

THE PILOT KNOB AMATEUR RADIO CLUB

QRZ

QRZ VOLUME 1, ISSUE 1 JANUARY, 2005

QST-FROM THE SHACK-HAPPY NEW YEAR

By Mike Stewart, ABOVM-First, I want to thank Paul, Mac, and Nolan for their dedicated service on behalf of the Club. Each of them has given freely of their time, not only in the past year, but over many years. The Club has benefited immensely from their dedication and efforts. I hope each of you takes time to thank them personally. The 2004 Board deserves our sincere thanks, and we hope that all of them will continue to be deeply involved in PKARC.

2005 looks to be another great year for PKARC. One thing we've done well in the past, and hope to continue to do, is to recognize individual achievement. New additions to the web site and QRZ will highlight some of your accomplishments, both past and future.

We'd also like to have more of you involved in Club activities. I'd ask each of you to participate in at least one new event this year-maybe sample a mode or event you haven't tried in the past. We'll have a broad range from which to choose, including operating events and public service activities, so get out there and operate!

Our schedule for 2005 has some exciting programs as well. Look for details in this and upcoming issues of QRZ.

Lastly, we owe it to ourselves, and to those we serve, to increase our communications resources. One area we might consider is to extend our digital communications capabilities. Look for more information about this initiative in Club meetings, local nets, and the newsletter.

As has been well-said in the past, PKARC is your Club. One of the great things about amateur radio is the range of skills, interests, and people involved in the hobby. We look forward to sharing many accomplishments in the coming year. On behalf of the 2005 Board, thank you for choosing us to serve as your leadership team. See you on the bands!

HOW TO SERIES-JANUARY PROGRAM

Ever wonder "how to?" Several of you have asked recently about GPS devices and how to use them. At our January meeting, Gary Auchard, WB0MNA, will demonstrate the many features of Global Positioning System (GPS) receivers. Gary has owned and used GPS units for several years, including participating in "geocoaching."

Gary's presentation will feature a hands-on look at the operation of GPS systems. You'll see first-hand the ease of operation of many popular GPS units. Gary's program will be informative and should bring you some new ideas you can use.

The January program is the first in a year-long series that will discuss how you can increase your technical and operating skills.

SPECIAL POINTS OF INTEREST:

- *QST-FROM THE SHACK*
- *Club Purpose*
- *Club Information-Officers, Nets, Meetings, Social Events*
- *Upcoming Hamfest Schedule*
- *FCC Examination Schedule*

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MEET A HAM-GARY AUCHARD, WBOMNA

My interest in Ham Radio started in 1959 when a local Ham, Clarence Drummel, W0EBB, came blaring over a 6 transistor AM radio. Over the next few years, I took every opportunity to find out more about Ham Radio from him. I never got around to getting a license until 1973, but since then have progressed up to Extra Class. You needed 20 WPM Morse Code then.

My XYL is Martha-WB0ERI and I have a son and daughter who are also Hams, Stephen, KB0EFT, and Mary, N0XVV.

Currently my station is set up for HF, VHF, UHF, Fast Scan TV, Satellite, Packet, PSK 31 and QRP operation. QRP operation is the latest area of interest for me and one I have found to be the most challenging and fun so far. The rigs I use for QRP are the Yaesu FT-817, ICOM IC-703 and the SG-2020. Most contacts are made with 5 watts and portable homebrew antenna systems.

Building electronic devices is another part of Ham Radio I enjoy. Ham Radio allows you to build and use many electronic devices in your station and learn something at the same time.

I've been a member of the Pilot Knob ARC for 30 years and recently started a club called the Kickapoo QRP ARC (KQARC) in honor of my mentor, W0EBB. The main focus of the KQARC is portable QRP operating and the building of antennas and station accessories; You can check out the web site by going to: <http://kqarc.no.ip.org/>. This year I will be serving as the Pilot Knob ARC Vice-President. We have many new ideas to offer the membership of the Club and we hope everyone will become more involved in club activities as a result of some of these ideas. Other hobbies I'm into are Remotely Controlled Aircraft, Model Railroading, Bluegrass Music and RVing.

