



# SURREY RADIO CONTACT CLUB

**85th Anniversary Year - Founded 1935  
FEBRUARY 2020 – No 930**

**SRCC supports the RSGB Child Protection Policy**

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Club Website:	<a href="https://www.g3src.org.uk">https://www.g3src.org.uk</a>	

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

**Meetings at Trinity School, Shirley Park, Croydon CR9 7AT**

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**FIRST (A) MEETING Monday 3<sup>rd</sup> February**  
**Digital Voice Radio – Mike G6PTY**

**SECOND (B) MEETING Monday 17<sup>th</sup> February**  
**Fix-it, Skills and Advice Night**

## SRCC COMMITTEE 2019/20

Chairman & Club Meetings	G3ZPB Peter Burton	01737 551413
Vice Chairman & Contest Coordinator	G3WRR Quin Collier	020 8653 6948
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Treasurer & Membership Records	G4FFY Ray Howells	01732 357474
Resources & Liaison	G4DDY Maurice Fagg	020 8669 1480
Committee Member and Events	G6JXA Kim Brown	07812 735507
Committee Member	G4LZE Colin Lugard	07533 174388
Publicity	G3MCX John Kennedy	020 8688 3322
Webmaster (Co-opted)	G4FYF Steve Jones	01424 584143

## EDITOR'S OPENER

Dear Members & Friends,

I hope the first month of 2020 has been kind to you.

In accordance with what is for the time being “business as usual”, this section opens with an update on the condition of our Secretary John G8IYS. John has now settled back into life in Sanderstead, and is becoming quite slick at getting through doorways in a wheelchair without immolating the paintwork. However he is not 100% wheelchair bound and can take several steps unassisted. One key milestone is that he is now off bottled oxygen - the draught stuff in the atmosphere is meeting nearly all his needs despite his getting a tad breathless at times. He is putting weight on steadily although the 34 inch waist trousers he was wearing when I saw him a day or two ago were hanging quite loosely. But – a really good thing – although he still tires fairly quickly, he is displaying a very positive attitude and has plans for doing all kinds of things as he gets better. We have agreed that for the time being I will continue as interim Newsletter Editor.

My reminder in the January Newsletter that the HF AFS contest season was imminent clearly bore fruit (or maybe it was my off-line bullying), as we managed to get a full team of four stations on in the CW (G3MCX, G3SRC, G4FYF and G4WGE) and SSB (G3SRC, G3ZPB, G4LZE and G4WGE) AFS sessions and two (G4LZE- in his first ever contest - & G4WGE) in the data one. Results are available now for CW AFS, in which SRCC came 14<sup>th</sup> out of 55 in the Local Club section and SSB AFS in which we were 41<sup>st</sup> out of 64. The results of the data session are awaited. And in the 2019/20 AFS Super League (which consists of the summation of all the eight annual AFS Contests), with two results yet to be published and one event still to run, SRCC is placed 13<sup>th</sup> out of 63 – comfortably in the top quarter. The one outstanding event in the series is 432MHz AFS, which takes place on Sunday 2<sup>nd</sup> February from 0900 – 1300 UTC. I am intending to be on (using the gear we used on 70cm for VHF NFD) and hope some of the other members will be able to join in too.

Finally, an ecological oddity from the north of the borough! Over the past year or so I have had several instances of guys or halyards appearing to fail for no apparent reason. It now appears very likely that something in the fauna line has been chewing through them as the failures have all (a) been quite near the ground, and (b) are “messy” and consistent with chewing - not at all clean like scissor or knife cuts (if you detect paranoia creeping in here you are probably right...). I wonder what sort of creature it might be – rodent, fox, bird or perhaps even badger seem possible. Has anybody else had any experience like this? If so, please let me know – particularly if you have come up with a good solution short of a machine gun!

So, on to the quality material.....

