



# SURREY RADIO CONTACT CLUB

## APRIL 2026 – No. 1004

General Club Business:	<a href="mailto:secretary@srcc.uk">secretary@srcc.uk</a>	Honorary Secretary & Editor: Quin Collier G3WRR 19 Grangecliffe Gardens, LONDON, SE25 6SY Tel: 020 8653 6948
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Newsletter articles/distribution:	<a href="mailto:newsletter@srcc.uk">newsletter@srcc.uk</a>	
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Club Website:	<a href="https://www.srcc.uk">https://www.srcc.uk</a>	

MONTHLY MEETINGS NORMALLY ON 1<sup>ST</sup> AND 3<sup>RD</sup> MONDAYS 7.30 FOR 7.45pm

Meetings at St. Paul's United Reformed Church, Croham Park Avenue,  
Croydon CR2 7HF

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1<sup>st</sup> MEETING Monday 13<sup>th</sup> April 2026: Annual General Meeting

2<sup>nd</sup> MEETING Monday 27<sup>th</sup> March 2026: Fix-it, Move-it-on & Social Chat with John G8MNY

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### EDITOR'S OPENER

Dear Members & Friends,

A bit of sad news— Michael Somers emailed recently to say that his wife had died last December after a long cancer ordeal: I'm sure we all offer him our condolences and best wishes in adapting to the new world he finds himself in.

After the above depressing report and similar from other members over the last month or two, it is good to be able provide one more upbeat report. We have not seen Raymond Beadle G7ODG for a while as a result of poor health, although he has retained his membership. I had a phone call from him a day or two ago to say that he is now undergoing treatment from the NHS for his Parkinson's Disease and it is really good to hear that this is having a positive impact to the extent that he may be able to resume driving and attend meetings in due course. We will be delighted to see him again. In fact there is also a spin-off "two for the price of one" sort of benefit here as Ray used to give his friend Richard Larkman G0VCH a lift to meetings so hopefully we will be able to see Richard too!

For the last few years I have been over to the Isle of Wight to take part in the Commonwealth

Contest (formerly run by the RSGB but now by the “Evans Committee” a grouping of six National Societies in the Commonwealth). I had intended to take my Nautical Jaunt again in 2026 but for domestic reasons (I had to take care of a cat that I am looking after pro tem for a friend) it was necessary to abandon the trip (fortunately I had not booked the ferry...) so it was on from home for once. It was not what you would call a high spot.... In addition to limitations on antenna size and local electrical noise, conditions (at least at the start) were dreadful due to a K index of 6. The total tally was 39 QSOs - compared with 134 last year - in 9 overseas Commonwealth call areas. You can also make contacts with “UK HQ stations” but although you get points for those that’s not where the fun lies. Things had perked up a bit by dawn on Sunday morning and 6 VK/ZL contacts were made in 35 minutes. And it was much warmer at home than on the cliff top at Brighstone and I got a good night’s sleep so there’s no real grounds for complaint!

So on we go ...

## 73, Quin G3WRR

### PREVIOUS MEETINGS

March B meeting (16<sup>th</sup> March) *Usual “chat and test gear” session.*

### FUTURE MEETINGS

April A meeting (13<sup>th</sup> April) *Annual General Meeting.* **Please note** that this meeting will take place on the second Monday of the month rather than the first to avoid a clash with the Easter Holiday Weekend! As emphasised in an email on our around 23<sup>rd</sup> March, please give thought to whom you would like to see as members and Club Officers on the 2026/7 Committee and wish to nominate – or accept nomination yourself – as appropriate. A copy of the nomination form has been previously circulated but is also attached at the end of this Newsletter.

April B meeting (27<sup>th</sup> April) *Usual “chat and test gear” session.* **Please note** that this meeting will take place on the fourth Monday of the month rather than the third to avoid having meetings on two consecutive Mondays!

May A meeting (11<sup>th</sup> May) *“Number stations: 1950 to the present day” by Paul G7VAK.* This will be a rerun of the presentation Paul gave at the RSGB Convention in October. **Please note** that (once again) the meeting will take place on the second Monday of the month rather than the first to avoid a clash with the May Day Bank Holiday!

