antenna systems were simplified, results were lower. However, more folks actually got involved, and were less intimidated, in the antenna raising process. In the coming months, we will be discussing the lessons learned and what we can do to make things better, not only from a competitive standpoint, but to also increase participation. Already we know that offering a VE testing session is a great idea and will become a standard for Reelfoot Amateur Radio Club. We also know that we need to look at light-weight gain antennas that would be easy for beginners to raise and that would increase our score.

As usual, Glenn N4MJ and XYL Linda were the perfect host and hostess. Thanks go to them for allowing the use of "The Shop" for this great club activity. The final results are usually posted in the December issue of QST. Be sure and check the forum on the RARC web site for up-to-date discussion on the Field Day event. Until then ...

See you on Field Day 2012 !

When all else fails ... Amateur Radio.