**73, Quin G3WRR**

## FUTURE MEETINGS

**First (A) meeting: Monday 3<sup>rd</sup> February 2020 – Digital Voice Radio by Mike**

## G6PTY

This will be a talk – with live demonstration – on the digital voice modes and will include an introduction to CQ UK, Raspberry Pi and Hotspots. *[Editor's note: Since this at one stroke covers off several major holes in my knowledge, I'll make sure I'm there!]*

## Second (B) meeting: Monday 17<sup>th</sup> February 2020 - Fix-it, Skills and Advice Night – led by John G8MNY

## PREVIOUS MEETINGS

### First (A) meeting: Monday 6<sup>th</sup> January 2020 – IC9700 talk and demonstration by Peter G3ZPB

Peter's presentation, which was attended by seventeen members and visitors, consisted of a slide pack followed by a live demonstration aided by a video camera which allowed the transceiver's fairly small front panel to be seen clearly by the audience.

He opened by noting that the IC9700 was innovative (for a VHF/UHF rig) in at least two ways: the user interface is significantly different from that with which many of us are familiar (although easily recognisable to those who are familiar with the IC9300), and the architecture is SDR based.

He identified a number of major features as follows:

- pure SDR architecture for 2m & 70cm with two receivers, allowing full duplex cross-band operation
- superhet architecture on 23cm, using a first IF at 300MHz
- use of push buttons or soft keys / touch screen to perform several major functions traditionally performed using knobs on the front panel (eg. band change, mode change and filter operation)
- complex menu system for less commonly used (typically "set and forget") functions
- connexions to external devices - such as antennas (of course) plus computers and keyers
- ability to store user data (eg. repeater frequencies) on an SD card.

Some key specification features are as follows:

- amateur band only coverage from 144-146MHz, 430-440MHz and 1240-1300MHz
- RF bandpass filtering providing improved suppression of out of band signals compared with (for example) the TS2000
- modes supported: SSB, CW, RTTY, AM, FM, digital voice & digital data
- maximum transmit power: 100W (2m), 75W (70cm) and 10W (23cm)
- power draw from external PSU: 13.8V @ 18A maximum
- transmit spuri: < -60dB on 2m & 70cm, < -50dB on 23cm
- receiver sensitivity: 0.15µV for 10dB signal / noise ratio
- receiver audio output: 2W minimum

Peter then displayed a picture of the front panel. Notable features are:

- relative absence of knobs and switches – the only ones in addition to the main tuning knob being:
  - concentric AF and RF gain / squelch for the main and sub receivers
  - concentric filter bandwidth & passband tuning controls. Different settings can be chosen per mode, and are displayed on the LCD screen
  - “multi” knob which performs a wide range of different functions depending on button pushes or touch screen actions
- push buttons for certain frequently used functions (eg. power on/off, RIT, noise banker and reduction, split)
- LCD display which, in addition to frequencies / modes / filter settings of the main & sub receivers, can display a range of information selected by front panel buttons (usually by pressing the MENU button and selecting the chosen item from those displayed on the touch screen. The available options include:
  - “bandscope” panoramic spectrum display
  - multi-metering – simultaneous display of ALC level / compression / power output / PA current / SWR / supply voltage / temperature
  - memory contents
  - scan data
  - oscilloscope style display of receiver audio
- sockets for microphone, headphones and SD memory card.

He noted that certain functions can be accessed in at least two different ways: for example settings for preamplifiers, noise banker, noise reduction and notch can be set either from front panel buttons or via the FUNCTION touch screen.

Peter then displayed a picture of the rear panel – this is quite “busy” with fourteen connectors and a large cooling fan. These include:

- 13.8V power input
- separate antenna sockets for the three bands (PL259 for 2m, N type for 70cm and 23cm)
- key jack
- 8 pin DIN accessory socket (eg. for linear control)
- computer connections – USB (typically for rig control), Ethernet LAN (typically for remote working) and CI-V (an early Icom proprietary jack plug presented RS232 lookalike, typically for use with earlier Icom equipment)
- external speakers.

He then demonstrated (camera assisted) a number of the features:

- band change – this is probably the feature whose implementation is most likely to be unfamiliar. It is achieved by touching the MHz digit of the displayed frequency (which brings up a touch screen displaying the available bands) and then touching the desired band on the touch screen
- mode change – this works in the same way as the above, but is enabled by touching the mode display on the touch screen
- use of FUNCTION button and touch screen display to set parameters such as AGC level, VOX/break-in and noise blanker.

