

COULSDON AMATEUR TRANSMITTING SOCIETY

G4FUR



M1FUR

CATS WHISPERS



Affiliated to the RSGB

October 2010

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CATS Committee

Chairman: Steve Beal, G3WZK
Secretary: Andy Jackson, G8JAC
Treasurer: Steve Conway, G7SYO
Members: Stuart Barber, G6CJR
Frank Emery, G3ZMF
Dennis Noe, M0NDJ
Glenn Rankin, G4FVL

CATS Whispers Editor: Steve Beal, G3WZK

email address for contributions: newsletter@catsradio.org

Regular Society Meetings

These are held on the second Monday in each month at:

St. Swithun's Church Hall, Grovelands Road, Purley, Surrey, CR8 4LA at 20:00 to 22:00

Society Nets

1st Saturday of Month - 17:15 - Crescenta Valley / CATS Net on Echolink/ GB3NS
Sunday mornings - 11:00 - Call on 145.400 MHz ± QRM
Sunday evenings - 17:00 - Call on 3.700 MHz ± QRM
Wednesday evenings - 21:00 - Call on 70.425 MHz

CATS Website

www.catsradio.org

Email

enquiries@catsradio.org

Forthcoming Meetings

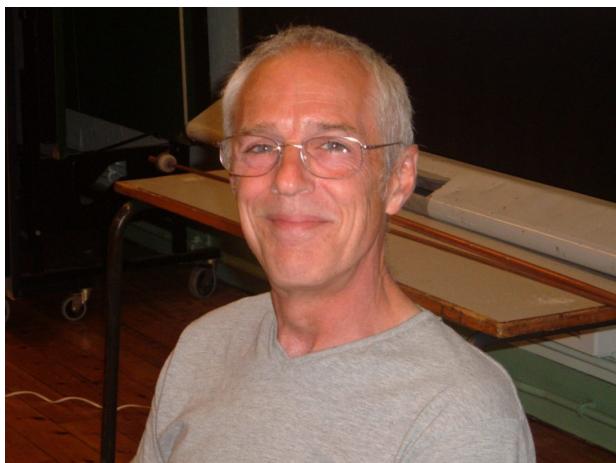
Monday 11th Oct Talk on WSPR by Walter Blanchard, G3JKV
Monday 8th Nov Talk on D-Star by Chris Howard, 2E0CTH
Monday 13th Dec AGM



CATS is twinned with the Crescenta Valley Radio Club
Glendale California USA www.qsl.net/cvrc

September Meeting Report

This month CATS member Glenn, G4FVL, stepped in at short notice to give us a talk about his energy conservation activities. Members will recall the article he wrote for the January *CATS Whispers* about his wood-burning water heater, but Glenn's interest in Green Energy goes back a lot further than that. In fact it all started when, as a mere seven-year-old, Glenn was given some electronic components including a light dependent resistor and, more importantly, a selenium cell and thus a source of free power from solar energy. The latter sparked off his life-long determination to boldly go and seek out green sources of energy at minimal cost - always remembering the golden rule of energy conservation: Insulate, Insulate, Insulate!



Glenn, G4FVL, in relaxed mood and ready to begin his talk

Glenn's first ventures into producing cheap energy used a black hosepipe in the sun and produced water so hot that he burnt himself. Things were looking up!

His next scheme was to build a methane digester in his dad's greenhouse using two oil drums one of which was the digester and the other a storage vessel for the gas it would produce. A camping gaz stove provided the small amount of heat needed to warm the compost. There was also a bubble trap, header tank and lots of 15 mm copper pipe. However, Glenn discovered that to get the process started an extra ingredient was needed – old sludge from a sewage farm. Undeterred, Glenn set off for Beddington where he convinced the staff about what he needed and why, and after half an hour set off contentedly for home with two big tins of the stuff.

Back in the greenhouse, Glenn was soon rewarded with a blue flame – except that the

flame was 75 cm high and caused the glass in his dad's greenhouse to crack!

Glenn's interest then turned to heat pumps. He described an early experiment where he dismantled a refrigerator and placed the condenser in an insulated box. This system extracted heat from the open air and compressed it, causing the inside of the box to become very hot indeed. He didn't develop this much further, but he mentioned to us that in a modern environment, a house with a heat pump and with collector pipes buried in the ground can have a total annual energy bill of as low as £60.

