

WARRINGTON AMATEUR RADIO CLUB

QSO WARC

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Shack In A Stack

Paul G7ODJ lives in Appleton and his home is about 100' above sea level which, he says, gives a nice height advantage to the antennas attached to the gable end of the house. All his radios are mounted in a wooden stack hence the title of this description of his shack.



GOWRS G6WRC

www.warc.org.uk

The radios reflect not only his interest in ham radio but also a long running interest in aircraft, air traffic control and gliding. The line up consists of an Ascomm ex PMR converted for 4 metres, a Yaesu FT-480 giving SSB on 2 metres, an Icom IC-207 for 2 metres and 70 cms, an Icom IC-E90 handheld covering 2 metres, 70 cms, 4 metres and 6 metres, a Bendix King KX170B aircraft transceiver (with transmit disabled), a Signal R-532 purpose made airband scanner for VHF and a Signal R-535 scanner similar to the 532 but with UHF reception also. The rigs are powered from a bank of Watson EP-925 P S Us.



The antennas are a horizontal Yagi on a rotator for the FT-480, a dual band co-linear for the IC-207, a Sirio co-linear dedicated to 4 metres and a co-linear for airband reception.

Paul confesses to a short flirtation with a FT101ZD on H F but found the bands disappointing and quickly disposed of the set whilst also gaining brownie points for the removal of the associated antenna.

Paul was first licensed in 1993 after completing the RAE course with Ken James and Guy G8NRF at Grappenhall. There followed different interests for the next ten years mainly flying gliders at the Yorkshire Gliding Club. During that time he obtained a C A A Flight Radiotelephony Operator's licence. When he gave up active aviation he was surprised to discover that despite that ten year gap a full amateur licence was available on application. Confessing to conscience and aware of his ignorance of current procedures he quickly 'sat in' on the first available Intermediate course at the Beacons to brush off the cobwebs.

Paul still enjoys listening to the airbands and accepts that he has a reputation for being a non waffling, short over operator but he thinks that might change.

Ron G0WJX

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Anyone wishing to contribute to the magazine should send or give their copy to the editor Ron, G0WJX preferably in MS Word, .txt format or e-mail.

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Club Programme

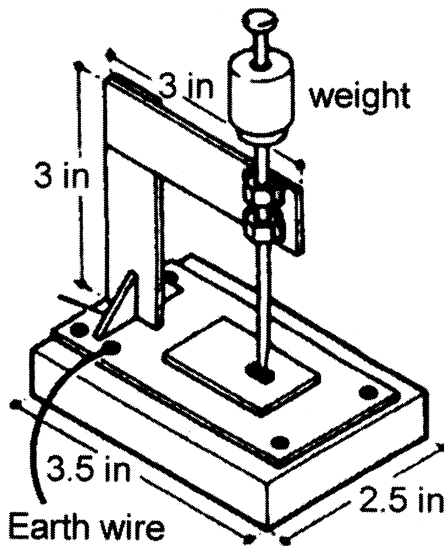
<u>Date</u>	<u>Title</u>	<u>Speaker</u>	
May	RSGB 80m Club Championships - 1st SSB, 10th Data, 18th CW		
May 30	Computer control in the 1970's	Colin	G3SBI
June	RSGB 80m Club Championships - 5th Data, 14th CW, 22nd SSB		
June 27	Fox Hunt		
Jul	RSGB 80m Club Championships - 3rd CW, 12th SSB, 20th Data		
Jul 04	Club BBQ Partners welcome	Ian	M0BXR
Jul 25	Workshop Hints And Tips	Cliff	M0MRC

Offers or ideas for talks to the programme coordinator Jim G3NFB

The “Gibbet Like” Jig

During February/March 2006 Jim G3NFB and George G3OGQ asked for the loan of my “gibbet like” device for holding surface mount components down onto PCBs so that they can be soldered .

In the early 90s Bill Mooney G3VZG set up Blue Rose Electronics and started to sell his SMD kits at rallies. Bill lives nearby in Great Sankey and I built several of his QRP kits. I found holding surface mount devices on the board almost impossible so built my gibbet. It works a treat. A few months later Pat Hawker was writing about this problem in Technical Topics. I sent him a drawing of my jig and he published it in the Nov 93 issue of RadCom.