He concluded by demonstrating a QSO with Pat G4FDN (the latter on the Trinity School site using

a handheld) via one of the digital modes. The speech quality and total absence of background noise were noticeable. Pat's signal was also displayed on the bandscope, giving an indication of how useful a feature this can be.

## **73, Quin G3WRR**

## **Second (B) meeting: Monday 20<sup>th</sup> January 2020 - Fix-it, Skills and Advice Night**

After the Christmas festivities at the December Fix-it, Skills and Advice session, it was back to "business as usual" for the January B meeting, with the usual range of test equipment and experience based advice provided by John G8MNY.

## **CHAIRMAN'S BLOG**

Well, here we are with Christmas a distant memory and the evenings (just about) beginning to get lighter.

Lots of radio activity this month covering bands from 40m to 23cms - in ascending order of bands...

- 40m – following a bit of "prompting" from Quin 'WRR, I thought I had better put in an entry in the 80m/40m AFS Contest. So I set everything up and arranged a sked with him so I could check speech quality etc. Only neither of us could hear the other! That's 40m for you; the fact I could work Scotland, Slovenia and Russia during the contest rather proved the point! This exercise did show up one problem though – lots of RF getting into the shack. I could only run approx. 10W without problems so only worked a few stations in the contest. I have since bought a collection of ferrite rings so will now have to fit them and try and cure the problem. A few days earlier I had a couple of successful QSOs using JS8 mode.
- Then skip a few bands, up to 70cms – had a useful QSO with Andrew 'ADM who was mobile at the time. This was using the club's new IC-9700 while setting it up in preparation for the talk I was giving a few days later.
- Finally up to 23cms – using the IC-9700 and the tri-band Co-linear antenna, I decided I would enter the 23cms UKAC. With only 10W and the antenna restriction (it seems everyone else was using either a beam or a dish!), I only managed 4 QSOs but the claimed scores suggest I'm not bottom.

Software changes continue unabated...the full version of MINOS v2.3 has now been released. I have also been testing the next version with HamLib v4 – this is major upgrade with drivers for many new Transceivers and Rotators. In particular it drives the IC-9700 100% reliably with no "frigs" to get it to work. Just have to wait now for the public release of the software.

Also, there has been a major upgrade to the "LOG4OM" logging program, now known as "Log4OM Next Generation". It takes a bit of setting up as there have been some major changes to the way the configuration works, but the end result is good. Quin and I are looking at how we might use the program to transfer the Club's logs onto it.

I have also purchased a new transmitter kit - a "Transmitter Wireless Set No. 1". It was designed in 1914, runs approx. 30W and covers the frequency range 1.15Mhz to 3.0MHz – probably all at once!!!! To be fair it is a replica, although many of the parts are original. It needs some work to complete it and perhaps we will power it up at a 2<sup>nd</sup> / Fixit meeting some time!!!



That's all for this month so it's bye for now.

**73 and 88, Peter G3ZPB**

## **NEW SRCC CHAIRMAN**

As some of you will know, by the time our AGM comes round in April, I will have completed three years as SRCC Chairman. I do not intend seeking re-election.

Although there is nothing in the rules to stop the same person being Chairman for more than three consecutive years, I believe now is the right time for me to step down. You may remember my stance at the last EGM we held in 2017, so those present will know my views on the subject. So, now is the time to start thinking about whether YOU would be willing to stand, or at least who you might support if someone else is nominated. The only restriction is that whoever stands for Chairman, must have served on the SRCC Committee for at least one year at some time in the past.

Thinking caps on - nomination forms will be circulated with next month's Newsletter.

**Peter Burton, G3ZPB**



## OUT PORTABLE FOR THE BATC NOVEMBER ACTIVITY WEEKEND

by Gareth, G4XAT

These monthly 'activity weekends' do provide some incentive to go out and 'play radio' so although I've 'SORNed' the camper for the winter I still have good antenna support capability based around my Scorpio. To maintain some of my sanity I only took 2M DATV & Talkback with me, setting up by prior arrangement in Woldingham.

