

# COULSDON AMATEUR TRANSMITTING SOCIETY

## G4FUR



## M1FUR

# CATS Whispers – February 2005



**SYCOM – Official CATS Sponsor**  
Visit [www.sycomcomp.co.uk](http://www.sycomcomp.co.uk)

Affiliated to the RSGB

### **Committee**

Chairman: Rob Cole  
Secretary: Dave Young  
Treasurer: Derek Hands  
Members: Steve Conway  
Cliff Groves  
Len West  
Ian Peck

**CATS Whispers Editor:** Andy Jackson G8JAC  
email address for contributions:

### **Regular Society Meetings**

These are held on the second Monday in each month at:-  
St. Swithun's Church Hall, Grovelands Road, Purley at 2000hrs to 2200hrs.

### **Society Nets**

1<sup>st</sup> Saturday of Month - 1715hrs Crescenta Valley / CATS Net on Echolink  
normally via G4CDY link on 145.2875 MHz.  
Sunday mornings - 1100hrs. Call on S20 (V40) then to 145.2875MHz.  
Sunday evenings - 1700hrs. 3.700 MHz +/- QRM  
Wednesday evenings - 2100hrs Call on 70.450 MHz then to clear frequency

### **CATS Website**

**Email** :

### **Forthcoming Meetings**

**Mon 14<sup>th</sup> February – HF Antennas, use and construction**  
**Mon 14<sup>th</sup> March -- Echolink**  
**Mon 11<sup>th</sup> April – Construction evening**



Twinned with the Crescenta Valley Radio Club  
Glendale California USA [www.gsl.net/cvrc](http://www.gsl.net/cvrc)

## January Meeting Report.

The January meeting featured a presentation and display by Dave G8VXB, on the power connections for DC-powered rigs. Dave brought along a selection of components and the supplied connector from his Yaesu rig, and presented his ideas for a flexible system of connections.

A common set of interconnections would prove useful in any contest or emergency situation where kit from different people needed to be combined for operation with the least inconvenience and delay.



*Dave G8VXB explaining connectors and connections.*

G8VXB has also prepared an article based on his presentation which appears later in this newsletter.

Also at the last meeting:



*Graham G1WFG and Mike G8AAI wrestling with the finer points of packet configuration. (Pictures from G8JAC)*

## Membership News

### 2005 Subscriptions

Your 2005 subscriptions were due on the 1<sup>st</sup> January. The subscription rate remains at £10.00 (50% reductions for Under 18's, Over 65's and full time students) for yet another year! Society rules allow a period of two months grace before your membership will lapse. Any members who have not renewed their membership by 1<sup>st</sup> March will be deemed to have resigned their membership of the society.

A 2005 membership list is in preparation and should be sent out to CATS members only, with the March edition of Cats Whispers.

## **Transponder Net news:**

Our monthly QSO with our friends in sunny California took place as scheduled on 5<sup>th</sup> February via the magic of Echolink, this being the first Saturday in the month. With there being no net in January due to the first Saturday falling on new years day, this was the first opportunity for on-air contact with our sister club since December last year. Attending on the Surrey side were G4CDY, G4FKK, G8JAC, G6CJR and G0KZT/M who operated from his “company car”!

## **Offshore technicalities**

Many of us fondly remember the heyday of Britain’s offshore “pirate” radio stations – Caroline, Big L, Atlanta, 399, Veronica and perhaps the more obscure ones such as Radio Such (as in Screaming Lord Such). There are many internet sites about the history, romance and the skullduggery of the era but very little of real technical depth and interest. The exception is an excellent site detailing the history of the MV Ross Revenge, used in later days as the base of Radio Caroline and others. The site has in-depth technical articles and pictures of the transmitting equipment including a detailed explanation of the theory of the RCA Amphiphase system of modulation used in transmitters of up to 100 kW output and many photographs of the installations used in the Ross Revenge and other ships. Well worth a look, the site is at: <http://www.rossrevenge.co.uk/index.htm>

Check out the pages in the Transmitter Room section. The rest of the site is quite interesting too!

## **Other club newsletters**

We receive the monthly newsletters of several nearby clubs electronically and the editor forwards these on to members who have indicated that they wish to receive them. If you wish to be added to or removed from this service, please let the editor know (see contact info on page 1).

