

**Nixa Amateur
Radio Club,
Inc.**

Open Mic!

Volume 3; Issue 8

August 2010

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- Tour de Bass
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July Meeting Wrap-Up

The July meeting was brought under way by Christopher Cochran, just moments after 6:00 p.m. With approximately 23 people on hand, James Adkins, KB0NHX, read a letter from Wilma Gaines, widow of Dean Gaines, thanking the club for everything they have done for Dean over the years and how dearly he enjoyed his friends in the club.

James also updated those present on the progress of the 145.270 repeater and the improvements that were made and showed some pictures of the repeater after work was complete.

Jeff Kerr, KC0VGC, did the field day re-cap and we discussed our field day results that were submitted and spoke about some of the improvements that could be made next

year. We hope to again spread out more next year so as to increase separation of stations and maximize the rules. This year, we didn't have any problems with stations interfering like we have in years past, which was a vast improvement. We discussed the possibility of being more fluid with station operation and allowing all stations to be capable of operating either CW or digital. Jeff pointed out that Al did use the SSB station overnight to operate CW and Kent in turn used the digital station for SSB and that if someone wanted to work a different mode, they were free to do so as long as that station is open.

James Adkins then gave a demonstration on EchoLink. He first showed what it looks like from the PC, and spoke of some of the basics of operation. He then demonstrated that you don't need a PC to

use EchoLink, that you can simply dial up node numbers from your DTMF keypad on your radio and make and break connections. Most people were unaware that we have this capability on the 145.270 repeater. We then connected to the W0PM repeater in Springfield and carried on a conversation between people on two different repeaters. Also demonstrated was how to disconnect a station from EchoLink via radio. Lastly, we connected to a repeater in Kansas and spoke with Gary, N0IRN, who was out in Kansas on pleasure.

Thanks to everyone who attended, and we look forward to seeing you in August when we plan on discussing our annual fall club picnic.

73 till next time!

Tower Installation Notes

Let's face it, at some point in a "ham's" career, he or she has a desire to install a tower to support their antennas. Deciding what tower to obtain is a big chore. Do you choose guyed or self supporting? How tall do you want your

tower to be? How much wind load does your tower need to handle? The first decision to make is what type of antennas do you want on your tower. Manufacturers will note in their specifications the wind load of their antennas. Re-

member, if you're side mounting antennas, your verticals will work much better if they are 1/4-wavelength away from the tower. Once you've added up the wind load, you will be able to narrow your field of possible towers.

Area Nets of Interest

Daily Nets:

- 146.835 - 7:00 a.m. Little Switzerland ARC Net
- 3.963 LSB 5:45 p.m. Missouri Phone Traffic Net
- 146.625 - 7:00 p.m. Douglas County Check-in Net (110.9 Hz)
- 3.585 CW 7:00 p.m. Missouri Section CW Net
- 3.803 LSB 10:00 p.m. Roundtable SSB Net

Mondays:

- 146.970 - 7:30 p.m. Lawrence County ARES Net
- 53.270 - 8:00 p.m. The 6-Meter Net (162.2 Hz - 51.570 input)
- 145.270- 8:00 p.m. Missouri VoIP Net (162.2 Hz)
- 147.195 + 9:00 p.m. Taney County ARES Net

Tuesdays:

- 145.490 - 7:00 p.m. Sky Warn Check-in Net (136.5 Hz)
- 145.230 - 7:30 p.m. Christian County ARES Net (162.2 Hz)
- 146.805 - 7:30 p.m. Newton County ARES Net (127.3 Hz)
- 145.270 - 8:00 p.m. Bible Belt Christian Fellowship Net (162.2 Hz) *

Wednesdays:

- 146.820 - 7:30 p.m. EARS Club Check-In Net
- 145.210 - 8:00 p.m. Barry County ARES Net (162.2 Hz)
- 147.150 + 9:00 p.m. Combined KARC - TLARC Net

Thursdays:

- 3.963 LSB 7:00 p.m. Region D ARES HF Net (SW MO area)
- 145.270 - 7:30 p.m. Nixa ARC Check-in Net (162.2 Hz)*
- 147.225 + 8:00 p.m. Greene County ARES Net
- 145.350 - 8:00 p.m. Four-State ARC Net (103.5 Hz)
- 52.525 9:00 p.m. Joplin 6-Meter FM Simplex Net

Fridays:

- 146.910 - 8:00 p.m. SMARC Friday Night Net (100.0 Hz)

Sundays:

- 146.775 - 8:00 p.m. SWMO D-Star Net (w/ wide area links)
- 147.345 + 9:00 p.m. Stone County ARES Net (162.2 Hz)

* Nets also on 53.270, 224.280, 444.275 and 927.5375 machines

Tower Installation Notes (continued)

Most common towers include the Shelby BX series self supporters with X-bracing and the Rohn 25 Z-braced towers, which are generally guyed towers. Rohn also makes Rohn 45 and Rohn 55 towers which are stronger than the Rohn 25 towers. As a rule of thumb, Z-braced towers are stronger than X-braced because they can handle twisting better with larger HF beams.