The sun was out and after 30 minutes I had my 12 element ZL portable at 7m with a 3 element tape-measure Yagi below for vertically polarised talkback. Unfortunately that was picking up S6 noise in the westerly direction I was beaming, hoping for a contact with Noel, G8GTZ located on Walbury Hill some 100km distant. With voice contact on 144.750 established, I switched over to DVBS2 at 333kS and was rewarded with a D10 report (good strong signal). For the reverse trip I was trying my newly tested AMSAT preamp but didn't get anything. Switching over the standby RPI and RTL Dongle setup and using the spectrum viewer in Lean DVB I could see Noel's carrier but not enough for a decode. I asked him to switch to a lower symbol rate (125kS) and that raised the signal, still not quite enough. By now the sun had gone into hiding and it was rapidly getting cold to the point of numb fingers so I packed away and went home. The operating positions (s) in the car are far from ideal, so maybe next year when I'm better set up with the gear I'll stick to the radio truck which has an ideal operating position and a HEATER!



73, Gareth G4XAT

## 'YIKES! I ENTERED A CONTEST!' by Gareth G4XAT

One of the many things I've been hankering after pretty much from when I was first licensed in 1983 was some form of 'Radio Truck'. I got close in the 1990's when I had a Jago Jeep (kit car) but life got in the way and even radio took a bit of a back seat for several years. I occasionally operated from my car(s) (when parked) but often with a crick in my neck due to radio on passenger seat etc.... So when recently Jayne agreed to the purchase of a radio truck I thought a lot harder about doing the job properly. My initial forays in the radio truck were to try stuff out and involved the weekend of VHF field day (40m up to 10GHz played with) and then four days at the Wimbledon camp at the end of July. I quickly realised how much I missed the challenge of radio

communication (by almost any mode) and vowed to do a lot more of it. The monthly BATC supported ATV Activity weekends have seen me out whenever possible but after a complete washout in October I decided to SORN the radio truck for the winter. And of course the weather was good for both the November and December activity days, so I took my car (which had some previous adaptations for antenna support), and 'I got a crick in my neck'. Thinking about excuses to go out and play a bit more, I spoke to Quin about contests that would allow me to 'go portable' but still be vehicle and possibly generator based (comfortable, warm etc. etc....). He suggested the 2m AFS contest in early December, so I duly 'went portable' and joined in. I just about managed to sort out a comfortable operating position, sheltering downwind in the car but able to rotate my portable fishing pole 12 element ZL special by hand. Using 50 watts from my FT857 got me 20 contacts, rather inefficiently hoovered up by 'hunt and pounce'. I was also using a laptop running the excellent MINOS contest software. Easy enough to use without recourse to the manual, although it did help. Best DX was 397km all the way down to the Lizard in the SW. Not a serious entry, but an enjoyable one. For next year I won't be declaring SORN on the radio truck, it's just so much easier to operate from than my car. For 2020 I'm planning a better beam for 6m and 4m, a big amplifier using the latest NXP RFMOSFET for 4m plus a second ZL for vertical talkback on ATV. And some complex switching arrangements for all the cables, amps and receivers plus a proper DC power distribution of some sort!

The full list of contests for all tastes can be found on the RSGB website. Thanks to Quin for providing encouragement and answers that 'got me going' in the first place.

### 73, Gareth G4XAT

*[Editor's note – I have another input from Gareth waiting for publication – watch this space next month....]*

## HARWELL RALLY

Many thanks to Mike M1CCF for drawing my attention to the following, which members may wish to attend:

**On Sunday 9<sup>th</sup> February 2020 HARWELL AMATEUR RADIO SOCIETY are holding a Radio and Electronics Rally** at Didcot Leisure Centre, Mereland Road, Didcot, OX11 8AY from **10.00am-3.00pm**. There will be radio and electronics trade stalls, a Radio Society of Great Britain bookstall, information on local courses for those who would like to become a Radio Amateur and an Amateur Radio Demonstration Station. Refreshments will be available all day. Entry £3.00 (children under 12 free). Details from Ann on 01235 816379 or [rally@g3pia.net](mailto:rally@g3pia.net)

Thanks also to Mike for sending me a link (<https://hackspace.raspberrypi.org/issues/27/pdf>) to a magazine with the name of HackSpace. Although the name perhaps sounds rather alarming, it uses the term "hack" not in the sense of computer hacking, but rather in terms of making things. It is not wholly focussed on radio (although there are a couple of radio related items in the current issue), but more broadly on electronics, computing and modelling (no, not that sort of modelling...). It is perhaps targeted on an audience rather younger than many of our members but none the worse for that! I had a quick peruse, and it might well be of interest to those whose interests fall outside the rather narrow confines of amateur radio, or those who have younger family members whom they would like to lead into the hobby. Well worth a look.



