

G3WSC
G6RC
GX3WSC

CARC News Bulletin

Crawley Amateur Radio Club

Dec - Jan 2016/7
Editor: John G4PEO
www.carc.org.uk

Other Clubs & Events

Horsham ARC (HARC)

<http://www.harc.org.uk>

1st Dec: AGM

Jan 2017 - No Details Available

Crystal Palace REC

<http://www.g3oou.co.uk/cprec.html>

2nd Dec: Club Project & Xmas Social.

6th Jan: Digital Mode Radio, Damien, 2E0EUI

Sutton & Cheam

<http://scrs.org.uk>

8th Dec: Xmas Junk Sale

19th Jan: S&CRS Big Radio Quiz of the Year

Mid Sussex ARC

www.msars.org.uk

9th Dec: Xmas Meal

6th Jan: 'On Air Night'

CATS (Coulsdon)

www.catsradio.org

12th Dec: AGM

9th Jan: CATS Annual Dinner

Dorking & District Radio Club

<http://ddrs.atspace.com/>

2nd Dec: Xmas Dinner

Jan 2017 - No Details Available



www.carc.org.uk



CARC DATES

December 2nd (Friday)
Annual Fish & Chip Supper

January 25th (Wednesday)
AGM

CARC meetings are held in our clubroom at
Tilgate Park, Crawley, West Sussex.

Every Wednesday: 8pm
Every Sunday: 11am - 1pm

Formal events are normally held on the last
Wednesday of the month, 7-30pm for 8pm.

For further information about **CARC**, please
Contact the Hon Secretary:

Phil, M0TZZ, secretary@carc.org.uk



Welcome to the December / January 2016/17 edition of the News Bulletin.



The New CARC Web Site is Live!

Yes, we now have a brand new web site, courtesy of Dominic, G6NGO, who has redesigned the site from the ground up.

Many thanks to Dominic for all his hard work, especially as he devoted time to the redesign during a particularly busy and hectic work period.

The web address remains the same, and being new, there may still be some small tweaks required. Take a look and see what you think!

www.carc.org.uk

It's Xmas, so why not help raise the profile of the club and at the same time, treat yourself to the new CARC clothing. Examples seen here, as 'modelled' by the club Secretary and Chairman..! See page 4 for details.

Updates to the CARC programme:

www.carconline.blogspot.co.uk

or contact John, G3VLH:

john.longhurst@hfcom.net

News Bulletin items contact G4PEO:

john@g4peo.net

Local Repeaters

GB3MH: 145.625/88.5 **GB7MH:** 439.6375 (D-Star)

GB3WS: 145.750/88.5 **GB3NX:** 430.850/88.5 (438.450)

GB3NS: 439.675/82.5 **GB7NS:** 439.1625 (DMR) **GB7ID:** 430.975 (DMR)

GB3HO: 430.8875/88.5 (438.4875) **GB3HY:** 430.900/88.5 (438.500)

Past President: Derek Atter, SK (G3GRO)

Hon Treasurer: Howard Palmer (G4PFW)

Hon Secretary: Phil Moore (M0TZZ)

Programme Secretary: John Longhurst (G3VLH)

Training Lead Instructor: Malcolm Harman (G3NZP)

Committee Member: Richard Hadfield (G4ANN)

Chairman: Keith Evans (G3VKW)

Vice Chairman: John Pitty (G4PEO)

Exam Secretary: Phil Moore (M0TZZ)

QSL Manager/News Editor: John Pitty (G4PEO)

Committee Member: Alex Sheppard (M1YAP)

Shack Manager: Mike Davies (G0KAD)

Calendar Items - December & January 2017

Annual Fish & Chip Supper, Friday December 2nd.

As always, a popular, not to be missed annual event in the CARC calendar, which also includes the 'excitement' of a raffle..! By the time you read this, 'seat bookings' will have been closed and the food ordered..

CARC AGM, Wednesday January 25th.

Another important event in CARC calendar, so please try to attend if you can!

Previous Meetings & Events

Choosing a VHF/UHF Radio - Alwyn Seeds, G8DOH. 26th October.

Many thanks to Alwyn for taking the time to drive down from London to present a longer version of the very interesting talk he gave at this years RSGB Convention. Alwyn discussed the various factors that need to be taken into consideration when contemplating purchase of a VHF/UHF radio, especially if it is going to be used in a contest environment. For example, at a basic level, does the radio do what we want it to do, or does it also have lots of expensive 'extras' we don't actually need.