Make sure when you order your tower that you don't forget the accessories, like the rotor plate, top plate, side mounts and base. Lots of hams will simply put a section of tower into concrete, but that's not the safe thing to do! Order the proper foundation mount for your tower, whether it's a concrete mount or a hinged base. Now that you have your towers and accessories, it's time to start planning for your foundation.

When I installed my BX series tower, I consulted the Rohn engineering book that tells the size of the foundation pad and size and location of the rebar in the foundation. Digging the foundation is a



chore, but if you have a good friend, usually you can dig it yourself. Chris & I dug my foundation, a 4' by 4' square, 4-1/2' deep with a couple of hand shovels! Concrete can be mixed on site or you can order it in from your local concrete company. Keep in mind, though,

that usually there is a 3 or 5 sq ft minimum when ordering from the concrete companies. If you're putting up a guyed tower, it's very important to have your guy anchor foundations in the proper locations and follow the guying recommendations. Guyed towers do make for a more complicated install, especially if you have multiple guys, as you need to make sure you tension the guys properly. Also, guyed towers have to be re-tensioned and plumbed regularly, too.

Lastly, when building the tower, you can build it on the ground and hinge it into place with a hinged base, build it piece by piece vertically if you are a climber, or build it on the ground and have it lifted into place by a crane (I chose the last option). Check in with us next month and we'll discuss more considerations when building your tower.

This Month Below 50 MHz . . .

By: Kent Doucey, N0IRM

Well thankfully this month solar conditions have improved as the month has gone by. The first part of July yielded the worst conditions for DX in my opinion of this year so far. Solar flux numbers dipped in the very low 70's for the first of the month, the averages for the first 2 weeks being reported as 73.9 and 72.8. Numbers rose greatly as the month went on getting into the high 80's, even seeing 89 for a day or two. It seems conditions have leveled off a bit at this time of this writing with current conditions being a solar flux of 85 and an A index of 8.

These higher flux numbers have not seemed to have sparked any 15 meter opening as I would expect but some nice 17 meter and 20 meters contacts have been made. On 07/17 I found a nice 17 meter opening being able to work Belize and Madeira Island, among a few other Europeans, at around 0000 UTC with an Extended Double Zepp at 40 feet feeding it with 100 watts. Be sure to watch those higher bands with the flux rises for good openings, these can be worked with out having a "big gun station".

I have noticed a lot of people spotting by email this month and it sure has been nice to see. Mark K0ABC has been making some great contacts, Wallis and Futuna Island on 17 meter CW and Guernsey on 30 meter CW to name a couple. Congratulations Mark. My friend KD0AA reported working South Cook Islands and Tahiti Island on 20 meter

Phone during the IOTA contest. Great job Peter! There were some nice stations to pick up during this contest. Gary, N0IRN has been able to grab a V31 Belize and Crete, SV9 both on 20 meter phone this month, congratulations to him. Please keep making the post of what you see and where they are at. I get a lot of comments about the spots so thanks to all who take the time. I hope I didn't miss anyone, if you work a new one or some good DX drop feel free to let me know at kdoucey@gmail.com so



Double Zepp antenna at the QTH of Kent Doucey, N0IRM

I can mention it here. Include who you worked and where you found them, and give me a little information about your working conditions for the contact.

Some DX to watch for are 9Q50UN from the Democratic Republic of Congo on 20 meters. Special event station BP100 from Taiwan will be active until December. EA8/SQ9IVD will be working from the Canary Islands until August 5th. XT2EME will be working from Burkina

Faso until August 2nd on 80 through 10 meters. And XW1B is QRV from Laos on 20 meters. 5Z4/IZ2DPX will be active from Kenya until August 17th on 40 through 10 meters. 7P8JK will also be QRV on 40 through 10 meters from Lesotho until August 6th.

A few contests to watch for in August are the South African Radio League contest the 1st of August from 1300 to 1630 UTC on 80, 40, and 20 meters. Exchange here is signal report and serial number. More information can be found at: <http://www.sarl.org.za/public/contests/SARL%202010%20Contest%20Manual.pdf>.

