

PRINTED CIRCUIT

NOVEMBER 2002

Newsletter of the Joplin Amateur Radio Club

Vol. 12 Issue No. 5

NOMINATIONS LOOM

What words would you say strikes fear into the heart of every Ham in this club and makes them run for cover? After observing this organization for several years, I would choose "Elections" of course! Fortunately, this problem is not peculiar to this fraternity, so why even mention it. Mainly, because for organizations such as ours, it is an important event in which the membership decides the leadership and direction, or perhaps the lack of it, that it will choose for the next term. In other words, once a year, the membership decides what type of club it wants to have, and which direction it wants to go, simply through a selection of a team from members such as yourself.

This club's charter calls for annual elections of four officers the last meeting in November: President, Vice-President, Secretary, and Treasurer. It also calls for a nomination committee to be formed at the last meeting in October whose purpose is to query the membership and develop a slate of candidates for the election the following month. The committee provides several services for the club. It contacts the membership to find those persons that are willing to serve, it creates a slate of candidates, and it administers the balloting process at the time of the election. This helps minimize the time that election takes at the meeting, by eliminating superfluous nominations from the floor.

It may fall on the membership to decide the election, but its the members that have to stand up and volunteer. Do you have some fresh ideas for the club? Perhaps this year it's your turn to help the club along. ¶

JOTA WEEKEND IN HOLLISTER

How did the JOTA go in Hollister? Did anything especially interesting happen? What did the scouts think of the station, and what all did you set up down there?

Well, I was the only ham radio station there. The camp was set on about 40 acres and the boys had a long hike from the camping area up (and I mean UP) to the college to do anything there. It rained all Friday night and Saturday morning. I had galoshes, which helped out a lot, and my Jeep Cherokee didn't get stuck like some other vehicles did. :-)

I waited as long as I could on Saturday morning, hoping that I'd have at least one Joplin ham to go with me. One had volunteered, but when I contacted him on our club's repeater at 8:30 am, I found out that he had to be back in Joplin by 4 PM, which eliminated his assistance. We were supposed to have been set up the night before and be on the air until at least 5 PM. So, my son and I set off for Hollister. I might note that if he'd made it, we would have had Packet and APRS to play with as well. Sigh...

We get there about 10:45am, and we're instructed to set up our station where there's power (a mobile generator). The closest tent to the power is the event staff feeding tent. I get a Troop Master that recognizes that I'm wearing a callsign on my hat and he volunteers a few of his boys to set up my antenna, a Carolina Windom. We get the short end up in a line of trees and the long line is supported by six 4' aluminum pipes (from an Army antenna

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ARRL REAFFIRMS TIES WITH RED CROSS

The ARRL and the American Red Cross have renewed and updated the Statement of Understanding (SoU) between the two organizations, last visited in 1994. Formal cooperative arrangements between the ARRL and the American Red Cross date back to before World War II.

"Both ARRL volunteers and American Red Cross workers will work cooperatively at the scene of a disaster and in the disaster recovery, within the scope of their respective roles and duties," the agreement provides.

ARRL President Jim Haynie, W5JBP, said no significant changes resulted from the consultations leading up to the new SoU, and the updated document reaffirms the spirit of cooperation that has existed all along between the two organizations.

"In the wake of 9/11 and all the wonderful work that was done in New York City and Washington, DC," Haynie said, "this agreement has rekindled our enthusiasm." Amateur Radio Emergency Service and Red Cross volunteers worked side-by-side following the September 11, 2001, terrorist attacks.

In the document, the ARRL recognizes the American Red Cross as "having primary responsibility for responding to domestic disasters" and expresses the League's desire "to maintain a harmonious and cooperative relationship" with the ARC in providing emergency communication services to communities affected by disasters.

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JOHN'S QRP CORNER OPERATING MOBILE

BY JOHN TUDENHAM WØJRP

QRP mobile operation can be fun also. I found this out on a recent trip to Lebanon MO. I have a mag mount 8 foot whip (1/4 wave on 10 meters), and a Kenwood 670 which runs 10 watts on 10 meter sideband. While parked by my Motel room near exit 127 on I-44, I decided to try to work a few stations in the CQWW annual DX contest. I put the mag mount antenna on the roof of the car and plugged the TS-670 into the lighter socket in the car. The rig set on the front seat. Was I surprised when DX stations were coming back to my call with only a few calls. With the engine off I had no car noise and since the rig only drew a little over 3 amps it was easy on the battery. Some of the stations I worked with the 10 watts and vertical were as follows.

