

October 2013 Edition - Vol 2 Issue 4

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

www.4sgrp.com

Group callsign WQ5RP

Ozark QRP **BANNER**



Terry – WAØITP’s Delta Kite with a moon background!

This awesome picture taken at Big Brutus Bash is courtesy of John – NØEVH

This amazing little \$3.00 kite flew from 3:30 Friday afternoon until we were all packing up to leave on Sunday morning.

Index

Big Brutus Ham-Out...pg 2.....Build-it PSK31...pg 8.....
Digi Modes Explored...pg 13.....Latest Obsession...pg 14
NO Ground antenna...pg 15.....**4x4 QRP Sprint...pg16**
KB6NU’s column...pg 19

Big Brutus At Sunset



The amazing Ham-Out at Big Brutus brought out 23 folks. Thank you for attending.



Bob KL7AH & Eileen (photographer)



Bob KL7AH & Eileen (photographer)



Bob KL7AH & Eileen (photographer)



Bob KL7AH & Eileen (photographer)



Bob KL7AH & Eileen (photographer)



Bob KL7AH & Eileen (photographer)



Painted on site.....acrylic paint on canvas by Joy – NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R





Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Photo by NQ5R



Build It, Ideas !!!

Brutus Bash 2013 PSK31...

By Joe - WØMQY

I am a big fan of portable qrp operations and enjoy the PSK31 mode. There are always lots of cables and boxes to carry around with you, and I decided there must be a better way. The following photos show my solution to keeping it all together.



I removed the printer stand from my computer lab because it was too large and took up too much desk space. I can't claim originality for the idea but after stumbling over the stand for several months, I assembled it into a portable QRP_PSK31 unit. Under the stand on the left is the Icom 703®, in the center is the Signal One® PSK31 interface, and on the right is the external speaker. Handles were placed on the top of the stand for ease of carrying. The top of the stand makes

a nice resting place for the laptop. The two heavy steel legs make it a great support for the computer but raises the keyboard above the level I like to type. This problem was solved by using a small collapsible table that has a height adjustment. This table is set to about 24" high bringing the laptop to a comfortable typing position.

While this particular setup would not satisfy the biker, pedestrian, or back pack mobile enthusiast, it does simplify my setup and teardown time in the local park.

This package was used the past weekend with great success during the Brutus Bash in my camping trailer. For a quick stint in the local park, it is a keeper.



This photo gives a better view close up of the operation position. The stand seemed to slide around on slick surfaces so a couple of heavy chair grommets were added to the bottom of the legs to provide stability.



This photo shows the arrangement of the equipment underneath the stand. The Icom 703® on the left, the Signal One interface® with associated cabling, and on the right not visible from the front are two 7 amp hour SLA batteries. One battery is used for operation while the other is on the charging system..



A 15 watt solar panel provides the charging power for the second battery while the radio is operated from the first battery. The panel is probably marginal in keeping up with the radio but it does a nice job of charging the second batter in the pack. So

far, the batteries have outlasted me on my trips to the field. That put my fears to rest on whether I had enough battery power for a weekend or a 4 hour sprint.

The Icom 703® would not be the radio of choice if I were going for a long haul because it draws 350 ma. on receive and the transmitter will pull about 1.5 amps on transmit. Although these two batteries with the solar charging system make it completely portable it does have limitations with its size and weight. For me, that is offset by the quick setup and tear down time. Coupled with some 20' Shakespear® collapsible fishing poles and a dipole for each band, it makes the ideal portable companion for me. The beautiful part of all this is that the Icom 703 gives me CW, PKS31, SSB, RTTY, and NDB chasing. The complete portability of this system provides many an opportunity to go to the park, woods, Brutus Bashes, or any other event I might want to operate. It also has the neat feature of being easily setup in time of disaster for a small command station to assist in public service.

Last but not least, it was decided to keep things as simple as possible to minimize breakdowns, broken cables, and solder joints in the field. As is shown in the photo, all of the equipment including the batteries are equipped with Anderson Power Pole® connectors. This makes for easy switching batteries, removing equipment for other projects, and just plain versatility.



