



VOLUME 56 ISSUE 9

October 2006

QRP TO GO John Evans NØHJ



How do you fit a backpacking station in a pencil box – or two pencil boxes actually?

Some may recall when I installed an original KD1JV AT Sprint into a plastic pencil box along with a ZM-2 tuner, 8 AA cell battery pack, modules, and accessories.

cell battery pack, modules, and accessories.



Original AT Sprint rig with ZM-2 tuner

http://www.arsqrp.com/ars/pages/back_issues/2004_text/0304_text/NØHJ.html for a look at the ATS-1.

Since then I have trimmed the size and weight some more while maintaining the “all-in-one” philosophy.

My goals for the station are as follows:

- + Reduce size
- + Reduce weight
- + Keep as much of the rig and accessories

together and connected so that setup to operation is quick and easy

- + Keep the 8 cell AA packs so that I can operate for as long as possible without switching cells and have maximum power output from the ATS rig.
- + Provide for built in tuner so that I can operate all bands with one antenna.

The new unit includes an AT Sprint III transceiver and homebrewed KD1JV ALT antenna tuning unit without bridge matching



ATS-3 set-up – operating view

By removing the ATS-3 board from the Altoids tin and leaving it open in the new pencil tins I saved room and weight.

Cont'd



Batman tins, top view, closed

I bought two Batman pencil tins on eBay and epoxied them back to back.



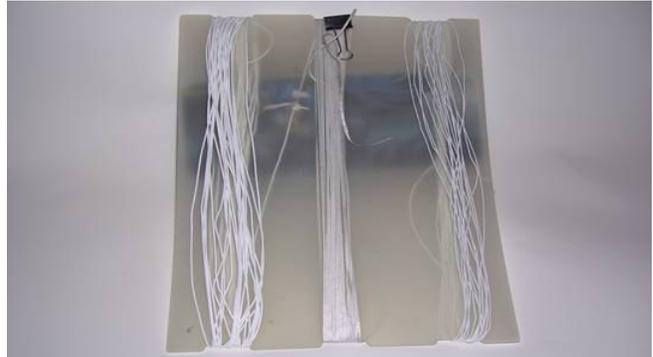
Batman tins, open, back to back

By removing the bottom of one of the tins, I reduce the weight a little more and the fit is tighter and neater.



Batman tins, back side, with accessories

The eight-cell AA battery packs fit into the opposite side with enough room left for storing CW key, ear buds, Fuchs tuner and a mechanical pencil.



16-ft counterpoise, 45-ft end fed wire, pc board material clip board

With a 45 foot end fed wire and 16 foot counterpoise, I can reasonably tune 80/40/30/20m without leaving the comfort of my operating position (nice if it is raining and I don't want to leave the tarp tent).

Accessories are stored in the bottom of the tin while easy-access controls are all in the top of the tin. I mounted larger buttons on the ATS-3 on the module side of the board and reprogrammed the ATS-3 so the normal order of the buttons is maintained.

The entire station, minus the antenna wire and writing surface weighs 16.3 ounces (almost 8 ounces lighter than before) and the antenna wire wrapped around a PC board substrate 8 X 10-inch sheet weighs 4.6 ounces (1.3 ounces lighter than before). Total station weight is 20.9 ounces – less than 1.5 pounds.

Steve NØTU and I gave the rig a workout on two recent trips on the Colorado Trail. So far, it is a keeper.

John Evans NØHJ

NEWS FLASH

Colorado Section EC Stepping Down



I'll be resigning my position as Section EC effective Sep 30, 2006 due to personal reasons. I have enjoyed serving in this position, and learned a lot from all those I've had the chance to work with. Colorado has one of the strongest ARES groups in the

country, and many extremely effective and smart individuals. As with any group such as this, it is a team effort, and the individuals in the group are what make it so good. Having been involved in ARES and RACES for so long now, I will most likely find some way to continue to help out, but not necessarily in a position of responsibility. The main thing is that I don't want to be in a position where my time can be unpredictable. In any case, I'll be around. Filling the void as the SEC will be Ben Baker KBØUBZ. Ben was the District 22 (Arapahoe County) ARES EC and has many years of experience working with ARES and many service agencies in the Denver. He's well known and well respected and should do an excellent job. His term begins on October 1. Thanks to everyone for the support you've given me. Thanks!