HARMONICS-HAM RADIO FOR KIDS-EMILY STEWART, KCOPTL

I've been a Ham for a few years now. I decided to join the fun because my Dad, AB0VM, was really into it. I decided, "I'm going to get my license!" and I did. I was really excited when the VE who graded my test said, "Congratulations, you've passed!" But I didn't do it solely for my Dad; I did it for other reasons too.

One reason why I got my license was because Ham Radio is very educational. You learn about different countries, talk to people in foreign lands, and you have worldwide friends and local friends from your Club. You also get awesome QSL cards.

You can also make your own equipment. I've made a few antennas myself. My Dad had to help me, and that's another reason why Ham Radio is so great. It takes teamwork. My Dad got me started with amateur radio and we work on a lot of things together, getting contacts, fixing antennas, radios, etc.

I really enjoy Ham Radio and plan to upgrade my license. I really hope more kids join the Club and enjoy it like me.

**I WAS REALLY
EXCITED WHEN THE
VE WHO GRADED MY
TEST SAID,
"CONGRATULATIONS,
YOU'VE PASSED!"**

CHRISTMAS PARTY-A GREAT TIME TOGETHER

Christmas

Party

As we closed out 2004, PKARC members gathered on Friday, December 3rd at the Mid-American Bank's Lincoln Room for the Club's annual Christmas party. Over 60 members, guests, and future Hams attended.

Highlights of the evening included the recognition of the Ham of the Year-Nolan Beatty, KB0TML. Nolan earned this honor for his long-time service as Secretary-Treasurer and QRZ Editor. The annual transfer of the Buffalo Chip Award took place as well. Rick, KF4LM, passed the chip to Mac, W0ROO. CONGRATULATIONS, MAC! Bill, K7URZ, walked away with the raffle prize.

We appreciate Jan, KD5MDA, and Paul's, KCOJQC, efforts in getting the food from the Santa Fe Depot and Davis Moulden, WB0YNE for coordinating with the Bank.

NET SCHEDULES

PKARC NETS

The PKARC Information Net meets each Wednesday at 7:30 P.M. on 147.000 (+). Contact Dave Phillips, KE0DL for more information.

Mac McConnell, W0ROO, operates a 70cm. Net on 444.800 at 7:15 P.M. on Sunday evenings just prior to the ARES training net.

ARES NETS

The ARES Net meets each Thursday at 7:30 P.M. on 145.330 (-) except for the first Thursday of the month when the Club has its regular meeting. Dick Quinlan can provide additional information.

The ARES Information and Training Net meets each Sunday at 7:30 P.M. on 147.000 (+). Doug Thomas usually is the NCS.

KANSAS NETS-

-3.920 MHz (LSB)

-Sideband net is at 6:30 P.M. daily.

-Phone net is at 6:45 A.M. on MWF.

-Weather net is at 7:00 A.M. and 6:00 P.M. daily.

-3.610 MHz (LSB)(QKS) is at 7:00 P.M. and 10:00 P.M. daily.



BUILD A BLOB—CLUB BUILD DAY FEBRUARY 19

Following Rich Reichert's fantastic series of articles on the Blob, PKARC will host a Club build for the Tray Trak 3. We will meet on Saturday, February 19th from 0830-1230 at the Red Cross building in Leavenworth. We will assemble the kits, program them, and test them at the session. What better way to spend a chilly weekend than making a new piece of gear, just in time for storm season?

This is a great opportunity to melt solder. If you've been hesitant to buy a kit because you're not sure you can tell an R8 from a C2, come join us. You'll have all the help we can muster. You don't have to buy a Tiny Trak 3 to participate. If you're an experienced builder and want to help, or you simply want to learn more about kit building, you're welcome.

What You Need. You provide your Tiny Trak 3 kit, the radio-specific cable, and your 2 meter radio. If you have a GPS device, bring that for testing.

PKARC will have doughnuts, soldering irons, printed assembly manuals, and programming cables. The Club will have some GPS units on hand for testing your assembled kit. Rick outlined the many uses of APRS capabilities in the first of his five part series. The Blob represents a powerful tool for use during storm season, and it has practical and fun uses too. How about a new twist on Fox-Hunting?

This will be a fun morning building an exciting new piece of Ham gear. You'll proudly say "I built it myself!" **Did I mention doughnuts?**

For more information, contact Mike Stewart, ABOVM or Gary Auchard, WBOMNA.