May B meeting (18<sup>th</sup> May) *Usual “chat and test gear” session.* Following the irregular dates of the meetings in April and May, normal service (i.e. meetings held on first and third Mondays) will be resumed from this meeting onward

June A meeting (1<sup>st</sup> June) *On air evening* (subject to confirmation)

June B meeting (15<sup>th</sup> June) *Usual “chat and test gear” session.*

## 73, Quin G3WRR

## ESPIONAGE, THE HUMBLE TYPEWRITER AND THE PC BY PAUL G7VAK

In the 19<sup>th</sup> Century the typewriter was invented giving us the QWERTYUIOP keyboard we know so well today. The early machines were simple key drive machines where the motive power was provided by the typist's fingers depressing the keys as required. The answer for the tiring process was provided by developing the unit further; the provision of an electric motor to provide the motive force at the lightest of touches. Further development brought in the electronic computer with a golf ball type head, easily changed for different fonts, script, symbols and characters which relied on the ever changing digital world; the simple prewrite LCD screen allowing all errors to be corrected prior to the typed sheet being printed.

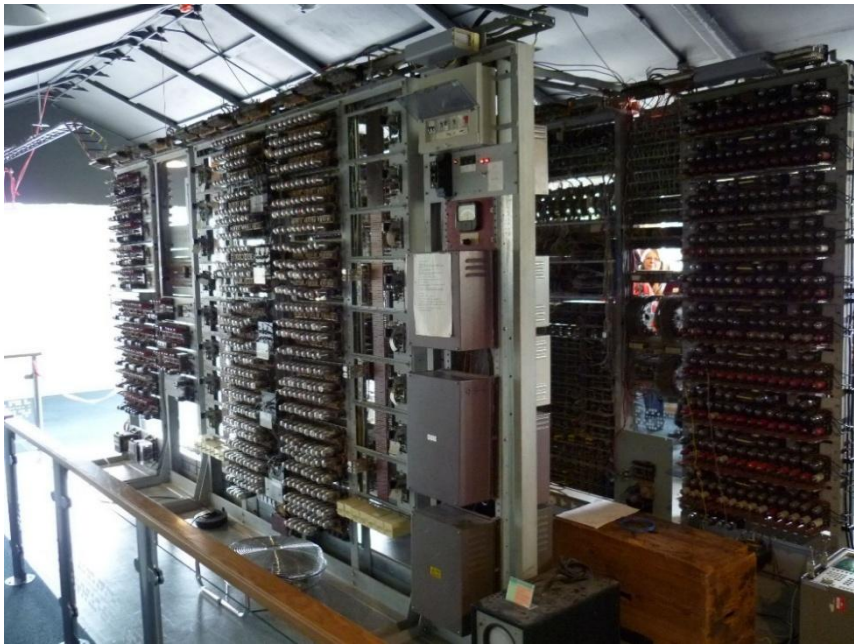
The word processor was a parallel development from the golf-ball typewriter; its microprocessor controlled firmware finding its way into the emergent home PC. This provided the convenience of writing a document and changing or correcting the text causing no problems prior to printing out. The demise of the typing pool, where a variable amount of skilled typists produced important documents occurred; it could all be done on the PC by one or two persons.

The same happened within the finance environment. Large companies processed their accounts in the machine room using the comptometer or variants again operated by banks of operators whose single calculations were checked, rechecked and combined to provide the documents that financial management would assess the financial status by. They fell prey to the larger main frame computing systems; the electromechanical comptometers and comptographs being consigned to historical collections. The slide rule like became redundant as the electronic calculator, developed originally as a desk unit and with a comptometer keyboard, soon used the simple abbreviated keyboard we use today.



### GEHEIMSCHREIBER AT BLETCHLEY PARK

Encryption machines, from the well-known Enigma through to the Geheimschreiber [secret writer] first relied on key drive, then electromechanical systems, then electronic and ultimately, the modern PC. On reading the well documented story of the race to break Enigma through to the codenamed FISH messages sent by Geheimschreiber and beyond to the LORENZ machine, it is not long before the reader meets Colossus, a thermionic valve [tube] based electronic computer that processed FISH and variant encryptions towards the end of World War Two. The LORENZ machine decrypt was particularly suited to Colossus.



**COLOSSUS – THERMIONIC VALVES**

Rumour was that at the end of WW2 Churchill, seeing how advanced Colossus was, ordered it to be destroyed, along with all plans, lest others get to hear about it. In truth, those at the emergent GCHQ, realised that in the rush for the spoils of war the Geheimschreiber and LORENZ machines would be lifted, and so they were, being very attractive to Soviet Russia. In answer the remaining Colossus units were employed by us, allowing GCHQ to read Russian ciphers apparently well into the 1970s; the Russians unaware that Geheimschreiber and LORENZ enciphered material ever been broken.



**FOUR ROTOR ENIGMA MACHINE**

The Egyptian Diplomatic Service also accepted Enigma machines for their use, not aware that their every encrypted word would be read.