EA8ZS- CANARY ISLANDS
LU4FR- ARGENTINA
YV4A- VENEZUELA
VP5T-TURKS& CAICOS
CX5BW-URUGUAY
ZD8Z-ASCENSION ISLAND
NP2B-US VIRGIN ISLANDS

Also several Canada and Mexican stations. This was done in only an hour of operation. No European stations were coming in at this time. Canary Islands are off the coast of Africa.

This proves that when 10 meters is open it is one of the best DX bands for low power and simple antenna. Actually an 8ft whip which is a quarter wave with the car body acting as ground is a very good antenna for 10 meters.

I have also used this location in Lebanon MO to work six meters in the past with QRP and good results. Anyone interested it is the Best Way Inn near exit 127 off I-44, on route 66 Elm street. The motel owner gives us a special rate so we stay there often.

John Tudenham WØJRP
ARCI QRP number 7798

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kit), and we lash the long wire antenna down to a truck's front towing eye. We get everything ready by 12 noon.

The Camporall staff chows down from 12 to 1, and at 1 PM we get down to business. And, of course, it's pileup city on all of the suggested frequencies. I did manage to get thru to one station, VP2MEB, Bob, down at Monserat Island, and he has a chat with about 12 boys from 2 troops, then he went QRT. I then made contact with N3AOI in NE PA and N9MA in Milwaukee, and they chatted with about 12 more boys.

With all of them, I tried explaining what all could be found on HF amateur radio, such as CW and SSTV, as well as phone. I also demonstrated how repeaters worked, by using my H/T to contact other hams up in Branson. I also mentioned the ISS and that there was going to be an amateur radio station "up there" all the time. I also demonstrated WWV and some SWL stations in the 15 MHz band.

The boys were all fairly impressed with the radio. No one mentioned the Internet about any of this, as we listened to a lot more stations than I logged above. We heard K5BSA, which is down in Dallas, and K2BSA, forgot where they were at, but they were just amazed that all these... voices... were coming out from the radio, and they were from so far away! That was the fun part, explaining how, at certain times of the day, one could easily talk around the world. I mentioned the phone portable QRP record, which was between a couple of FT-817's, one here in the US, the other in Australia. They were seriously impressed. :-)

We're done by 4:30 PM, and they invited us to stay for supper, but my son and I decided to just pack up and head into Branson. We took down the Windom, thanked everyone, we got a patch each, and I got a Staff hat! Arthur and I had dinner out and saw "Space Station" at the Branson IMAX Theatre, then we drove home, getting back around 11 PM.

RAY BROWN, KBØSTN IS THE COMMITTEE CHAIRMAN FOR PACK 77, AND WEBELOS ASS'T. DL FOR DEN 3 IN THE NIH-KA-GA-HAH DISTRICT, OZARKS TRAIL COUNCIL OF JOPLIN, MO

ARES NEWS AND EVENT SCHEDULE

October News

Andy reports that not a whole lot has happened this year in this area of the country as far as ARES communication is concerned. Storms this year have been less severe, although there was some light flooding this spring and into summer. There were a few hams that helped with communications during the DA episodes. Sue acted as net control a few times for our ARES group. Martin, JC, and Dave have really pitched in to assist a lot.

Last Friday, the Red Cross called to find ask how many hams that I have listed to assist in the event of a major disaster. With the situation facing America today, there is a real possibility of a major disaster occurring within the four state area. The question that must be asked is if we have the training and resources in place that are needed should a catastrophe occur. I encourage all hams in the area to consider becoming part of ARES who are not now involved, so that we can work toward preparation.

I might point out that the next State-wide Tornado Drill is scheduled for March 12th, 2003.