I used my jig to build the recent noise diode kit produced by Dave G8KBB. Jim then used it for the same purpose. Jim built his own (bigger) jig and put it on display with his noise diode kit at the Norbreck Rally. Jim’s noise diode won a prize and his jig was given warm praise. George wanted to make a copy to use on the boards of the latest SMD projects that the CDG 2000 team are working on. I think its time to rebuild mine ready for the G8KBB Club projects. Remember to increase the size of the base to accommodate the larger boards etc.

Albert G3ZHE

The Radio Society of Great Britain's **79th Annual General Meeting**

The Radio Society of Great Britain's 79th Annual General Meeting took place at The Odyssey Centre in Belfast on 6th May.

My day started at 6:20 am with a journey to Manchester airport's terminal one with a 45 minute check in, waiting for my flybe turbo prop flight to Belfast city. A further short delay announced an electrical fault with the aircraft being investigated, I took the precaution of texting Carmel to look out any applicable insurance policies.

A smooth and short flight with a great view of the Isle of Man took just less than 45 minutes, barely enough time to finish a Danish pastry and large coffee. A taxi ride from the airport brought me to the Odyssey with more than an hour and three quarters to spare. I sought out Carlos Evans G0AKI who had taken the GB4FUN vehicle over the previous day by ferry. Carlos had found a nice spot at the waters edge to the rear of the Odyssey which is built on the docks and estate previously dominated by the historical Harland and Wolf boat building yard, the famous Samson and Goliath cranes still visible on the sky line.

Carlos had the satellite antennas up and aligned so I tuned up on twenty meters hoping to make a few QSOs using the GB4FUN call sign. The amplifier needed coaxing into providing a decent amount of power and five QSOs resulted before visitors to the vehicle interrupted proceedings. I had a chance to have a chat with RadCom editor Alex Kearns M3LSZ who said next time he visits friends in Manchester he would pop along to see us at the club. More than 50 RSGB members from all over the UK attended the AGM to vote on two resolutions. The first resolution was to approve the minutes of the 78th AGM and the second was to both appoint Sayer Vincent as the society's auditor and to authorise the board to fix its remuneration. Both resolutions were voted through. Members also voted on a special resolution to make changes to the Society's Memorandum and Articles of Association and byelaws during an Extraordinary General Meeting. The changes included allowing the board to extend the term of a presidency by one year in exceptional circumstances and scrapping the age limit of 70 years on members of the Society's Board. The special resolution was voted through. Lunch was provided, a simple buffet and more coffee, and I spent some time talking with G100UM Richard Feris who has experience in operating special event calls from Northern Ireland in connection with RAF bases, some aspects of which were not dissimilar to the things that have happened with the Burtonwood Air Base.

Kath Wilson M1CNY represented the Northwest at the AGM, Dave Wilson M0OBW talked on his role in the RSGB with a role in HF convention arrangements and IOTA software about which we shall learn more in the near future.

Once the AGM and EGM had finished members were treated to a series of lectures on the future of amateur radio by the Society's President Anguss Annan MM1CCR. He touched on training - where do you go if you're a new licensee with an M3 intermediate or full licence with little or no operating experience? - he also noted the lack of women in the hobby as 97 percent of amateurs are male. Other issues touched on during the speeches included training, recruitment, sports radio, spectrum allocation and emergency communications. There were also three guest speakers - Ole Garpestad, LA2RR, President of IARU Region 1; Dick Harms, PA2DW, President of Veron, the Dutch amateur radio society; and Finbar Buckley, EI1CS, President of the Irish Radio Transmitters Society. The next RSGB annual general meeting is due to take place in May 2007.

