Gympie Communications & Electronics Group Inc.

Newsletter

Editorial by Greg VK4VBU **4th Quarter, 2015**

Welcome to the 4th Quarter GCEG newsletter for 2015, I have decided we might take a break for the time being from the segment “How I got into Amateur Radio” and in its place we will have a new segment called builders corner. I will kick the first one off by doing a story on building a QRP pixie 40 meter CW transceiver. I look forward to receiving a few story submissions and I will publish the most entertaining and interesting submissions. The more mistakes made along the way and how you overcame those mistakes makes for good reading. So please go out there, purchase some kits and let’s get some interesting electronics projects underway. If you can take some close-up photographs of the build and the finished product for the newsletter that would be great, I’m really looking forward to seeing what comes in. Congratulation to Jim VK4NAG on obtaining his standard call and upgrading from the foundation licence. I’m sure Jim will agree with me that it’s wonderful experience to pass that exam after a lot of hard work and study.

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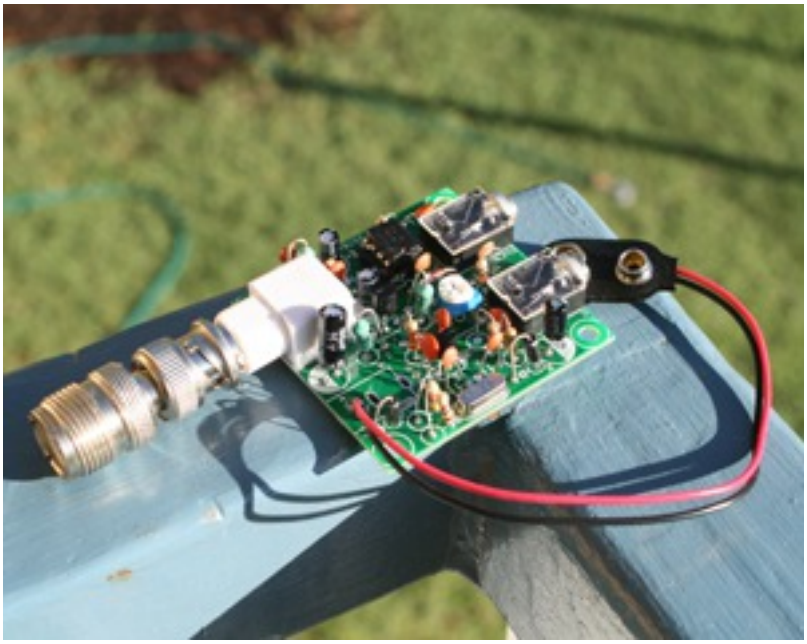
Builders Corner – QRP 40 Meter Pixie Kit

Welcome to the new segment builders corner, I haven't built anything for a while so I decided to get back to basics and refresh my skills prior to taking on more difficult projects and there is no better place to start than a $5.00 QRP 40 meter transceiver. To start with the price is right and you can order them easily off E Bay, To be honest this the second one I built, the first one suffered from power issues from being hooked up incorrectly I believe, which brings me to my first suggestion, ditch the power socket and replace it with another safer connector. On this project I'm using a 9 volt battery connector but I also might change this later on so I don't have to rely on a 9 volt battery.

Some basics about the kit, for a power supply you can use anything 9 – 12 volts DC, the transmission power output using 12 volts is 1.2 watts or with my configuration it's 0.8 watts at 9 volts DC, working pattern is CW and the frequency of operation is 7.023 MHz. The overall quality of the components was good, however the first tool you will need when building these kits is a little magnifying glass, I use a small magnifying glass which also has a built in LED light. The beauty of using the magnifying glass is that you can firstly check the value of the ceramic capacitors or colour codes of the resistors and then you can check the quality of your solder work after each time you solder in a component, to make sure you have a good connection.

The next problem I had was the soldering iron I was using, it just wasn't hot enough, so I found another iron which had a higher temp but the tip was to big. To rectify this I'm going to invest in a good soldering station which has temperature control and a choice of tips. The tip to good soldering is to get in and out quickly, having a good clean connection without thermal damage to the electronic component. The best way to learn soldering is to go to You-Tube and watch some videos and then put what you have seen into practice. You will find the quality of your work and the time it takes to solder in components will improve with practice.



Another tool you will need is a multimeter to check the components before soldering them into place. These components are small and sometimes it pays to check the value of the component if the quality of the writing is not good. I noticed that the ceramic capacitors were very hard to read in my latest kit. The way I went about building the kit was to first lay out all the components and then separate them and check them off against the supplied list, then I mounted the PCB into my vice attached to the kitchen table on a spare towel and started to mount and the solder the components onto the board one by one. I started with the smallest components which were the little ceramic capacitors, then the diodes followed by the resistors then onto the bigger components.