You may order the Tiny Trak 3 kit from byonics.com or order by mail. Be sure to order in plenty of time for the kit to arrive before build day. Mail orders can be placed by sending a check or money order to:

*Byron Garrabrant
8378 Granite Mountain Lane
Las Vegas, NV 89129*

**FIND OUT
WHAT A BLOB
CAN DO FOR
YOUR HAM
SKILLS!**

PKARC ON YAHOO GROUPS **DUES ARE DUE!**

If you haven't done so already, consider signing up for the PKARC Yahoo Group at <http://groups.yahoo.com/group/PKARC/>.

It's a free service, easy to sign up, and a great way to stay informed, pass ideas and information to Club members, and post and view Club photos.

This is a closed group for use only by PKARC members and, therefore registration requires membership approval, so be sure to include your call sign when signing up.

Members who have not renewed their membership in the Club are kindly asked to get with the Secretary to make their annual contribution. Anyone interested in joining, whether or not they have already obtained an FCC license, are also welcome.

Classes for Technical Class tickets will be held this year and, given a sufficient level of interest, classes for General Class may also be conducted.

PKARC

2005

FROM THE KICKAPOO QRP ARC DESK

This year I hope to increase the activity level of the Club members interested in operating QRP modes. This area of operating is very exciting and challenging and can improve your overall operating skills.

One of the events I would like to start in 2005 is the 'Miles Per Watt' contest. The rules for this contest are simple. Make contacts in any mode on any band with low power. The person with the longest distance per watt will win a prize at the Christmas dinner in December. You can report your contacts to me, or the other two PKARC officers, Mike or Ed. We will keep track of them and at the end of the year pick a winner. All members are eligible including the Club officers. This event is about operating skill and station efficiency.

Another operating event being planned is the 'Freeze Your Keys' event. The date for this event will be February 5th and we will announce the location shortly. This event will be an eight hour operating opportunity for the hardy Hams and those interested in experiencing operating in cold weather conditions.

The event will consist of stations set up in tents with portable antenna systems and generator power. The generator can power your station or you can operate off battery power if you wish. The generator should be capable of running a small electric heater to help keep the operators warm in the tent. This will be a good test of the generators, your rigs and antenna systems. It's also a good time to operate under cold weather conditions should an emergency event ever occur that requires us to do so. Not all disasters occur in warm weather!

If you would like, you can bring a generator or rig out and run it for an hour or so under load to test it out. We don't need to stay with the same equipment all day long.

If we can find the right location where we can have a small camp fire or maybe use a grill, we will roast hot dogs and hamburgers for lunch.

Come out and join us. It should be fun and educational at the same time. Watch the QRZ for more information as the date nears.

Other operating events are planned for later in the year, so get ready to have some fun and fellowship with your local Ham community.

Gary Auchard, WB0MNA, President, Kickapoo QRP Amateur Radio Club

**LOW POWER
DOESN'T
MEAN LESS
POWER!**

KQARCG

ARES NOTES-PAUL BACKS, COUNTY EC

Congratulations to all the participants of the November Simulated Emergency Test (SET). We amassed a total of 355 points--that is almost double what we did last year.

You folks really did a fantastic job. I think we reinforced the need to have NTS classes. Perhaps this year we will be able to accomplish that.

We need to congratulate Ed Menard, KD7QOR, for completing Emergency Communications Course Level III.

Put your weather spotting hats on for March. I will be sending out an updated roster of ARES members soon. When you receive it, please review it and let me know if there are changes.

Thanks folks for your support in the past and I'm sure I can count on you in the future.

Happy Holidays to all and I hope to catch you on the Buffalo Chip Net on New Year's Eve.

73, Paul, KC0JCQ



UPCOMING HAMFESTS & FCC EXAMINATIONS

Club members are reminded that the Fifteenth Annual Northwest Missouri Winter Hamfest, sponsored by the Missouri Valley and Ray-Clay Amateur Radio Clubs, will take place on Saturday, 15 January at the Ramada Inn at Exit 47, I-29 highway in St. Joseph, Missouri. The fest will run from 0900-1400 hours.

Admission is \$3 each or \$5 for two persons. It will be \$4 each or \$7 for two at the door. You can pre-register by sending checks and a SASE to Northwest Missouri Winter Hamfest at P.O. Box 1533 at St. Joseph, Missouri 64502.

