

PRINTED CIRCUIT

AUGUST 2002

Newsletter of the Joplin Amateur Radio Club Vol. 12 Issue No. 2

WHAT DO WE DO WITH THE HAMFEST NOW?

You may have noted a considerable departure this year from “business as usual” with the expansion of the Joplin Hamfest. It started with a mailing of nearly 10,000 flyers, and finished with a banquet Saturday evening featuring keynote speaker Bill Pasternak WA6ITF (the voice of Newline) from Los Angeles. All of this was possible due to a gracious grant we received from the City.

In November 2000, the voters of Joplin approved a 2% increase in the gross receipts tax on hotel and motel lodging accommodations. It was designated that these funds be used for special events, beautification of city entryways, festivals, celebrations, and other activities that would promote the city and its features as a destination to visitors and tourists. Last summer, the JCVB made grants available to assist qualified applicant organizations with advertising and promotion of activities that they believed would directly increase the hotel/motel occupancy. The club fit the necessary qualification, so we applied for, and successfully secured a grant in excess of \$3200 from the Joplin Convention Visitors Bureau (JCVB), specifically earmarked for expansion of the hamfest event.

One of the criteria used by the JCVB to establish a basis for grant awards is the count of “hotel room nights” - the number of rooms rented times the days occupied. Needless to say, in their eyes, bigger is better! This year, we almost doubled the count as compared to 2001, with a total of 29 room nights at the Holiday Inn, alone. However, although a success for us, the count was small compared to several other

conventions in the area.

So this brings up the question - what to do. The club has sponsored this event since 1990, and it has grown every year until recently, levelling off at about a 200 table swap meet with an attendance consistently near 1000. This is a good sized event compared to anywhere in all of hamdom. The JCVB through the grant, gave the club an opportunity to expand the event into a bigger experience than just a “swap meet”. Unfortunately, support seemed to be lacking for a banquet. In a discussion with Midwest Director Wade Walstrom, he noted that we should not get discouraged from the poor attendance at the first banquet. Timing is everything, and perhaps having a banquet Saturday evening was the wrong approach.

This event has historically run just over a half day, with most visitors leaving by 3pm. The hamfest indeed draws people from over 60 miles away including Springfield, Fayetteville, Kansas City, and Tulsa. So why 3pm? Even a person from Kansas City who leaves by 3pm gets home for - you guessed it - dinner!

So - what to do. I have had several suggestions on how to extend/expand the hamfest, but none about what the club wants to do? We need to decide, and soon, what kind of hamfest we want, and how much work we are willing to put forth individually. I should note that we have applied for another grant for 2003, and we should know the results of our endeavor late in August. Stay tuned. ¶

WHAT THE ARRL WANTS TO SEE AT A CONVENTION

Ever wondered what the ARRL wants to see at a Convention? Here are some excerpts of the response provided to me by Midwest Director Wade Walstrom when I queried him on behalf of the club. He also offers some observations and criticisms of his first Joplin Hamfest. He writes:

...
I look for something special for a convention. These are some things I keep in mind ---

1. A convention is more than a hamfest or flea market. A convention should be an opportunity to learn something.
2. I look for a full line up of forums at a convention. (I like to see forums at hamfests, too.) These should include an ARRL forum (obligatory for an ARRL sanctioned convention), forums related to technical topics (antenna design, PSK31, repeaters, amplifiers, etc.), how-to types of forums (traffic handling, packet radio, DX, contesting, etc.). This year's Midwest Division convention had a legal forum as it relates to ham radio and a forum on bicycle mobile operation. The QRPers met there as well and had programs on QRP operation and another forum on kit building.
3. The forums should be scheduled to continue most of the day. The Sioux City group has hosted a multiple day convention for several years. I prefer those. A strong forum schedule is necessary to hold a crowd into Saturday afternoon.
4. I like to see a banquet at a convention. Encourage groups to host luncheons - QCWA, traffic nets, DXers, etc.

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VHF REPORT

John's E-SKIP MISFORTUNE

Here it is, the peak of the so-called summer E-skip season and for the most part six meters has been mostly dead except for just a few brief openings. One bright spot occurred the



evening of June 14 when the E-skip MUF got up all the way to 144MHz. I was out of town and missed the action, but Jay KØETC got in the action in a big way. Jay, after working 67 stations to the east on a six meter pileup, decided to switch to 2 meters when signals started to pop in. Jay worked the following stations on 2 meter ssb:

VE3CVG	FN25	ONT
VE2HMA	FN25	QUE
VE3AX	FN02	ONT
VA2ADB	FN25	QUE
VE3FN	FN25	ONT
KU2A	FN42	NH
K1TR	FN42	NH
AC3A	FN03	NY
AA1TT	FN33	NH

As I said, I was out of town and no rig in the car. We were at a motel in Lebanon MO waiting to meet my wife's niece and family (who are hams by the way). They had just returned from Brazil. While

waiting, I was listening to the FM broadcast band on the car radio, and noticed that there were Canadian stations all over, loud and clear including some French speaking ones in Quebec. I also heard some transmitting from Maine and New York. This was the time I wished I had brought a rig with me because I knew 6 and maybe 2 meters were wide open.