The European HF championship runs from 1200 UTC to 2359 UTC on August 7th on 160 through 10 meters. Exchange is RST plus the 2 digit year first licensed. More at <http://lea.hamradio.si/~scc/euhf/euhfcrules.htm>

The North American QSO party CW is from 1800 August 7th to 0600 UTC August 8th on 160 through 10 meters and of course CW mode. Exchange for the contest will be operators name plus the state for US stations. More info at

<http://www.ncjweb.com/naqprules.php>

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Schedule of Events

- **August 8, 2010:** Nixa ARC VE Testing Session at 4:30 p.m. at 301 S. Nicholas Rd—Nixa Fire Department General HQ
- **August 8, 2010:** Nixa ARC Club meeting at 6:00 p.m. at 301 S. Nicholas Rd—Nixa Fire Department General HQ
- **August 27, 2010:** 4-9 p.m. Joplin Hamfest, Holiday Inn Convention Center, Joplin
- **August 28, 2010:** 8am to 2pm Joplin Hamfest, Holiday Inn Convention Center, Joplin

August 2010

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

**This Month Below 50 MHz . . . (Continued from page 3)
By: Kent Doucey, NOIRM**

These are just a few of the contests coming up. Remember to be a responsible op, be ready for the exchange and know what you need so you don't slow the station trying to be competitive down. If you are not sure just LISTEN. They are glad to have the contact. Check for more contest information at <http://www.hornucopia.com/contestcal/weeklycont.php>

Well that is about it for July 2010, summer is about over and it's almost time for the kids to go back to school. Its time to think about your antenna projects to complete so you can be on the air with them for this winters DX season. We can keep our fingers crossed that the solar cycle is going to bless us with some good opportunities. Don't forget to think about trying some other modes to

grab some new ones. Digital modes



The Doucey "Radio Ranch" near Galena, MO

are great for weak signal and poor band conditions. Its doest take a lot of power or big antennas to be successful with these modes. Don't forget about the ultimate weak signal mode, CW. Keep us posted

about what you working. Thanks to everyone who reads the article, good luck and as always GOOD DX!

Technical Committee Update

In July 2010, the technical committee spent 2 full days working at the 145.270 site. The complete repeater was removed from the rack mount cabinet, and a new 7' tall rack cabinet installed. 1 rack mount fan cage was installed to cool the PA and a new fan control module was built. Wireless Internet was installed at the site, and the Echo-Link server and equipment moved to the site. Along with these changes, the new SCOM 7330 repeater controller was installed and linking and other commands that used to have be entered manually by the Nixa ARC net control ops were automated like the rest of the repeaters. The SCOM now controls the PL tones on the link radio and the repeater, and that gave us the ability to reduce the PL tone so it's not so audible on the 6m, 440 and 220 repeaters when they are linked in for the nets. New 1/2" superflex patch



Kolton Adkins @ 145.270 site rebuild

cables were made to connect the duplexers to the repeater, and a Dura-comm DC

distribution panel added. The Samelex 60a 27vdc to 12vdc dc to dc converter was installed and now runs all the equipment in the cabinet that runs on 12 vdc. An APC Back UPS Pro UPS

was installed to power and protect the Linksys router, Motorola Canopy 5.2 GHz wireless Internet radio, the Echo-Link server, and the KVM interface for the server. Thanks to Randy Jordan, KC0UKB, for donating this awesome UPS! James & Jim Adkins, Jeremy Tannehill, Kent & Gary Doucey, Chris Cochran and Jeff Kerr all spent time at the site working on this project. All totaled, we have about 70 man hours invested in the project. Thanks to everyone that helped make it a success! Work was also done to try to bring the 224.280 machine back on line, but we discovered we have at least 1 bad cavity in our 6-cavity Sinclair duplexers which is causing de-sense of the receiver. Lee Book, W0SLR, and James Adkins, KB0NHX, spent several hours trying to make it work. In the end, though, the duplexers would not function properly and they will be repaired or replaced as soon as possible.

Nixa ARC Repeaters

6-Meters: (Republic)

53.270 / 51.570 PL 162.2 Hz

2-Meters: (Nixa)

145.270 / 144.670 PL 162.2 Hz

1.25-Meters: (Springfield)

224.280 / 222.680 PL 162.2 Hz

70-Centimeters (Springfield)

442.275 / 447.275 PL 162.2 Hz

33-Centimeters (Republic)

927.5375 / 902.5375 PL 162.2 Hz

2010 Tour de Bass

Yes, it's time to begin thinking about the club's next big public service event, the 2010 Tour de Bass bike ride. This year the event is held on Saturday, October 23, 2010.

