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A publication of the Four State QRP Group and OzarkCon QRP Conference

[www.4sgrp.com](http://www.4sgrp.com)

Group callsign WQ5RP

# Ozark QRP BANNER



Image courtesy of [www.dashtoons.com](http://www.dashtoons.com) & K1NSS

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## Field Day Code Reader “Uncle” Phil Anderson, W0XI, 4sQRP #13

Bart, WØITT, sent me a nice note on Oct 11, after running across my QSO TODAY interview with Eric. He made note of the Kantronics Field Day. I said I'd post some pictures in the Banner, so here they are.

The original unit copied CW and RTTY as I recall – been over a quarter of a century now, more like 40 years ago - Eh gads! IC chips and displays have changed!



Front Panel

Note the name at the right in the front panel, “Field Day 2.” As I slightly recall, you’d push the speed button to get the WPM rate.

Mode selection was

initially for CW and RTTY, but other items were added later.

This demo unit had a see-through top cover. You can see the sockets for the 14-segment displays, 14 in all. That’s about the same number of letters/digits as one finds in a K3 display in the lower right hand corner. Clearly the old TTL 14-pin logic chips are on display. The little upside-down PCB in the bottom of the picture was the “modem” (to convert audio CW to digital for processing).



See-Through Cover



Back Panel

The back panel shows the usual stuff, demod out (for test), audio input from the rig/receiver, key input for code practice (as I recall) and a reset to clear the characters displayed on the screen.

A small hand-held version came out later; the MFJ hand held of today looks like ours of ~35 years ago.

## Second Sunday Sprint (SSS) Standings John Lonigro, AA0VE, 4sQRP #163

Here are the current standings for the Second Sunday Sprint, as published by John on November 11, 2015.

Call	Points
WA0ITP (4sQRP #38)	4
W2SH (4sQRP #85)	4
KV6Z (4sQRP #520)	4

## KB6NU's Column (October) A New Heathkit! So, Why Am I Not Excited? Dan Romanchik, KB6NU

A couple of weeks ago I got an e-mail from Heathkit. Yes, the NEW Heathkit. you might remember that a couple of years ago, there was all this hype about a "new" Heathkit and how they were going to start designing new kits as well as revive popular old designs.

Then, nothing. They went completely quiet—until a couple of weeks ago. In an e-mail sent to their "insiders," they say:

"Dear Heathkit Insider,

'What I really hope Heathkit will produce,' a Silicon Valley colleague recently told me, 'is a new radio kit with a beautiful finish, maybe in rosewood.' Something great to enjoy building and learn from, and also visually stunning, so he could put it in his living room and keep it forever.

"Today, my friend gets his wish.

They then go on to explain all of the work they've been doing in relocating Heathkit to Santa Cruz, CA, acquiring a second company, and securing all the intellectual property rights to the old Heathkit manuals and logos (meaning no more bootleg copies on the Internet). The e-mail continues:

"That's a lot, but there's more. We've designed and developed a wide range of entirely new kit products. We authored the manuals for these kits, complete with the beautiful line art you rely on, preserving and respecting our iconic historic Heathkit style. We developed many new inventions and filed patents on them.....We built the back office infrastructure, vendor and supply chain relationships, systems, procedures, operations methods, and well-thought-out corporate structure that a manufacturing company needs to support its customers, to allow us to scale instantly the day we resume major kit sales. All this effort enables us to introduce a fleet of new kits and helps ensure Heathkit can grow, prosper, and continue to bring you great new products for a very long time."

So, what's the exciting news? A new QRP transceiver? Maybe a shortwave radio? A new 100-in-1 experimenter kit for Makers?

Uh-uh. Sorry. The "exciting" news is a tuned radio frequency (TRF) AM band (yes, I said AM band) [radio kit](#) that costs \$150. Not only is that crazy expensive for an AM radio, it doesn't even come with a speaker. On top of that, there's no soldering. You screw all of the components to the board. I'm speechless (well, figuratively, not literally).

I'm not sure what the target market is for this product. It's certainly not amateur radio operators, who expect a lot more (in terms of both functionality and "fun") for their money. Nor is it the "Maker" folks, who want something more challenging than an AM radio. I think that if I took this to show off at the local Ann Arbor Maker group, they'd laugh me out of the place.

I really hope that they have something better up their sleeves. A strong Heathkit would be good for the Maker movement and for ham radio.

## **KB6NU's Column (November)**

### **Kids are Not the Future of Ham Radio**

**Bob Witte, K0NR**

Note From Dan: This month, we have a guest columnist. When I read this post by Bob, K0NR, I liked it so much that I asked Bob if I could use it for this month's column. I'm sure you'll find it thought-provoking.

You've heard it a million times: our kids are the future. That statement gets applied to almost everything, including amateur radio. How can you argue with an obvious fact like that?