## **CATS Committee matters**

The CATS Committee (see page 1 for who does what) meets monthly to discuss society business, activities, events we can participate in, presenters for the monthly meeting, and all the things to keep CATS an interesting and active society. If you have ideas, suggestions or want to run something for CATS, just tell a committee member. They don’t bite!

## **Ofcom spectrum review**

Ofcom have published the next stage of the Spectrum Implementation Review. This part deals with the allocation of bands to commercial services and the proposed Implementation Plan can be found at: <http://www.ofcom.org.uk/consult/condocs/sfrip/>

What’s green and goes: Dah dit, dah dah, dah dit?  
Morse Toad!  
(Thanks to Stuart G6CJR for that one!)

## TRANSCEIVER POWER CONNECTIONS by Dave Young G8VXB

All transceivers come with a power lead that has a special connector to fit the transceiver and some in-line fuses. The rating of the fuses and the gauge of wire, depends on the transmitter output power. Below is a table showing the various requirements for a number of output powers:

Power	Fuse	Cable(SWG)	Cable(AWG)
5W	1.5A	18	18
10W	3A	18	16
25W	7A	16	14
100W	25A	*14 - 16	*12 - 14
200W	50A	*14	*12

- In order to supply the high currents, with a minimum cost of components, a multi-pin connector is often used, along with four cable cores.

The majority of transceivers can be used in various ways; Base Station, Mobile or Portable.

The supplied cable normally needs modification for all of these uses. That is, the length of cable needs to be short / medium for base station and portable, but long for mobile, especially if powered from a battery in the boot. Also the ability to change between power sources is often required.

The photograph following shows a typical cable supplied for YAESU 100W transceivers. Although this assembly works electrically, it is awkward if you want to keep cables out of sight or enclosed in a small area. This type of assembly is also not easy to run in the upholstery of a car.



The assembly consists of a multi-pole connector, with two wires for each polarity, connected to an inline splice and then two inline fuses. The power feed is open wire and unless care is taken in installation a short circuit or poor connection is possible. The following shows the modifications that I have made to my own transceiver power cables. This mod enables you to use a short cable and then add an extra length when required. Changing the type of connector is also available.

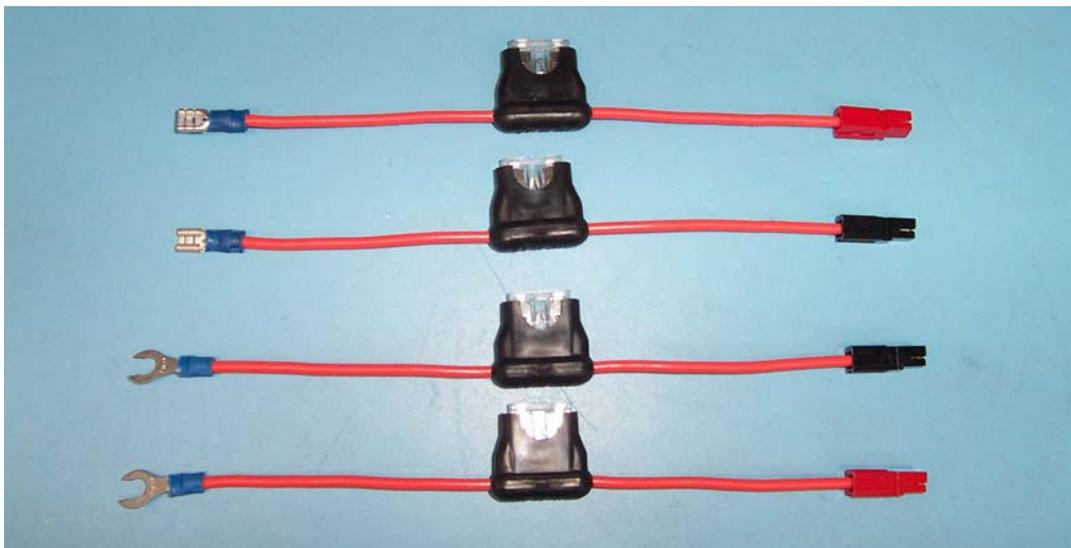
### Required Components

- Insulated Spade Terminals
- Insulated Slide on receptacle
- Insulated Splice
- Anderson Power connectors
- ATO Fuse Holders
- Crimp tool
- 30 Amp twin cable

### Power Feed Connection

If you do not already have spade connections on the cores, for connection to the power supply, fit these first. These connections are for use with terminal posts. If you have a different type of power supply (e.g. battery) use the correct connector. It can be advantageous to have more than one type of cable / connector, so that if you want to change power supplies, it can be changed over quickly.