There will be major exhibits, hourly door prizes, and other attractions. FCC exams will be offered also.

This event has always proved popular among local Hams.

The next PKARC FCC examinations are scheduled for 25 February at the Red Cross in Leavenworth. Anyone interested should contact Martha Auchard at 772-7350.

NEED A TONE BOARD?

As most of you know already, recently a sub-audible tone had to be placed on the 147.000 repeater to prevent interference from nearby electrical emissions.

Newer base stations and handhelds can readily handle this adjustment simply by setting the Continuous Tone Coded Squelch Setting

(CTCSS) at 151.4 Hz.

Older pieces of gear may require the addition of tone boards to make this adjustment. Dick Quinlan has advised that <http://www.comspec.com> is supposed to be a good source for PL tone boards for older radios.

To access this web site, you will need Adobe Acrobat

Reader which can be downloaded free of charge at <http://www.adobe.com/proindex/acrobat/readstep.html>.

Anyone requiring more assistance or wanting access to a hard copy of radios that can handle the SS-64 sub-audible tone encoder should consult with the Club secretary.

**The PL Tone
for the
147.000
repeater
is 151.4**

A LOOK AHEAD-APRS IN FEBRUARY

Brian Short, KC0BS, of the Kansas City APRS Group will give a program on the Automatic Position Reporting System (APRS) at our February meeting on Thursday, 3 February 2005.

Brian has been an active leader for implementing APRS technology in the Kansas City area. He has educated numerous KC area Hams on the use of APRS, and he has helped establish an extensive repeater system for transmitting APRS data in northeastern Kansas.

APRS was developed by Bob Bruninga, WB4APR, about 12 years ago for tracking and digital communications with mobile ground positioning system (GPS) equipped stations using two-way radio. APRS has grown to encompass just about every aspect of Amateur Radio.

We look forward to Brian's presentation and hope to see you there. For more information about KC APRS, see their web site at <http://www.kcaprs.org>.

**FIND YOUR
LOCATION
WITH APRS
AT THE
PKARC**

SUNDAY ARES NET TO CHANGE FORMAT

Attention all ARES and non-ARES participants! Starting on 9 January, 2005, the Leavenworth County ARES Information and Training Net will take on a slightly different format.

The new format will follow one more familiar with actual in-service net activity used by most groups during emergency communications.

One big change will be that this new format will be quite simply Traffic/Information/Announcement. Another change will be the way check-ins will be conducted. Be sure to listen for instructions from NCS as to how this will be done (and for those that don't know, your call sign "suffix" is the letter(s) following the number-hint, hint).

About once a month, I will revert to the old format as a general net, so again, be sure to listen to NCS for instructions. I would also like to add some type of training aspect to the net, so any suggestions would be appreciated. Please feel free to send me any comments or suggestions at kc5vkg@yahoo.com. 73s.

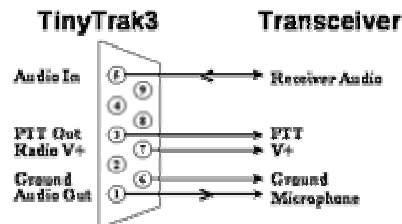
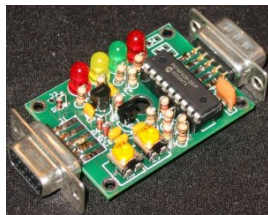
Doug Thomas, KC5VKG

Blobology 102

By Rick Reichert, kf4lm@arrl.net © All rights reserved.

This is the second in a multiple-part article that will serve as a short primer for discovering the utility of Automatic Position Reporting System (APRS) and the most economical way to participate in this exciting aspect of our hobby. This installment provides tips for obtaining and successfully assembling a Byonics TinyTrak3 GPS position encoder, a.k.a. "The Blob."

What to order. TinyTrak3 is available online in a variety of configurations from **byonics.com**. The best buy is to purchase the TinyTrak3 kit with case for \$36 plus \$3 for shipping. The kit includes sheared printed circuit board, pre-cut case, case label, assembly instructions, and all components excluding cables. For an extra \$24, you can buy the TinyTrak3 pre-assembled and tested. The kit, however, is a lot more fun.



Pictures from bionics web site.