They arrived at 6:25PM, I quit listening and headed to the Western Sizzlin for dinner. We were joined for dinner with my friend KCØHVS, who lives in Lebanon and also a VHF op. We were both missing the best VHF opening in a generally poor year. Oh well, maybe next time!

Many times I have been asked the question "How often does two meters open up for E-skip"? The answer I give is that six meters is generally open about one hour in ten, but openings on two are not that often. The range for contacts on two is usually between 800 and 1300 miles, and the openings are of shorter duration than on six. About 90% of the openings occur from May through July, although sometimes a rare one might occur in December. Tropo openings are much more common on two meters than sporadic E-skip.

One thing to remember about E-skip. Unlike tropo, polarization does not make any difference, as the polarization tumbles when it hits the ionized E-layer.

73 John WØJRP
Grid EM27RB

FOR LINKS, PICTURES, AND INFORMATION
JARC WEBSITE

WORKING WITH ODDBALL TOROID CORES

Jay Rugar offers some help for those who like to experiment.

Do you have some odd ball toroid cores with a mix like XP47-69AB7???

Here is a simple method to tell you how many turns are needed for a certain wanted inductance.

Wind ten turns on the toroid and measure the inductance (many different ways).

Then use this formula:

$$N = 10 \times \text{sqr root}(L / L10)$$

where:

N = number of turns needed

L = required inductance

L10 = inductance at 10 turns

It is kinda obvious now that I see it but I didn't think it out for meself - hi hi.

73 Jay KØETC

ARES EVENTS AND SCHEDULE

The Jasper County/Tri-States ARES presently is holding their semi-monthly meetings in conjunction with the JARC on the 2nd and 4th Tuesdays at 7:30pm. All are encouraged to attend. In addition, ARES announcements are also made weekly on the JARC Monday night net at 7:30 p.m. for the benefit of the membership. Anyone interested in learning about ARES is encouraged to tune in. The repeater frequency is 147.21 MHz (+).

There is an ARES exercise is currently planned for the end of August.

For schedules, announcements, or any additional information about ARES:
http://www.geocities.com/jasco_ares/ .
or contact Andy either on the air or email him at ka0tud@arrl.net ¶

MINNESOTA HAM WINS SCHOLARSHIP

Eighteen-year-old James J. Jefferson, KBØTHN, of Winona, Minnesota, has won the \$10,000 IEEE Presidents' Scholarship. For his winning project, "Automatic packet reporting system (APRS): Building a large-scale geospatial database," Jefferson collected and cataloged the entire APRS Internet stream into a relational database. A ham since 1995 and an ARRL member, Jefferson said it struck him that "something useful could come from all this data, if it could be collected and analyzed."

For the purposes of the project, he concentrated on the Los Angeles freeway system. The data are reported in a variety of ways, so Jefferson had to write a program to translate the data into a common format. He also developed software to analyze the position data and wrote another program to search digital maps for the distance to the nearest road, in order to offer options to people stuck in traffic. The project involved writing some 10,000 lines of code, and Jefferson worked completely on his own. His software collects more than 600,000 data points a day. A friend helped him locate space for a series of computers he linked together called a Beowulf cluster to work the data. The rest of the work he does in his basement.

Jefferson (who prefers to use his middle name instead of his legal surname, Jarvis) plans to continue with his project, investigating the use of neural networks to detect road anomalies such as traffic jams.

For relaxation Jefferson tends a weather station he built with a friend near his home and enjoys hiking and biking. He plans to attend Iowa State University in the fall and major in computer sciences ¶

**Don't Forget!
JARC Tailgater Oct. 5th**

FCC TO GET TOUGH WITH POWER COMPANIES

The FCC plans to get tougher on electric utilities that fail to fix problems causing interference with Amateur Radio and other licensed communications. Special Counsel for Enforcement Riley Hollingsworth met recently at ARRL Headquarters with Ed Hare, W1RFI, and John Phillips, K2QAI, of the ARRL Lab staff to discuss various electromagnetic compatibility (EMC) issues. As a result of that session, changes will be made in the way ARRL and FCC cooperate on power-line cases.