The Jasper County/Tri-States ARES participates in drills regularly with other area agencies in order to supply a coordinated communications backbone in case of an emergency. All area hams are encouraged to join ARES and become familiar with procedures. Andy is asking that you contact him to "sign up" if you can participate. Generally, the only equipment required for ARES participants is a 2m radio. Certificates are often awarded for various activities and drills.

You can learn more about ARES by attending JARC meetings where ARES announcements are given. In addition, regular ARES announcements are also made weekly at 19:30 on the JARC Monday night net. Andy can be reached at 417-673-8371, on the air, or email at ka0tud@arri.net ¶

ON EFFICIENCY OF MOBILE ANTENNAS

The following question was sent to the Four States QRP Group - <http://fsqrp@w0ch.com/fsqrp/index.htm>

I have a question QRP vs QRO (~20watt) for mobile operation. I haven't had any contacts mobile on 40 or 80 using SSB mobile (FT-817). However I have worked several stations on 17m SSB. I'm wondering if a bit more power is needed for the lower bands? I read about the Ramsey Amp and am thinking about it with filters for 40 & 80m.

Any suggestions?

- Larry

Hello Larry,

Your question actually doesn't relate to "power". Basically it has to do with the radiation efficiency of your mobile antenna. If you have an 8 foot whip on your mobile, that would be a quarter wave on 10m and would be very efficient and you could work the world with low power (See WØJRP's 10 wt 10m 2hr DX QSO's elsewhere in this issue).

On 17 meters a quarter wave antenna needs to be 13 ft. tall, so your 8 foot whip loaded to 17m still would have pretty high radiation efficiency and you could do pretty well with low power. However, on 40 meters your mobile whip needs to be 33 feet tall for a quarter wavelength. Now, your 8 ft. loaded whip will have a very low radiation efficiency and be pretty bad. On 80 meters, your 8 foot mobile whip needs to be 66 feet tall to be an efficient radiator.

AA6GL's Mobile Whip program shows that an 8 foot whip center loaded with a 3 inch diameter 12 inch tall loading coil at 3.8 MHz will have a radiation efficiency of only 3.4 % and relative radiated power of -14.7 dB (very very bad).

Bottom line: 10 watts on 10m to an 8 foot whip is almost 100% efficient, good for QRP. While 10 watts into a loaded 8 foot mobile whip on 80 meters might only radiate about a third of a watt or less, so more power is needed to compensate for the poor antenna.

Hope this helps. - Jay Rupar KØETC

Electronic Equipment of KFØTD

The following is a list of some of the electronic equipment belonging to the (late) Bruce Cummins KFØTD as of 10/28/02. All are believed to be in good working condition and some have manuals. To make an offer on any of these items, call or e-mail any one of these people listed here:

J. Eubanks, NØNFY at 417-624-2470
jeubanks@joplin.com

D. Holland, KIØL at 417-624-4939

dholland@ipa.net

K. Cummins ustwo@cox-internet.com

- Sony TV set. Approx. 12"
- VCR. Phillips Magnavox. 4-head
- Oscilloscope. AN/USM-338
- Universal talkie battery charger
- Function Generator. Kenwood ELFG-273
- Sweep Signal Generator. Wavetek 1801A
- Electronic Keyer. Heathkit HD-1410
- Universal Counter. 50 MHz. HP 5302A
- Counter. 1300 MHz. HP 5305B
- Ham Radio. Icom 2 Meter. IC-228H
- Power Supply. Lab DC. Tenma 72-2010
- Power Supply. Lab DC. Tenma 72-420
- Antenna Tuner. MFJ Deluxe Versa Tuner II. MFJ-949D
- Spectrum Analyzer. HP.
 - 1 Display. HP 141T
 - 2 RF Section. HP 8554B
 - 3 IF Section. HP 8552B
- Distortion Analyzer. HP 334A
- Signal Generator. HP 8640B
- SSB Transmitter Kenwood T-599D
- SSB Receiver Kenwood R-599D
- Digital Clock. Advance 4075
- Audio Equalizer
- Scanner, 1000 channel. R.S. Pro-2042
- Short-wave Receiver. Icom IC-R71A
- HT charger. AudioVox DC405A
- Dummy Load. Decibel 300 watt
- Power Supply. 12 Volt DC. 12 Amp. Pyramid PS-14KX
- Oscilloscope. With Lab Stand. HP 180A
- Coax Cable. RG 59/U Partial roll.
- Tube Tester. Sencor TC-162
- Tape Player, audio. Technics M222
- Multimeter. DVM. Fluke 8020A
- Oscilloscope. HP 181A
- Multimeter. Micronta.
- SWR Meter. Diawa 140-525 MHz
- RF Power Meter. PRM-1
- SWR Meter. Mars.
- RF Stereo Generator. Heathkit.
- Scope Calibrator. Heathkit.
- Antenna Tuner. 2 Mtr. MFJ-921
- Antenna Analyzer. MFJ-259
- Ammeter. DC. 0-50 Amp. Weston.
- Variac. AC

