

G3WSC  
G6RC  
GX3WSC

# CARC News Bulletin

April 2016

Crawley Amateur Radio Club

Editor: John G4PEO

## CARC DATES

**April 27<sup>th</sup> (Wednesday)**  
Surplus Equipment Sale

**May 18<sup>th</sup> (Wednesday)**  
DMR (Digital Mobile Radio)  
Denis, G0OLX

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](mailto:secretary@carc.org.uk)**



## Also of Interest/Other Clubs

### Horsham ARC (HARC)

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

**7th April:** The RSGB - John Gould  
**5th May:** TBA - See web site.

### Crystal Palace REC

[www.g3oou.co.uk](http://www.g3oou.co.uk)

**1st April:** Constructing a garden  
shack/workshop/shed Alan  
G8NKM

**6th May:** Amateur Radio in WW1,  
Dr. Elizabeth Bruton

### Sutton & Cheam

<http://scrs.org.uk>

**21st April:** Test Equipment  
Evening. Bob Burns G300U  
**12th May:** AGM

### Mid Sussex ARC

[www.msars.org.uk](http://www.msars.org.uk)

**1st April:** Surplus Equipment  
Sale  
**6th May:** The Story of Crystal  
Palace. Ian Gledhill

### CATS (Coulsdon)

[www.catsradio.org](http://www.catsradio.org)

**11th April:** Field Activities/  
WDARS Field Week. John G8MNY  
**14th May:** Construction Evening  
Part 2. Steve G3WZK

### **Kempton Park Rally**

Sunday 17th April, 10am

**Sussex Electronics & Radio  
Fair, Eastbourne 4th - 5th June**

Welcome to the **April 2016** edition of the News Bulletin.

We start with a reminder from **Howard, G4PFW**, that if you have yet to pay your 2016 subs, please make arrangements to do so as soon as possible.... If you would like to pay by bank transfer please contact Howard, (preferably phone), who will pass on the necessary details. Otherwise of course Howard will be happy to accept cheques or even cash.

Unfortunately the results of the CARC February WSPR contest were not available by the time this edition of the Bulletin was due to be emailed out, so please keep an eye on the CARC [blog](#) and/or the noticeboard in the hut for an announcement by **Keith G3VKW**.

**Peter, G4FYY** has passed on details of a very interesting and useful website: <http://www.americanradiohistory.com/index.htm> detailing American radio history, which he rightfully describes as: "a treasure trove of information and nostalgia, the like of which I have never come across before".

Although primarily American in content the web site also contains copies of Wireless World going back to 1913 and BBC Year Books back as far as 1928. It is a site well worth exploring, but be warned, many hours can easily be 'lost' delving into the archives!

Ever wondered how to make more use of that bargain basement 2m/70cm handie sitting in the cupboard gathering dust? Well you could try monitoring some of the transmissions from the International Space Station (ARISS) on 145.800MHz (FM) as it passes overhead. Perhaps even substitute the 'rubber duck' for a small 2m handheld beam to give greater coverage. To find out when it is in range/schedule have a look at the [ARISS](#) web site and then go to the [Contacts](#) page.

Currently, submissions (closing date April 30th), are being invited for contacts with schools, (up to June 2017), in Europe/Africa and the Middle East, so if interested in listening to those that will be in range, keep a close eye on the schedules.

## Updates to the CARC programme:

[www.carconline.blogspot.co.uk](http://www.carconline.blogspot.co.uk)

or contact John, G3VLH:

[john.longhurst@hfcom.net](mailto:john.longhurst@hfcom.net)

News Bulletin items contact G4PEO:

[john@g4peo.net](mailto:john@g4peo.net)

## Local Repeaters

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

**GB3WS:** 145.750MHz/88.5 **GB3NX:** 430.850MHz/88.5 (I/P 438.450MHz)

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

**GB3HY:** 430.900MHz/88.5 (I/P 438.500MHz)

**President:** Derek Atter (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 Managers:** Mike Davies (G0KAD), Rob Barter (M0ZAF)

## Calendar Items - April & May

### Surplus Equipment Sale - Wednesday April 27th.

It is still not too late to sort out those 'pre-loved' but now unwanted items in time for the annual CARC surplus equipment sale. If selling, please be at the hut in good time in order to register your items, enabling the sale to start on time at 8pm. 10% of all sales will be retained by the club, and any items not sold will need to be removed at the end of proceedings by their original owners..