"What we've done is to review all cases that the League has worked on where we had no cooperation," Hollingsworth said this week. "In at least three instances, the power company in question hasn't cooperated as it should have." Hollingsworth said these cases will "go to the next step," which likely will entail involving the appropriate FCC field office for additional investigation and appropriate enforcement. In the future, initial letters from the ARRL and the FCC will impose a shorter compliance window and will be more firmly worded. In addition, a follow-up letter from the FCC will be sent to utilities that fail to respond appropriately to the initial inquiry.

The routine FCC letter to a power company cites the requirement to rectify problems with their equipment "if the interference is caused by faulty power utility equipment." FCC Part 15 rules classify most power-line and related equipment as "incidental radiators." This means the utility equipment does not intentionally generate any radio-frequency energy but may create it as an incidental part of its intended operation. The FCC urges a utility to locate sources of any interference caused by its equipment and make necessary corrections "within a reasonable time."

Typical was a recent letter from the FCC's Consumer Information and Governmental Affairs Bureau to Commonwealth Edison of Chicago citing radio frequency interference complaints from five Illinois amateurs. According to the FCC, the amateurs had attempted without success to

ARRL SOLAR UPDATE

Propagation prophet Tad "That Lucky Ol' Sun" Cook, K7VVV, Seattle, Washington, reports: Active sunspot regions have been coming into view, with a resulting rise in solar flux and sunspot numbers. Average daily sunspot numbers were up nearly 30 points, and solar flux up about the same amount when compared to the previous week. Wednesday had a very high sunspot number of 270--the highest since May 4 and 5, when it reached 271 and 317.

On July 23 sunspot 39 emitted a strong flare, but it didn't cause any major upset. Planetary K indices on July 25 were running between two and three, but earlier in the week the geomagnetic field was quite unsettled, with planetary K indices of four from July 20-23. On July 22 the planetary K index reached five, and Alaska's high-latitude college K index went to six.

Sunspot numbers are expected to remain fairly high, continuing above 200 over the next few days. As long as there aren't any geomagnetic storms, this is good for HF propagation. The current outlook for Friday through Monday is solar flux at 220, 220, 225 and 225, and a mild geomagnetic outlook with predicted planetary A index values of 15, 10, 10, and 8.

Sunspot numbers for July 18 through 24 were 166, 148, 136, 131, 176, 226 and 270, with a mean of 179. The 10.7-cm flux was 180.7, 182.3, 184.8, 182.8, 189.7, 198.3, and 208.4, with a mean of 189.6. Estimated planetary A indices were 8, 12, 18, 19, 20, 18, and 12, with a mean of 15.3 ¶

work through the utility's complaint resolution channels.

Utilities that appear unwilling to abide by Part 15 rules regulating unintentional radiation are in the minority, Hollingsworth said. By and large, utilities

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5. A program for the non-ham XYL can help to keep them occupied while the OM attends the convention. It might be an incentive if someone wants to attend the convention, but does not prefer to leave the XYL at home. This is not a necessity, but it can help draw people if done properly.

This was the first year I was able to attend the Joplin fest and I enjoyed it. You have an excellent facility to host a convention. I enjoyed the banquet this year and I understand that was the first time that has been done. I am sure you wished more would have attended, but these things have to be built up each year. Bill Pasternak was an excellent speaker for the banquet.

My one criticism of this year's fest, especially as it would relate to a convention, was the lack of forums, or at least the lack of a forum schedule. I got to pick the time and place for the ARRL forum about 30 minutes prior to the forum! Forums and presentations are an important part of the program and need to be planned and scheduled well in advance. That is not to say that flexibility should not be present, but attendees need to be aware of what will be available and presented prior to coming. The forum offerings should be a draw to the convention.

I hope this helps. If you have specific questions I will do my best at an answer.

There seems to be a lot of interest lately in Missouri for doing a convention. I like to see this interest since it can generate some competition among the clubs and can make for a better and stronger convention overall. My criteria to date for selecting a club to host a convention has been to approve the first one that applies. This has worked ok when only one club is interested, but will not work in the future when multiple clubs are now interested. I would like to work out a better system that is fair to everybody, but not discouraging to a club if they do not feel they get an opportunity to host a convention as often as they would like. I would welcome input from you and the others in the Joplin club on this topic!