The meeting closed and I made my way back to GB4FUN noting that only one further contact had been logged, it seemed to me a great shame that all that effort had been made to take it to Belfast for it only to be viewed by the 50/60 AGM visitors and for just a few contacts to be made. I mentioned this to Dave M0OBW along with my views on its general under use. Meeting up with Don Field G3XTT we went to the taxi pickup point and shared a cab with Richard and the RSGB accountant. As we all had to wait for aircraft the bar looked like a good place to compare notes and have the usual chat on foreign travel that seems to accompany such gatherings. I found Don to be very interesting, his knowledge and passion for our hobby is refreshing and we parted after resolving to meet up at the HF convention in Crawley in October. My British Airways flight was the first to be called just as the rain started to fall - I do love these small airports where you actually have to walk across the tarmac to your waiting aircraft! A pleasant flight back to terminal 3 and Carmel awaiting the arrival brought me back home at around 8:00 pm

Mike G4VSS

QRP Forum

We have been asked to draw the attention of anyone who is interested in QRP to a new site for discussion of this popular aspect of our hobby.

There is a new email discussion list for QRP in Europe! The EUQRP List and its not just limited to Europe. Anyone wishing to join should send a blank email message to:- euqrp-subscribe@yahoogroups.com Everyone is welcome!

Tom DL1DSK Pete G8ICI

Testing Testing!

Heard and seen at Maplin Warrington

Customer "I would like to buy two bright blue LEDs"

Maplin Man "Yes Sir I will test them for you".

Maplin Man to his mate "Hey Fred have you seen the LED tester?"

Fred "Not seen it for ages"

Maplin Man "OK Fred I will use this 9 volt battery"

The LED was now pushed onto the battery terminals.

It lit very bright and then went out.

Customer "I don't think you test LEDs like that with a 9 volt battery".

Maplin Man "This is the way we always do it when we can't find the tester". "The tester has a 9 volt battery in it, so its the same as the 9 volt test we have just done"

Customer "The 9 volt battery should have a resistor in series to test these LEDs. Do you get any complaints from customers? OK will you do the test again with the same LED?"

Maplin Man "OK no problem - oh it won't work"

Customer "You have burned it out - tell you what just give me 2 LEDs from the box untested".

Maplin Man "OK sir here they are that will be £xxxx" At the same time Maplin Man replaced the blown LED back into the box.

SO WATCH OUT - SOME MAPLIN COUNTER STAFF DON'T SEEM TO HAVE ANY ELECTRICAL TRAINING.

Albert G3ZHE

Committee Meeting May 2006

Members with e-mail facilities should already be aware of decisions taken at this recent club committee meeting so this item is published to update anyone who is not on the Internet. However if you did not receive the e-mail from the club secretary, John GORPG, it is likely that your address is not on his list so let him know your details via John@johnriley8.wanadoo.co.uk

Responding to the wishes of members, particularly those with mobility problems future meetings will be held at ground floor level in a room opposite the shack entrance. The club equipment will still be available to those who can climb the stairs. Whilst in this temporary room meetings will commence at 20:30 to allow the previous occupants to leave.

The Ameritron solid state linear amplifier that has proved to be less user friendly than its makers claimed has been swapped for a Challenger MkIII valved linear. It

will still be necessary to observe certain setting up procedures but repairs, should they become necessary, will cost less (Russian valves as against state of the art semi conductors) as the valves are more robust and cheaper than the semi conductors. A tutorial on using the replacement P A is planned sometime in June.

The SteppIR antenna has done everything its makers claimed but as it stands does not cover 40 metres so we have to switch over to the wire antenna. It has been agreed that we purchase the necessary components to enable it to cover 40 and 30 metres. Following the precedent set when the SteppIR was purchased members are invited to contribute directly to the cost of this improvement to our facilities. Donations should be given to the club treasurer, Bill G0PZP.

Ron G0WJX

Club Project: Combined Power & SWR Meter

This club project is being prototyped by Dave Roberts. It is based on a design by Paul Kiciak N2PK. It samples antenna forward and reverse RF powers as per conventional SWR meters using a Buene Bridge. However Paul has been very careful in the design of the bridge seeking to obtain high performance across the HF spectrum.