What to expect. On my credit card order, the kit arrived within a week. The instructions are a single-sheet synopsis of a 16 page manual available as a free download from the Byonics web site. I highly recommend downloading the manual since the pictures, schematics, and additional details make up an excellent Owner's Manual. The cover photo alone has almost enough detail to assemble the entire kit! (<http://byonics.com/tinytrak/tinytrak3.zip>)

It's Fun and Easy. The kit can be assembled in a single evening using common kit building tools: low-wattage soldering iron, Phillips-head screwdriver, diagonal cutters, needle-nose pliers, and 3rd arm or printed circuit card vice. Skill level required is minimal, but if this is your first kit, I recommend seeking the company of an "Elmer" to help you with static- and heat-sensitive parts.

Building Hints. Mount parts flush or the cover won't fit. At first, I tried to leave room for a heat-sink tool when soldering the light-emitting diodes but later found that the case requires the high-profile diodes to be mounted flush to the board. LEDs are pretty hearty and tolerated the soldering iron heat well.

Unless you know for sure that your radio is keyed when the microphone input is grounded, as are most HTs, then leave R8 out. It's easier to put the resistor in then to de-solder it out.

TinyTrak3 can be powered in a variety of ways. A 9-volt battery, cigarette lighter plug, or a set of ARES compatible 12-volt Powerpoles are some options. The TinyTrak3 will take anything from 7-35 volts DC. My radio, an old Icom 28A, provides 8 volts at the microphone jack which I use to power the blob without the need for a separate power line.

When you first attempt to put a finished board in its case, you're likely to find that the case will not close. By shaving down the plastic fins of the case center post about 1/8", the case should then seal perfectly.

Build carefully. Diodes direction is important.

Cabling. Most GPS devices come with their own 9-pin serial cable that is blob-compatible. If you plan to draw power and receiver audio from the microphone jack of your radio then you will need to build only one cable. The TinyTrak3 requires a D-style 9-pin male connector. (RS Cat. No. 276-1537) The cable must have at least 5 conductors. And, you'll need a connector for the radio. Pin-outs for the blob are shown to the right.

Testing. To test your work, power up your blob. You should get a series of LED flashes: Red (power) stays on, yellow and green together, then red (transmit). If that's what you get, you're ready for the next step.

Next month. Programming a TinyTrak3 for use in the APRS network. If you want to get a jump on things, obtain a female-female gender changer (RS Cat. No. 26-230) and null modem (RS Cat. No. 26-264) on your next trip to Radio Shack. You will need them to program the blob. . . . - . -

THE PILOT KNOB
AMATEUR RADIO CLUB

P.O. Box 632
Leavenworth, KS 66048
Http://www.pkarc.com

MEETINGS

Date: First Thursday of each month (except for
December)
Time: 7:30 p.m., Central Time
Location: The American Red Cross
525 Shawnee

CLUB OFFICERS

PRESIDENT MIKE
STEWART, AB0VM

VICE PRESIDENT GARY
AUCHARD, WB0MNA

SECRETARY/TREASURER/
QRZ

ED MENARD, KD7QOR

AFFILIATIONS

THE AMERICAN RADIO RELAY
LEAGUE
THE AMERICAN RED CROSS
THE LEAVENWORTH COUNTY
OFFICE OF EMERGENCY

The purpose of the club is to further the exchange of information and cooperation among members, to promote radio knowledge, fraternalism and individual efficiency, to provide assistance to the best advantage in the event of emergency, and to conduct club programs and activities to advance the general interest and welfare of amateur radio. Anyone interested in the activities of this organization will be eligible for membership. Members must comply with FCC rules and regulations, as well as rules established by the club. Dues are \$20 per year (no extra cost for spouse or minor children who are amateurs).

Editor's Note: QRZ is published monthly and may be quoted in other publications provided a credit line is included and the author (if known) is given acknowledgment. Items related to amateur radio will be advertised free of charge. Articles for publication in QRZ are always welcome and willingly accepted in any form. We reserve the right to edit material as necessary. Please let the editor know if you experience problems getting your issues of QRZ, or if it is received in a difficult to read state. Members are encouraged to receive their QRZ via E-mail rather than paper copy. Requests to receive the hard copy version will be honored. Your effort to reduce club expenses will be appreciated.

Comments or suggestions regarding the new QRZ format are welcome and appreciated.

Ed Menard, KD7QOR, QRZ Editor

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NEW
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