Does it have a low noise floor, and can it cope with received power levels such as 1mW for instance, not uncommon on 2m when monitoring a station transmitting 400w into a high gain antenna array.

Can it also cope with strong in-band as well as strong out of band signals (DAB, Tetra, DTV etc) at the same time. When transmitting, intermodulation distortion and radiated noise all have to be considered and carefully controlled. Alwyn suggested, that a good solution, meeting all the various critical criteria, would be a high quality HF transceiver, such as a K3 plus a quality transverter, rather than employing what is currently available as a standalone VHF/UHF radio. Again, thanks to Alwyn for a very thought provoking and interesting talk.



Photo G4PEO

CATS Bazaar - Sunday 20th November

Probably our most successful CATS Bazaar outing to date, held at the very modern and spacious Oasis Academy in Coulsdon, an excellent new location for this event. On the preceding Saturday, **G3VKW**, **G4ANN** and **G4PEO** collected the numerous boxes of 'equipment', sitting in **Barry's**, **MOHBM's** garage, temporarily stored there following the Microwave Roundtable. Many thanks to Barry for the use of his garage over the last few months and also the coffee on each visit!



G4PFW, G4ANN, M0TZZ & G3VKW poised for action!

We had two tables at the event, but still not enough room to display all the goods we had to offer. Trade though was very brisk, and we were soon able to move boxes off the floor onto the tables. Thanks to the CARC sales team for the day, **Keith, G3VKW**, **Phil, M0TZZ**, **Richard, G4ANN**, **Howard, G4PFW**, **David, M0WID** and **John, G4PEO**, and also thanks to the CATS guys for an excellent event and venue. We understand that the Bazaar will be at the same location next year.



Where's Waldo...?! General view of the hall. Photos G4PEO

Previous Meetings & Events - cont

HARC - CARC Challenge

This year, the challenge, (in case you missed it), cunningly devised by **Peter, G4FYY**, was :

You are shipwrecked on a desert island, sitting on just a few square metres of sand in an endless ocean of sharks. Your only hope is rescue.

A crate from the wreck has washed up on the sandy shore. As luck would have it, the crate contains a few electronic components, a short length of coaxial cable, some kitchen foil and a paper kitchen roll that is, miraculously still dry. Sadly, the last bottle of red wine to survive the wreck has turned to vinegar.

Your mission, if you wish to accept it, is to build a simple transmitter to call for rescue. Did I mention there is no battery amongst the items in the crate?

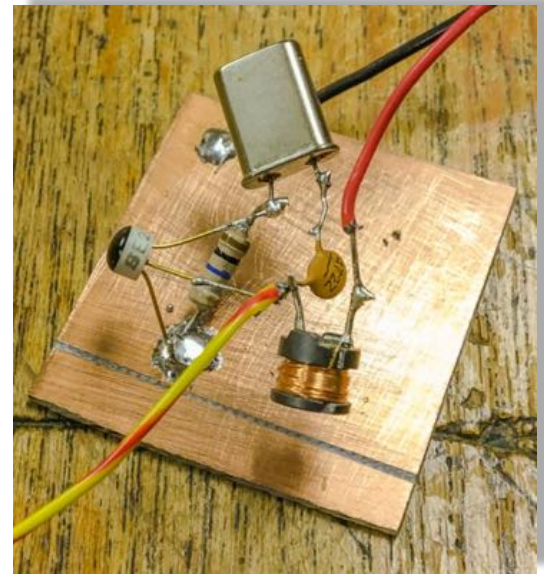
Both clubs of course rose to the challenge, and, luckily, they discovered previous castaways had left behind some tools, soldering irons, morse keys and a working generator with just enough fuel left to power the soldering irons!

CARC's team consisted of **Mike, G0KAD**, **Stewart, G3YSX** and **Richard, G4ANN**, whilst HARC's team were, **Robin, G3OGP**, **John, G3WZT**, **Alister G3ZBU** & **Paul, G4TMC**. Once completed, each team were required to send some text by CW, (accurately - hence in Latin so no guessing!), that could be received via the CARC shack receiver.

Following a hour of frantic activity, plus, a by now strong aroma of vinegar, the victorious team were Crawley!



The two teams, with Region 10 Regional Manager G4EFO & HARC Chairman G4LRP looking over the CARC teams shoulders..