The RFs are fed direct to individual RF log amplifiers, giving DC outputs which are configured to display on separate analogue meters Forward Power and the difference between Forward & Reverse Powers. The meter can be switched to show Forward Power on a "linear in dB" scale and to show Return Loss (another way of measuring VSWR). The output range of the meter is 1 milliwatt to 300 watts. The design utilises very low levels of RF for tuning purposes. Paul N2PK claims to have used 1 milliwatt of forward power for tuning.

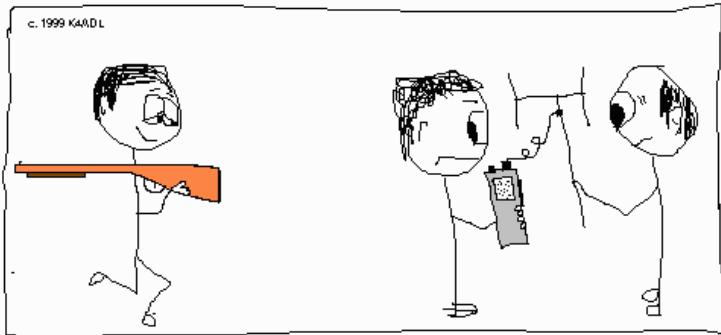
Construction involves soldering some small size 0603 surface mount components. However, members should not be put off. If there is sufficient interest we can get around that problem.

So what are the attractions of the project?

- 1 Forward Power and the difference between Forward & Reverse Powers displayed simultaneously.
- 2 Very low RF (milliwatts) required for tuning purposes.
- 3 You cannot beat using a piece of equipment that you have built yourself.
- 4 The Return Loss (VSWR) display is independent of the power level - no need to watch swinging meters or look for the point where needles cross.

Ken Farrance G0AKF

K4ADL Cartoon



NEVER ONE TO PAY CLOSE ATTENTION AT CLUB MEETINGS,
PHILLIP ARRIVES INCORRECTLY EQUIPPED FOR THE ANNUAL FOX HUNT.

We acknowledge with thanks K4ADL's permission to use this cartoon (www.qsl.net/k4adl). We are assured that no animals were harmed during the production of these cartoons and any similarity to persons living or dead is totally ridiculous.

Test Your Knowledge

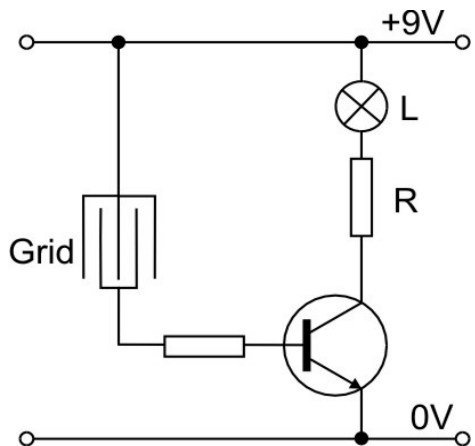
A student wrote the following account of the simple transistor circuit shown in the diagram. There are three terms used wrongly in this account.

When the grid gets wet a small current can flow into the base of the transistor. This current is about one millivolt. It is enough to turn the transistor ON and make the LDR, L, light up. The resistor, R, is connected to the emitter to limit the current through it.

Can you identify the three wrong terms and the correct terms that should have been used?

From a GCE Electronics 'O' level paper

Supplied by Albert G3ZHE



Learning CW

Yes, its that activity, that time consuming, frustrating, at the end hopefully rewarding activity. I've always wanted to learn CW since I just started out in radio as a 14 year old SWL, that was 2 and a half years ago and since then I tried to learn CW on and off. As with many learners of CW I got it the wrong way round, I know how to send good but listening is a different story.

I'm currently using a program called Just Learn Morse Code by LB3KB and using the "kosh" method which involves starting the learning process with just 2 letters. In my case its M and K, the read me on the program says that when you get a 90% or more accuracy, add the next character, but I prefer to get above 90% accuracy around 4 times or until I feel confident before I move onto the next character. At the moment I'm on 19 characters - 18 letters and a number.

