

COULSDON AMATEUR TRANSMITTING SOCIETY
G4FUR  **M1FUR**
CATS WHISPERS



Affiliated to the RSGB

March 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
NB: The net on 5th March 2010 will be via GB3NS/ Echolink
Sunday mornings - 11:00 - Call on 145.400 MHz \pm QRM
Sunday evenings - 17:00 - Call on 3.700 MHz \pm QRM
Wednesday evenings - 21:00 - Call on 70.425 MHz

CATS Website www.catsradio.org **Email** enquiries@catsradio.org

Forthcoming Meetings

Monday 8th March Film and video evening
Monday 12th April Lecture on microwaves (provisional)
Monday 10th May tba



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

CATS February Meeting

Thanks to Terry, G4CDY, the editor lost his virginity – SMD virginity that is – at the society's February meeting. He wasn't the only one to do so either, as under Terry's expert guidance and example several other members also made their tentative first steps to solder an SMD (surface mount device) onto a printed circuit board (PCB).



Terry, G4CDY, begins his lecture

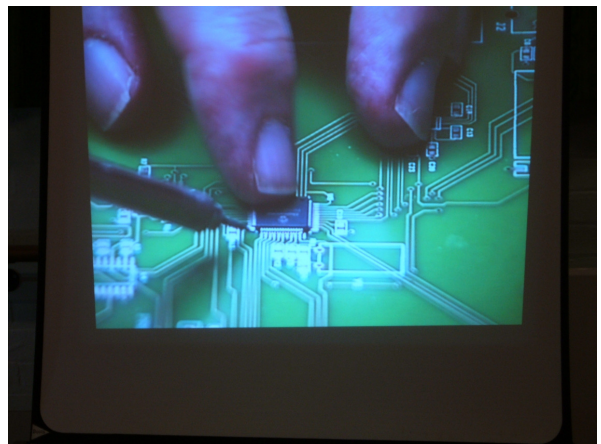
Terry began the session with a short lecture on the history of SMDs, the first publicised use of which was over 40 years ago on the Saturn 5 moon rocket in the late 1960s. Since then, SMDs have gone from strength to strength and are now extensively used in a wide range of electronic equipment. Terry himself routinely employs them in all of his projects, both professional and amateur. However, in the amateur community in general there is still a fair degree of reluctance to use SMDs. Many people see them as too small and fiddly to be worth bothering with – but the good news is that SMDs are very cheap – 1.5p each being a good average - and are manufactured to high tolerances – typically 1%. Not so good is that this price only applies if bought in reels of four thousand components and that shelf life can be as low as only two years before installation – although once soldered into a board they last much longer. And while resistors are marked numerically with their value, capacitors are unmarked.

So that everyone could see what was to happen next Dave, G8VXB, had rigged up an electronic camera to a digital projector and screen. This permitted Terry to demonstrate the intricacies of SMD soldering for everyone to see.



CATS members listen intently to Terry's (L) lecture

For mounting a simple two-ended component such as a resistor, Terry's approach was to apply flux to the board and then to lightly tack one end of the device to the solder pad. The component's other end was then soldered properly and, when secure, the first (tacked) end was re-soldered. For soldering in a multi-pinned component such as an IC, Terry recommended soldering a single pin first to hold the device in position. The next step is then to solder an entire row of pins to the board without worrying about creating solder bridges. Other rows of pins could then be soldered to the board in a similar manner, following which all excess solder is removed in bulk using solder wick, thus eliminating any solder bridges.



Terry shows how to install a surface mount integrated circuit

Finally, Terry then demonstrated how to remove a device such as a multi-pin SMD IC from a board using a special hot plate that he

had recently purchased. Then after a coffee break, we were all invited to have a go.

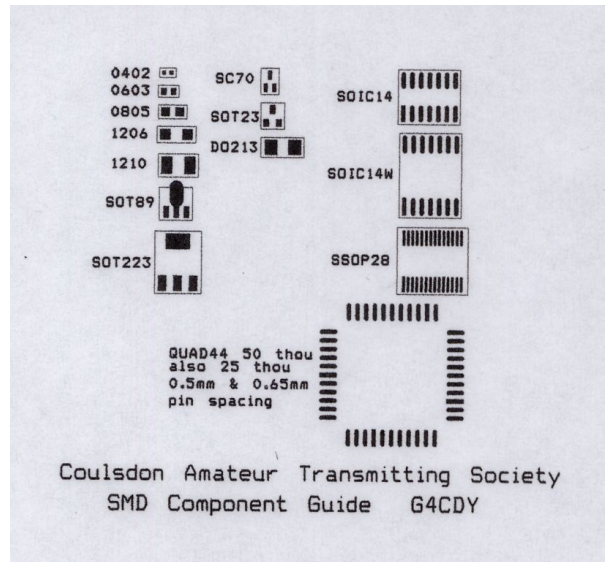


Terry, G4CDY, describes the SMD hotplate (the device with green lights by his left elbow)

G0KZT, G6CJR, M0NDJ, G3WZK, 2E0JXN and G8JAC were among those witnessed trying their hand at SMD soldering, using scrap PCBs and SMDs kindly provided by Terry. With such minuscule devices it was easy to make a mistake and at least one of us inadvertently installed an SMD upside down in the first instance! But such errors were easily corrected and by the end of the meeting we had all succeeded in installing at least one SMD each.

Terry's advice that essential tools for the job would include fine tweezers, a flux pen, a fine-tipped soldering iron and 22 swg solder was borne out completely in the editor's experience, although in his case magnification and a good light were also essential. For desoldering and cleaning up, Terry recommended solder wick and, in some cases, a mini vacuum tool. One final tip from Terry was that when removing a component that has been installed using unleaded solder, to add a small amount of leaded solder first, because this will lower the overall melting point and make the device easier to remove.

Thanks to everyone who brought in magnifying lamps and/or solder work stations and an extra big thank you Terry planning and running such an enjoyable evening for everyone.

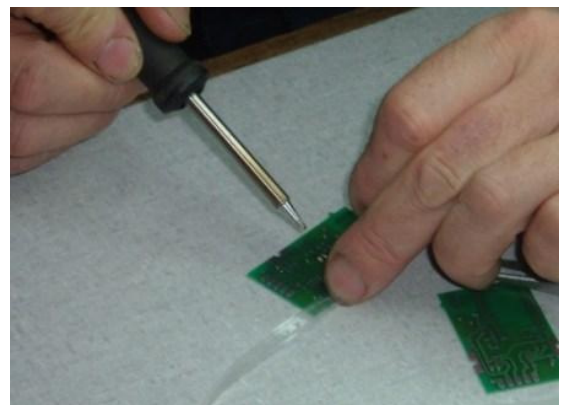


The SMD size guide kindly produced by Terry. The editor has spare copies of the 1:1 scale original laminated version

A selection of photos of members' initiation into the arcane world of SMD follows:



Dennis, M0NDJ, prepares to solder in his first SMD. Note flux pen in the foreground



Dennis tries out his SMD soldering skills



Stuart, G6CJR, prepares to solder his first SMD



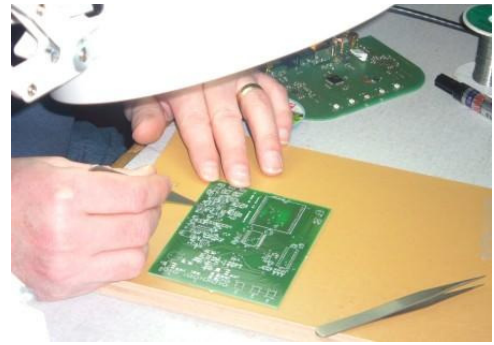
Stuart soldering



Paul, 2E0JXN, checks out his SMD board for dry joints



Andy, G0KZT, at his SMD work station



Andy, G0KZT, uses tweezers to position an SMD prior to soldering

Membership Matters

CATS March Meeting

This will be a film/ video/ DVD evening. We have a selection of radio-related material that we intend to show, including a film about Bletchley Park – the historic site of secret British codebreaking activities during WWII and birthplace of the modern computer.

However if you have any other radio-related material that you would like to share with CATS members, please contact anyone on the committee - or simply bring it along on the evening (8th March 2010.)

CATS April Meeting

This is planned to be a lecture on microwaves by a well-known local repeater keeper, subject to confirmation.

CATS May Meeting

The visiting speaker we had hoped to see in May can no longer make it. Watch this space for more information and updates!

Subscriptions

The annual subscription to CATS for 2010 became due at last December's AGM. The rate has been unchanged for several years now and remains a bargain at only £12 a year.

Membership renewal forms have been sent to all members who didn't attend the AGM. If you haven't already returned these to the Treasurer (now G7SYO), please do so as soon as possible.

Your timely responses will be greatly appreciated, please.

CATS Contesting

STOP PRESS: The wet weather has scuppered CATS plans to enter the 144/432 MHz contest over the weekend of March 6/7.

Andy, G0KZT, reports: "Today (Sunday 28th February) I was informed by the farmer at Warren Barn Farm that the fields that we use are waterlogged and inaccessible to vehicles. In addition, the weather forecast for the weekend is snow and high winds.

"It is therefore with regret that the contest weekend is cancelled."

The CATS Contest Secretary Frank, G3ZMF, is now considering a number of other options for contest participation this summer. These are:

Date	Details
May 1/2	This covers all bands from 432MHz to 248GHz. Frank envisages CATS operation on 432 and 1296 MHz
May 15/16	144MHz only
Jun 19/20	This is a contest on the 6 metre band (50MHz Trophy) and would be a new venture for CATS

Please contact any committee member to express your views about CATS entering any of these contests or speak to Frank, G3ZMF, with any specific offers of help.

Kempton Park Rally

The first Kempton Park rally of 2010 takes place on 18th April 2010 and CATS will be providing a bring and buy stand as usual. If you would like to help out on the stand, please contact Glenn, G4FVL or Andy, G8JAC.

Warlingham Brownies

In October 2007, several CATS members assisted the Warlingham Brownies with their work toward their communications badges at one of their evening meetings. We told them about amateur radio and set up a 2 metre station so that the girls could go on-air and exchange greetings with a number of local amateurs.

This year we have been asked to stage the event again - possibly in April or May. If you would like to help in any way this time around, please contact G8JAC.

Skype

As several CATS members are now on Skype, the committee have decided to begin recording members' Skype details to provide an additional means of keeping in touch should the need arise. So if you are on Skype and wish to do so, please let the Secretary or any committee member have your details.

The din on 145.2875 MHz

As mentioned at the CATS meeting on February 8th, a D-Star repeater MB6AM has appeared on the traditional "CATS frequency" of 145.2875 MHz. The repeater is sited in Tring and is endstop with many CATS members including the newsletter editor.

There has been some controversy over the new repeater as, according to the current (February) band plan, 145.2875 MHz is allocated as an FM Internet voice gateway, although it is claimed that the IARU permits digital access such as D-Star on this frequency.

It was of course as an FM gateway to the MB7IPL node on 145.2875 MHz - run by a CATS member - that the frequency became established for many years as regular meeting place for CATS members.

Following lengthy consultation and many emails by CATS Secretary Andy on this matter, and as the MB7IPL licence has now lapsed, we have regretfully decided to shift our regular Sunday morning net to 145.400 MHz \pm QRM.

For the net on 5th March with Crescenta Valley, CATS has been authorised to use GB3NS/

Echolink by the repeater keeper Dennis, G0OLX. Thank you Dennis!

Any further developments will be emailed direct to CATS members.

EMC Issues At G3WZK?

The other week a neighbour from an adjacent road whose garden backs onto mine knocked at my door saying that she couldn't use her key fob to lock or unlock her car and that she couldn't remotely open her garage door either. Had I been using my "CB" lately?

Aware that remote locking devices often operate in the 70 cm band I was slightly concerned – but as I knew I had hardly been on the radio at all for over a month, I knew that none of my rigs could be responsible. I invited her in and a quick tune around on 70cm revealed a powerful carrier on 433.900 MHz. It was endstop in my hall on my Alinco handie with its rubber duck aerial.

So after I had charged up the handie and rigged up the most inefficient antenna I could devise (a 20 mm piece of wire) we went for a walk together along the road to track down the source of interference.

To cut a long story short, the source of the carrier was eventually tracked down to an upstairs bedroom in the neighbour's own house where the signal was now end stop on the handie with no antenna at all.

In the room was a Samsung TV connected to a radio based domestic video receiver fed from a sender in the downstairs living room. The set was on standby but switching off at the wall socket caused the carrier to drop immediately. Sadly, restoring the power did not cause the fault to reappear so it has not been possible to determine whether it was the TV or the video receiver that was at fault. The video receiver was fed from a plug top PSU, but I don't believe that the PSU was the cause of the problem because the carrier was very clean on my main rig and not what one would expect of a switched mode PSU, for example.

The television set-up worked normally and checking my neighbour's remote locking devices revealed that they too were now all functioning perfectly. I reasoned that the fault might recur, so before I left I fitted a clamp-on ferrite to the lead from the video receiver to the

TV and a toroid to the DC power lead at the receiver end.

To ensure my neighbour keeps happy, I have continued to monitor 433.9 at intervals since the event but so far there has been no occurrence of the problem. However, there have been some very weak repetitive noises on 433.925. If there are any more developments, I will let you know.

Moral: maintain a log book and always keep a stock of EMC ferrites and filters available for use as required.

Contests Coming Soon

Mar 6/7: 144/ 432 MHz "Brass monkeys"
Mar 13/14: 3.5 – 28 MHz Commonwealth
Mar 14: 70 MHz Cumulative #2
Apr 4: 3.5 MHz 1st RoPoCo
Apr 4: 1st 70 MHz
Apr 11: 1st 50 MHz
May 1: 432MHz Trophy
May 1: 10 GHz Trophy
May 1/2: 432MHz-248GHz
May 9: 70MHz CW
May 15/16: 144MHz
May 16: 1st 144MHz Backpackers
May 23: 70 MHz Cumulative #3
Jun 5/6: 1.8 – 28 MHz NFD
Jun 13: 2nd 144MHz Backpackers
Jun 19/20: 50MHz Trophy
Jun 20: 50MHz Backpackers
Jun 27: 70 MHz Cumulative #4
Jul 3/4: VHF NFD
Jul 4: 3rd 144MHz Backpackers
Jul 18: 3.5 and 7 MHz – Low Power Field Day
Jul 18: 70MHz Trophy
Jul 24/25: 3.5 to 28 MHz – IOTA
Aug 1: 3.5 MHz - 2nd RoPoCo
Aug 7: 144MHz Low Power
Aug 8: 432MHz Low Power
Aug 15: 70 MHz Cumulative #4
Aug 22: 4th 144MHz Backpackers
Sep 4/5: 3.5 to 28 MHz – SSB Field Day
Sep 4/5: 144MHz Trophy
Sep 5: 5th 144MHz Backpackers
Sep 12: Second 70MHz
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

Local Rallies & Events

7 March 2010

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

7 March 2010

Bournemouth RS 21st Annual Sale

Kinson Community Centre, Pelhams Pk, Millhams Rd, Kinson, Bournemouth, BH10 7LH. Open 09:30. Free parking, trade stands, catering, disabled facilities. Contact John G0HAT 07719 700 771.

<http://brswebsite.org.uk/>

18 April 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.

23 May 2010

Dunstable Downs RC National Amateur Radio Car Boot Sale

Stockwood Park, Luton, M1 J10

Open 09:00. Talk in on S22

www.ddrcbootsale.org

20 June 2010

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/>

25-27 June 2010

Hamtronic Show, Friedrichshafen

Messe Friedrichshafen, Germany

www.hamradio-friedrichshafen.de/ham-en/index.php

4 July 2010

Norfolk ARC Barford Radio Rally

Barford 9 miles SW of Norwich close to A11 and A47 Open 09:00 (traders from 8am), CP, TI, CBS, B&B, C, TS, RSGB Bookstall, Demos.

Contact: David G7URP 01953 457322 or

radio@dcpmicro.com

www.norfolkamateurradio.org

18 July 2010

McMichael Rally & Boot Sale

Reading Rugby Club off A4 east of Reading

Open 09:30. Parking, trade stands, catering.

Contact g0jms@radarc.org

www.mcmichaelrally.org.uk

8 August 2010

Flight Refuelling Hamfest

Cobham Sports and Social Club Ground, Merley, Nr. Wimborne, Dorset BH21 3AA

Further information: www.frars.org.uk

29 August 2010

Milton Keynes 51st Amateur Radio Society Rally

Bletchley Park

Open 09:00 trade stands, catering

Contact: Mike G3LFR: 07866 673192 or

www.mkars.org.uk

1/2 October 2010

National Hamfest

George Stephenson Pavilion, Newark & Nottingham Showground, Lincoln Road, Winthorpe, Newark NG24 2NY. See CW article above. For the latest details and ticket information, visit:

www.nationalhamfest.org.uk

8/9/10 October 2010

RSGB 2010 Convention

Horwood House near Milton Keynes

Lecture streams (see September issue of CW)

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

7th November 2010

West London Radio & Electronics Show

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

Electronics Bazaar

Provisional arrangements as follows:

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

Note: It seems that the Newhaven Fort Amateur Radio Group Rally (normally run in June) and the Leicester Amateur Radio Show (normally run in September) are not taking place in 2010 as there is no information about these events on the websites of either of the parent organizations.

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/g3oou/ or <http://www.g3oou.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

5 Mar – History Of Power Supplies Part 2

2 Apr - 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.cvr.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

15 Apr - AGM

DORKING & District RS

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.

Mar 23 - How many radials? - Understanding the quarter wave vertical - Garth Swanson G3NPC.

Apr 27 - DF techniques and events - Alistair G3ZBU.

May 25 - The British Army's battlefield radio in WW2 - Prof. Tony Davies

June 22 - Air Traffic Control - Ross MacDonald.

July 27 - South Downs evening.

Aug 24 - Social evening.

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

4 Mar - Junk Sale

1 Apr - The Beginning of Airborne Communication and Navigation – G3GDU

6 May - RSGB HQ station GB7HQ during the IARU Contest 2009 - John Warburton G4IRN

3 Jun - Travels With My Radio – Roger Western G3SXW

1 Jul - The RSGB DRM / Local Repeaters – G4EFO

5 Aug - Bring Show Tell

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

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 020 8644 7589

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

12 Apr – AGM

10 May – Construction Evening

7 Jun – Construction Contest

5 Jul - Club BBQ at G4CCY's/G4DDY's

2 Aug – 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

18 Mar - 'Operating Digital Modes on HF' by Evan

Duffield - MØTJU

15 Apr - 'Kite & Balloon Supported Antennas' by Roger

Stafford - G4ROJ

20 May - AGM

17 Jun - tba

15 Jul - tba

19 Aug - tba

WIMBLEDON & DISTRICT ARS

Website: www.gx3wim.org.uk

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

26 Mar - Commercial Satellite Communications

by Peter Beardow G1SHV

9 Apr - Surplus Equipment Sale

14 May - Direction Finding Hunt

28 May - Vintage Rig Evening

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