The CARC Oscillator/TX



HARC's 'Spicy Parsnip' with a dash of vinegar plus salt battery which produced 2.35v

Photos G4PEO

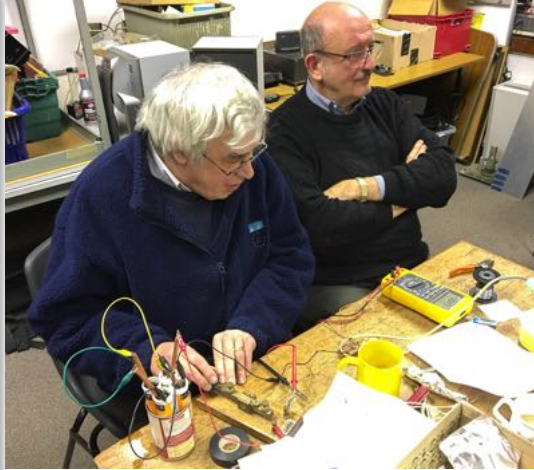


The CARC 'Highlanders Broth' battery also with a dash of vinegar & salt, which produced 2.8v

Previous Meetings & Events - HARC - CARC Challenge cont:



The sophisticated keying arrangement used by the CARC team...



Stewart, G3YSX discovering the CARC TX actually functions, whilst Richard, G4ANN adopts a 'I told you it would work' pose....!



Having lost it to HARC last year, Keith, G3VKW, receives the Challenge trophy from Adrian, G4LRP, HARC Chairman.

Club News

Club Clothing - As mentioned in the previous News Bulletin, plus, you may also have seen some of us wearing



Red & silver lettering as suggested for a dark background garment.

clothing with the embroidered club logo and own callsigns either at the club or at the CATS Bazaar, clothing is now available for you to order direct from the supplier, either via their web page order form, or by phone. There is also a (large) catalogue available for viewing at the club. Embroidery of the club logo incurs a small additional charge over the cost of the garment, as does the option to have your callsign embroidered. Images shown here are photographs of samples sewn onto felt. 5% of all sales are returned to CARC as a royalty payment.



Red & blue lettering as suggested for a light background garment.

Note that postage and VAT need to be added to your final cost.

Either order via the web page: <http://www.ravenspring.co.uk/embroidery-services> or contact Ann, by email: sales@ravenspring.co.uk or have a chat with her to discuss your requirements/options: 01803 867092. For any help or guidance, speak to G4PEO, MOTZZ or G3VKW.

Training Topics - Malcolm Harman, G3NZP

Our most recent Foundation course was completed on Sunday 27th November, so at the time of going to press call signs were not yet available. Nevertheless apart from the usual suspects all those pictured right duly sat their examination.

So it's been a busy old year for the Trainers having run 5 courses in all, yielding 15 passes at Foundation, and 3 at Intermediate. Full details of what's on offer were covered in our October News Bulletin. Summing all exam levels since 2009, we have now achieved 96 passes on my watch, so come on help me get a century!



(M0RXH), Stuart Alexander, Cameron Allum, (G3NZP), Marco Dominguez & Tim Fuller

Club News - cont:

VDSL Interference

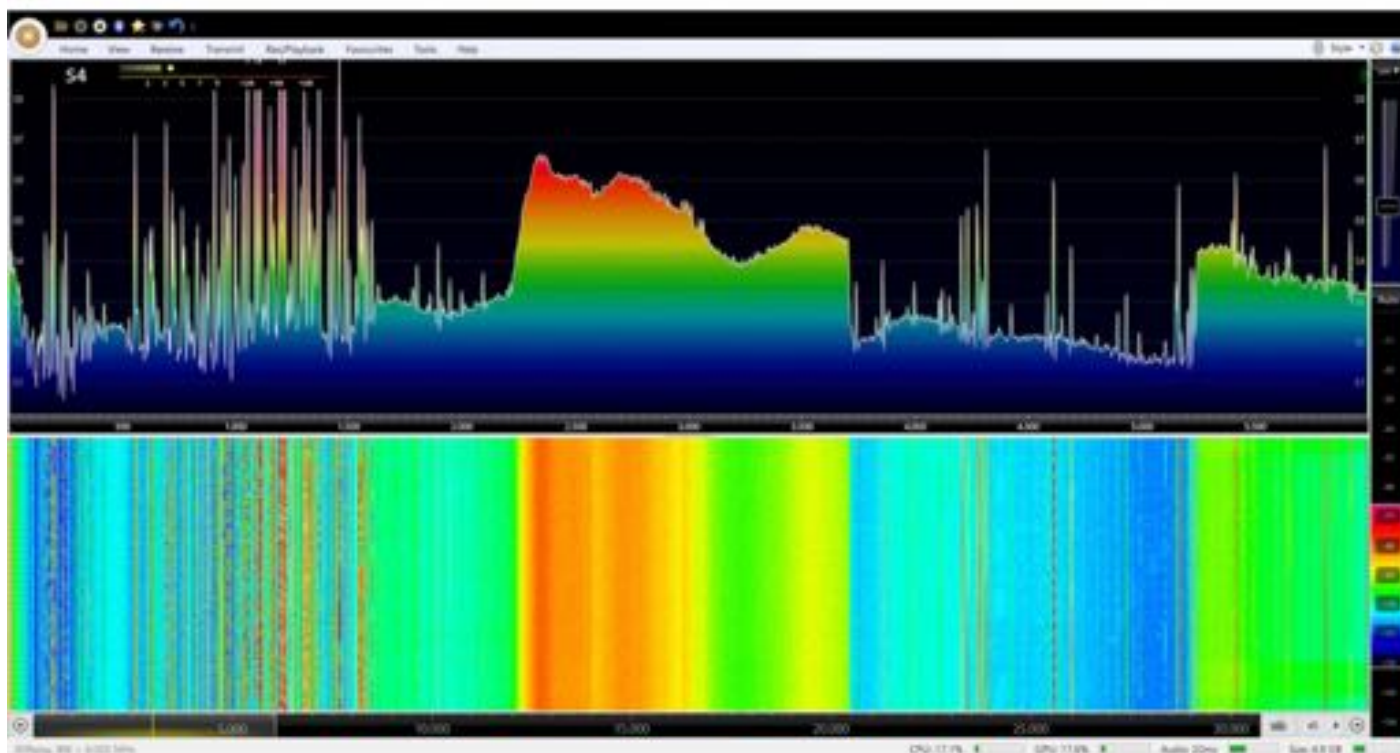
Keith, G3VKW, would like to remind members that if you think you are suffering from VDSL interference (fibre to cabinet), or think you may know someone that is, then there is a very helpful guide, EMC Leaflet 15, produced by the RSGB EMC Committee that helps to identify this type of interference, which unfortunately seems to be gathering pace at a fast rate of knots currently, affecting amateurs in increasing numbers:

<http://rsgb.org/main/files/2012/11/VDSL-Interference-v3b-.pdf>

Also - don't forget that the EMC Committee would like to hear from anyone that has an interference problem, especially if they think it is caused by VDSL, in order that they can assess the severity and lobby for a solution:

<https://www.surveymonkey.co.uk/r/GMVDZYP>

Below is a snapshot, using an SDRPlay RX and SDR Console V3 software, showing just a part of the spectrum, 0.1MHz - 6MHz, where VDSL interference occurs, (white noise), experienced by **G4PEO** using a Sky SR102 router, although it is most likely the overhead incoming telephone cables that are radiating the interference. Notice the sharp rise in interference peaking at approx 2MHz - 3.7MHz (centre), effectively making 80m unusable, and again starting at 5.2MHz with smaller peaks/increased noise either side of the main peaks. Interference continues to about 17.5MHz. The spikes to the left are LW/MW broadcast stations. Compare this with the emission diagram shown in the RSGB VDSL guide. A scan of the whole affected spectrum at G4PEO has been sent to the EMC Committee as a follow up to the on-line questionnaire. As an experiment, the router was swapped out for a different model, (both with integral PSU's), but as expected, the interference remained.



Interference of a Different Kind

Keith, G3VKW, has also requested that CARC members attention be directed to an article from the November 2016 CATS Whispers newsletter, (reproduced here with kind permission of Andy, G0KZT/editor), and originally published by AROS - the Amateur Radio Observation Service run by the RSGB, regarding operating on 60m.

60m Warning

It has been brought to the attention of the Amateur Radio Observation Service that software commonly used by UK licensees for the production of signals in both JT65 and JT9 modes, uses a default preset frequency of 5.357MHz (JT65) or 5.359MHz (JT9) in the 5 MHz band. UK licensees are reminded that, after applying the audio offset to the AFSK signal in JT65 mode, using these presets will, in the majority of cases, cause the transmission to fall outside of the upper band edge of the UK allocation of 5.354MHz to 5.358MHz. In the case of JT9, if the default of 5.359MHz is used all transmissions will be outside of the UK allocation. **Many examples of this have been noted and it is imperative that these out of band transmissions cease in order that UK licensees remain within the terms of their Amateur Radio Licence**

Chairmans Report - Keith, G3VKW

Hello all,

Probably like you, I cannot believe we are about to celebrate Christmas in just a few weeks. This year's Holiday Season is a little awkward regarding club opening times as Christmas Day is on a Sunday, as well as New Year's Day.