73
Rob N7LV

Thanks to Bob Hatch WØRSH and John Roth, NØQJS for helping out. We got one bedroom dresser out to the truck and John was able to get back up into my attic and pull all my coaxial and rotor cables back up and onto the roof. That was a very big help even if he did have to fight off a whole family of RACCOONS. John fought a fierce battle and that was with the babies. By the time he got to the mom & pop coons they realized they were fighting a losing battle and decided to lick the babies' wounds. I have to admit the bite marks John left were unbelievable. (ha ha). If you ever hear any scratching noises in your attic or on your roof just call John; he loves to pursue.

Also wish to thank Jim, ABØUK for the use of his furniture dolly. It has been and is still being used. Jim did call on the radio to see if his body could be used, but because of the heavy rain I told him to stay inside and keep warm and dry.

Thanks to those of you who showed up or contacted me. I got the A-3s down by myself on a dry warm day. I took it apart piece by piece and it's now at the new home, just not up yet. With the up and coming snow (yikes! and it's here already), I hope to get the antenna up before winter really sets in.

73s to all and again A BIG THANKS

Mike Dassero NØMUD

THANK YOU NOTE

I wish to thank those that came over to my old home to help me. The weather didn't cooperate with us so not much was done.

NONPROFIT STATUS

The PPRAA is a federal 501(c)(3) nonprofit organization, and welcomes all contributions. Your contributions or donations may be tax-deductible.

Jamboree-on-the-Air Oct. 21, 2006



Jamboree On The Air (JOTA) is nearly here. I'm looking for volunteers to help introduce scouts to this exciting hobby.

In the past, the mystery of distance communications over the radio waves was enough to intrigue our youth. Today, most youths carry a cell phone and can make free calls to grandma and grandpa living anywhere in the nation. Also, many youths enter kindergarten being well versed in using computer technology as well as understanding the basics of distance communication over the Internet, including having on-line friends from around the world due to interactive games. I have played Internet role playing games (RPG) teaming up with youths as young as 4, as well as adults in their 80s.

I need YOUR help. We have an opportunity to demonstrate Amateur Radio to a LOT of scouts. Exposure to youth is one of the main avenues we, as Amateur Radio Operators in the community, have in building our future. I know we cannot demonstrate all operating modes or operating styles, but we do have the means to create and put on one heck of a great show. This translates to volunteers. Will you volunteer?

Today, the challenge is engaging youths that are growing up with technology. They already know how to operate cell phones and computers, and they know all about wireless communication. We need to demonstrate various modes and styles of operation that illustrate the difference between amateur radio and a phone call. HF communication and its randomness may spark an interest in some, while others will be intrigued by VHF/UHF, with or without Echolink/IRLP, or CW,

APRS, ATV, Satellite, RTTY, psk-31, etc. Emergency Communications, the science of electronics and propagation and even a good old-fashioned rag chew need to be displayed. With different operating styles and opportunities on display, each scout has a chance to try out and find what appeals to him. The more we help them experience, the better a chance we will have to spark their interest and excite the next generation of amateur radio operators. ECom communications (ARES/RACES), contesting and chatting with friends each have their own brand of efficient/effective communications suited that can be conveyed to the scouts. While digital communication varies from voice, protocols and technology might spark an interest.

Currently there are 2 stations coordinators:

- ✚ Shel KFØUR/HF & SSB and Tent QRP Demo
- ✚ Mike KØTER/Digital

With an expected 150 to 200 scouts, plus a lot of adults, we need a few more stations and more relief operators. Whatever mode you would like to bring and demonstrate, we really need to have a couple of VHF/UHF stations, and a few operators efficient in the use of Echolink and/or IRLP, up and running. Apparently, these have gone over very well at other JOTA functions around the country.