The Swiss company Crypto AG produced cipher machines generally referred to as 'Hagelins' after the company's founder [in 1920] Boris Hagelin. Conveniently the machine the Egyptians replaced their Enigma units with operated in a similar way and utilised six rotating wheels enabling the easy changing of settings as required. The *en clair* input to the machine was entered via a keyboard whilst the enciphered output spewed out on paper tape.

Computers travelled a similar route and eventually changed from the massive main frame based terminals, to the Winchester loaded units in to the desktop, tower or laptop units so common today, where the units can either stand alone or link to a server, an intranet or the internet using proven methods to do so.

In 1983 a Dutch Computer researcher Wim van Eck revealed that he had been reading computer screens remotely by receiving and processing signals radiated by computer terminals and presented a paper entitled 'Electromagnetic Radiation from Video Display Units: An Eavesdropping Risk?'







## ICOM IC-R7000, HEART OF EMDAR

The remit was to develop countermeasures easily affordable by small companies; during my investigations I discovered a cased device called EMDAR [Electo Magnetic Display And Recovery] was already in existence and was built around the industry standard Icom IC-R7000 receiver which covers 25 to 1999MHz, no gaps and with a variety of reception modes, conveniently a socket allows an output for further use. EMDAR had another oscillator to allow manual thumbwheel selection of a suitable scan frequency to allow stable display of captured data radiation on a small VDU, also included in the box.

In the 1950s as the Cold War continued MI5 used a method employing special facilities, microphones and radio frequency flooding via the telephone to listen to the sounds made by entry clerks as they typed their message, *en clair*, to the encrypting device, typewriter or comptometer. The microphone method was codenamed SATYR; the entire operation of collection and analysis of the sound of the key thumps and later of the variations in the mains currents caused by the electric motors was codenamed ENGULF. In his book 'Spycatcher' Peter Wright recounts such a penetration of the Egyptian Embassy in London as their then President Gamel Nasser moved towards the Suez Crisis.



## ARABIC KEYBOARD FROM ELECTRIC TYPEWRITER

There's also every chance this technique was used against the Egyptians in 1964 when our secret pseudo-military campaign using out of work special service personnel engaged Egyptian troops in the Yemen desert. Controlled by radio, specialist book codes, featuring a French/English dictionary were used. Later MI5 was to be caught out bugging the communications suite in the Consulate of Pakistan in London allegedly using a specially placed 'workman' to do the deed when renovations were being carried out between 2001 and 2004.



**FRONT OF CONSULATE OF PAKISTAN, LONDON**



**REAR OF CONSULATE OF PAKISTAN, LONDON DURING RENOVATIONS**

Edward Snowden is the latest person to 'whistleblow' against his employer. Holed up in Russia for the foreseeable future he has been making certain facts of US interception of information surreptitiously taken off the internet using special probes, apparently manufactured in New Zealand, very public. The media, always hungry for a good story has made all this public. Surprisingly Russia has made it known that they do not intend to take advantage of Mr Snowden's knowledge, even after Mr Snowden who has polled several countries for asylum now states he wishes to remain in Russian company.

That he has a number of laptops with him containing all this information leaves a few questions unanswered from the Russian point of view. Since that news release the FSO or Federal Protective Service of Russia whose duty is to protect the President has placed an order for some twenty typewriters to allow them to move away from the threat of cyber penetration and the hacking of Mr Putin's most secret documents.

According to the state newspaper Izvestia '.... every typewriter has its own individual type pattern making it impossible to link any particular document to a particular machine.' Interestingly the FSO, previously the KGB Ninth Directorate, or Devyatki, which is also responsible for operating

federal emergency communication systems has stated their intelligence establishment have been experimenting generating documents using non-electronic media to enhance security. Whilst we are in the computer age employing internet probes and satellite interceptions we have previously used the techniques of SATYR and ENGULF to good ends; with technological advances within the realms of digital electronics, computing and miniaturisation one has to ask if Russia has just wasted a lot of roubles dodging the inevitable?

The reason comes from recent history because Russia knows all about the remote reading of typewriters, the news being broken to America in March 1985. Advanced bugs placed within the US Moscow Embassy's IBM Selectric II Typewriters meant that specific typewriters could be identified as they were used and subsequent component mechanical operation converted into digital pulse trains. The bugs stored the detail as eight, four bit characters prior to a short burst transmission to the waiting covert receivers using frequencies within the 30, 60 and 90MHz ranges. When not in use the bugs could be remotely stunned to avoid detection from random electronic sweeps by Embassy security staff. This event was so serious that GUNMAN as it was called, prompted a change in INFOSEC and many operatives have since been indoctrinated to prevent a reoccurrence.