This project has given pleasure both assembling it and using it. I love QRP radio and portability. This package gives me both. If you haven't tried portable operation, I suggest you give it a try. It is great fun and you get to enjoy the great outdoors.....72/73's Joe WØMQY

Four State QRP Group

is now meeting at
the Country Cupboard restaurant in downtown Seneca, Mo.



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 officers, no rules, 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.





Digi Modes Explored (AGN)

by Brian – KB9BVN.... <http://kb9bvn.net/>

I was reading the Flying Pig QRP Club reflector and saw an email come in from an old friend of mine, Joel KE1LA. He's a poor misplaced Cajun lad living up in the frozen tundra of Maine right now and he was asking about software to use for some of the digital modes. Another old friend of mine, Jay AJ4AY, from down in Mobile Alabama, told Joel to check out a program called [Airlink Express](#). Well I had never heard of it, so I was a bit curious, and went and checked it out.

Airlink Express is written and distributed by Alex Krist KR1ST. The software installed on my Windows 7 Pro HP laptop with very little effort on my part. I haven't been on any digital modes in a couple of years so to say I am rusty is an understatement. It took me longer to find my [Signalink USB](#) interface than it did to download and install the software. Airlink Express works with [PSK 31](#), [QPSK](#), [MFSK](#), and [RTTY](#). After I got the interface all plumbed up to the K2 I was ready to invade the airwaves with my digital signals. All in all it took me about 20 minutes from the time I downloaded the software, found my interface, connected it all up, and did a quick configuration of the software before I had my first PSK QSO in the log book. I was running 10w to the attic dipole on 20m and worked Washington State and Massachusetts back to back. Not bad considering I am in Indy.

The software also has a built in logger, and can access QSO lookup data online when you type in the call sign. Once you are done with your session, you can export the log entries to an ADIF file and then import them into your regular station logger. I have been using N3FJP's [Amateur Call Log](#) in my shack for over a decade. I was able to import the ADIF from Airlink Express and update my LOTW and eQSL almost instantly.

The DSP engine used in Airlink Express is [MMVari](#) by Makoto Mori, JE3HHT. This engine is very flexible and decodes as well, if not better, than any other soundcard mode engine currently available. All in all I really like using Airlink Express.

Check out the Airlink Express website, Alex has some screen shots and further information about the software. Looks to be very well supported and regular updates are

added. Alex does not charge anything for this software, but he does accept donations to help support it. Best 73 to you and here's to GOOD DX! de KB9BVN

Four State QRP Group
Where QRP and homebrew is alive and well!



Latest Obsession...

by Brian – KB9BVN... <http://kb9bvn.net/>

Last week I decided to find a new bicycle, and in the process of sorting out models and comparing features I talked to N9GSU Rick Garrett about his experiences with using a recumbent instead of an regular upright. Rick aimed me at the Sun brand of recumbent bike and suggested a trike instead of a bike. At first I was a bit skeptical to say the least but after I got thinking about it, I realized that a recumbent trike is the worlds perfect mobile portable QRP platform.



My friend Rem K6BBQ does a lot of HF work from his recumbent trike and posts a lot of video on Youtube about his HF Trike Adventures. Check this one out [K6BBQ Goes Trike Mobile!](#)

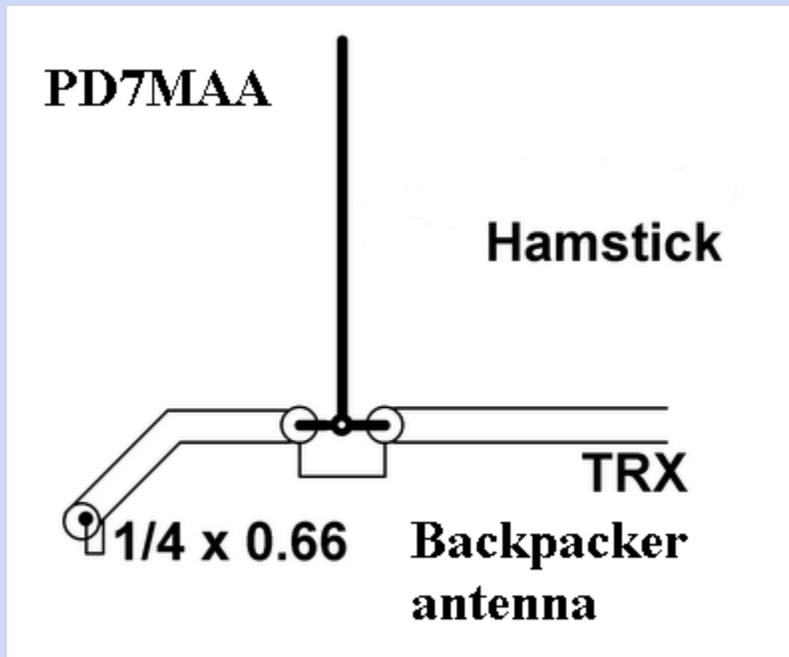
So, I think sometime soon I am going to modify the back basket and either replace it or rebuild it so I can mount an antenna, perhaps a hamstick, and install a battery pack for my portable QRP operations. Then I can pedal happily down the road to QSO after QSO of Tricycle Mobile CW. I have all summer to get it figured out. I will say the recumbent trike uses a whole different set of leg muscles, and I was very sore for a few days after I started riding it.....Stay tuned....de KB9BVN