JOTA operations begin Saturday, October 21st with setup Friday, October 20th. The site is located near Elbert, CO in Peaceful Valley Scout Ranch. Please contact me directly at KBØPPM@arrl.net or phone me at 635-0871.

73 and Thanks,
Dan KBØPPM

Jess Miley

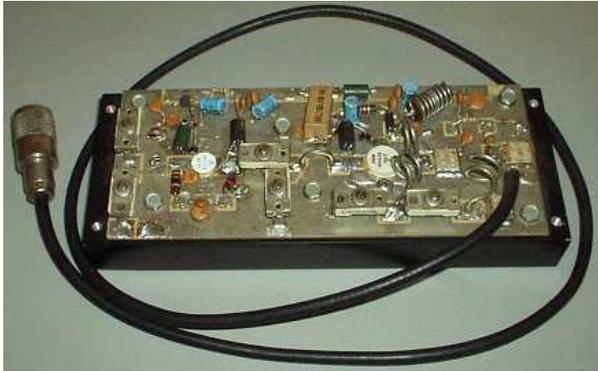
719 W. 7th, Florence, CO 81226
Amateur & Hobby Radio Products. We Trade.
Excellent Tech @ \$35 per hour.
Commercial rates higher / 719-784-3040

KØTAA

And the winner is...

Jim ABØUK

Sometimes all it takes to win is showing up. That's what Jim ABØUK found out at the last club meeting when he bravely brought his less than perfect home altered project.



2 meter amplifier

It is a 2 meter amplifier that I rescued from a hamfest and have (had) intentions of restoring.



Some pretty gross soldering

It appears that it is intended to boost the output of an HT from about 5 watts to about 35 watts. Most of the layout is actually not real bad. However some of the soldering is pretty gross.



Close up of soldering

Jim was willing to grin and bare his projects to win this month's prize. I guess he's the only ham in this area who has great ideas that don't always work out. I'm certain no one else has a project – or projects – sitting on the shelf in their ham shack or tucked away in the basement, attic or storage building just waiting for some day.

Congratulations, Jim.

Ø-BEAT DEADLINE

The deadline for the November 2006 Ø-Beat is October 25th. Send all submissions to the editor via e-mail, US Mail, telephone or in person. Please feel free to submit an article, joke or news – we need your fresh content!

IN OTHER WORDS...

Earlier this month I sent out a call for first time experiences with amateur radio. Dave Sloan NØEOP kindly responded with his memories and some pictures:

I first became interested as a cub scout when I converted a radio to listen to shortwave. I also my Morse code when I was a cub scout.

I passed my Novice test in the late summer or early fall when I was a senior in high school. I rushed home from school each day to see if I had received my license in the mail, in the days before computers and the Internet. When I finally got my license in the mail, KN8SJM. The first "N" in my call sign stood for Novice, a letter that was dropped when I upgraded.

I converted a radio to shortwave from an article in the scout monthly magazine. You had to wind a coil and connect it to a tuning capacitor.



BC453/454 Command receivers

My receiver was a BC454 and the transmitter was an ARC-5.

I went over to my station and turned on the receiver and transmitter, waiting for them to warm up. After about 5 minutes I took a neon bulb (used as a cheap RF indicator) and tuned my 40-meter transmitter for max RF out. I sent CQ several times with no response. The transmitter had to be crystal controlled and the output under 50 watts. I checked the output with my cheap RF indicator and it was glowing brightly. I went back to sending CQ and listening. After about 2 hours of not getting any response, I called my Elmer to see what was wrong.



Three Command ARC-5 Receivers

He just gotten home from work and asked that I give him 15 minutes for his station to warm up. He would listen for me and call me if he heard me. When he finally got on the air, he heard me

Cont'd

AMATEUR RADIO LICENSE EXAMINATIONS

The Pikes Peak Radio Amateur Association Volunteer Examiner (VE) team holds testing sessions at 9 AM at the Colorado Technical University, 4435 North Chestnut (just west of I-25 and just south of Garden of the Gods Rd).