Completed terminals (Slide, Spade and Anderson) and fuse-holders



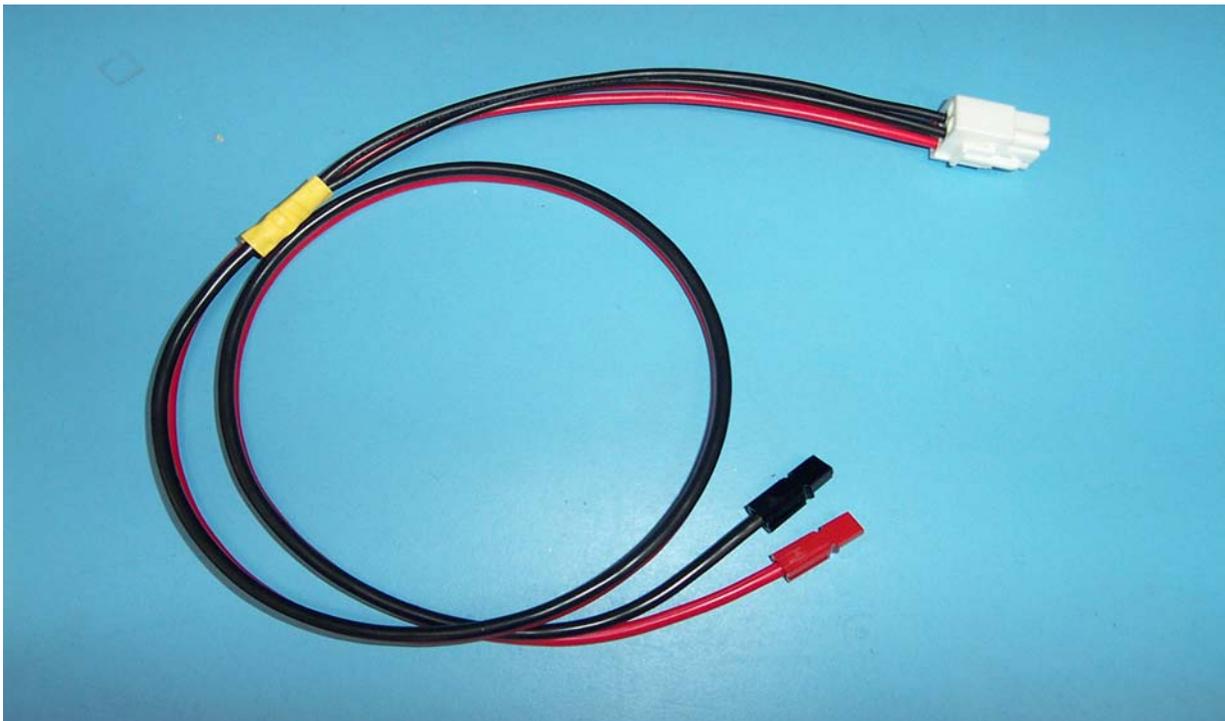
Finding cylindrical fuse-holders rated at 30A may be difficult, the photo shows the inline fuse-holders I have used, with connectors fitted at each end. The connectors with blue sleeves are installed with a crimp tool and the Red / Black connectors are soldered to the cable. If you use the un-insulated connectors it is possible to use a soldering iron instead of the crimp tool.

The fuse holders shown in the photo, come pre-formed with a wire either side. The spades, or receptacles, are made off by removing about 5mm of sleeving from the wire,

sliding on the connector and crimping both together with the crimp tool. The Anderson connectors are made by removing about 5mm of sleeving from the wire, sliding on the contact and soldering the wire and contact together. The contact is then slid into the shell, which is a snap fit.

Although not shown in the photo, it is a good idea to put red and black sleeving or tape near the crimp connector to make sure you do not connect the cables incorrectly. Instead of using these fuse-holders you can get some in-line ones from Maplin, (DR84F) and fuses(QR96E). You will need a large soldering iron. These fuse-holders, are designed to be screwed to a fixture, so the fixing lugs may be removed if required

### **Transceiver Connection**



The transceiver power cable is cut about 200mm from the multi-pin connector and each pair of wires are twisted together and inserted into a yellow inline splice. This end of the splice is then crimped. At the other end of the splice the core of the 30A is inserted and crimped. The 30A cable is trimmed to about 500mm and Anderson connectors soldered to the free ends.