The other method I'm using when not on the program is listening to CW on the radio, as this prepares me for when I eventually get a CW QSO, and makes listening to CW more realistic. I heard someone at the club learnt CW by listening to the navy, a guy I saw on the TV learnt English by listening to the Voice of America. So bearing in mind these facts, I listen to CW on the air.

Another ham learning CW is Keith 2E0ISK, he practises whenever he can. He's at around the same ability as me and hopefully in the future he can join me in the nets planned.

In the near future, when I know every letter and number in Morse, I will be able to practice Morse with Keith and Albert G3ZHE and any others that need to practice their Morse, there will be talk back on 2 meters FM in case it goes to pot! These 'nets' should improve our speed and make us more confident in 'jumping into the CW pool' with our first CW QSO with a first time worked ham.

So in conclusion, those who say that Morse Code is dying, a 17 year old learning Morse Code just proves that that's far from the case!

73 Richard Vaughan 2E0GYD

Well said Richard and when you get that net going there are several G zeros who could do with the revision and practice - and if you want to have some practice on Wednesday evenings at the club see Tony G0YSS. G3ZHE referred to above does not need to practice but is always on hand to help learners!

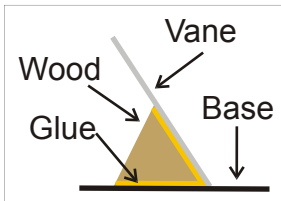
Editor

Yet Another Use For Your Coasters

Most people have at one time or another found a decorative way to use the coasters they have created whilst burning discs. Most of the time this consists of hanging them on strings or tree branches or just sticking them in the ground to catch the sun and look colourful. It works very nicely as long as you have a good day's sun in your garden and the discs stuck in the ground are the first to lose the sun as they are static. Our garden only gets the sun at the house end of the garden in high summer but the far end gets the sun for about six months of the year, barring clouds. So, wading my way through the piles of coasters, some in their 25 capacity boxes, whilst looking for something else, I decided to try to construct a mobile colour display which could make the most of the amount of sun we get in our garden. The result is as follows.



My first attempt was to make a horizontal windmill using the black bottom of a 25 disc case. This had four vanes spaced at 90 degrees around the bottom of the disc case (see picture). The vanes were made from one disc cut into four equal quarters. A piece of suitable diameter dowel was cut to length, (the distance from the centre spindle to the outer edge of the case bottom previously mentioned) and was then quartered lengthways to produce four almost triangular lengths of wood. The base was marked out in 90 degree sections to aid the positioning of the wood triangles which in turn would have the quarter disc sections glued to them. I found it was better to glue the wood to the base first and let it dry before attempting to glue the vanes to the wood. Gluing the vanes to the wood required to be done one at a time and I found that tilting the base so that with the glued end of the vane at the bottom, the vane was in the vertical position.



As for the pivot which fits inside the spindle, I tried metal rod, an old Venetian blind handle and a few other things which were not available to me on a permanent basis. The best (as regards friction) pivot turned out to be a length of quarter inch diameter dowel with a plastic covered drawing pin stuck into one end and shoved up into the spindle.

There wasn't much wind blowing when I finished the first one and it didn't turn very well. I thought it was because I had four vanes, unlike the usual vertical windmills which have three. So, I made another one with three vanes spaced at 120 degrees instead of 90. I also fitted the vanes with the curve (which was the original outside edge of the disc) curving away from the spindle so the wide edge was at the outer edge of the base. This could have been one of the reasons the first mobile didn't turn very well as the wide edge of the vanes was at the centre and diminished towards the outer edge of the base. I also used a second disc reflective face up to mount the vanes on and then stuck that into the bottom of the base with three drops of glue. This increased the reflectivity overall and will be used for all future mobiles.



The results are the three vaned mobile works far better than the four vaned one for any given conditions, although the four vaned one does work with a bit more wind. They both catch the sun as long as it is shining on them and produce a far more colourful display regardless of the sun's position. They perform to a lesser extent in cloudy conditions. A word of warning, if the neighbours see them, they'll want one and they'll most likely want you to make it for them. Have fun.

George G0MSF