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February Meeting Wrap-Up

Kent Doucey, N0IRM, brought the meeting to order shortly after 6:00 p.m. Jeff Kerr, KC0VGC, took a roll call and we had 19 people present, including 3 visitors.

At this meeting, we discussed the upcoming events of the year. At our March 12 meeting, John Rayfield, W0PM, will be doing a presentation on the new FM digital technology called DMR, or MotoTRBO. Following that, at our April meeting, John Rayfeld, Sr will be doing an excellent presentation on proper station grounding. The May 14 and June 11 meetings will focus on Field Day planning with a review of the logging software. On June 2, we will be providing communications for the Nixa Bike Ride. We want to see you all come out and participate! June 25 & 26 is, of course, Field Day, with a new location and new ideas to come! You won't

want to miss it! On September 10, we will have our annual club fall picnic. At the October meeting, we will have a presentation on Amateur Satellite operations from the Raytown ARC. Also, on October



15th, we will be doing the communications for the Tour de Bass bike ride. November 12 will be our annual Thanksgiving meeting at the Pizza Hut in Nixa. On March 3rd, Kent Doucey, N0IRM, Terry Zemsch, KC0SQE, and Al Gallo, W0ERE attended the

Community Foundation Banquet to obtain the check for the grant we received from them for \$1850.00 to finish purchasing the parts for the 53.270 local receiver as well as purchasing the repeater controllers for the 927.5375 repeater and the proposed 29.680 repeater. Along those lines, James Adkins, KB0NHX, will be going before the Nixa Board of Alderman to request permission to install the transmit and receive sites for the 29.680 repeater on two of the Nixa Water Towers. We also donated 5 Rohn 25 tower sections to TA High Speed Wireless. They were in a pinch to get some tower sections, and the board felt that it would be a good gesture toward them since they give us Internet at 4 repeater sites each month.

At this month's VE session, we had 3 people test with a Technician, General and Extra test being passed. 73,

My Second Best Ham Purchase Ever

By: Peter Sils, KD0AA

Most hams start out buying a SWR bridge to see how resonant their antenna is and enable them to adjust it to

a low SWR. This can be a time consuming effort because of all of the factors in play. Sure, you calculate the length of antenna based on formulas but most

often the formulas are "starting points". Because of the antenna's proximity to objects, wire size, height above ground and configuration, the length of wire

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 6:30 p.m. Missouri Section CW Net
3.585 CW 9:45 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
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)

My Second Best Ham Purchase Ever (continued)

will need to be adjusted. Using a simple SWR bridge this effort can be a frustrating, time consuming experience. Just ask the owners of a multi-band trap vertical!

I do not care for the company that manufactures the product I am going to recommend because of quality control issues, but I have been very pleased to have owned this product over the years. It is a MFJ-259 SWR Analyzer. It allows you to quickly see the resonant frequency on a digital readout and see if the antenna needs to be shortened or lengthened without having to use your transceiver.

This product is also invaluable

for setting up antenna tuners before even firing up



the rig or amplifier. This saves the finals in the transceiver and especially in the

amplifier.

There are many other measurements this analyzer can perform. Please download the user's manual and check it out.

<http://www.mfjenterprises.com/Product.php?productid=MFJ-259B>

<http://www.mfjenterprises.com/man/pdf/MFJ-259B.pdf>

A Lesson in RF Station Grounds

By: Kent Doucey, NOIRM

I wanted to take a minute to share one of the latest projects at the "Radio Ranch" here at Galena Missouri with you. To give you a little background my radio room is in the lower level of the house, in the basement and surrounded by concrete walls. I had conduit ran in the wall with access for feed lines but didn't think to make plans for a station ground. I had been concerned about getting this done but had scratched my head on exactly how to go about it. If I were to run out with my feed lines it would be way to long. I decided to go through the concrete with a ground rod for a station ground. The next thing was getting up the nerve! I had nightmares of drilling through the floor and getting a gusher of oil (which wouldn't be that bad!) or a water gizer!

