

**Nixa Amateur
Radio Club,
Inc.**

Open Mic!

Volume 3; Issue 5

May 2010

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April Meeting Wrap-Up

With Chris Cochran, KB0WZC, out of town, James Adkins, KB0NHX conducted the meeting business.

Gary Doucey, N0IRN, is looking for help taking his 30' tower down on May 1 at his QTH. The tower, and an additional 10' section, will be for sale after removal for a good price! Gary is going to grill out for all that help him. On another note, Gary is also looking for someone to ride with him to Dayton. Contact Gary at n0irn@aol.com if you are interested in either.

James then talked about the Nixa Bike ride. We are still looking for 4 more volunteers for the event. We need 2 for the Brown Springs rest stop and two more for a rest stop out by McKinley. E-mail James at Adkins.james@gmail.com if you can help.

The club is once again participating in the Nixa Bike Ride event in 2010. Last year was the 2nd year for the event, but the first year we participated.

We had a great time last year as the weather was nice and all went well. Once again, we will be using the 145.270 repeater

James then updated the membership on a few of the club's projects. First, he and Jeremy Tannehill, KC0UJZ, will be going to the 145.270 site on Sunday the 11th to install the club's Motorola MSR-2000 backup-repeater. The repeater will be placed into service until the Motorola Micor is re-installed in the new cabinet.

Also mentioned was the progress on the 442.275 and 224.280 amplifiers. The 19" rack mount ears have been fabricated and attached to the 442.275 amplifier and the amplifiers were modified to have the fans turned on by relay instead of thermistor because of us losing 35w power output before the fans were turning activating. This change was made so as to increase the life of the final transistors in the amplifiers. Plans are to have the amplifiers installed in early

Nixa Bike Ride

for primary communications with Net Control. Should a failure occur during the event, primary communications will be moved to the 147.225 WOPM repeater located in south Springfield. As with the last two bicycle races, the 442.275 will be used as a talk-around for any sag / sweep

May, so be listening soon for increased power. The 220 repeater will be upgraded from 9-Watts output to 200-Watts output and the 442.275 repeater from 20-Watts output to 200-Watts output. We should see a dramatic increase in range.

Jeff Morrissey, KB0WVT, then gave the treasurer's report which can be viewed later in the newsletter.

The remainder of the meeting was conducted by Jeff Morrissey as he gave a great presentation on SkyWarn and severe weather spotting and safety.

The May meeting will include a presentation on the annual Field Day event and we will begin planning for a successful event.

73s,

vehicles and for rest stops to talk directly to each other without going through net control if they like.

Last year, we had a few stragglers that kept us all out until well into the afternoon. This year, however, coordinators

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

Nixa Bike Ride (continued)

have decided to put an "end time" to the race. Those racers that are not to a certain point on the 70 mile route will be required to take the 35 mile race. By doing this, the race end time can be coordinated. This was first instituted during the Tour de Bass last October by St. Johns and it worked very well. There were, however, several that refused to take the shorter route. They were advised they would not have sag support after the race end time and had to agree to that before being allowed to continue. As some of you remember, one of the last racers in the Tour de Bass was riding a modified bicycle that had a weed eater motor! Their "objective" obviously was not exercise, but they were simply out taking pictures. How funny!

During a bicycle ride, we are the life and blood of communications. We provide all the necessary communications for the event. The event coordi-

nators always comment on how professional we are and how efficient we are at our task.



They appreciate that we pretty much take what is normally a problem for them and make it pretty much a non-concern. We set up a table at the race start / end at the Nixa Clinic and

that is our Net Control. The Net Control is a two-person task. One of the two operators man the radio at all times. This leaves the other operator to roam with the portable to track down event coordinators to obtain any needed information. The bike race also consists of two radio operators at each rest stop so that restroom and food breaks can be taken and total communications maintained. The rest stop operators relay when the first and last riders pass as well as advise net control if supplies are or are not needed at the rest stop. If a rider needs to be sagged

back to the start point, or to the next rest stop, they also call in that information. Lastly, if anyone is injured or needs medical attention, that is passed along as well.