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Among other things, the SoU calls for "close liaison" between the American Red Cross (ARC) and the ARRL and for each organization to "share current data" regarding disasters and disaster declarations. If amateurs are required to carry ARC identification while supporting the Red Cross during a disaster, the ARC is to provide operators' names if ARRL requests them.

With some exceptions under the SoU, amateurs would at all times be considered ARRL volunteers. In addition, the SoU says, amateur licensees supporting the ARC "shall at all times exercise sole and exclusive control over the operation of their radio stations. Such control cannot be surrendered or delegated, in accordance with federal law."

The new agreement also characterizes the ARRL Amateur Radio emergency communications courses <<http://www.arrl.org/cce/>> as a mutually beneficial training program. "Volunteers holding valid ARRL Emergency Communications Certification credentials will be recognized for this knowledge," the SoU stipulates.

The newest SoU will remain in force for the next five years, although one provision calls for representatives of American Red Cross Disaster Services and ARRL to "jointly evaluate" progress in implementing the SoU and to "revise and develop new plans or goals as appropriate" annually. It was ratified in September by Haynie and ARC Disaster Services Executive Vice President John McDivitt.

In a letter marking the first anniversary of the September 11, 2001, terrorist attacks, the ARC's Jay Ferron, N4GAA, wrote Haynie to express appreciation for Amateur Radio's support for Red Cross activities over the years. An ARC disaster telecommunications partner, Ferron helped coordinate ARES and Red Cross activities at the World Trade Center.

According to Ferron, the American Red Cross encourages municipalities and homeowners' associations to employ

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regulations that will not impinge on the needs of Amateur Radio operators. "In emergencies, the American Red Cross and the people we serve need what radio amateurs provide--effective communications through existing equipment and antenna systems," he concluded.

A copy of the September 2002 Statement of Understanding between the American Red Cross and the ARRL is available on the ARRL Web site.

<http://www.arrl.org/FandES/field/mou/redcro.html>

6M DX OPENINGS LOCAL REPORTS

John Tudenham, WØJRP reports that with such a high K index of 5, even though the solar flux has been low, 6 meters has been wide open for the last 2 days.

OCT 24 - worked by John WØJRP
HP1AC Panama
TI/NH7C Costa Rica
TI/K4QFF
TI2KAC

OCT 25
HC8/XE1KK Galagopolis Islands
HC8N
FY5KE French Guiana

OCT 25 - worked by Jay KØETC
ZD7 St Helena Africa for country#94

OCT 25 - Bob ABØVB ex KBØNRD
worked his first real six meter DX
HP1AC
HC8N
Bob was just using a **dipole antenna!**

DID YOU KNOW THE CLUB SELLS COAX AT COST TO CLUB MEMBERS?

RG8X - \$0.31/ft. LMR400 - \$0.71/ft.
Contact Jim NØZSQ at the meetings.

BUY - SELL - TRADE

NOTE: INDIVIDUAL LISTINGS ARE FREE TO THE AMATEUR COMMUNITY, AND SPACE IS ALLOCATED ON A FIRST COME BASIS. COMMERCIAL AD SPACE IS AVAILABLE AT A NOMINAL CHARGE.