One day I was talking with a friend who does concrete and mentioned renting a hammer drill to drill through my basement floor and after he stopped laughing at what I was going to do he fixed me up with a drill and the proper bits. He either thought I was crazy or he just wanted a good laugh if the outcome was to be an indoor water fountain. After working on getting up the nerve, I punched a 5/8 hole through the floor directly behind my console desk near where my feed lines come out of the wall. When planning the hole I stepped back away from the 3 inches because the wall sets on footer. There should be about 4 inches of footer past the base of the wall but you have to remember you have the wall studs and sheet rock on the outside of the concrete. I figured 3 inches give me actually about 8 inches when you count the wall studs and sheetrock and give me a little lee

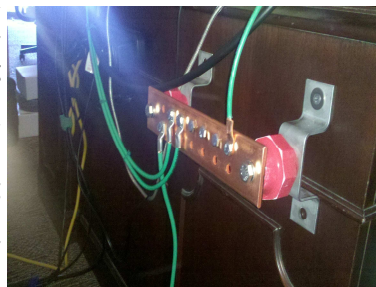
way. I sure didn't want to try and drill through the footer! Well here we go, about 2 minutes and I was through and no water gusher! I worked the hole out just a touch but I wanted the ground rod to fit tightly as possible so it would be easy to seal



NOIRM's new Station RF Ground

around it. I drilled a 5/8 inch hole and used a 5/8 inch ground rod. Next the ground rod itself. I had an 8 foot rod but I had to cut about 18 inches off since I have 8 foot ceilings. Give me just enough room to start driving the rod. Well after about 2/3 of a day and hammering with a steel fence post driver I finally had the rod in! Nothing like driving ground rods in this great Stone County soil, where's the soil anyway?

After installing the rod I purchased a copper ground bus kit from Georgia Copper. Take a look at their products at gacopper.com. This ground bus is of GREAT quality and their prices are very reasonable. The bus



kit was \$47 plus shipping and it was worth every penny. They also offer very quick service and were great about emailing me about my order and shipping information. I then used #6 insulated braided copper wire to make the 26 inch run from the ground rod to the ground bus which was mounted directly to the back of my console desk. I also used a plastic electrical 90 on the top of the ground rod to run the #6 wire in and its connection to give it a cleaner look. The ground bus allowed me to use very short runs of #8 insulated braided copper wire to go from each piece of equipment to the ground bus. I used solid copper crimp on terminal ends which I found at the local farm store on the ends of the cables.

The most important thing about this article is the end results. Not counting the safety factors of having a good ground, the benefits in noise level were amazing. My noise levels were never really what I call high but with the station ground my noise levels on 10 to 20 meters dropped by 1 to 2 S units. My 30 to 160 meter levels dropped in half! I had 3 TV's in the house that when on would cause a considerable amount of noise. Two of these were completely eliminated and 1 of the TV's noise was reduced dramatically! At times I would have some RF interfering with 1 TV and my station computer, this has been completely eliminated! I just finished this project so I'm still testing and obtaining results but there is no doubt that a good station ground is a MUST. Spend the time and you will see the benefits!

This Month Below 50 MHz

By: Kent Doucey, NOIRM

February is in the books and what a month for solar activity! Solar conditions peaked at higher levels than in some time and this even included solar flares on the 13, 14, and 15th of the month. The last of the flares was the strongest of such an event in four years and even caused some fear of communications disruptions. The solar flux was pushed to some of the highest readings since 2005 and 2006, with it reaching over 110. There are some great pictures and videos of these events at solarcycle24.com, check them out if you get time.

A lot of great spots showed up on the club reflector this month. Of course our regular DX chasers were active, KD0AA, K0ABC, and NOIRM. It was also nice to see spots from Dave W0DR, Charles K0LAF, Art K0RO, and David WB0QIR. It's great to see the activity, keep up the good work.