### DMR (Digital Mobile Radio) - Denis G00LX, Wednesday May 18th.

The results of the recent club survey organised by **Phil, M0TZZ**, indicated that, of those members that did respond, quite a few had not heard of DMR. Like D-Star, DMR is a digital mode, and although relatively new to the amateur radio world, it is not compatible with either D-Star or Yaesu's System Fusion.

So if not compatible, what sets DMR apart from the other digital modes? To quote from the [DMRUK.net](http://DMRUK.net) website: *'DMR repeaters each have the capability to provide local, regional and worldwide repeater coverage. Much more than that though, the network allows two completely separate QSOs at the same time, a unique feature made possible using Motorola's "Time Division Multiple Access" (TDMA) technology.'*

**Denis, G00LX**, the repeater keeper for the Caterham 70cm analogue and digital repeaters, **GB3NS** and **GB7NS**, has kindly agreed to visit CARC to tell us more....

**Advance Notice** - Programme Secretary, **John, G3VLH**, advises that on Wednesday 22nd June, **Bob Burns, G300U**, will be telling us all about off-air frequency standards, and sometime during July, (date TBC), **Paul, G4DCV**, will be presenting a talk entitled, 'Backyard Moonbounce'.

Also, the annual visit of the Microwave Roundtable has been confirmed for Sunday 18th September.

## Previous Meetings & Events

### The Birth of BBC Satellite Outside Broadcasting - Malcolm G3NZZ

We had very interesting first hand account relating to the development, by Malcolm when at the BBC Research Dept, of the first Outside Broadcasting trailer mounted satellite equipment. Malcolm was tasked with the design and build, which he achieved on time and to budget, despite the powers that be saying it couldn't be done.

As the design was so successful it enjoyed a very long lifespan, and was transported all over Europe and also to Africa. However, it's success did cause a few headaches, as for instance the dish elevation was designed only for use in Europe. Hence when in the Sudan, it was found the trailer needed to be jacked up on sleepers in order to gain the elevation required. Thanks to Malcolm for a fascinating talk.

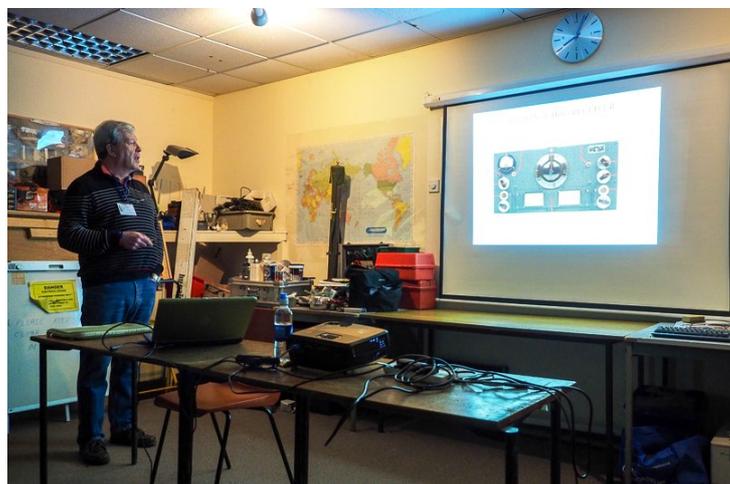


Photos - G4PEO

### Classic Radios - Keith, G3VKW

Another very interesting talk courtesy of Keith, who gave us a potted history of the development and technological advances through the years of the various AM and SSB receivers, transmitters and transceivers, either adopted by amateurs (ex military & commercial), or built specifically for the amateur market. Keith commenced with the classic AR77, (AM-1938), described as now rarer than hens teeth! Another example, the HRO, first built in 1937, cost £49-15s to buy then, which today would be equivalent to £3100..

The first AM transceiver was perhaps surprisingly the Army 19 Set, whereas the worlds first SSB transceiver was the Collins KWM1 (1957). Remember the Codar AT5 (£16-10) and PSU (£8.00)? Today the two would equivalent to £444 to buy. How about the KW77 RX - (1963), £120, now equivalent to £2291.. Thanks to Keith for an interesting insight into this aspect of radio history.



## Club News

### Training Triumphs - Malcolm G3NZP, Lead Instructor

There had been quiet a slump in training requests over the last 18 months, with just two students acquiring their licence, as reported in the February 2015 News Bulletin.