But I am starting to think it is incorrect.

We've had really good success on creating new hams of all ages in our Technician License Class (at the Tri-Lakes Monument Radio Association). We've been doing this for a while now and I think I am seeing a pattern emerge. We've been able to attract middle schoolers to the class and help them get their ham radio license. I've talked to many of them on the air. They've helped out with public service events. They seem to have fun playing with radios.

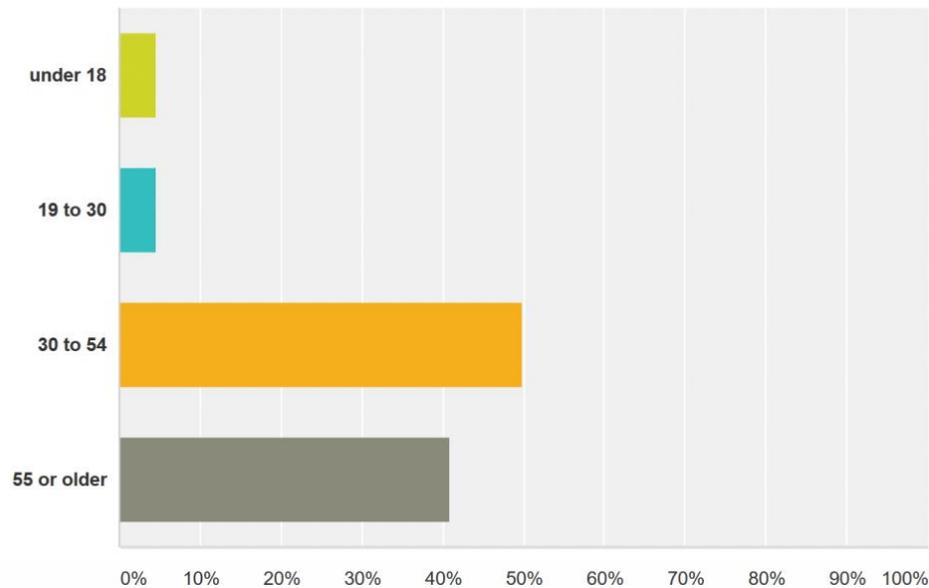
Then this thing called high school happens. The high school phase in the US is filled with tons of stuff to do: studying, homework, AP classes, science competitions, sports, dating, movies, driving and after school jobs. Way too much stuff. Ham radio starts to take a backseat to these normal high school activities. Then we don't see the kids at the radio club meetings or chatting on the local repeater because they are busy doing other things. Have we lost them forever? Not sure.

High school is often followed by college which has its own set of challenges: a totally new environment, away from home, a new set of people, new studies, etc. There might be a ham radio club on campus but maybe not. If a kid is not off to college they are (hopefully) out doing something to establish themselves in this world. Eventually they emerge on the other side, get a job, get themselves established, sometimes with a spouse and maybe a kid or two. By this time they are 25 to 30 years old, depending on the individual.

I recently [posted](#) about the demographics of our students in the Tech License Class. The chart below shows the age distribution of our students from our most recent class. Hmmm, clearly most of our students are 30 or older. (Sorry, we have not collected age data with finer resolution.) This particular class is light on the under 18 crowd...sometimes we have a clump of kids in the mix.

## What is your age?

Answered: 22 Skipped: 0



For whatever reason, it seems that most people find themselves in a situation as an adult that causes them to say “I want to get my ham radio license.” When asked why they want to get their ham license, the top response is always emergency/disaster communications, followed by backcountry communications, pursuing electronics as a hobby and learning about radio communications. I suspect that starting to be established in a community and having some disposable income also play a role.

My hypothesis is that the most effective way of growing a vibrant ham radio community is to target adults ages 25 to 40.

This age range is more equipped and ready to be ham radio operators and are still young enough that they will be around for a while. Of course, we still want to work with all age groups, including kids and retirees. We’ve all seen very young hams get the bug for ham radio early and carry it throughout their life. And we also see plenty of older folks get interested in the hobby as they approach or enter retirement. We don’t want to miss out on either of those groups.

So that’s my read on the situation. I’ve got some data to support my theory but I can’t really prove it. What do you think? What are you seeing in your ham radio community?

## 4sQRP Kits Available

Starting with this issue, we will be listing the currently available kits from the 4sQRP group, along with a brief description, and link to the page.

### [4S-Tuner/Antenna Coupler](#)



Designed by David Cripe, NM0S (4sQRP #12), this is a classic T-Match tuner with a wrinkle – the SWR indicator employs 2 LEDs instead of the normal single LED. The green LED indicates forward power, while the red indicates reflected power. The board features “Pittsburg” construction techniques developed by Joe Porter, W0MQY (4sQRP #103), making for a very easy build!