### **Extension cable**

In order to have an extendable cable we put Anderson connectors on either end of a further length of 30A twin. The length is normally about 4-5 metres.



Using the Anderson connectors enables us to plug extra cable just when we want it. The details above are based on a Yaesu 100W transceiver. If you have a transceiver by a different manufacturer, there will probably be changes in transceiver connectors and possibly cabling.

© G8VXB 2005

## **Members' Sales and Wants**

WANTED: Collins mechanical filter type F455Z-4 or F455Z-21.  
Collins part Nos. 526-9364 or 526-9641.

**Andy G8JAC** 020 8651 2727 [G8JAC@champ1.freemove.co.uk](mailto:G8JAC@champ1.freemove.co.uk)

**The following ad was received on the CATS website.**

Hope you don't mind me emailing you. I'm an ex amateur living in Croydon and I have a few items for disposal to good homes and wondered if anybody you know or in the club would be interested.

1. Trio/Kenwood TR9000 Multi-mode mobile (only used as a base station). All complete with the BO9 base unit, scanning mic, leads, manuals and original packing. Looking for about £160
2. Azden PCS6000 25W 2M FM mobile. All complete with scanning mic, leads, manual and original packing. Also has extended rx for airband and higher. Very clean. Looking for around £75
3. AEA PK88 2M packet controller. again all complete with manuals, software and original packing. About £50

Pictures are available, I'm willing to haggle a little on the above prices.

**Martin Ecott** [martin@ecott.org.uk](mailto:martin@ecott.org.uk) ☎ 020 8686 9646 (evenings)

## Other Club News & Contact Information

### **BROMLEY & DISTRICT ARS**

Website – [www.bdars.org.uk](http://www.bdars.org.uk)

Email [bdars-news@talk21.com](mailto:bdars-news@talk21.com)

3<sup>rd</sup> Tuesday at Victory Social Club,  
Kechill Gardens, Hayes, Kent  
7-30pm for 8pm

#### **15<sup>th</sup> February – TBA**

Next Foundation course dates:  
26<sup>th</sup> February & 5<sup>th</sup> March (this course  
is fully subscribed)

### **The Crystal Palace Radio and Electronics Club**

Meets on 1<sup>st</sup> Friday of every month at  
7.30pm at All Saints Church Parish  
Rooms, Beulah Hill.

Club Net – Wednesdays 2000hrs  
145.525 MHz

[www.qsl.net/g3oou/](http://www.qsl.net/g3oou/)

**4<sup>th</sup> February -- AGM**

**4<sup>th</sup> March – Adventures on Top Band**  
Martin Charman G4FKK

### **CRAWLEY ARC**

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

Club Nets –

Tuesdays 2000hrs 145.550 MHz

Fridays 1900hrs 1.970 MHz

Every Wednesday at Hut 18 Tilgate  
Forest Recreational Centre, Tilgate  
Forest, Crawley from 7-30pm

**16<sup>th</sup> February - From Power Station to  
Consumer**

**23 March - Travels in Afghanistan**  
Mike Davies G0KAD

### **DORKING & District RS**

Club Nets –

Sunday 0815hrs 3.770 Mhz

2030hrs 144.750 Mhz

These will be held at the Friends  
Meeting House, Butterhill, South Street  
Dorking at 1930hrs.

### **HORSHAM ARC**

Club Nets –

Saturdays 2130hrs 144.725MHz

Sundays 1000hrs 3.722 MHz

1<sup>st</sup> Thursday at The Guide Hall, Denne  
Road, Horsham West Sussex

Latest news – [www.harc.org.uk](http://www.harc.org.uk)

**5<sup>th</sup> February - Connectors, by**  
John Narbrough G7DFV

**4<sup>th</sup> March – Junk sale**

### **MID SUSSEX ARS**

Club Nets –

Sundays 0800hrs 3.740 MHz

Sundays 1100hrs 145.350 MHz

Wednesdays 2000hrs 145.350 MHz

Daily 1330hrs 21.330 MHz

Every Friday at Cyprus Hall, Cyprus  
Road, Burgess Hill West Sussex for  
7.45pm

Info – <http://www.msars.co.uk/>

### **MITCHAM & DISTRICT ARS**

(G3Hfy) – Last Wednesday of each  
month 1930hrs at ATC HQ,  
Commonside West, Mitcham.  
Details Mike Knott G0WCR  
Tele: 020 8764 4716