Nevertheless I was conscious of the fact that a number of our previous Foundation successes were anxious to move on to Intermediate level, but it was virtually impossible to find a single date when all those interested could attend for their Practical Assessments at the same time. It was only during a conversation at Club one Sunday morning that Adrian Barter (2E0FAV) came up with the idea of running several weekend "drop-in" sessions and so it was that after three Sunday afternoons all aspiring students had their RSGB Record of Achievement form duly signed off. Here they are all hard at work .....



Their exam is scheduled for 3<sup>rd</sup> April so no results until after this issue has been published. However I've suggested if they just keep reading the book they will all be fine. Fingers crossed.

In addition to all this Intermediate activity, last October we were approach by Alun Cross from Thales acting on behalf of small group of colleagues who wished to obtain their Foundation Licence. After a period of in-house training and self-study the course culminated at CARC on 27<sup>th</sup> February in a day of Morse tests, HF QSOs, antenna matching etc, followed by the exam. Adam Harrison, one of our members, also took the opportunity to sit the paper.



As you can see from all the happy faces, each candidate passed with flying colours.

Back row: (Malcolm G3NZP, Keith G3VKW), Sze-Ching M6LUS, Jake M6GQE, Lee M6LFV, (Phil M0TZZ)  
Front row: Arthur M6XZK, Merlin M6MQS, Adam M6IOC

Look out for them on the air, at least three are already active.

## Club News cont:

### RSGB AFS Super League 2015-16

CARC were placed a commendable 22nd from 102 entries in the RSGB AFS (Affiliated Societies) Super League, with entries on 50MHz, 144MHz and 80m CW/SSB.

Congratulations for a great effort to **G3YSX, MOZAF, G8DOH, GOKAD, G3VKW, G4PFW** and **2E0FAV**.

Further details: [AFS Super League](#)

Club Scores								
Pos	Club	50MHz	144MHz	432MHz	160m	80m CW	80m SSB	Total
1	Bristol CG	1000	982	1000	1000	986	1000	5968
2	Grimsby ARS	854	893	826	857	973	937	5340
3	Camb-Hams	756	964	957	531	904	975	5087
4	Pembrokeshire CG	902	804	783	939	781	861	5070
5	Tall Trees CG	805	786	804	816	890	911	5012
6	Spalding & DARS	976	911	935	898	438	835	4993
7	Travelling Wave CG (Marches)	927	929	913	694	137	797	4397
8	Norfolk ARC	537	696	304	878	932	962	4309
9	Sheffield & DWS	829	839	674	510	548	873	4273
10	Newbury & DARS	732	393	283	796	918	924	4046
11	Blacksheep CG	878	1000	978	918		241	4015
12	Chesham & DARS	707	875	717	633		759	3691
13	Addiscombe ARC	561	750		755	849	747	3662
14	Bolton Wireless Club	634	857	848	714	96	443	3592
15	Drowned Rats RG	780	768	696			316	2560
16	Trowbridge & DARC		946	891		233	165	2235
17	Reading & DARC	341		435		808	608	2192
18	Torbay ARS				735	630	810	2175
19	Isle of Man ARS	659	732	739			25	2155
20	West Kent ARS		518	413	61	466	646	2104
21	Cambridge & DARC		482	478	571		557	2088
22	Crawley ARC	683	821			288	215	2007

### Special Event Station

If you would like to participate in a club special event station this year, (such as Museums), please can you indicate your interest to **Keith G3VKW**. We need to gauge the level of interest/firm commitment before actually arranging anything as the level of support last year was extremely poor.

### CARC Mast

An opportunity has arisen to allow us to replace the (slightly) bent section (vandal) of the hut mast. There is a 60ft mast available in Crawley that will need removing/transportation. **Keith, G3VKW** is hoping to organise a posse to facilitate the move. If you would like to help please contact Keith ASAP.

### News Bulletin

There are moves afoot to give the News Bulletin a new name. If you have any (sensible!) suggestions, please send your ideas to **Keith, G3VKW**. All entries will be considered by the committee, and there may possibly be a prize for the winning entry...

### WSPR

Pictured right is the proud designer and builder, **Peter, G4FYY** with his arsenal of loops, of which all were utilised at some time or other during the recent CARC WSPR contest.

In each case, the loop was located in an upstairs bedroom, (no outside antennas at the G4FYY QTH at present).

Peter makes no claim that the loop is a DX antenna, but is quite satisfied with their performance on WSPR, putting G4FYY about half way down in the competition's rankings based on figures derived during the course of the competition.



17m

G3LHZ Mini-Loop

20m

80m/40m  
(Dual Band)