Once it was all completed I did a final check and then connected the power and then connected it to my 40 meter dipole, this time round there was no smoke :) and all worked well and I did a test with Bob VK4CWL across town here in Emerald and he was receiving me loud and clear on 7.023.20 MHz. One thing I have found with this kit is that it picks up the local radio station very well, I found that If I just remove the earphone piece slowly out of the socket then the radio station drops out and then I can hear distant morse code, now why it acts this way I don't know but that's what it does and the radio works great for what it is, that is a cheap kit. I'm also using the key off a buzzer signal training board given to me by Trevor VK4BAT, this will do for a temporary key until I find something more suitable. I plan to find a suitable metal box and set it up for QRP operation, with a suitable portable antenna.

Building kits is a great way to learn about electronic components and how they work, you start to become familiar with all the electronic hardware and what it does within the circuit. Your soldering skills will improve out of sight and you will be keen to take on more difficult projects.

Christmas Party 2015

Our annual Christmas party was held this year at the Glastonbury residence of Dale VK4FZZW, those who attended had a great time and very much enjoyed the venue. Below, some photos from the party.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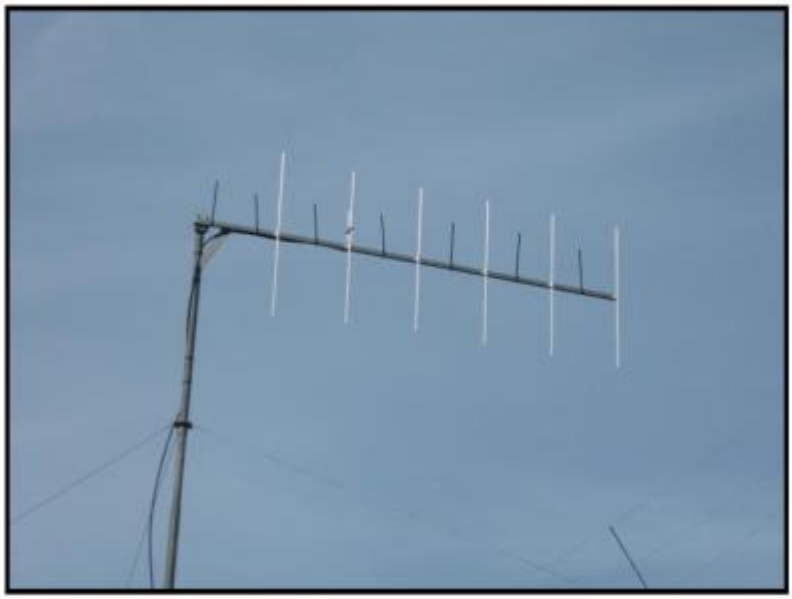
Owen's Home Brew Antenna

HOME BREW 6 ELEMENT YAGI 2M BAND
By OWEN VK4FAAQ 2015



6 ELEMENT 2M HOME BREW YAGI WITH ZIP TIES TO KEEP THE BIRDS OFF THE ANTENNA..
THE ROTATING MAST IS ALSO HOME BREW, ANTENNA IS ABOUT 8M ABOVE GROUND.

ALL HOME BREW
MAST AND ROTATING SYSTEM
WITH LOWERING SLIDE ARRANGERMENT

Club Net Rosters

2m Net Roster Monday 19:30 EST

28th December	Dale VK4FZZW
4th January	Roger VK4BNQ
11th January	Rhonda VK4FRDB
18th January	Paul VK4YPM
25th January	Bob VK4MR
1st February	Owen VK4FAAQ
8th February	Geoff VK4ZGF
15th February	Greg VK4VBU (via AllStar)
22nd February	Ed VK4ABX
29th February	Jim VK4NAG
7th March	Neil VK4NHT

80m Net Roster Wednesday 20:00 EST

23 Dec 2015-----Jim VK4NAG
30 Dec 2015-----Dale VK4FZZW >>OK
06 Jan 2016-----Chris VK4BX (maybe ok if avlb)
13 Jan 2016-----Rhonda VK4FRDB>>OK
20 Jan 2016-----Neil VK4NHT
27 Jan 2016-----Greg VK4VBU (if not working)
03 Feb 2016-----Barry VK4KKN>>OK
10 Feb 2016-----Geoff VK4ZGF>>OK
17 Feb 2016-----Jim VK4NAG
24 Feb 2016-----ED VK4ABX >>OK

Interesting soldering videos to watch on YouTube

Professional soldering – hand soldering techniques

https://www.youtube.com/watch?v=b15MMzb_GWw

Professional SMT Soldering: Hand Soldering techniques – Surface mount

https://www.youtube.com/watch?v=5uiroWBkdFY

Capicator Replacement tutorial

https://www.youtube.com/watch?v=YCSNWi3UHf4

Next Newsletter is due out around the end of January 2016.
Please submit articles to **newsletter@gceginc.org.au**

Club meetings are held at 7:30pm on the 2nd Thursday of every month except January.
The Clubrooms are open for social meetings every Wednesday morning
from around 10am. The location is the northern platform at
The Old Gympie Railway Station, Tozer St. Gympie.

Full information on the website.