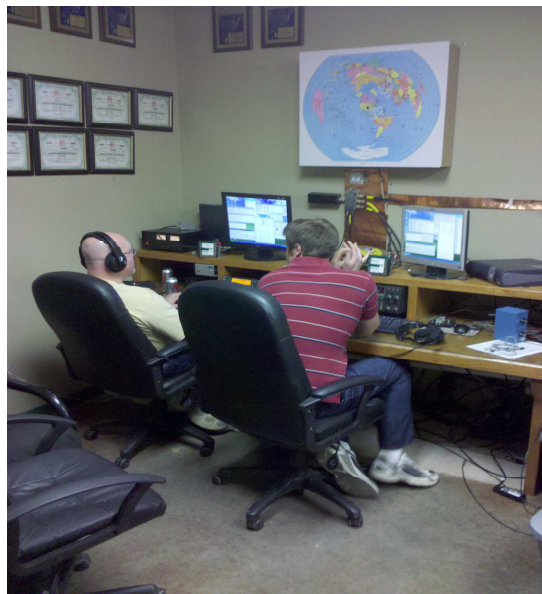
We also have ham operators assigned to the sag and sweep vehicles. The sag vehicles assist riders that need to be transported to the end of the race or to the next rest stop. The sweep operators follow the last rider in each race. These hams ride in the car of the volunteers for the event and are equipped with mono or dual band mobiles that are able to be powered by a power port and use a mag mount antenna. We also have a volunteer that rides with each of the bicycle repair teams. If repairs are needed, net control advises them where they are needed.

As you can see, these events are very busy and a lot of fun! Thanks to everyone that's already volunteered to help!!! If you'd like to help, we still need more volunteers. E-mail James at kb0nhx@nixahams.net.

This Month Below 50 MHz . . .

By: Kent Doucey, NOIRM

Here we are with the month of April behind us and put in the log book. I hope everyone was able to make some good contacts. I wanted to take a minute to talk about my trip to the K5GO contest station the last of March for the Russian DX contest. If you ever get the chance take them up on the trip it's worth it! I have always heard people talk about stations that "make" band openings but never had the pleasure until this trip. I had the chance to work 20 meter SSB using the 8 by 8 fixed on Europe, the 6 element monobander which is rotatable and 3 beverages for receive. It was amazing that if you could not hear the station on one of the antennas just make a switch to another one and there they were! The position I worked from was setup with an Elecraft K3, Heil headsets, and all logging is done via N1MM contest logging software. The station rivals a lot of homes with places for sleeping (who could sleep with a 8 by 8 there to use on 20 meters!) and a kitchen area. The group is a very nice bunch of professional operators and if you ever get the chance take them up on a visit to operate, it will be well worth your time. Thanks to Art, K0RO for the invite and Stan K5GO and Kevin N5DX for letting me visit. Gary, NOIRM also made the trip and did some operating. Check out K5GO.com when you get time.



Picture from Kent's trip to K5GO earlier this spring

Conditions sure were great for the WPX SSB contest the last weekend of March but it went downhill from there. It seems that the sun was not wanting to cooperate with radio propagation in April. Many days this month we saw solar flux levels in the 70's. At the time of this writing there were still no active sunspots. There have been some nice north/south path, and even Pacific 10 meter openings reported this month. 10 meters often seems over looked so be sure to keep a close eye for those openings and the chance to pickup some rare 10 meter contacts. There have also been a few 15 meters open-

ings to Africa during the day and some 20 meter openings to Asia, and it seems Europe has been open somewhat in the afternoons. Signals just have not been strong because of conditions though. I was able to listen to the 3W6C DXpedition from Vietnam several days in a row with fair signals but was never able to penetrate the wall from Europe, let me know if anyone had any success. Hopefully conditions will improve for May and for the WPX CW contest the last weekend of the month.