Exam fee is \$14.00 for 1, 2, 3, or all 4 elements at a session.

Checks should be payable to ARRL/VEC. For further details and a list of what to bring, contact Erik Mugele KGØXE or Dennis Major NØABC, or visit the PPRAA web site.

Mark your calendars:

Oct. 14 – Dec. 9

In Other Words...Cont'd

and another station in QSO. When I completed the QSO he called me on the telephone. He asked me how long I had been trying for my first QSO before I called him on the phone. I told him a couple of hours. He started laughing and then told me it took him almost 2 weeks to make his first QSO!

The other lesson I learned as a Novice came a couple of weeks later. My Elmer had converted some WW II surplus equipment for my station. In the evening I ran 80 meters and during the day I worked 40 meters. I had to change the transmitter completely and the coils on the receiver.

One day I hurried home from school, sweaty and anxious to get on the air. I changed the transmitters but forgot to change the coils in the receiver. After taking my shirt off to cool down and waiting a few minutes for the station to warm up, I remembered the coils. I grabbed the radio to turn it over and change the coils. What an electrifying experience! I thought that I should put the radio down, but all I could do was stand there holding on. I realized I'd better release the radio because there was no one home to pull out the plug or help.. I pulled both hands away from the radio. The radio dropped about 6 inches and I saw sparks shooting out of it. Like a true HAM I wasn't worried that I had just been shocked; I was worried about my radio! The radio still worked. I called my Elmer that evening and asked him how many volts were on the plug in the back of the radio. He told me 950 volts DC. I covered the plug with electrical tape to prevent any further incidents.

Next month we'll find out how Bob Witte KØNR was bitten by the ham radio bug.

73, as always...

Jackie Cornwell
ACØCA
Ø-Beat Editor

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** In final year of 2-year term.*

PPRAA BOARD MEETING MINUTES
September 18, 2006

Attendees: Christopher NC6T, Jim ABØUK, Mike WV7T, John KCØJFH, Su KCØPRN, Jackie Cornwell ACØCA, Dennis NØABC.

President Christopher NC6T called the meeting to order at 7 PM at The Remodeler.

The minutes were approved as printed in the Ø-Beat.

Reports:

Treasurer's Report: Jim ABØUK reported that we have at total of \$9707.49 in our three accounts.

Vice President's Report: no report.

Future Programs:

Oct: Elections

Nov: Personal Emergency Preparedness

Unfinished Business:

Elections: Our VP, Mike KØMLA, has a full slate for our October elections.

Megafest: A chairperson is still needed for the 2007 event.

New Ham Complementary Memberships: Dennis NØABC – will make available to new techs a link to a basic membership form on our web if desired for a free membership. Will need to have

New Printer: Jackie ACØCA evaluated two inkjet printers from HP, the Deskjet 9800 and the Business Inkjet 2800. She recommended the 2800 model, since it does two-sided printing. Having our own printer has the potential to cut our printing costs in half. At the suggestion of the board, she will also evaluate laser printers for comparison. We need a tabloid size (11x17) printer that will print two-sided copy.

New Business:

10-10 membership renewal. Not required. We will not renew.

Around the Table

Mike WV7T

- + Asset transfer – transfer has not occurred yet.
- + New Hams – suggests putting together a package for new hams. Local area info including our publicity sheet.
- + Fr. Tom has received the letter for donation of a Butternut vertical antenna. We still need to pick it up.
- + Will be donating some
- + Needs to be reimbursed for Extra class license manual. Jackie ACØCA moved to pay Mike the \$18 for the above manual. Su KCØPRN seconded the motion. Passed.
- + We need to know if Frank Skinner will be teaching a tech class next year.

Jim ABØUK

- + BARCFest will be held at Boulder Co. Fairground this coming weekend.
- + The Treasurer is now accepting 2007 dues.
- + Jim suggested that we should consider raising dues in 2007.
- + We need to renew our status as an organization with the state by Oct 31. We will also need to designate the main contact official before that time.