### [4S-Low Pass Filter](#)



Designed by David Cripe, NM0S (4sQRP #12), this design uses the “spiral coils” made popular in the retired NS-40 transmitter. Also included is the PC-Board case, which is another hallmark of David’s designs. The filter is available in either an 80 or 40 meter version. This was the build session kit for Ozarkcon 2015, so it’s a very easy build!

### [AA0ZZ EZKeyer III](#)



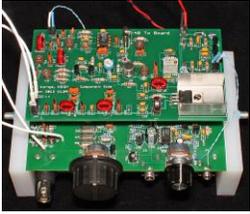
This is a successor to the popular EZ-Keyer and EZ-Keyer II kits designed by Craig Johnson, AA0ZZ (4sQRP #3). Featuring the same PC-Board enclosure as many other 4sQRP kits, a smaller footprint, a new PIC microcontroller, a Speed Pot, message memories, this keyer has all the features you need.

### [Ozark Patrol](#)



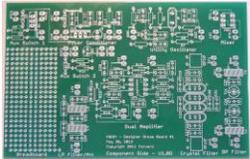
This kit was designed in homage to the simple beginner’s regen receivers of year ago. With the Ozark Patrol, the builder of today can relive the magic of tuning the shortwave bands on a simple receiver circuit. Featuring “Pittsburg” design like the 4S-Tuner, it makes for a very easy build!

## SS-40TX



Designed by Jim Kortge, K8IQY (4sQRP #156), this is a companion transmitter to mate with Jim's SS-40 receiver. Output power is a hefty 9 watts max, and the build uses all through-hole parts.

## Designer Dream Boards



These bare PC boards are targeted at the DIY designer/builder who would like to construct their own designs using time-tested bits of circuitry, already in a PC board environment. The boards will facilitate constructions of a number of RF systems including receiver, converters, and transmitters, using builder-supplied parts. Designed by Jim Kortge, K8IQY (4sQRP #156)

## Freq-Mite



displays.

Designed by Dave Benson, K1SWL, of Small Wonder Labs fame. Upon his retirement, Dave graciously offered the Freq-Mite to 4sQRP to continue production. This kit provides audio frequency annunciation via morse code, and is designed to be installed into an existing kit as an alternative to costly LCD

## HI-PER-MITE



Designed by David Cripe, NM0S (4sQRP #12), this is a small, high-performance audio filter. This is a flexible design that can be used stand-alone, or integrated into an existing receiver. It features a 200 cycle bandwidth with no ringing.

## SAVXO



a stand-alone QRPp transmitter with 250mW of output power.

Designed by Jim Kortge, K8IQY (4sQRP #156), this is a stand-alone variable crystal oscillator, designed to be an add-on to radios with crystal control. However, it can be used as



## Four State QRP Group

is meeting at the Country Cupboard Restaurant in downtown Seneca, Mo. This is one of the locations that 4SQRP folks gather.



The Country Cupboard has a nice menu and they have a separate meeting room we can use.

The Country Cupboard restaurant is located in the first block north of the blinker light in downtown Seneca. From Barney's, head north on Cherokee Street (that's the main street of town). Go across the railroad tracks and keep going past the blinker light stop. The restaurant is located at 1038 Cherokee street, on the west side of the street.

Caution: If you are headed north, do not make a left "J turn" into a parking spot. "J turns" are illegal in the downtown area. Keep going north past the restaurant till you reach the residential area north of downtown where a "U turn" is permitted. Make a U turn there (it's a wide street) and come back to the parking in front of the restaurant.

Our group is an informal organization with no dues or any other things to get in the way of having fun with QRP. **We get-together monthly for lunch and the sharing of ideas and information, parts swapping and just plain fun on our normal third Saturday of a month.**

All ham radio amateurs (or prospective hams) are invited to participate.



The Four State QRP Comfortable nets meet each Wednesday night beginning at 7:30 PM CDT, 0030z.

If we have to QSY, I like to move up, Wayne likes to move down, and Dick doesn't have to move much at all.

Add anything to the exchange that you wish, temp rig, ant, etc. Checking into all sessions is encouraged.

7:30 CDT 0030z ... 40M CW Net on 7122, KCØPMH NCS  
8:00 CDT 0100z ... 80M CW Net on 3564, WAØITP NCS.  
8:30 CDT 0130z ... 40M CW Net on 7122, KCØPMH NCS  
9:00 CDT 0200z ... 80M PSK Net on 3580.5, NØTGR

**Thursday mornings ~ 8 to 8:30am**  
**A gathering of CW ops are having fun on**  
**7.122 MHz**  
**....and you are invited!**

**Join us on the air on the second Sunday of each month for the 4SQRP "SSS" – Second Sunday Sprint – 7-9PM Central time**

**See: <http://www.4sgrp.com/4sgrpOnTheAir.php> for rules and log submission!**

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