For Sale - 12V 4.5AH Sealed Batteries - NOS
Rechargeable Sealed Lead Acid batteries for use in alarm and lighting systems. Meas. 3-1/2"x2-5/8"x4", perfect for portable use. Warehouse fire stock, good undamaged batteries with at least 80% of their life left. \$6.00/ea.

(417) 781-2211, email wb0iyc@arrl.net

11/2002

For Sale - SIGNAL 1404-S 4 BAY DIPOLE
Heavy Duty 21ft phased array. 140-160 MHz. Former club repeater antenna. Serious offers only. Contact: Martin WD6FIC (417) 623-6618
email wd6fic@arrl.net

10/2002

For Sale - Kenwood TS-660 All Mode four band transceiver. Cover 15, 12, 10, & 6 meters. 12VDC mobile 10W transmitter. Very good shape, complete w/orig. carton, OP & Service manuals. Asking \$450. Ray KBØSTN
(417) 781-4967, email kb0stn@arrl.net

10/2002

For Sale - ALINCO DR-570 2/440 FM 12VDC mobile rig w/20 memories. Good shape w/orig OP manual, mt. bracket, and mic. Asking \$150. Ray KBØSTN (417) 781-4967
email kb0stn@arrl.net

10/2002

For Sale - ALINCO DRM-06H 6m 20W FM rig w/100 memories. Will receive 40-60MHz. Very good shape w/orig OP manual, and mic. Asking \$150. Ray KBØSTN (417) 781-4967
email kb0stn@arrl.net

10/2002

For Sale - TEN-TEC 1209 2m-6m Transverter. 10W in 10W out, 12VDC. Good Shape. Kit assembled and tested. Operates okay w/kit manual (incl schematics). Asking \$100.

Ray KBØSTN (417) 781-4967

email kb0stn@arrl.net

10/2002

For Sale - KLM 2000A 2m All Mode Rig. Dual power 120VAC/12VDC, 5W transmitter. Collector's Item, (my second radio). Good shape w/orig. manual and hand mic. Asking \$200.

Ray KBØSTN (417) 781-4967

email kb0stn@arrl.net

10/2002

Wanted - Good 5 Element 6 meter Beam

Ray KBØSTN (417) 781-4967

email kb0stn@arrl.net

10/2002

For Sale - several 386/486 CPUs

Contact Wayne and make offer. WBØAAN
(417) 438-0002 wgraham@4state.com

10/2002

AREA HAMFEST SCHEDULE

NOTE: LISTINGS ARE PROVIDED FROM THE ARRL.ORG SITE AS THEY BECOME AVAILABLE. TO SUBMIT AN ENTRY, SEE BACK PAGE.

2 Nov 2002 - Enid, OK ENID Hamfest. Garfield County Fairgrounds, 302 E. Oxford, Enid OK. Ticket \$2, Table \$1, Talk-In 145.290- 444.400+ no PL. Free parking, coffee and doughnuts. W5YI - VE testing 1 pm, Prize Drawings 2 pm. Enid Hamfest Group. Contact: Tom Worth, NSLWT 580-233-8473
Email: enidhamfest@yahoo.com

9 Nov - Springfield, MO Ozarks Regional Hamfest presented by Southwest Missouri ARC. NEW Location & Date! New Expo Center at 2610 N. Glenstone, Springfield, MO. Lots of parking and 12,000 sq. ft. exhibition area located near I-44/Glenstone Interchange. 8:00 am to 1:00 pm. Admission is \$5.00; children 15 and under admitted free. Tables are \$10.00 Talk-in: 146.910- (no PL)
Contact: Lee Shafer, WØTLS, 1326 E. High Point St., Springfield, MO 65804
Email: hamfest@smarc.org

18 Jan 2003 - St. Joseph, MO Missouri Valley and Ray-Clay ARCs 13th NW Missouri Winter Hamfest at the Ramada Inn (I-29 and Frederick Ave, Exit 47 on I-29; special hamfest rates); Talk-In 146.85 and 444.925; 8a.m.-2p.m., \$3 admission or 2 for \$5. FCC exams, major exhibitors, flea market all indoors. For details, write Northwest Missouri Winter Hamfest, c/o Neal or Carlene Makawaski, WBØHNO/KAØIKS, 3704 Meadow Oak Lane, St Joseph, MO 64503, 816-279-3406; Email: nem3238@ccp.com