The meeting was adjourned at 8:19 PM

Next PPRAA Board meeting: 7PM, Monday, October 16, 2006, at The Remodeler.

Submitted by:
John Wishart KCØJFH
PPRAA Secretary
25 September 2006

PPRAA MEETING INFORMATION

The Pikes Peak Radio Amateur Association meets monthly at 7 PM on the 2nd Wednesday of each month at the El Paso County Health Department Auditorium, 305 S. Union Blvd, downstairs at the apex of the two buildings. For a map, please visit our web site at <http://www.qsl.net/ppraa/> or contact any of the board members for more information.

PPRAA CLUB MEETING MINUTES
September 13, 2006

Meeting called to order at 7:03PM by President Christopher Taylor NC6T. Officers not present were Mike Allison, Vice President and John Wishart, Secretary.

All those present introduced themselves. Twenty three members were present.

There were no "Silent Keys" to report.

Previous minutes were declared approved as printed by the President as there were no changes from attendees.

Treasurer's Report: Jim Harris ABØUK stated that there was a balance of \$9797.49 total in the club's three accounts.

Education Coordinator: Mike Anderson WV7T Day will be honored with a Special Events Station at his QTH. Mike is also planning other events and meetings to plan these events.

Volunteer Examiner Coordinator: Dennis Major NØABC report that at the last testing session on August 12th five tests were administered with four passing. Next test session is scheduled for October 14th at 9AM at Colorado Technical College.

Webmaster: Doug Nielsen reported he is working on the calendar and asked for any know changes to be submitted to him. His email address is webmaster@ppraa.org.

AMSAT: Tom reported that PCSAT-2 module is to be removed from the ISS by the Atlantis shuttle crew and returned to earth for rework and later redeployment.

ARRL Awards: Rick Brown KØSU reported he checked one set of QSL cards in the past month.

CCARC: Dan Scott asked that all none simplex frequencies be coordinated before use.

RACES: Doc reported that planning is underway for activities during the winter months. Everyone is invited and welcome to visit the RACES office.

Unfinished Business: Christopher Taylor noted that Mike Allison who is heading up the selection of candidates for officer elections in October has reported that candidates have been selected for all vacant positions.

New Business: None

Special Event Contest: The theme was botched and ugly equipment construction. There was only one entry. Jim Harris presented a VHF amplifier that he had received from another amateur and was trying to put into working order.

Hammy Award was presented by Mike WV7T to Dan KBØPPM for his work with the Boy Scouts and especially his efforts in JOTA (see below).

Program: Dan Scott KBØPPM discussed the upcoming Boy Scouts Jamboree on the Air (JOTA). Help is needed in several areas. Volunteers should contact Dan at kbØppm@arrl.net.

The meeting was adjourned at 8:15PM

Submitted by Jim Harris ABØUK, as the Secretary was absent.

Thanks to Jim in my absence.
John Wishart KCØJFH



PPRAA PRESIDENT'S CORNER

It is October once again and that means it is time for the annual club elections for the board of directors.

Nominations for board member positions will be closed at the club meeting on the 11th, so you have until then to submit your nomination. Mike KØMLA is the nominating committee chair and contact person if you are interested in serving on the board. The club welcomes your participation as a board member, so why not give it a try? It's important that we get a good number of the members to take part in the October meeting so that the election can be held according to the club bylaws. Please consider coming to the meeting this month to show your support for the nominees. These club members have graciously stepped forward to volunteer their time and effort in support of our club. Serving on the board of directors shows a great commitment to the success of the club, and can be very rewarding.

I participated in the Pikes Peak ARES support to the Pony Express trail run a few weeks ago, and that event proved to be a subtle introduction to autumn and winter outdoor amateur radio operation.

The run took place at the Rampart Reservoir at about 9,000 feet elevation. The temperature when I arrived the morning of the race was only 29 degrees. I operated bicycle mobile for this event, so I had planned ahead for staying warm while biking by bringing along several layers of clothing. What I discovered, however, was the importance of keeping your equipment and support gear happy when the temperatures are that cold. My bike-mounted hand-held turned out to have some operating quirks at low temperatures.