There were some great DXpeditions this past month, such as the TJ9 Cameroon event. I hope everyone got a shot at them, here is some upcoming activity to watch for. 9G1AA will be working from Ghana until March 20th using mostly SSB on 15 and 20 meters. SV9/DJ7RJ will be active from Crete until

March 15th on 160 through 6 meters using CW and phone. 4A4A will be on from Revillagigedo from March 3rd to March 20th using SSB, CW, and RTTY on all bands. And Last XU7FMZ will be active from Cambodia using 20 through 10 meters phone holiday style..



Radio Shack of Charlie Young, K0LAF

March is a great month for contesting. Starting March 5th be sure to watch for the ARRL International DX phone contest. The next weekend is the North American RTTY Sprint, if you have never tried a sprint they are a great, fast paced event. Also that weekend is the Wisconsin QSO Party. The next weekend is the Russian DX Contest, the Oklahoma QSO Party, North Dakota QSO Party, and the Virginia QSO Party. The QSO parties are great opportunities to pick up certain states you need for awards such as WAS. Last, but certainly not least, is the last

weekend in March, the CQ WPX SSB contest, one of the big ones! Don't miss out on this one.

Lets keep our fingers crossed that solar conditions continue to be promising. Watch for band openings on 15, 12, and 10 meters when you see the solar flux rise. You can keep an eye on this at solarcycle24.com or there are many other ways such as the app I use on my Android phone called "HAM". One more thing I wanted to mention, don't be afraid to jump on the air and work some of the contest stations. Be sure to research the contest, a good place is at WA7BNM's contest calendar at hornucopia.com/

contestcal.com. Find the information about your exchange and go to work. I read a good article on page 108 of the February 2011 CQ magazine titled "The Most Important Contester", if you get time take a look. They make a good point that one of the most important contest operators is the casual operator. The station that just gets on and makes a few contacts or who is not trying for a big score. If it was not for these stations the "big guns" would just work the other "big guns" and the test would be over. The main point is get on the air, have fun and use this to your advantage to pick up a few "new ones" if nothing else. See you on the air! 73 and good DX.

Schedule of Events

- **March 12, 2011:** VE Testing session—4:30 p.m.—Nixa Fire Department—301 S. Nicholas Rd, Nixa, MO
- **March 12, 2011:** Nixa ARC Club Meeting—6:00 p.m.—Nixa Fire Department— 301 S. Nicholas Rd, Nixa, MO—Demonstration on Moto-TRBO by John Rayfield, Jr. (WOPM)

March 2011

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		

How I Became “Hooked” on 6-Meters

By: John Tudenham, W0JRP

It was the Spring of 1947, I was 17 and a Senior in high school, this was one year before I got my first ham license, W0JRP. There was no Novice or Tech license yet, so I had to start out as a General (class B) license.

I was doing a lot of listening on my Hallicrafter S20R especially on 10 meter AM where all the new hams were, and I also listened on the CW bands some trying to build up code speed.

Two local hams on 10 meters about 5 miles from me, W0JVE and W0KYF, were talking about 6 meters and how exciting a band it was. I had no way to listen on 6 as band

4 on my S20R only went up to about 46 MHz. I got an idea, even with my limited knowledge of radio those days, what if I turned the oscillator trimmer for band 4 counter clockwise to reduce capacitance thus allowing the receiver to reach 50 MHz, the same would be done for the RF trimmer.

One night W0JVE and W0KYF were talking on 10 and decided to switch over to 6 so I took the bottom cover off the receiver and adjusted the oscillator trimmer, suddenly there was Bill, W0KYF, loud and clear! Turning the RF trimmer the signal became even stronger. Then, the following week a good sporadic E opening occurred to the east I was hearing NY, PA, MA and one station was VHF editor Ed Tilton W1HDQ in CT. I replaced

my single wire antenna with a half wave 6 meter folded dipole made out of 300 ohm twinlead, a common antenna those days, and had even better results. Then I heard a ham telling on 10 meters you could replace the 6SK7 RF Amp tube with a new tube used in TV sets, an 1852, and made receiver more sensitive on higher frequency's. I sent an SWL card to W0JVE and he invited me to visit him at his home in Richmond Heights, a suburb of St Louis. So, one Friday night I took the city bus and paid him a visit. He was very friendly, had no idea that there were SWL listeners as high as 6 meters, and encouraged me to keep studying for my ham ticket, and one year later at the FCC office in St Louis I took and passed my general exam issued call W0JRP, July 1948.