Some contest to watch for in May are the ARI International DX contest May 1st and 2nd, CW,SSB, and Digi., CQ-M International DX contest May 8th and 9th CW and SSB, Europe PSK DX contest May 15th and 16th on Digi., and of course CQWWWPX CW on May 29th and 30th on of course CW. Some DXpeditions this month include 5X7JD from Uganda until may 25th on 40 and 20 meter SSB, 8Q7AT from Maldives from may 23 to June 4 on 80, 40 and 20 meter SSB, 9VIQQ from Singapore on CW during the WPX contest, E4X

from Palestine from May 28th to June 6th on CW, SSB and RTTY on 80 through 6 meters, VK9CLH from Lord Howe Island from May 24 to May 31st on 160 and 80 meters, and VP5/PY2WAS will be active from Turks and Calicos Islands from May 20-23 on 80 through 10 meters SSB and CW. These are just a few of the DXpeditions and contests that looked interesting to me for the month of May.

I wanted to mention while the bands are in bad shape I use the Band Master software to help watch for openings. This program downloads DX spots from the web and Telnet clusters and displays them. There are a lot of different programs that do this, I use Band Master because it works well with my logging software and rig control. I have the software set to give me an audible tone when it receives a new spot from what it calls a neighbor which I have set at 1000 miles from my location. When I get the alarm I can jump on that particular band and start hunting. Another thing that has worked for me during these bad conditions is using BPSK and RTTY. I have had great luck picking up DX on the digital HF modes and these modes great with weak signals. Another nice thing is that they are reasonable to get in to and don't require a lot of power. If you haven't tried the HF digital modes you are missing out.

Well that's all for this month, keep posting you spots on the club reflector and let us know what you are working. Credit goes out to Peter, KD0AA for sending his spots in to the ARRL Propagation Bulletin on the 10 meter opening on April 14th. He noted that he was alerted to the opening by the NARC email. Let me know what you are working, I would like to have some spots to mention in the article so email me your DX. Until next month keep DXing and 73's.

Schedule of Events

- May 8, 2010 @ 4:30 p.m.—Nixa ARC VE Testing Session; 301 S. Nicholas Rd, Nixa, MO 65714
- May 8, 2010 @ 6:00 p.m.—Nixa ARC Monthly club meeting—Presentation on Field Day 2010—301 S. Nicholas Rd, Nixa, MO 65714
- May 15, 2010—Nixa Sucker Days (Non-club event—general interest)
- May 22, 2010 from 7:00 a.m. to 2:00 p.m.—Nixa Bike Ride—Club public service event—Providing communications for rest stops, repair crews, and event coordinators

May 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 / 30	24 / 31	25	26	27	28	29

Repairs of a Yaesu FT-736R Multi-band / Multi-mode base station

In early April, James Adkins, KB0NHX, Jeff Kerr, KC0VGC, and Jim Adkins, KC0IYI, went to the house of Jerry Johnson, KE0KI, to set up his Motorola Spectra 900 MHz base radio and install a yagi for the station. When we hooked up power, we determined there was a problem as the power supply output had dropped to only 3vdc. By plugging radios in one at a time, it was determined the problem was his Yaesu FT-736R base station, which is used for 6m, 2m, 220 and 440 MHz. James, having the technical supplement at home, took the radio and began delving into it. Starting with the simple, the protection diode and fuses, he worked backwards through the radio trying to find the short to ground. First, he found a

bad electrolytic filter capacitor on the 13.8v regulator board for the display and control panel. But, that was not the only problem! Continuing back, the 8v



Picture of a Yaesu FT-736R

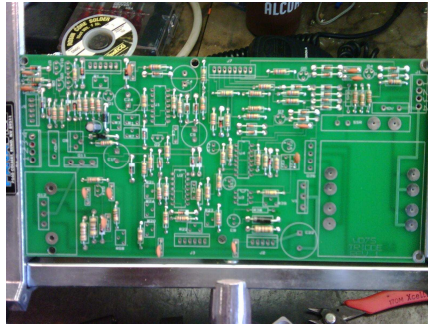
regulator IC was also bad, so it was replaced as well. All was still not good, though. The short was traced back to the control panel, then to the display panel, over to one of the

switch boards. The only way to make the problem go away was to unhook the lights! New lights were ordered from Yaesu and installed into the radio. At this point the radio was ready for a test. So, James built a DC power cable for the unit and gave it the “smoke” test. All went well as he was able to carry on a conversation on the local 444.450 machine in Lee’s Summit with Bryon Jeffers, KOBSJ, and Jim Adkins, KC0IYI, who was working the machine via IRLP on the 442.275 machine in Springfield. Who would have ever thought a light bulb would be part of the problem! It is crazy what you find working on these things we call radios.