1 Feb 2003 - La Cygne, KS Mine Creek ARC presents the Mine Creek Hamfest
Contact: Ron Cowan, KBØDTI, PO Box 36, La Cygne, KS 66040, Phone: 913-757-4455
Email: kb0dti@arrl.net

8 Mar - Harrison, AR Harrison Hamfest 2003 Sponsored by North Arkansas ARS 8:00 a.m. to 2 p.m., North West Arkansas District Fairgrounds. Adm. \$5 (16 and under-free). Indoor Tables \$10, Outdoor Tailgating (requires admission ticket).
Contact: Bill Carlton, KD5HBM, 7221 Hwy 62 East, Harrison, AR 72601, Ph: 870-743-6211
Email: kd5hbm@alltel.net
<http://vistaeng.homeip.net/naars/hamfest/index.html>

NOVEMBER 2002

Joplin Amateur Radio Club Meetings and Events

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
					1	2 09:00 BREAKFAST -
3 14:30 -16:00 JARC SLOW SCAN NET	4 19:30 JARC MON NITE NET NET CONTROL - WØJRP	5 19:30 JARC BUSINESS MEETING	6	7	8	9 09:00 BREAKFAST -
10 14:30 -16:00 JARC SLOW SCAN NET	11 19:30 JARC MON NITE NET NET CONTROL - NØZPD	12	13	14	15	16 09:00 BREAKFAST -
17 14:30 -16:00 JARC SLOW SCAN NET	18 18:30 VE TESTING@ ST. PAULS METHODIST CHURCH 19:30 JARC MON NITE NET NET CONTROL - NØKMP	19 19:30 JARC CLUB MEETING PROGRAM - ELECTIONS	20	21	22	23 09:00 BREAKFAST -
24 14:30 -16:00 JARC SLOW SCAN NET	25 19:30 JARC MON NITE NET NET CONTROL - WD6FIC	26	27	28	29	30 09:00 BREAKFAST -

Meeting Times, Testing, and other Club Information

The **Joplin Amateur Radio Club, Inc.**, a Missouri *not-for-profit* organization, meets on the second and fourth Tuesdays of each month at the Joplin Municipal Building, on the lower level, in the Civil Defense dining room at 7:30 PM. The facility is accessible to the handicapped.

The club supports and promotes annual operating events, assists area agencies with communications when requested, and offers training classes for advancement in amateur radio. It also sponsors the JARC Hamfest each year in April, and maintains a wide area coverage OPEN 2m repeater on 147.21 MHz (+).

Some club members can be found weekday mornings around 8:30 a.m. meeting for coffee at the Ramada Inn at 34th and Rangeline Road. On Saturday mornings, area Hams also

gather for breakfast around 9:00 a.m. at the restaurant next to Smitty's Grocery located at 1820 Maiden Lane in west Joplin.

For details contact Martin, WD6FIC at (417) 623-6618

2002 CLUB OFFICERS:

President: Martin Matarazzo	WD6FIC
V. P. Dan Mouldin	KCØBBU
Treasurer: Jim Johannes	NØZSQ
Secretary: Mark Mitchelson	NØZPD

Amateur Radio VE Testing

License testing by volunteer examiners takes place on the 3rd Monday of each month at the St. Paul's Methodist Church located at 2423 West 26th St. in Joplin. Sign up at 6:30 PM, testing begins promptly at 7 PM.

ABOUT THE NEWSLETTER

This club newsletter offers an open forum for the Four-State area amateur radio community, and ***your*** comments and contributions are always invited. Items for publication, including classified ads and amateur radio related articles, may be sent to the **JARC Printed Circuit**, P.O. Box 2983, Joplin, MO 64803-2983, or send email to: **wb0iyc@arrl.net**

Deadline for submissions is the 20th of the month preceding the month of publication. Non-Commercial Classified ads are free and will be run on a space available basis whenever requested. Submissions may be typed, handwritten, ASCII text files attached with email, or on disks formatted for IBM. *All items* are subject to editing for spelling, content, and space limitations as required.

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