One view of Russia's purchase of typewriters may well be from a paranoia they have generated themselves. All of the world's security services use computers and there has been several occurrences of an unknown mass of intelligence removed for sale, some to Russian intelligence services, using a USB memory device. As a colleague remarked "Try sticking a USB stick into a typewriter, or better still photocopy that lot over there and take it out the building without anyone noticing."

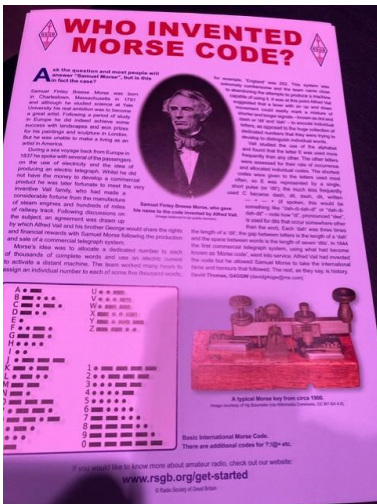
There is also the massive amount of intelligence made known by Wikileaks Julian Assange who sought asylum in Ecuador's London Embassy. Not surprisingly there are now claims that a bug has been found in the embassy itself, but how it got there, if it really did, is anyone's guess and exactly what it was used to take is another mystery.

**Paul Beaumont G7VAK**

## **HERE AND THERE**

### **Morse Code continues to hold an attraction – Steve G4FYF**

Unbeknownst to my ex RN comms mate Dave, he received a message from his daughter Tracey. It included photo's from her visit to Bletchley Park where she discovered the site's radio shack. She came across info about the origin of Morse and saw a selection of Morse keys.



Tracey was then invited to take a "Morse test" that required sending her name in Morse. That, she successfully achieved and received a certificate for her effort! Dave reckons it was probably at a speed of one word per minute! Nonetheless, good on yer Tracey!

(My thanks to Tracey and Dave allowing me to use the info).

**73 Steve**

Michael Somers wonders if there is anyone in the Club who could cure the slipping drive on his Grundig TK5 reel to reel tape recorder. He is only interested in playing back old tapes of Proms, not recording, but the drive does not perform as Grundig intended nor as it used to behave for me. If you can help please contact him at [m.somers113@gmail.com](mailto:m.somers113@gmail.com)

In addition Michael sent me an interesting .pdf formatted cutting from the Daily Telegraph in 1926 regarding the use of radio on trains. However I was unable to transfer it into the current Newsletter - but hopefully someone with the necessary skills will be able to do so in a forthcoming issue!

## SRCC LEAGUE TABLE

Following the recent decline in number of submissions for the SRCC League Table, this has been discontinued from the end of 2025. However congratulations to Ian Schofield M0CGF as the 2025 League Table leader and winner of the SRCC Club Cup.

## SRCC NETS

The following is a list of structured nets on which members of SRCC meet regularly. They are sometimes joined by members of other local clubs, who are always made most welcome. The net is not usually led by a nominated controller, but stations normally transmit cyclically in the chronological order in which they sign in. If any member wishes further occasions and frequencies to be added to the table, please let me know at [q.g.collier@btinternet.com](mailto:q.g.collier@btinternet.com).

<b>BAND/FREQUENCY/MODE</b>	<b>DAY OF WEEK</b>	<b>START TIME (clock)</b>
160m / 1905 kHz / LSB	Sunday	9.30 am
80m / 3710 kHz (+/- QRM) LSB	Monday	9.00 am
10m / 28.078 MHz / JS8	Wednesday	10.00 am
6m / 51.55 MHz / FM	Tuesday	8.00 pm
4m / 70.30 MHz / FM	Thursday	8.00 pm
2m / 144.6125 MHz / Digital Voice	Friday	7.30 pm
2m / 145.35 MHz / FM	Friday	8.00 pm

\* The Friday night Digital Voice net usually starts with D-star.

In addition to the regular Club Nets, several members monitor the local repeater channels, particularly GB3XP (145.6875MHz 82.5Hz CTCSS FM).

## THAT'S ALL FOLKS.....

There is a further interesting item from Paul G7VAK available for inclusion in a future issue but I guess there is enough in the current issue to keep everybody amused! Inputs from any of our membership of course continue to be welcome...

**73, Quin G3WRR SRCC Secretary and Newsletter Editor**

NOMINATION FOR SRCC SECRETARY or COMMITTEE MEMBER - 2026 / 2027

(Please return to Hon. Sec., Quin Collier, G3WRR before the start of the AGM).

(To be filled in by nominator)

I,.....wish to nominate

.....for the position of SRCC Secretary / Committee Member  
(delete as appropriate) for 2026 / 2027

(To be filled in by nominee)

I agree to stand and serve if elected.

Signed.....Date.....

.....  
XX  
XXXX

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