73,

Wade Walstrom W0EJ
Director, ARRL Midwest Division

AREA HAMFEST

NOTE: LISTINGS ARE PROVIDED FROM THE ARRL.ORG SITE AS THEY BECOME

2-3 Aug 2002 Austin, TX - Texas State Convention, Austin ARC

Austin Repeater Org. & Texas VHF-FM Society
<http://www.repeater.org/summerfest>
Contact Joe Makeever, W5HS 512-345-0800
Email: w5hs@arrl.net

3 Aug Greenville, TX - Hunt County Hamfest Sabine Valley ARA & Raytheon RC

<http://www.qsl.net/svara>
Contact Jenell Robertson, KD5DXW 214-213-5920
Email: kd5dxw@arrl.net

3 Aug Springfield, MO - CANCELLED

Southwest Missouri ARC
<http://www.smarc.org>
Contact Lora Smith, KCØEPD 417-886-4152
Email: lora@cooldude.com

11 Aug Amana, IA - Cedar Valley ARC

<http://www.cvarc.rf.org>
Contact Katie Gugler, KØKTG 563-942-3558
Email: k0ktg@arrl.net

17 Aug Chanute, KS - Chanute Area ARC

Contact Charlie Ward, WDØAKU 620-431-6402

18 Aug Salina, KS - Central Kansas ARC

Kansas State Convention
<http://www.qsl.net/ckarc>
Contact Ron Tremblay, WAØPSF
785-827-8149
Email: rtremblay@cox.net

24 Aug Columbia, MO - Central Missouri Radio Association

<http://www.qsl.net/cmra>
Contact Dale Huffington, AEØS 573-875-6170
Email: dale@tranquility.net

7 Sep Springfield, NE - AK-SAR-BEN ARC

<http://www.aksarbenarc.org>
Contact Pat Joseph, NØHPP 402-492-9156
Email: n0hpp@arrl.net

5 Oct 2002 Warsaw, MO - Twin Lakes ARC

Contact Robert "Gene" Payne, KCØDRL
660-438-8650
Email: gpo@advertisnet.com

6 Oct West Liberty, IA - Muscatine & Iowa

City ARCs <http://www.qsl.net/kc0aqs>
Contact Mike Hayden, KBØTFT
563-262-8790
Email: kb0tft@arrl.net

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

For Sale - Clearance items: Intel 8748, 8749 single chip controllers, Z80A CPU, Z80-DMA/CTC, 7805T, Z8-ROMLESS, LM393, LM307, LM324, LM358, GAL16V8 choice 2/\$1.

Various Carbon Film Resistors ¼W 5% - 100/\$1. 2N4401/2N4403/2N2222 choice 10/\$1 Also large assortment of SK parts - all 1/2 price. Jim WBØIYC (417) 781-2211, email wb0iyc@arrl.net 7/2002

Wanted - VFO to use with Globe Chief 90 CW rig. The Heath HG-10 will work, probably others as well. Bill Collins, NØRRY Ph: 620-421-1345 Parsons, KS 11/2001

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contacted by ARRL as a result of power-line noise complaints from amateurs have been extremely cooperative, and he had high praise for the League's role in resolving complaints in the early going. Only a handful of cases--perhaps a dozen in all--have ended up being forwarded by the ARRL to the FCC for action.

"The League's record is outstanding here," Hollingsworth said. Cases necessitating FCC follow-up action have been minimal, he said, and most of those stem from the utility's failure to understand its obligations under Part 15.

Over the past year, the League has worked with amateurs on behalf of the FCC to handle 72 complaints of suspected power-line interference. Here, the ARRL Lab supervisor, says that the effort has had its successes, some cases may require more than an advisory letter from the FCC.

"Having the FCC field offices investigate those cases where a power company is not willing or able to assume its responsibilities is a good next step," Hare said. "The League and the FCC both hope that continued cooperation will bring these cases to a satisfactory end without having to resort to drastic enforcement measures."

AUGUST 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	3 09:00 BREAKFAST - RAMADA INN
4 14:30 -16:00 JARC SLOW SCAN NET	5 19:30 JARC MONDAY NITE NET	6	7	8	9	10 09:00 BREAKFAST - RAMADA INN
11 14:30 -16:00 JARC SLOW SCAN NET	12 19:30 JARC MONDAY NITE NET	13 19:30 JARC BUSINESS MEETING	14	15	16	17 09:00 BREAKFAST - RAMADA INN
18 14:30 -16:00 JARC SLOW SCAN NET	19 18:30 VE TESTING @ ST. PALLS METHODIST CHURCH 19:30 JARC MONDAY NITE NET	20	21	22	23	24 09:00 BREAKFAST - RAMADA INN
25 14:30 -16:00 JARC SLOW	26 19:30 JARC MONDAY NITE NET	27 19:30 JARC PROGRAM MEETING - SLOW SCAN TV	28	29	30	31 09:00 BREAKFAST - RAMADA INN

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.

Club members often meet weekday mornings in Joplin for coffee at the Ramada Inn at 34th and Rangeline Road around 8:30 a.m. On Saturday mornings, area Hams also gather for

breakfast around 8:30 a.m. at the Smitty's restaurant on E. 32nd St. in Joplin. While Smitty's is remodelling, the hams plan to meet at the restaurant in the Ramada Inn. 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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Joplin Amateur Radio Club, Inc.
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