Keep an eye on the Blog and notice board, when the opening times are finalised.

The Club has sadly lost a few members over the year, notably Derek G3GRO President of CARC who became a Silent Key. Derek was a driving force behind CARC for many years, he is sadly missed.

Rob MOZAF, and his son Adrian 2E0FAV who have relocated back to Devon; they still attend club contests from time to time. Rob and Adrian were very skilful at changing the Interior of the club house and making it more modern and airy, and much more welcoming to all. We are all indebted for their hard work.

Sadly we also lost some established members who chose not to renew their membership this year. We have gained quite a few new members, and what is encouraging is that they are from a wide age span.

So if you see someone you do not recognise please chat to them, after all we are Radio Hams and we are supposed to communicate with each other.

The committee is always open to new ideas on how we can best accommodate your interests in the hobby, and also give you talks and events that may open your eyes to other aspects of this great hobby which you may not have considered.

Sadly the turnout on Wednesday evening talks still tends to be very low, which can be embarrassing for the Club, especially if the person giving the talk has travelled a long way to attend our club meeting.

With the new year several club members who are keen on the HF Bands start back at zero, and try to work as many Countries (Entities) as they can during the coming year. It is easy to keep track if you register your call sign onto Club Log and download your logs periodically. It is a free website that is very useful at keeping track. You can just display on the CARC area if you do not wish to be on the World Wide Table. Contact myself, Mike G0KAD, Phil M0TZZ or John G4PEO if you want more info. A little rivalry tends to spur one on.

Talking of HF, someone said to me that they found clubhouse attended morse code practice sessions a real bonus for them, the club used to run these in the past. So is there a club requirement for this to be re started? These could be on weekday morning for retirees or an evening for others, but not Weds though. These need not be long sessions, something in the order of 45 mins to 60 mins long. Answers to me please!

The use of Morse or CW as most users call it, does allow easier DX working with low power. Sadly with the huge SSB signals running enormous power from certain areas of the world, the operator running 100w of SSB to a dipole will really find it tough, whereas an operator using CW with the same power is much more likely to ensure a QSO.

Club projects are normally well supported, if you have an idea of a project we could build during 2017 please come forward with your suggestion to any committee member.

A reminder that the Club AGM, will be held on Weds 25th Jan 2017 20:00 prompt, please try to attend.

This is also Howard's G4PFW's favourite day as it is when club member's memberships are due for renewal.

Have a Merry Christmas, and a Happy and fun 2017.

73 Keith G3VKW

Ashdown Forest Repeater Group - Malcolm G3NZP

Repeater Makeover

A bit of history. The Ashdown Forest Repeater Group was formed in October 2008, initially to plan and provide a homebrew 70 cms D-Star repeater for the Crawley area, with coverage extending into parts of Kent and East Sussex previously unserved. The site under consideration was St Leonard's Church, Turners Hill. With the tower parapet some 194 metres above sea level it is probably one of the highest points in West Sussex. We therefore remain extremely grateful to the Parochial Church Council for supporting our suggestion that the old disused wooden flagpole be replaced with one of glass fibre so that a dual-band collinear antenna could be concealed within. Full permission from the Dioceses of Chichester to proceed with the installation was granted in February 2009 and as it was a direct replacement, planning permission was not required. GB7MH went live the following November. GB3MH operating on 2 metres FM was added in August 2011.

Latest news. After much hard work and development by Paul Phillips (G7KBR) I am pleased to announce that the original D-Star repeater kindly donated by David Lake (G4ULF) has been superseded by a dual mode D-Star and DMR repeater, all on a single 2U shelf.



To implement a mode change just allow 30 seconds of inactivity before transmitting and the unit will respond accordingly. The main reason for adding DMR was to attract more digital users on the basis that suitable radios can be purchased for under £100, whereas D-Star transceivers can set you back far more.

Of course it goes without saying that all donations towards the upkeep of GB3MH and GB7MH would be gratefully received, particularly as funds are dangerously low at the moment. Please visit www.ashdownforestrg.org and just click the PayPal link on the 'Contact & DONATE' page should you wish to contribute towards the running costs, electricity bill, etc. As a visitor to the web site, you will find plenty of information about our repeaters, coverage, frequencies, CTCSS tones, EchoLink and DMR code plug data and much more.

May you have many enjoyable local and worldwide contacts.

Malcolm Harman (G3NZP)
Repeater Keeper