We are already looking for volunteers to work the rest stops and ride with other volunteers who are assigned as

sweep and sag vehicles. We need approximately 22 volunteers for this event. Rest stops are located at Turner's Station, Nixa St. John's clinic, Republic Clinic, Elwood Church, Pleasant View School, Willard Clinic, Strafford Clinic and Temple Israel Church. Sweeps and Sags will be needed for the 100 mile, 70 mille and 36 mile races.

St. John's appreciates our service to them, and each race they rave over how nice it is for them to not have to worry about communications, and leave it to the professionals! That is a nice compliment! If you'd like to be a part of this event, e-mail James Adkins at kb0nhx@nixahams.net ASAP and reserve your spot. If you have a preference on your spot, now is the time to commit.

July 2010 Treasury Report

Beginning Balance:

Debits

Credits

Not Available at Time of Publication



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NIXA AMATEUR RADIO CLUB

*Those saying it can't be done should
stay out of the way of those doing it.*

We're on the Web!
www.nixahams.net

The Nixa Amateur Radio Club, Inc., call KC0LUN, was founded in April 2002.

The club assists in providing communications for many different public service events. We work with Greene and Christian County ARES and the National Weather Service by providing communications for Sky Warn spotting. We also work with Greene County ARES and other organizations in providing communications for the MS-150, and American Diabetes Association fundraiser bike rides. We hold special event stations for local hams to participate in, such as the annual Sucker Days celebration and the annual ARRL Field Day drill for emergency preparedness. We encourage our members to not only participate in our club events, but to also be members of their local ARES and RACE's groups, and the Christian County CERT team.

The club provides 5 repeaters that are open for all hams to use. These repeaters are part of a sophisticated linked system which allows all repeaters and VoIP nodes to be linked together simultaneously for nets or emergency events and announcements. We also provide VoIP modes, such as EchoLink and IRLP for our members to explore. Currently, we are working on a club HF station to be installed at the Nixa Fire Department General HQ Emergency Operations Center.

The club holds "The 6-meter Net" on the 53.270 repeater weekly on Mondays at 8:00 p.m., which covers all radio bands 6-meters and below. We also have a weekly check-in net on the 145.270 repeater on Thursdays at 7:30 p.m. The net is simulcast on all 5 Nixa ARC repeaters, IRLP and EchoLink. Feel free to check in on any band! The 145.270 repeater also hosts the "Bible Belt Christian Fellowship Net" held on Tuesdays at 8:00 p.m.

Visit www.nixahams.net for more exciting information!

Nixa Amateur Radio Club Elected Officers

President: Chris Cochran, KBØWZC

- Chris has been club president since the club's beginning in 2002. Chris and his wife, Shannon, KCØSQB, have two daughters, Jordan, KCØSQC, and Olivia, and a son, Jacob. Chris currently works in PC Networking. In the past, Chris has managed a Pizza Hut store, where he first became interested in amateur radio. Chris' primary interest in amateur radio is promoting ham radio and continually improving club equipment.
- E-mail: kb0wzc@nixahams.net

Vice-President: James Adkins, KBØNHX

- James started serving the club as Secretary when the club was founded, and then moved into the Vice-President position. James and his wife, Kim, KCØGKP, have two children, Sierra and Kolton. James works as a technical field engineer and repairs two-way radio and repeater equipment daily. In the past, James delivered pizza while attending college. James' primary interests in ham radio include maintaining the club repeaters and promoting amateur radio. He enjoys operating HF through 1200 MHz from his home station.
- E-mail: kb0nhx@nixahams.net

Treasurer: Jeff Morrissey, KBØWVT

- Jeff is a charter member of the Nixa Amateur Radio Club and took over the treasury job almost 2 years ago. Jeff has a daughter, Brooke, KCØYVF, and son, Garrett. Jeff works in management and has a background in computer networking. Before ham radio, Jeff was an Internet guru and ran a BBS from his house. Jeff's primary interests are SkyWarn spotting, being active with Christian County CERT, and other emergency communications support.
- E-mail: kb0wvt@nixahams.net

Secretary: Jeff Kerr, KCØVGC

- Jeff obtained his license in 2005 and began to immediately make an impact with the club and was elected as secretary shortly thereafter. Jeff and his wife Dee have two daughters, Emily, KCØYOO, Stephanie, and a son Brandon. Jeff works in PC Networking and considered computers his hobby before amateur radio. Jeff's primary interests include 6-meters and HF SSB as well as 900 MHz FM.
- E-mail: kc0vgc@nixahams.net