Technical Committee Update

In April, 2010, the Technical Committee was busy as usual. During this month, the anticipated battery plant change was made at the 145.270 site, owned by Verizon. We were no longer able to tap 12vdc & 9.6vdc off the bank. To get the repeater back on the air, we installed the club's backup repeaters, a pair of Motorola MSR-2000's. One is set up to operate with an external controller and the other operates independent of a controller. We hooked up the controller to it and set audio levels and are now good to go as it has a power supply and runs off 120vac. To power the link radios, we installed and hooked up the Samlex 27vdc to 12vdc converter. This is powering the controller, and two link radios at the site. We removed the Micor and James is preparing it for the rebuild. It was wired up for an SCOM 7330 controller (like used at Cox Hos-

pital on the 442.275 and 224.280 machines) and a 13.8 vdc to 9.6 vdc power converter was installed on the back of it so the Micor will be able to run with



WD7S Triode Control Board Under Construction

a single 12vdc input.

The Henry amps for the 442.275 and 224.280 sites were completed. The

rack mount ears were installed on the 442.275 amp and both amps modified to allow the fans to be controlled by the repeater controller and activated on PTT instead of via the internal thermal switch. The latter method caused us to lose 35w output before the fans kicked on! Now, we maintain our 200w output on key down.

Lastly, James Adkins built the WD7S triode control board to control the Bext T1500 1500w 53.270 repeater amp. With the board completed, James will be meeting with Thad Huff, KC0AQG, to install the board and begin testing the amplifier for RF output.

Any questions or comments can be directed to technical@nixahams.net.

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

Did You Know???

On December 3, 2001, the Nixa Amateur Radio Club became "official" when we received our club callsign, KC0LUN, from the FCC. Several months later in April 2002, we became a not-for-profit incorporation in the State of Missouri, which exempts us from paying state taxes and was the first step toward obtaining 501(c)3 status. In September 2002, the club was granted 501(c)4 status instead of 501(c)3, so donations were not tax deductible. It would not be until March 2006 that our 501(c)3 status

was obtained, thanks to the help of club member Justin Harris, KC0VJJ. Surprisingly, the IRS back-dated our exemption to April 2002!!

During this time, Chris Cochran, KB0WZC, James Adkins, KB0NHX, and Kevin Hunter, KA0I, pooled their funds to purchase equipment for the 145.270 repeater. With Chris buying the repeater, the three of them split the cost

of the 1-1/4" heliax, and James bought the antenna, antenna mount, controller and duplexers for the repeater system and paid for the installation. This project marked the first time James was able to get a discount or donation on a club project when the DB Products DB-4060 duplexers, which listed at \$3600, were sold to him for only \$900. After a year of cutting read tape with the City of Nixa and the Lutheran Church, the club was granted permission to install the repeater on the city water tower. PDQ was hired for the install at a cost of \$1200.00.

April 2010 Treasury Report

Beginning Balance: \$1,013.57

<u>Debits</u>	<u>Credits</u>
\$147.34 WD7S Triode Control Board	\$ 42.00 Dues
\$250.00 (2) Iota DLS-75 power supplies	\$ 1.15 Dividend
\$ 92.00 (2) Duracomm SL-Racks	\$250.00 Donation—McKesson—KC0UKB
	\$500.00 Donation—McKesson—KC0VGC

\$489.34—Total debits

\$793.15—Total Credits

Ending Balance: \$1317.38



Primary Business Address
Your Address Line 2
Your Address Line 3
Your Address Line 4

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

BUSINESS NAME

Your business tag line here.

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