First of all, the LCD display responded slowly when I changed settings on the radio. Once I noticed what was happening I made sure the display caught up with me before I changed the setting. Next, I observed that the radio's microprocessor didn't like the cold either. As I stepped down the transmit power to determine the minimum power required to maintain contact with the net control station, the radio decided nothing but full power would suffice. After a bit of coaxing, I was able to get it to operate at the lower power setting for the rest of the event.

Once I had my radio working the way I wanted and we both warmed up in the morning sun, my next cold weather revelation was about my trusty ball point pen. Apparently, Bic rollerball pens aren't rated for work in temperatures below freezing. I made some nice scratches on my notepad, but nothing that was remotely readable. Thankfully, after the pen warmed up a little more, it cooperated well enough so I could take some notes.

All in all, the event was very enjoyable and it taught me some valuable lessons on the finer points of preparedness when it comes to amateur radio communications in the field.

73,
Christopher NC6T

QUICK TIPS



A hanging shoe rack is a great place to store QSL cards, HTs and accessories, envelopes, etc. It's a space saving storage unit for sure, and cheap, too.

Mike WV7T

MEMBERSHIP APPLICATION

All memberships are up for renewal at the end of the year. If you haven't renewed your membership yet, please use the form at the bottom of this page, and fill out all of the appropriate information so that the Membership Committee can update the records. Include your family so they can share the value and the fun. If you know someone interested in joining, make a copy for them or have them visit PPRAA on the web and download a copy of the PDF file at www.qsl.net/ppraa/membership.html.

| Membership Application for the Pikes Peak Radio Amateur Association, Inc. P.O. Box 16521, Colorado Springs, CO 80935-6521 | |
|---|--|
| Date: _____ <input type="checkbox"/> New Member <input type="checkbox"/> Renewal | In which activities would you like to participate? |
| Name: _____ | Field Day <input type="checkbox"/> |
| Address: _____ | Demonstrations <input type="checkbox"/> |
| City: _____ State: _____ Zip: _____ | Nets or round tables <input type="checkbox"/> |
| Call: _____ Class: N T + G A E Phone: _____ | Organize activities <input type="checkbox"/> |
| Mbr of ARRL? <input type="checkbox"/> Yes <input type="checkbox"/> No E-mail: _____ | Teach ham classes <input type="checkbox"/> |
| Additional Family Members to Join/Renew: | Full Member \$15: <input type="checkbox"/> |
| Name: _____ Call: _____ Class: _____ ARRL? _____ | Family Membership \$18: <input type="checkbox"/> |
| Name: _____ Call: _____ Class: _____ ARRL? _____ | Over 65 \$10: <input type="checkbox"/> |
| Name: _____ Call: _____ Class: _____ ARRL? _____ | Over 65 Family \$12: <input type="checkbox"/> |
| | Associate \$12: <input type="checkbox"/> |
| | Ø-Beat Only \$12: <input type="checkbox"/> |
| | Donation to Club: \$ _____ |
| | Total Enclosed: _____ |
| | <u>MAKE ALL CHECKS PAYABLE TO "PPRAA"</u> |
| Please indicate how you'd like your Ø-Beat delivered: (Defaults to standard hard copy in the event that NO check boxes are checked) | <input type="checkbox"/> Standard hardcopy via U.S. Mail |
| | <input type="checkbox"/> As a PDF file attachment via e-mail, to help save a few bucks |
| | <input type="checkbox"/> I'll save the club a few bucks and download it from the Web! |
| Circle your interests ⇨ HF / V/UHF / FM / SSB / Digital / DX / Contests / Technical / Hardware / Other _____ | |
| New and renewing members must submit a completed application form along with your check to the Treasurer. Please Type or Print Clearly! | |

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Colorado Springs, CO 80935-6521 USA

First Class Mail

To: