



Cray Valley Radio Society

G1RCV, G3RCV and M8C

www.cvrs.org



<http://groups.yahoo.com/group/CV-RS/>

10m Sunday morning net @ **10:00 local**: 28.570 MHz +- QRM

4m net – Fridays in weeks where there is no club meeting @ 20:30 local: 70.450MHz, then QSY to 70.425 or 70.475MHz

QUA

July 2016

Editor: Bob Treacher M0MCV

DIARY DATES

This month

- 2/3 July 2016 - VHF NFD – Colin G3SPJ
- 7 July 2016 - A25UK: Botswana 2016 – Nobby G0VJG and Giles M0TGV
- 8, 15, 22, 29 July 2016- Shack open – Trevor M1TAD
- 21 July 2016 - TBA
- 23 July 2016 - BBQ – Dave M6FDG

Looking further forward

- 4 August 2016 - Current Spectrum issues – Murray G6JYB
- 18 August 2016 - Bat walk! - see Dave G4BUO for details
- 8 September 2016 - '999 Emergency' – Steve G3ZPS
- 22 September 2016 - Old fashioned 'Junk' Sale – Nigel G1BUO

HONORARY OFFICERS, 2016/17 COMMITTEE AND CO-OPTED MEMBERS

President	Bob Treacher M0MCV	bobrcv@ntlworld.com
Vice-President	Chris Whitmarsh G0FDZ	chris@g0fdz.com
Vice-President	Owen Cross G4DFI	closehaul@btinternet.com

2016/17 Committee

Chairman	Dave Lawley G4BUO	dave@g4buo.com
Vice Chairman	Richard Cains G7GLW	rcains@btinternet.com
Secretary	Karen Crowder G8JNZ	
Treasurer	Martin Rast M0MDR	mrast@gmx.net
Members	Dave Chapman M6FDG	DavChpmn@aol.com
	Giles Cooke M0TGV	Giles.G.Cooke@gmail.com
	Nigel Cornwell G1BUO	
	Trevor Denby M1TAD	trevordenby@virginmedia.com

Co-opted members:

Examinations secretary	Frank Parradine G0FDP	francisparradm@aol.com
Trophies manager	Guy Roberts G0UKN	guy@g0ukn.com
Programme secretary	Dave Chapman M6FDG	DavChpmn@aol.com
Equipment manager	Colin Wooff G3SPJ	g3spj@btinternet.com
Shack manager	Trevor Denby M1TAD	trevordenby@virginmedia.com

EDITORIAL

Slightly early this month due to holidays!

How good it was to see a strong turnout at this year's DF Hunt. The decision not to include the event in last year's calendar and look to offer a rejuvenated event in 2016 paid handsome dividends. This issue includes a report from Guy G0UKN. It was also good to see the Society represented in NFD for the first time in many years. Dave G4BUO has provided a report on the weekend's activities. The activity theme continues this month with VHF NFD. This is followed later in the month by a BBQ in the grounds at the Scout Hall organised by Dave M6FDG.

Looking further forward, our 70th anniversary month draws ever closer. Advance details are now available at www.cvrs.org and messages have been posted on our Twitter and Facebook accounts, and will soon appear in RadCom and Practical Wireless. Invites to our anniversary party will be going out later in July. Please RSVP as quickly as you can to help Nigel G1BUO and Dave M6FDG plan for how much buffet food and drinks will be required; the champagne has already been delivered! Further news about the anniversary is included in this issue, including 70th anniversary merchandise to purchase, and the opportunity to pre-order the 'Project70' USB stick and 'The Cray Valley Years' history book.

Future issues of QUA will keep members up-to-date with all the anniversary news.

G4ILH SK

During Owen G4DFI's search to obtain up-to-date details of ex-members in advance of the anniversary party invites being sent out, he spoke to John Acott's XYL, and she advised him that John became SK last August following a nine week battle with cancer.

John was a very active member of the Society from 1978 – 1985 and held a committee post during that time.

Owen was stunned at the news, but offered the Society's condolences.

VHF NFD – 2/3 JULY 2016

VHF NFD this year will be from the Kent County Showground at Detling Hill, Maidstone ME14 3JF. G3RCV/P will be active on 2m, 4m, 6m and 70cm. Details of how to get to the site are provided below. Set-up will be from late afternoon on Friday 30 June and on the Saturday morning. The contest starts at 3pm local time on the Saturday and runs until 3pm on the Sunday. It is hoped as many members as possible will look for G3RCV/P to provide valuable points; each contact from the Cray Valley area will be worth around 45km of points. Importantly, after a full weekend in the field setting up and operating, the team will be pleased to see members to help tear-down the stations on the Sunday afternoon.

Location: Kent County Showground, Detling Hill, Maidstone, Kent ME14 3JF (A249).

Travelling to the site: The easiest approach is from Junction 7 on the M20. Turn off at Junction 7 and take the A249 North sign-posted 'Sheerness'. From the roundabout proceed up Detling Hill for approximately 1.9 miles and turn left into the Kent County Showground main entrance road. Access to the site is via the metal gates on the right hand side as you turn into the entrance road.

For an alternative approach via the M2, turn off at Junction 5 and take the A249 sign-posted 'Channel Tunnel (M20)' and proceed right the way along to the Junction 7 roundabout of the M20. Go right round the roundabout to turn back on yourself. From the roundabout proceed back up Detling Hill for approximately 1.9 miles and turn left into the Kent County Showground main entrance road. Access to the site is via the wooden gate on the right hand side as you turn into the entrance road.

Travelling back from the site: When leaving the site you have to turn left and travel north along the A249 towards the M2. For this reason the M2 is a preferable route when travelling back to the London area.

SUMMER BBQ – SATURDAY 23 JULY 2016

By popular demand, following the success of last year's BBQ, Dave M6FDG has arranged to hold a BBQ in the grounds of the Scout Hall on Saturday 23 July starting at 4pm and ending when Dave has filled everyone up!

Due to food price increases, Dave has reluctantly had to put the price up another 50p to £8.50 – the price includes a free raffle ticket. Dave needs to know who will be attending as quickly as possible so he

can order sufficient burgers, steaks, ribs, sausages, chicken, salad, rolls and cakes. Please e-mail him at davchpmn@aol.com to book your place or see him at the 7 July meeting.

If anyone has any special dietary needs, please make Dave aware when you book your place so he can make the necessary arrangements.

Importantly, all monies must be collected prior to the afternoon of the BBQ.

All we hope is that summer has begun by then!

PLAN AHEAD! – LOCAL TRAINING COURSES: KEVIN MOKSI

Licence Level	Start	End	Location	Club Provider	Format	Further details
Full	28 Aug 2016	20 Nov 2016	Bromley, Kent	Bromley & District ARS	9 half days (Sun)	www.bdars.org
Foundation	14 Sep 2016	28 Oct 2016	Swanley, Kent	Darent Valley RS	7 evenings (Wed)	www.darentvalleyrs.org
Foundation	18 Sep 2016	25 Sep 2016	Bromley, Kent	Bromley & District ARS	2 days (Sun)	www.bdars.org
Intermediate	5 Nov 2016	19 Nov 2016	Eltham, SE9	Cray Valley RS	3 days (Sat)	www.cvrs.org
Foundation	4 Feb 2017	11 Feb 2017	Eltham, SE9	Cray Valley RS	2 days (Sat)	www.cvrs.org
Intermediate	tba Mar 2017		Bromley, Kent	Bromley & District ARS	3 days (Sun)	www.bdars.org
Full	2 Oct 2017	25 Nov 2017	Eltham, SE9	Cray Valley RS	2 evenings (Mon) + 4 days (Sat)	www.cvrs.org

RSGB YEARBOOK ENTRY

We received really short notice from the RSGB to provide an entry for the 2016 Yearbook. Members may be interested to see the entry that was submitted.

Cray Valley Radio Society celebrates its 70th anniversary in 2016. Throughout its history, the club has been at the forefront of amateur radio in south-east London, and nationally. Being located in the Royal Borough of Greenwich, CVRS was ideally placed to mount a series of high-profile special event stations starting with M2000A celebrating the millennium, and ending with 2012L for the London Olympics. The Society now focuses on more locally-based events such as Meopham Windmill GB6MW and Crossness Pumping Station GB2CM.

The Society runs a full programme of training courses from Foundation right through to the Full licence, and is careful to offer ongoing help and support to amateurs after they receive their callsigns, including making equipment available on short-term loan to new licensees.

Planning permission was recently obtained from Greenwich Council for a Tennamast at the Club's meeting place, and the mast now supports an A3S HF tribander and 2m yagi together with wire antennas. The shack is opened regularly so that any member who wishes can operate, and members also use the club shack for a number of contest entries. All three RSGB field day contests will also be entered in 2016 from locations within driving distance of Eltham.

Meetings are held on the first and third Thursdays of each month at the 1st Royal Eltham Scout Hall, Rear of 61-71 Southend Crescent, Eltham, London SE9 2SD. A varied range of lectures and activities are held throughout the year, and the Club's magazine 'QUA' is published monthly. There are club nets weekly on 10m and 4m with additional nets and activity planned for the anniversary month of October 2016.

Please visit the Club's web site www.cvrs.org for further information, or contact Richard Cains G7GLW at secretary@cvrs.org

DF HUNT: GUY GOUKN

The new format DF hunt took place as planned on Thursday 16 June. Seven teams took part and all successfully found the hidden transmitters in varying lengths of time.

Unlike previous hunts, teams could leave when they were ready and were given a start time when they set off and a finish time when they returned. Accordingly, the winner could only be declared when all seven teams had returned and when the elapsed times were calculated. Apart from the clear winner and a team who had never done anything like this before, the other five teams found both transmitters and their elapsed times were all between 43 and 47 minutes.

The location of the DF hunt was, purely by chance, right next to the Crown Inn on Chislehurst Common. Those who organised the event and a number of other members decided that the best thing whilst waiting for those searching out the transmitters was to try out the fine selection of Shepherd Neame Ales available! This worked well and as the teams finished the challenge they too sampled the ale. Around 20 members were present and the weather stayed fine throughout the evening. The pub garden also made a fine venue for presenting the trophy to the winner.

The full results are as follows:

- 7th: M0UKL (Remus and Junior ops) (Alinco hand held plus Tape measure Yagi) - 69 minutes
- 6th: G3SXE and G1BUO (Paul and Nigel) (FT290 MK2 plus HB9CV) - 47 minutes
- 5th: M0KSJ and M0UAT (Kevin and Ian) (Hand held plus Sota Yagi) - 45 minutes
- 4th: G8ITB & 2E0LAG (Richard and Alan) (DF receiver, FT817 + Yagi) - 44 minutes
- Joint 3rd: M0WXU (Peter) (FT817+ Tape measure Yagi) - 43 minutes
- Joint 3rd: M1TAD (Trevor) (FT817+ Sota Yagi) - 43 minutes
- 1st: G3SPJ (Colin) (FT817 + DF loop) - 27minutes.

So the clear winner and recipient of the 'Tally Ho!' trophy was Colin G3SPJ, who using an FT817 plus a small homemade loop found both transmitters and returned to base in 27 minutes, my congratulations

to him for a fine performance. It should be noted that three of the teams had never ever taken part in a DF hunt before – MOUKL, MOWXU and M1TAD, so my congratulations go to them also.

I will be pushing Colin for a QUA article on his small loop antenna.

NFD FROM THE VALLEY OF THE RIVER CRAY: DAVE G4BUO

This was a very successful return to NFD for Cray Valley after a few years when we did not compete. Highlight I think was the location which was found for us by Lawrie G4FAA. It was just to the west of the North Cray Road and had an extremely well stocked farm shop, and on-site restaurant that did excellent meals, including Sunday roast! The field was in good condition and had been recently mowed. The farmer was very friendly, and interested in what we were doing. Some research by Lawrie, and with reference to our archive records, has shown that his grandfather was A.K Wall, G2YZ, a member of the Society from 1946 to 1957 and a committee member in 1951/52.

How fitting that in our 70th anniversary year we operated from the valley of the River Cray, the end of the doublet was less than 100 yards from the river.

Using this 270ft doublet and 100 watts from the Kenwood TS-990 brought by Mark MODXR, we made 1,154 QSOs in the 24-hour contest period. We found that the site worked well to the States; a friend of mine, N7DR in Colorado, told us we were the loudest signal out of G with him. In addition to plenty of Ws we worked ZL (New Zealand) on 40m and 20m, PY (Brazil), 9M2 (West Malaysia), VU (India), VK (Australia), tons of UA9 (Asiatic Russia) and plenty of others but no JA (Japan).



NFD ATU



Mark MODXR and Dave G4BUO

Conditions were not good and we made only a few dozen QSOs on 15m and only seven on 10m. A few days earlier there were lots of loud short-skip Sporadic E (Es) stations on 10m, but unfortunately there was no Es propagation during the contest weekend. Therefore 1,154 is a very good QSO total, though sadly we are in the race for second place in the Restricted Simple section, because GM2MP/P, near Inverness, benefitted from skip into Europe that we don't get down here because we are too close.

Many thanks to Colin G3SPJ for opening the lock-up early on the Saturday morning, and for all members who visited over the weekend. Special thanks to the tear-down crew of Lawrie, Kevin MOKSJ and Tony

G6LUD who worked in the Sunday afternoon heat (a brief glimpse of summer!) to get everything down and packed into the cars so that we left site only 70 minutes after the end of the contest.

‘PROJECT 70’

Members will have seen that publicity for our 70th anniversary has started, with posts to our website and the Society’s Twitter and Facebook accounts. RadCom and Practical Wireless will also include news in the coming months.

Anniversary party: An invitation to our anniversary party at the Scout Hall on **Thursday 20 October 2016** will be e-mailed to all members (and ex-members and guests) later in July. Please RSVP as soon as you can to help Nigel G1BUO and Dave M6FDG plan how much food and drink will be required. To help with parking on the night, we have secured the use of the parking bays and playground at St Thomas More Secondary School, which is opposite the Scout Hall in Footscray Road (only a five minute walk away).

Special event callsign: We are still in discussions with Ofcom about a special event callsign. Unfortunately, GB70RCV will not be possible, but they have offered an alternative, which we have accepted. We are not releasing details until we have received the NoV. However, Trevor M1TAD is starting to put together details of when the shack will be available for our use during the month of October. This will enable him to begin to populate an operating rota. For Platinum Award purposes, G3RCV and G1RCV will also be aired during the month, but there is no reason why class A licensees cannot use those Society callsigns from their own QTH. I know it is early to plan such detail, but **Trevor is collecting expressions of interest from members who would like to use the special anniversary callsign from the shack, or would like to use the Society callsigns. Those interested, please e-mail Trevor directly at trevordenby@virginmedia.com**

Platinum Award rules and details of activity periods: These have been agreed by the committee and will be available closer to October. However, as a taster, members will have to collect 70 points from working the special event callsign (10 points) and the Society callsigns and/or members (5 points) to claim the award – a specially engraved plaque – at a cost of £6.50.

70th anniversary merchandise: Members present at the first meeting in June would have seen the specially engraved items of merchandise that are available to purchase: 27 orders were placed at the June meeting. For those not at that meeting the four items are shown below.



Each item is available as follows:

Logo embossed mug (boxed)	£8
Engraved wine glass (boxed) with logo	£11; pair £16
Engraved pint beer glass (boxed) with logo	£9
Call sign plaque (with your own call sign) with logo	£13.00

Payment is cash or cheque (made payable to Cray Valley Radio Society) to Bob M0M0CV, but those wishing to pay directly into the Society's bank account can do so using the following details – please note these bank details are different to those used to pay annual subscriptions:

Account holder: CRAY VALLEY RADIO SOCIETY
Account: 94958947
Sort Code: 60-09-10

All items will be available from late August/early September.

Project 70 memory stick: Chris G0FDZ now has approaching 60GB of archive material, although some members have, disappointingly, still not provided a QSL card (either printed or using the paper

alternative). He is still missing early archive material, but that is now unlikely to be obtained. Chris is moving to the production phase. He has obtained one firm quote for a printed stick, but awaits two further quotes. Copying the data to the stick is a headache still to be resolved. **Chris now needs expressions of interest from members who would like to purchase the Project 70 memory stick. The cost is likely to be somewhere in the region of £20 - £25.**

Please e-mail Chris direct at chris@g0fdz.com or see him at meetings. The memory stick should be available during December 2016.



What the logo printed USB stick could look like

The Cray Valley Years: This is Bob MOMCV's historical written journey through 70 years of the Society. With the text written, Bob is also moving to the production phase, with the assistance of Mark M1MPA at the RSGB. The book is expected to run to about 200 pages, with photographs, and will be Octavo Royale size (approx. 9" x 6"). **Bob now needs expressions of interest from members who would like to purchase a copy. By ordering in advance, the cost is likely to be £4.99. To reserve your copy, e-mail Bob direct at bobrcv@ntlworld.com or see him at meetings. The book is likely to be available during December 2016.**

CRAY VALLEY ARCHIVES

Now let us look back and see what the Society was doing 51 years ago in July 1965.

Stan G3JJC was Chairman and the Secretary was Steve G3KYV. Brad G3DNC was the QUA Editor. The QUA heading showed the Society was affiliated to the RSGB, but referred to itself as 'Eltham, Sidcup and Orpington District'. The main July meeting was to be held at the Eltham Congregational Church Hall, Court Road, Eltham, while the mid-monthly meeting was to take place at HMTS Kent at Ruxley Corner.

The Chairman reflected on a busy month in QUA. G3RCV was active on 160m and 2m from the Memorial Hospital grounds on Shooters Hill for the annual Hospital Summer Fete. Noise levels on 160m were high and the weather a north easterly with a blanket of cloud. Fortunately the rain held off and the 'thousands who turned up' were, with the aid of overcoats able to spend their money in some comfort. According to the local press, overall takings were more than £1,000, to which our contribution was apparently 5/6d! – so it can hardly be said that our part of the event made a deep impression on the public! The *Eltham & Kentish Times* singled us out for a mention referring to 'G3RCV the famous Radio Cray Valley'!

NFD had just passed. Reference was made to the day after the contest feeling like New Year's Eve, as there were good resolutions in the air and a healthy regard for better things next year! There were 'A' and 'B' stations, both located at HMTS Kent at Ruxley Corner. Both apparently suffered disappointments. The 'A' station had transmitter problems and was off the air for a considerable time. John G3TFE did a sterling job trying to get the station back on the air, but he only succeeded in getting the station to work on 160m. Top Band is not, of course, a band to flog for 24 hours in a multi-band contest, but the night operators of Dave G3RGS and Phil G3TGQ managed a reasonable score. The 'B' station issues appear to have been related to the antenna. QUA refers to Smudge G3GJW going to the 'A' station to collect items to fix the problem.

Plans were in place to enter the third RSGB 70Mc/s contest in July. However, site details were not available when the July QUA went to print! Details of the provisional meeting programme were given as - July: '70M VHF' by G3MCG; August: 'The QSL Bureau' by G2MI; September: Mullard Films 'Transistors'; October 'Reminiscing' by G2UV; November: 'An RSGB committee member'; December: South London Mobile Club. Ken G3TCC had been co-opted as Social Secretary following a resolution at the Annual General Meeting to hold 'social affairs' – perhaps a rally, a social evening or a dinner and dance.

GB3UHF 70CM BEACON NOW OPERATIONAL

For those who are not aware, GB3UHF the new 70cms beacon became operational on 15 June. Chris G0FDZ deserves praise for his expertise and dedication in making this happen.

The beacon is located at the same site at BT Fairseat in Kent (JO01EH) as GB3VHF; it is the new 'sister' to the well known 2m beacon. It uses the same type of 3-element yagi antennas pointing in the same directions as those used on GB3VHF and radiates a similar ERP, so it will prove extremely useful to determine the propagation characteristics of VHF and UHF frequencies simultaneously. The keying format follows closely that used by GB3VHF, with FSK Morse identification occurring on the odd minute and JT65B identification on the even minute. The frequency of the beacon is maintained by a GPS disciplined high stability reference oscillator and also provides the precise timing of the identifications.

Full details of the beacon, which is operating on 432.430MHz, can be found at www.gb3vhf.co.uk Chris already has a reception report from Poland but other reports are welcome.

THE YAESU FT-101 SERIES OF TRANSCEIVERS – PART 2: GUY G0UKN

Last month we gave an overview of the different models in the FT 101 range. This month we have a short guide on faultfinding and buying.

The FT101 series has proved very reliable over the years and the problems that tend to occur are as a result of old age and misuse rather than problems with the design.

The various boards in the radio are, in many cases, plugged in via edge connectors and if a radio malfunctions one of the first courses of action is to pull out and reseat the boards a few times and give a liberal spray of switch cleaner. The same is true of the switches and pots. They respond very well to a dose of switch cleaner every couple of years.

The operation and service manuals for all models are all available on the Internet and I strongly recommend that if you do intend pulling one apart that you download the correct manual and read it from cover to cover.

Also if you have some weird and wonderful fault, do put it into Google. The chances are that you are not the first person to have that fault and someone else may have done the leg work for you.

The list below is by no means exhaustive and does not account for faults caused by poor workmanship or misuse, but are all common, easy to solve issues for an amateur who knows the best end of a soldering iron to hold on to and can read a circuit diagram.

Deaf RX: If the radio seems very deaf on receive but will hear another transmitter close by, check the fuse bulb screwed into the back panel designed to protect the front end to see it is not open circuit. These have a tendency to work loose or the filaments fail. If that is OK, the changeover relay may need cleaning. If all else fails the frontend FET has been known to fail.

No audio on RX but the S meter moves: First try the switch cleaner trick on the mode switches and edge connector to the audio board, then whether you have continuity through the headphone and external speaker jack and finally, if all else fails, look at the audio board. The output chip used in the later units is no longer available but fitting a modern replacement is not rocket science if you can read a circuit.



Audio board on the left, undo the screws and it pulls out

No RF output: Check the heaters are lit inside the PA valves. The 10-way accessory plug has a shorting link in it and has to be plugged in the rear of the radio or no volts reach the PA heaters. If it is missing, a piece of wire linked between pins 1 and 2 of the socket will do the trick. The heater switch on the front has also been known to go open circuit but can be bypassed and is only really there to cut down current consumption on batteries.

Low RF output: The output valves are 6JS6C colour television line output valves and are now very expensive. If you have low output on the higher bands, chances are these are past their best. Converting to other valves is possible but not straightforward. You may be lucky and a realignment and replacement of the 12BY7A driver may cure the issue. There is also much on the Internet about component failure around the 12BY7A causing low drive. Typically the radios should give out around 120+ watts on the lower bands falling to around 80 to 90w on 10M. Treated well and not overdriven the valves last a very long time and many units still have the original bottles in place.

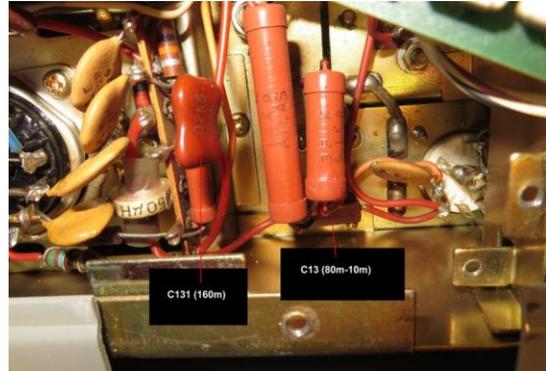
TX and RX peak at different places on the pre-selector: Poor quality or faulty driver valves can cause this. Try and get Toshiba or GEC branded replacements and avoid East European brands like Zaerex. When replaced a re-alignment may be needed.

One band or more dead, some fine: The biggest culprit is a dirty band switch. Give it a dose of switch cleaner. Then check if the mixer crystal is oscillating. If not, the trimmers around the mixer crystals tend to fall to bits if messed around with. This problem is particularly common in radios which have been owned by a CBer and non-standard crystals inserted in the 10m slots. The trimmers are available and are not hard to change. If all the voltages look fine, try gently warming the offending crystal with a soldering iron. If it springs into life you have a duff crystal.

WARC bands: There are many sets of instructions on the Internet for adding 30, 17 and 12M to the FT101 range. Essentially 30M can be accessed by simply enabling transmit in the WWV position; 12M can be added by replacing the crystal in the AUX/11M/CB position fitted to most 101s; and 17M is slightly more complicated as it uses a switched second crystal in the 15m position.

RF feedback: The mic amp transistors are capable of amplifying up into VHF and are not decoupled properly. If any issues are experienced, properly decoupling the mic amp with 1000pf caps across Q1, Q2 and Q3 to get rid of any RF. This is especially important if using a transverter with the rig.

Preventative maintenance: If you buy one of these radios something you absolutely must do to protect the radio is replace the driver to PA coupling capacitors. These go leaky with age and will destroy the PA valves; other components such as the PA choke and even the mains transformer. In short, a couple of 50p components if not replaced before they fail will write off your radio. The circuit refs are C13 (80 to 100pf) and C131 (1000pf). You have been warned!!! An HT fuse is also not a bad idea.



Coupling cap locations

What to pay and what to look for: As I have said before, always try before you buy wherever possible. Take your own power meter and dummy load and a piece of wire to listen on receive. Look for good physical condition. Nice condition outside is always a good sign. Open the lift up lid and look for signs of corrosion that may mean damp storage. Dust is not a problem; in fact it is a good thing as it shows it has not been in bits recently. Look for missing screws. Check the radio if at all possible on TX and RX. Look especially at the output on 10M. Some still have the protective plastic on the front which normally looks grotty by now. Just remove it when you get home for a pristine front panel. Prices range from <£100 for an example in poor condition to around >£250 for an immaculate late E model. The older non-suffixed and economy models always fetch less. The timeline in part 1 of my article last month should tell you what you are looking at. There are of course bargains to be had at silent key sales etc. and rip-offs available on eBay.

High voltage warning: As with any mains powered and valve kit, there are high voltages floating about inside these radios. Please do not risk your life if you are new to such kit but ask for help.

NEXT QUA DEADLINE

- ***The deadline for the next QUA is 29 July 2016.***

...AND FINALLY

- Cray Valley Radio Society is affiliated to the Radio Society of Great Britain
- The Society has adopted the RSGB's 'Safeguarding Children and Vulnerable Adults' policy, which shall be adhered to at all events
- Cray Valley Radio Society is an Equal Opportunities society
- QUA is published by Cray Valley Radio Society. Any opinions expressed herein are not necessarily those of the Society
- CVRS committee minutes are available on request to the Secretary