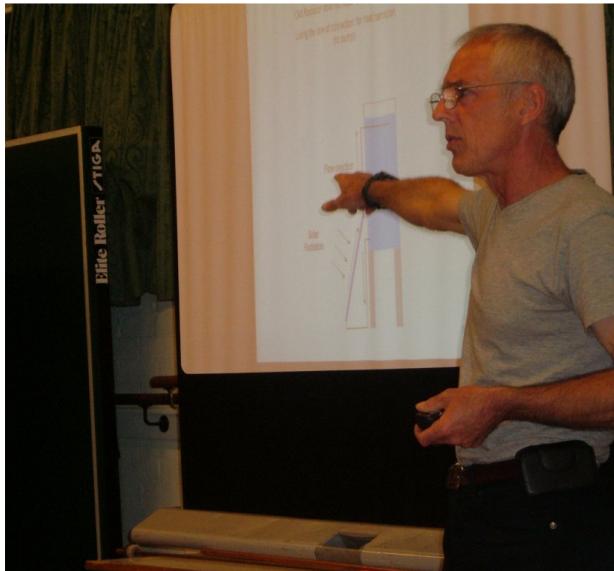
Another technological development was the heat pipe: Glenn demonstrated this by inviting your Editor to hold in his left hand a 2 metre length of 15mm copper pipe, the other end of which was immersed in boiling water (no problem). However, when he repeated the experiment with a fluid-filled heat pipe, also 2 metres long, this time the heat transfer was so efficient that I could only manage to hold the end for about 20 seconds before it became unbearably hot!

In between all these developments, Glenn admits to having taken some time out to acquire a long-suffering XYL (Yvonne), produce a family, buy a house and build an extension as a DIY job, but he never abandoned the quest for cheap energy for long.

Glenn's later work involved uPVC solar panels using vacuum tubes which were getting steadily cheaper at the time. His system, used in conjunction with his boiler, would preheat the water to 30 deg C, even in winter. For safety reasons, it incorporated a dump valve in case the temperature exceeded 80 deg C – which it was more than capable of doing in the summer.

His system, which he still uses, employs two solar panels, a hot water cylinder with a solar coil, a controller and lots of 22 mm copper pipe, and cost Glenn about £2000 in total. Commercial systems cost a lot more and are, in Glenn's view, a rip-off. One of the panels faces east and the other south. The system easily reaches 70 deg C on a good day by convection alone, although the system does need to have the pump running on a cooler day to work properly. Car-type antifreeze is added to prevent the roof mounted panels from freezing on winter nights.

Glenn then spent some time explaining the first and second laws of thermodynamics and system efficiencies. Domestic cars are only about 35% efficient and although coal fired steam turbines in power stations can be up to 50% efficient, by the time the energy needed to produce coal dust from coal and electrical transmission losses are factored in, only 26% of useful energy remains. Modern domestic condensing boilers can be as much as 95% efficient (in themselves) but some of this efficiency is achieved by using thinner metal which doesn't last as long as that used in older boilers.



Glenn explains the details of one of his designs

Glenn's most recent work has been with solar panels that generate electricity. A typical panel that generates 175 watts costs around £400 and Glenn has built a 4 panel system that produced 2 kWh per day in the spring.

Glenn also told us about the wood burning stove that was described in the January 2010 edition of CATS Whispers.



The device used for making waste paper briquettes



Close-up of waste paper briquette

He has also experimented with waste paper briquettes (see photos above) and with a small home made (what other type is there?) wind turbine although, sadly, this didn't rotate fast enough to generate any useable energy.

As recently as August 2010, Glenn has had installed in his house a commercial 10-panel solar electricity generating system that can feed surplus power into the National Grid, for which Glenn receives 41 p per unit, guaranteed for the next 25 years. The system includes an inverter (to produce 230 volts AC) and was fitted in a single morning. In its first month of operation it produced 127 kWh of energy, with a peak output power of 1.75 kW. The system is funded by a government levy on everyone's electricity bills and contractor installation is mandatory. Glenn has done the sums and reckons that the system should have paid for itself within 13 years.

For the future, Glenn plans to experiment with Stirling engines, using hot flue gases from his boiler as an energy source; with Peltier effect systems; with heat storage blocks and – wait for it – with an electric car. Then, if he ever runs out of things to do, there will also be hydrogen fuel cells to work on.

Overall, we had a thoroughly enthralling evening, delivered passionately and knowledgeably. Thank you, Glenn!

Useful Links:

BBC article on next generation panels:
<http://news.bbc.co.uk/1/hi/wales/6057194.stm>

Martin Lewis link on financial aspects:
<http://www.moneysavingexpert.com/utilities/free-solar-panels>

Pros and cons of “free” solar panel installation schemes:

http://www.homeimprovementquotes.co.uk/newsletter.php?s_eng=newsletter_23aug10&ref=news2&issue=23aug10

Guardian article about “free” solar panels:
<http://www.guardian.co.uk/money/2010/aug/14/free-solar-panels>

CATS October Meeting

This will be a talk on WSPR (Weak Signal Propagation Reporter) by Walter Blanchard, G3JKV. Walter has given this talk at a number of local clubs and CATS member Lawrence has used WSPR from various worldwide locations – see reports in previous issues of *Cats Whispers*. This promises to be a most interesting evening.

CATS November Meeting

This will be a talk by Chris, 2E0CTH on D-Star.

CATS December Meeting

Advance Notice Of AGM

Annual General Meeting Of The Society

In accordance with the rules of the Society, notice is hereby given that the Annual General Meeting of the Coulsdon Amateur Transmitting Society will be held on Monday 13th December 2010 at St. Swithun's Church Hall, Grovelands Road, Purley, Surrey CR8 4LA, commencing at 20:15 hours.

www.vintageinn.co.uk/thefoxcouldsoncommon/

The menu will be published on the CATS website.

I have already made a block booking at the pub, but they do need to know exact numbers, so if you would like to attend - and I hope you all will – please let me know at

chairman@catsradio.org

JOTA 2010

Stuart, G6CJR, has advised *CATS Whispers* that he will be organising a JOTA event at Banstead Scouts this autumn. As usual, this will be in the third full weekend of October, ie 16th/ 17th October 2010, although Banstead are participating only on Saturday 16th October.

Please let Stuart know if you would like to help with this event.

Kempton Park Rally & CATS Bazaar

November will be a busy month for CATS this year. Firstly we have the Kempton Park rally on Sunday 7th and helpers are required to run the CATS Bring and Buy stand at this event.

Then, on 21st November, we have the 33rd Annual CATS bazaar, a poster for which appears at the end of this issue of *CATS Whispers*. In addition to the Bring and Buy stand, we will also need helpers for the refreshments department and for manning the entrance, amongst others, plus people to help set up on the previous Saturday afternoon. Please contact Glenn, G4FVL or Andy, G8JAC, if you are available to help in any way with either event.

CATS January 2011 Meeting

This will be the traditional CATS New Year’s dinner and our venue this time will be the Fox Public House on Coulsdon Common. Members will recall that this was the final rendezvous point for the 2010 CATS DF hunt. As usual, the dinner will be on the second Monday of the month which next year falls on the 10th January 2011. Please put this date in your diaries.

For more information, visit the Fox’s website at

Tatsfield Brownies: Communicator Badges

Following the very successful work that CATS did with the Warlingham Brownies in June this year, and in previous years, we have been asked to cross the county border into Kent and do the same again in Tatsfield.

The Tatsfield pack meets on Thursdays and CATS have agreed to help the girls with their work towards their communicator badges at their meeting on 21st October. Three CATS members have already volunteered to help on site and one or two more would be welcome. However what we need most are members willing to be on the air from their home QTH or mobile so that the girls can have someone to talk to. We plan to use the regular CATS net frequency of 145.400 MHz ± QRM between about 17:30 and 19:00.

Please contact chairman@catsradio.org if interested.

M1FUR Active in 144 MHz Trophy

Andy, G0KZT, writes:

"It was disappointing that we had to cancel our club effort for the weekend of 4th & 5th September, although in any event I would have been unavailable for the beginning of the Saturday. However, I was able to put a small station together in the back garden consisting of my 7 element ZL Special, 30 foot mast and my trusty Kenwood TS-2000. And for the first time in about 11 years, I operated from the garden shed!

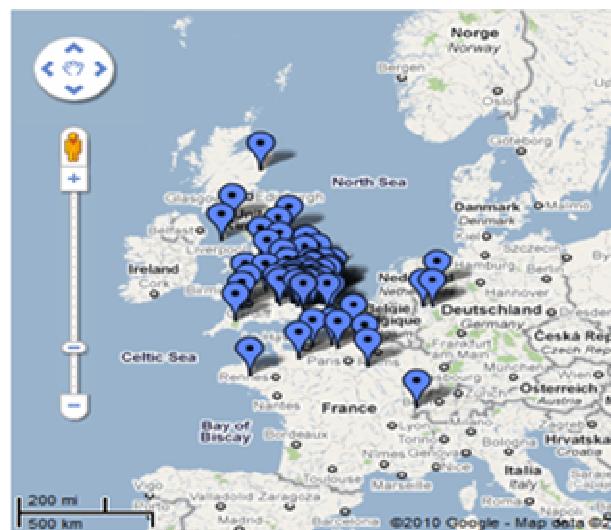
"I chose to operate in the 6 hour, single operator fixed section. The rules allow either a continuous 6 hour period of operation or two separate periods of operation (with at least 1 hour off in between). Juggling my time between getting the harmonics ready for bed and other domestic duties, I had the aerial up and station set up ready for a 2000hr start. In my first three hours, things looked promising including contacts with DF0RW in JO31GG (463km), F6HPP/P in JN19PG (332km), G4FZN/P in IO91MJ (347km), GM3HAM/P in IO74WV (480km), F5SGT/P in IN88KD (413km) and GD3EXI in IO74PC (438km). One station that eluded me however was DF0MU who after countless attempts to be heard, failed. But, with 44 contacts under my belt, I retired happy with my effort.

"The following morning at around 1030hrs and with a bit more juggling, I recommenced my efforts. The plan was to encompass the first hour of the Backpackers contest within my second three hours of operation in the hope of boosting my score. The first station I worked was the elusive DF0MU in JO32PC (518km).

And so it continued with DK5EZ in JO31MG (498km), TM0W in JN36BP (690km), TM2A in JN18RN (399km) and GM4ZUK/P in IO86RW (645km).

"In total I worked 65 stations and accumulated 11720 points (1 point per km with no multipliers). On the plus side, I was extremely pleased to work both the Scottish stations, a possible first from this QTH, and the contacts into Europe with the furthest being near the French/Swiss border, a most definite first for 2 metres! On the minus side, I wanted to try and get nearer to the magic 100 contacts. There never seem to be enough stations around but hearing other stations working between 100 and 500 plus makes it all the more frustrating. The Backpackers never materialised and having looked at the VHF Contest website, many reported a lack of inter-G working, some of whom where the 400 watt "Big guns".

73 de Andy G0KZT



VHF NFD News

Andy, G0KZT, writes:

"Results from the VHF NFD on 3-4 July this year have been published with an interesting narrative by John Simkins G8IYS. John, as many of you will know, is a member of SRCC and co-ordinates the joint efforts that form the North East Surrey Contest Group of which CATS are part although sadly, this year, no CATS personnel actually took part.

"The site at the Woldingham Ridge was used as in previous years. The weather conditions appear to have been variable as this direct

quote from the 70cm report illustrates, "NE Surrey CG (IO91) were buoyed by contacts with Scottish stations early in the contest, but found that the QSO-rate declined rapidly as the night and following day rolled on. However, Sunday brought some real surprises: EB1RL/P coming back to a CQ-call and the arrival of Force 6 gales. The latter prompted the snappy recovery of the 70cm station's caravan awning, which had been erected on Saturday as a needful sunshade. Sadly, the group's 6m/4m tent did not survive its maiden flight".

"So much for the summer! Further comments in the narrative give other examples of extreme weather reported by other contest groups.

"The 6m and 4m section were run by members of the Addiscombe club and each section for a limited operating time respectively. The 2m station was provided by the Wimbledon club and the 70cm station by SRCC.

"Below is an extract from the results table for each band showing there position, number of contacts, respect points total, furthest contact, power and antenna.

| 50 MHz G8SRC/P Restricted Section | | | | | |
|------------------------------------|------|--------|--------------------|-----------|---------------------|
| Pos | QSOs | Pts | Best DX | Power (W) | Ant |
| 17 | 54 | 23,819 | SV9CJO 2,751 km | 100 | 1x5 ele |
| 70 MHz G8SRC/P Restricted Section | | | | | |
| Pos | QSOs | Pts | Best DX | Power (W) | Ant |
| 9 | 62 | 12,913 | CT1HZE 1,671 km | 20 | 1x5 ele |
| 144 MHz G8WIM/P Restricted Section | | | | | |
| Pos | QSOs | Pts | Best DX | Power (W) | Ant |
| 4 | 256 | 50,583 | OZ1ALS 784 km | 100 | 18 ele |
| 432 MHz G3SRC/P Restricted Section | | | | | |
| Pos | QSOs | Pts | Best DX | Power (W) | Ant |
| 1 | 112 | 22,373 | EB1RL/P 942 km | 90 | 28 ele loop yagi |

"The group continue to lead the table in the 70cm section, a superb effort.

Restricted Section

| | Group Name | 50 | 70 | 144 | 432 | 1,296 | Total |
|----|----------------------|-----|-----|-----|-------|-------|-------|
| 1* | South Birmingham RS | 602 | 867 | 0 | 642 | 1,000 | 3,111 |
| 2* | Newbury & DARS | 639 | 657 | 885 | 815 | 0 | 2,996 |
| 3 | North East Surrey CG | 404 | 722 | 766 | 1,000 | 0 | 2,892 |

"So the group gain 3rd place overall for the restricted section, beating last year's winner Cray Valley who were 4th. The full narrative can be found at:

www.rsgbcc.org/vhf/results/10/VHFNFD.html

"John, G8IYS, is currently writing a report for SRCC's newsletter that he will share with CATS Whispers."

73 de Andy G0KZT

Salt Water Antenna

Andy, G8JAC, wishes to draw CATS members' attention to the following YouTube clip which lasts just under 6 minutes and features a novel antenna concept:

www.youtube.com/watch?v=9tIZUhu21sQ

Climbing The Pole

Finally Glenn, G4FVL, wishes to draw members' attention to the following clip which features a climb to the top of a 1700 foot tower – that's a third of a mile! Glenn writes that he's not sure he could do this climb. It certainly looks very hairy indeed ...

<http://video.yahoo.com/network/100000089?v=8244494&l=100022574>

Contests Coming Soon

2010:

Oct 2: 1.2GHz Trophy / 2.3GHz Trophy
 Oct 2/3: 432MHz-248GHz IARU
 Oct 3: 21 & 28 MHz – CW & SSB
 Oct 17: Second 50MHz
 Nov 13: 1.8 MHz – Club Calls
 Nov 21/22: 2nd 1.8 MHz
 Nov 6/7: 144MHz CW Marconi
 Dec 5: 144MHz Affiliated Societies
 Dec 26 to 29: 50/70/144/432MHz Christmas Cumulatives

2011 :

Jan 9: AFS Contest CW
 Jan 15: AFS Contest PHONE
 Feb 12-13: 1st 1.8MHz Contest
 Mar 12-13: Commonwealth Contest
 Apr 3: RoPoCo SSB

Local Rallies & Events

8/9/10 October 2010

RSGB 2010 Convention

Horwood House near Milton Keynes

Lecture streams

www.rsgb.org/rsgbconvention

12/13 October 2010

EMCUK Exhibition

Newbury Racecourse

RSGB stand

IEEE demonstration bench

You need to register on line for free tickets at:

www.emcuk.co.uk

7 November 2010

West London Radio & Electronics Show

Kempton Park Racecourse.

Open 10:00. Parking, trade stands, catering, disabled facilities. Contact info@radiofairs.co.uk

NOTE: CATS involvement in this event.

21 November 2010 –

CATS 33rd Annual Radio and

1st Coulsdon Scout Group headquarters, Lion Green Road in Coulsdon, Surrey. [Map](#)

Open 10:00 to 13:00

Parking, trade stands, bring and buy, refreshments

Contact: enquiries@catsradio.org or

www.catsradio.org

16 January 2011

7th Dover Radio Rally

Whitfield Village Hall, Sandwich Road, Whitfield, Dover, CT16 3LY.

Open 09:00

Parking, Boot Fair, Refreshments. Talk in on GB3KS

Contact: Ian, G3ROO, 01304 821588 or

ian.g3roo@gmail.com

www.doverradiorally.com/index.html

6 February 2011

26th Canvey Radio & Electronics Rally

'The Paddocks', Long Road, Canvey Island, SS8 0JA
Open 10:30

Parking, Catering, Disabled Facilities, Trade Stands

Contact: Dave, G4UVJ, 01268 697978 (evenings)

www.southessex.ars.btinternet.co.uk

13 February 2011

Harwell Radio and Electronics Rally

Didcot Leisure Centre, Mereland Road, Didcot, OX11 8AY, Oxfordshire. Radio, electronics and computing trade stalls, secondhand stalls, special interest groups, displays. Refreshments.

Open 10:30 to 15:30.

Contact: Ann Stevens 01235 816379 or

rally@g3pia.org.uk

www.g3pia.org.uk

27 February 2011

Rainham Radio Rally

Rainham School For Girls, Derwent Way, Gillingham, Kent, ME8 0BX

Contact Trevor, G6LYW, 0771 7678 795 or

trev@wig1.co.uk

13 March 2011

Cambridge and District ARC Rally

Wood Green Animal Shelter, King's Bush Farm, A1198 London Road, Godmanchester, Cambs, PE29 2NH. Open 10:00/10:15. Admission £3. Talk in. Trade. B&B. Catering with bar.

Disabled facilities. SIGs. Raffle. Lectures. Family attractions.

Contact David M0GUM, 01954-203080 or

rally2010@cdarc.co.uk

www.cdarc.co.uk

19 June 2011

Newbury Radio Rally & Boot Sale

Newbury Showground, M4 J13.

Open 09:00. Free parking, trade stands, catering, disabled facilities. Contact rally@nadars.org.uk

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

For Sale & Wanted

FOR SALE BY EX-CATS MEMBER GOING QRT:

YAESU FT 847 Multi mode earth station with hand mike, power cable and YAESU MD 100 A8X desk microphone. Condition as new, boxed £600.

YAESU VX5R Tri-band transceiver with mains charger and car charger and YAESU MH 34B4B speaker/microphone. Condition as new. £100 ono.

MFJ 993 300 watt intellituner automatic tuner. Condition as new. £100.

AVAIR AV400 SWR and power meter. 140/525 MHz. Condition as new. £25.

AVAIR AV201 SWR and power meter. 1.8/160 MHz. Condition as new. £25.

WATSON regulated power supply W-30 AM. Condition as new. £50.

COMET triplexer CFX-514. £25.

MFJ 1704 4 way coax switch £15.

MOONRAKER SQ8M 100p Tri-band 6/2/70 vertical £20.

WATSON G5RV dipole £10.

DIAMOND RH 770 2/70 telescopic BC connection £15.

Contact Rob, 2E0AYT, on 020 8668 5660, 07584260724 or email rob.cole@ntlworld.com

Other Club News & Contact Information

BROMLEY & DISTRICT ARS

Website: www.bdars.org.uk

Email: bdars-news@talk21.com

Meetings: 3rd Tuesday of every month at Victory Social Club, Kechill Gardens, Hayes, Kent, 19:30 for 20:00.

CPREC (CRYSTAL PALACE)

Website: www.qsl.net/q3ouu/ or <http://www.g3ouu.co.uk/>

Club Net: Wednesdays 20:00 on 145.525 MHz

Meetings: 1st Friday at All Saints Church Parish Rooms, Beulah Hill at 19:30

12 Nov - TBA (note revised date)

3 Dec - Christmas Social

7 Jan - TBA

CRAWLEY ARC

Website: www.carc.org.uk

Club Nets: Tuesdays 20:00 on 145.550 MHz and Fridays 19:00 on 1.970 MHz

Meetings: Every Wednesday at Hut 18, Tilgate Forest Recreational Centre, Tilgate Forest, Crawley from 19:30, and Sundays, 10:30 to 13:00.

CRAY VALLEY RS

Website: www.cvrs.org

Contact: Richard Perzyna, G8ITB (see website)

Club Nets: Wednesdays 21:00 on 145.500/QSY and 22:00 on 3.720 ± QRM, and Sundays 11:00 on 3.720 ± QRM

Meetings: 1st and 3rd Thursdays at Progress Hall, Admiral Seymour Road, Eltham, SE9 1SL

DORKING & DISTRICT

Website: <http://www.ddrs.org.uk>

Email: ddrs.secretary@yahoo.co.uk

Contact: David Smith, M0SXD, 07808579501

Club Nets: Sunday 08:15 on 3.770 MHz & Thursday 20:00 on 144.775 MHz

Meetings: Friends Meeting House, Butterhill, South Street Dorking at 19:30.