Technical Committee Update

February was a month filled with behind-the-scenes work for our technical group. We confirmed that our IRLP node is working fine, the node on the 444.450 repeater in Lees Summit has issues and we are waiting for the node owner to fix them. James Adkins, KB0NHX, began experimenting with the JPS NXU-2 VoIP Internet Linking device on the 53.270. Codec and audio level adjustments were made and it was working well. However, the Internet quit working at the site about



East County TRS building for new local 53.270 RX

February 20th and we have been unable to connect back up. This will require a trip to the site to reset the router before a service call entered. Lastly, search continues for a

Motorola MSF-5000 C164 open-rack mounting unit for the 927.5375 repeater. This would allow us to mount the repeater in an open rack and not a special MSF-5000 cabinet. Until one is obtained, or until a taller cabinet is located, we will not be able to utilize the additional PA, thus the repeater will remain at 75-watts instead of bumping up to 200-watts. We are still looking for a spring to early summer antenna install for the 927.5375 repeater & local 6-meter receiver if funds are available.

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 (Springfield)

927.5375 / 902.5375 PL 162.2 Hz

February 2011 Treasury Report

Beginning Balance: \$730.92

Debits

\$ 120.00 ARRL VE Testing Fees

Credits

\$ 150.00 VE Testing Fees Collected

\$ 500.00 Donation from Rebecca Higinbotham

\$ 500.00 McKesson Grant on behalf of Jeff Kerr
For Board of Directors Grant

\$ 294.89 Club Membership Dues collected

\$120.00 Total Debits

\$1,444.89 Total Credits

Ending Balance: \$2,055.81

A Little History Lesson . . . From the ARRL Website

"Ham: a poor operator. A 'plug.'" That's the definition of the word given in G. M. Dodge's The Telegraph Instructor even before radio. The definition has never changed in wire telegraphy.

The first wireless operators were landline telegraphers who left their offices to go to sea or to man the coastal stations. They brought with them their language and much of the tradition of their older profession. In those early days, spark was king and every station occupied the same wavelength—or,

more accurately perhaps, every station occupied the whole spectrum with its broad spark signal.

Government stations, ships, coastal stations and the increasingly numerous amateur operators all competed for time and signal supremacy in each other's receivers. Many of the amateur stations were very powerful. Two amateurs, working across town, could effectively jam all the other operators in the area. When this happened, frustrated commercial opera-

tors would call the ship whose weaker signals had been blotted out by the amateurs and say "SRI OM THOSE #&\$!@ HAMS ARE JAMMING YOU."

Amateurs, possibly unfamiliar with the real meaning of the term, picked it up and applied it to themselves in true "Yankee Doodle" fashion and wore it with pride. As the years advanced, the original meaning has completely disappeared.



Nixa Amateur Radio Club, Inc.
P.O. Box 467
Nixa, MO 65714-0467

Website: <http://www.nixahams.net>
E-mail: kc0lun@nixahams.net
VE Team Contact: testing@nixahams.net
Website contact: webmaster@nixahams.net

NIXA AMATEUR RADIO CLUB, INC.

*Those saying it can't be done
should get out of our way!*

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: James Adkins, KB0NHX

- 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

Vice-President: Kent Doucey, NØIRM

- Kent was appointed to Vice-President by the board after the resignation of Chris Cochran, KBØWZC, as President in October 2010. Kent and his wife Wendy have 3 children: Richard, KDØHGY, Britney, and Katie. Kent has been a law enforcement dispatcher and deputy sheriff in the past and currently serves on the Stone County 911 board. Kent enjoys HF SSB and digital operations and building HF antennas. He writes the "Below 50 MHz" article for the newsletter and volunteers on the club's technical committee.
- E-mail: n0irm@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