NO Ground antenna....

By: John – PD7MAA..... <http://pa-11019.blogspot.it/>

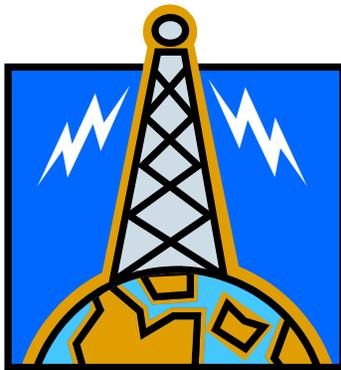
No ground antenna for backpackers, balconies or plastic car bodies



A common problem with backpacker or balcony antennas is finding a good counterpoise. Also cars and caravans with a plastic body are a problem. Although nothing beats a set of resonant radials, the shown solution offers a 1/4 wave stub that will create an artificial counterpoise. The mobile antenna mount must be isolated from any metal by a epoxy or plastic plate and a normal T-Connector is used at the antenna feedpoint. Be sure to shortcut the end of the stub.

The length of the stub in meters equals $1/4 \text{ Lambda} \times 0.66$ (this is the velocity factor of 50 Ohm RG-58) or can be calculated by dividing 50 by the frequency .So if you need a stub for 14 MHz the outcome is 3.57 m. but this length is not critical. The setup can be easily mounted on top of a rucksack. On a balcony the stub can be laid on the floor.....de..PD7MAA

Four State QRP Group
Where QRP and homebrew is alive and well!



....4 State 4x4 QRP Sprint....

....(4 hours/best 4 bands)....

Date: October 5, 2013 (1700 to 2100 UTC)

Bands: 160, 80, 40, 20, 15, 10m

Stations are asked to call: CQ 4s de _____.

A simple exchange:

4sqrp members send: RST, SPC, 4x4

non 4sqrp stations send: RST, SPC, power

(working a station not in the QRP Sprint

requires you to get the station's RST, SPC,

and their power for your log)

(SPC = State/Province/Country)

Sprint rules:

1)Maximum power is 5 watts.

2)each contact is 4 points.

3)each 4sqrp contact = (4x4) = 16 points

4)turn in your best 4 bands of contacts - 1 contact

with a station per band.(a station may be worked

only once per band, the mode is your choice)

5)field stations add 444 bonus points to your total.

6)frequencies: on or about the normal QRP

frequencies for each band and mode, WARC bands are

not to be used for this Sprint.

7)Only 1 transmitter per callsign at a time, no multiple

operators using the same callsign.

8)A Cyclone-40 transceiver contact is 444 points per

QSO for each station. Cyclone-40 station must disclose

the use of the transceiver to allow stations a

chance at the bonus points. Cyclone-40 CONTACTS DO NOT
COUNT AGAINST THE 1 CONTACT PER BAND. This is a bonus
of QRP using a 4SQR kit.

Four State QRP Group
Where QRP and homebrew is alive and well!

4 STATE QRP NETS....join the fun!

Comfortable CW Nets [every Wednesday] -

7:00 & 8:00 PM Central time on 3564 KHz.
Net control is Terry, WAØITP in Ottumwa, Iowa.

At ~ 7:30 & 8:30 PM Central time on 7122 KHz (Memorial Day to Veterans Day).