Oct 26 - Behind the scenes at Bletchley Park in WW2 - Brian Oakley.

Nov 23 - Repairing vintage radios - a practical approach - David Smith M0SXD.

Dec tba - Christmas dinner

HORSHAM ARC

Website: www.harc.org.uk

Club Nets: Saturdays 21:30 on 144.725MHz and Sundays 10:00 on 3.722 MHz

Meetings: 1st Thursday at The Guide Hall, Denne Road, Horsham, Sussex

7 Oct - Junk Sale

4 Nov - Light Bulbs Old and New - John Narborough

2 Dec - AGM

MID SUSSEX ARS

Website: www.msars.org.uk

Club Nets: Sundays 08:00 on 3.740 MHz and at 11:00 on 145.350 MHz, Wednesdays 20:00 on 145.350 MHz and Daily 13:30 on 21.330 MHz

Meetings: Every Friday at Cyprus Hall, Cyprus Road, Burgess Hill, West Sussex for 19:45

15 Oct - AGM

12 Nov - Talk on Valve Linears – Peter G4AKG

3 Dec - Christmas Dinner at the Gardeners' Arms

REIGATE ATS

Website: www.qsl.net/rats

Email: rats@qsl.net

Club Nets: Thursdays 20:00 on 145.500 MHz and Sundays 20:00 on 3.740 – 3.760 MHz

Meetings: 3rd Thursday at RNIB, Redhill College, Philanthropic Road, Redhill for 19:30

SRCC

Website: www.g3src.org.uk

Contact: Ray Howells G4FFY 01732 357474

Club Nets: Sunday 09:30 on 1905 kHz Daily natter channel – 144.215 MHz at 19.30.

Meetings: 1st & 3rd Mondays at Trinity School, Shirley Park, Croydon CR9 7AT 19:45 for 20:00

10 Oct – 75th Anniversary dinner

1 Nov - TBA

6 Dec - TBA

SUTTON & CHEAM RS

Website: www.scrs.org.uk

Contact: John Puttock G0 BWV 020 8644 9945

Club Nets: Monday 20.00 on 145.500 MHz

Saturday 11.00 on 145.500 MHz

Meetings: 3rd Thursday at Sutton United Football Club, The Borough Sports Ground, Gander Green Lane, Sutton. 19:30 for 20:00

21 Oct - Coping With Weak Signals On HF - Stan Rudcenko G0KBL

18 Nov - Building and Using the TenTec 1330 - Martin Butler M1MRB

9 Dec – Christmas junk sale

WIMBLEDON & DISTRICT ARS

Website: www.gx3wim.org.uk

Contact: Jim Bell M0CON 020 8874 7456

Club Net: Mondays 20:45 on 145.500 MHz

Meetings: 2nd & last Friday of each month at Martin Way Methodist Church, Buckleigh Avenue, Merton Park SW20. 19:30 for 20:00

29 Oct - AGM

26 Nov - Surplus Equipment Sale

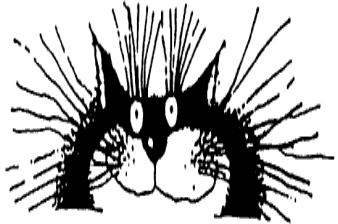
10 Dec - Christmas Social

CATS Whispers is published monthly by S J Beal G3WZK on behalf of the Coulsdon Amateur Transmitting Society. © C.A.T.S. 2010

**THE COULSDON
AMATEUR
TRANSMITTING
SOCIETY presents:**

**CATS 33rd Radio &
Electronics Bazaar**

Sponsored by SYCOM www.sycomcomp.co.uk



**Sunday November 21st 2010
10:00 am – 2:00 pm**

**Admission £1
Flea Market
Traders' stalls
New equipment**

**Secondhand equipment
Refreshments
Disabled access/ toilet
Easy parking**

PLUS CATS Bring & Buy:

Bring your gear and we will sell it for you.

**QTH: 1st Coulsdon Scout Group HQ Lion Green
Road Car Park Coulsdon, Surrey, CR5 2NL**

Web www.catsradio.org Email enquiries@catsradio.org