### **REIGATE ATS**

Club Net –

Thursdays 2000hrs 145.500 MHz

Sundays 2000hrs 3.740 – 3.760 MHz

Website [www.qsl.net/rats](http://www.qsl.net/rats)

Email [rats@qsl.net](mailto:rats@qsl.net)

3<sup>rd</sup> Tuesday at RNIB Redhill College,  
Philanthropic Road, Redhill for 7-  
30pm

**19<sup>th</sup> February – Ground to Air**  
communications

**19 March - TBA**

## SRCC

Club Nets –

Sunday 0930hrs 29.111 MHz

Friday 2030hrs 144.325 MHz

Thursday 1900hrs 145.500 MHz

Website – [www.g3src.org.uk](http://www.g3src.org.uk)

1<sup>st</sup> & 3<sup>rd</sup> Mondays at T.S. Terra Nova,  
34 The Waldrons, South Croydon  
7.45pm for 8pm

**7<sup>th</sup> February** – German WW2 radio  
Brian Cannon G8DIU

**7<sup>th</sup> March** – Spring surplus equipment  
sale

## THAMES VALLEY ARTS

**Club Net Only** –

Saturdays 1400hrs

7.070 – 7.085 MHz

## SUTTON & CHEAM RS

Club Nets –

Monday 2000hrs 145.500 MHz

Tuesday 1030hrs 3.700 MHz

Tuesday 1500hrs 144.300 MHz

Friday 1100hrs 433.500 Mhz

Saturday 1100hrs 3.700 MHz

Saturday 1200hrs 145.500 Mhz

Website – [www.scrs.org.uk](http://www.scrs.org.uk)

3<sup>rd</sup> Thursday at Sutton United Football  
Club, The Borough Sports Ground,  
Gander Green Lane, Sutton 7-30pm for  
8pm

**17<sup>th</sup> February:**  
WAB (Worked All Britain) award  
by John Fitzgerald G8XTJ

**17<sup>th</sup> March**  
Pings, Bursts and suchlike  
**Nick Read G7DND / M5DND**

## WIMBLEDON & DARS

Website – [www.wadars.thersgb.net](http://www.wadars.thersgb.net)

Club Net –

Mondays 2045hrs 145.500 MHz

2<sup>nd</sup> & last Friday of each month at St.  
Andrew's Church Hall, Herbert Road  
Wimbledon SW19 7.30pm for 8pm

**11<sup>th</sup> Feb** - Operating above UHF  
by Jim Gale G4WYJ

## Rally Calendar

**24 April 2005** Kempton Park (Radiofairs).  
CATS have again been invited to run the  
Bring-and-Buy stall at the spring rally at  
Kempton Park. As well as earning cash  
for club projects, volunteers get free entry  
to the rally and plenty of time to hunt for  
bargains.

### **13 February 2005**

Harwell Radio and Computing Rally  
Didcot Leisure centre, Didcot, Oxfordshire.  
10.30 – 15.30.

Details, map etc at:

[www.hamradio.harwell.com](http://www.hamradio.harwell.com)

### **20 – 22 May 2005**

Dayton Hamvention, Dayton OH.

### **7 August 2005**

Flight Refuelling ARS Hamfest  
Wimbourne, Dorset.

### **19 June 2005**

Newbury & District ARS.

CATS Whispers is published monthly by  
A Jackson G8JAC on behalf of the  
Coulston Amateur Transmitting Society.

# Crystal Palace Radio & Electronics Club

G2LW

Web site: <http://www.members.aol.com/rfcburns>

SPRING RADIO & ELECTRONICS SALE

Amateur Radio, Electronics, Computing, Tools etc.

Saturday 05 March 2005

10:30am to 1:00pm

At St John's Hall, Sylvan Road, London, SE19

Tables for sellers (access at 8:30am):

Booked and paid in advance	£6.00 each
On the day (if any available)	£8.00 each

Admission (includes one free drink) £1.00 each

Children free (under 16 years old)

Refreshments available

**Contact Bob on 01737 552170 or by email to [rfcburns@aol.com](mailto:rfcburns@aol.com) if you wish to hire a table or require more information**

Location of hall:



## Public Transport:

- Free local parking.
- Buses: 410 along Sylvan Rd., 468, 196, 249 on nearby roads.
- BR Stations: Crystal Palace and Norwood Junction.