At ~ 7:30 PM Central time on 7122 KHz (Veterans Day to Memorial Day).
and

~ 8:30 PM Central time on 1810 KHz (Veterans Day to Memorial Day).

After the 80 meter net, check out 40 meters on 7122 KHz. The start time is approximate depending when the 80 meter net finishes, and KCØPMH, Wayne Dillon is NCS for the 40M nets. If we have to QSY a little, lets move up a half KHz at a time until we find a clear spot.

Both of these CW nets are at "comfortable" CW speeds. Slow and rusty fists welcome!

Wednesday Waarble -

We have an informal roundtable session each Wednesday evening throughout the year at 9:00 PM Central time on the 80 meter band (on or near 3580.5 KHz) using PSK-31 mode. All hams within range of our signals are invited to join the fun. Dick Hammond, NØTGR is the NCS for the psk net.

2nd Sunday SPRINT – 7 to 9 PM CDST, around QRP watering holes, exchange is 4sqr member number. You may want to also give the other station a RST report so they know how their signal is presented to the Sprint.



Dan - KB6NU's Column

Should the FCC allow encryption?

One of the most fundamental rules in amateur radio has been the prohibition against the use of codes or ciphers meant to obscure the meaning of a message [Part 97.113 (4)]. Recently, that long-standing prohibition was challenged (<http://www.arrl.org/news/rules-change-sought-to-permit-encryption-of-sensitive-emergency-communications>) to allow encryption when passing emergency health and welfare traffic. The idea was that encrypting these messages would protect the privacy of individuals. In his Petition for Rulemaking (<http://apps.fcc.gov/ecfs/document/view?id=7022424684>), Don Rolph, AB1PH, pointed out that Australian amateur radio rules permit encryption for emergency services operation or related training exercises.

Oddly enough, the pushback against this petition has been loud and swift. The ARRL quickly came out against the petition (<http://www.arrl.org/news/arrl-urges-denial-of-petition-to-permit-encryption-of-some-emergency-communications>), and when I blogged about this issue (<http://www.kb6nu.com/im-jumping-on-the-anti-encryption-bandwagon/>), several hams replied that they didn't think allowing encryption was a good idea.

The main arguments against encryption seem to be that:

- * It will make people suspicious of amateur radio operators and bring unwanted scrutiny upon amateur radio.
- * Make self-policing more difficult.

Among the arguments for allowing encryption are that cryptography is a fundamental element of modern RF communications, and that not allowing it, negates one of the purposes of amateur radio. Namely, that one of the purposes of amateur radio is to "advance the state of the radio art."

In late September, the FCC dismissed this particular Petition for Rulemaking (<http://www.arrl.org/news/fcc-dismisses-encryption-petition>). It stated specifically that "the record does not support Mr Rolph's assertion that the prohibition on encrypted amateur communications is impairing the ability of the Amateur Radio community to provide effective support to public safety agencies during emergencies."

Of course, this discussion isn't over yet. Encryption is now employed routinely for even the most common types of digital communication, and as a newer generation of amateur radio operators take over, they'll want to experiment with these digital communications techniques. One commenter suggested that a portion of the 900 MHz band or maybe the 5 GHz band be set aside for experimentation with encryption. I think that is an idea worth exploring.

What do you think? Does encryption have a place in amateur radio?

=====

When he's not pondering FCC rules, Dan, KB6NU enjoys working CW on the HF bands and teaching ham radio classes. For more information about his operating activities and his "No-Nonsense" series of amateur radio license study guides, go to KB6NU.Com or e-mail cwgeek@kb6nu.com.



Ozark QRP BANNER is a monthly publication
of the Four State QRP Group and OzarkCon. www.4sgrp.com

Editor: Walter Dufrain - K5EST

- Deadline for publications copy is the 25th of each month -

For news, articles, inquiries for the Banner:
ozarkqrpbanner@gmail.com

Copyright 2013 and all rights reserved – this October 2013 edition of the Banner. The articles are the property of the writers which have shared their time and effort to help promote the enjoyment of Ham Radio and/or QRP.

Links or references to individuals or companies or vendors do not constitute an endorsement of any product or service you may receive from such sources. Websites and contents used by the author's permission.