## DO YOU RECOGNISE THIS FACE?

Two of our eagle eyed members noticed this picture on the RSGB Facebook website. It shows Tony G3GHI and a disembodied arm believed to be that of Bernie G8TB (both now alas SK) at the Purley Hobbies Exhibition organised by the Rotary Club and SRCC. The year is not stated, but from the gear and clothes probably early to mid 50s. Anybody got any more information? No comments on Health and Safety issues please....



## SRCC LEAGUE TABLE – DECEMBER 2019 & WHOLE YEAR RESULTS

The number of entrants for December was again seven (all the usual suspects). The results for the month are as follows:

ENTRANT	HEARD DXCC / SQUARE	HEARD IN CONTEST	HEARD - SRCC MEMBER	WORKED DXCC / SQUARE	WORKED IN CONTEST	WORKED - SRCC MEMBER	POINTS THIS MONTH
G4WGE				72			144
G3EUE	17	3		37	16		110
G4LZE	12			37		1	88
G3ZPB				5	5	7	29
G3WRR				9	9	1	29
G4FYF				11		3	28
M0LEP				5		2	14

Most entrants' scores for December were down on November. There was no change of position at the top of the table, with Alun G4WGE, Ted G3EUE and Colin G4LZE retaining their first, second and third places respectively. At the other end Peter G3ZPB moved up from seventh place to fourth, displacing Quin G3WRR from fourth to fifth and Rick M0LEP from fifth to seventh, with Steve G4FYF retaining his sixth position.

In a significant change of behaviour, all Alun's December contacts were made using FT4 or FT8 and included no contest activity. 43% were on 80m, followed by 17m, 40m, 30m, 20m 160m & 60m, with none on 15m or 10m. Almost two thirds were with European stations, followed by Asia,

North America, Africa and South America but nothing from Oceania or Antarctica.

Ted's contacts were as usual all on CW and made between 40m & 10m, the majority in Europe but with a handful of African, Asians and South Americans. But, as often noted, the list of heard stations contained a higher proportion of "interesting stuff" !

Once again, all but one of Colin's contacts were on FT4/8. A large proportion (75%) were on 40m, followed by four each on 80m and 20m plus a singleton – his regular JS8 sked with Peter G3ZPB - on 10m. The great majority were European with a (small) handful of African and North American stations. But as with Ted, some useful "gotaways" were heard – mainly in Asia but including one (YB – Indonesia) in Oceania.

Peter, true to his word, put in a larger entry than he had done in November. It was wholly on VHF, with a number of "big squares" supplemented by QSOs with several SRCC members – from the callsigns involved probably made on one or more of the SRCC nets.

Quin's entry was, uncharacteristically, based entirely on VHF SSB, and with one exception, all in contests – 2m AFS, a 70cm UKAC session and the 6m Christmas Cumulatives on 26/27/28/29 December. The first two of these were made using the Club's new IC9700 which performed very well.

Steve's contacts were all European and made on the HF bands, including three SRCC members.

Rick's contacts were as usual focussed on SOTA stations – in this case in five European countries. He also worked two SRCC members.

The whole year scores are tabulated below. Although it might be exciting to be able to report a last minute "dash from behind" to take the prize, in fact the positions of the leading stations have not changed for at least seven months. So congratulations to the leaders for consistent effort over the year, with particular congratulations to Colin G4LZE who wins the SRCC Club Cup for the second year running. And thanks too to all those who put in entries to make participation a worthwhile challenge!

ENTRANT	JAN 19	FEB 19	MAR 19	APR 19	MAY 19	JUN 19	JUL 19	AUG 19	SEP 19	OCT 19	NOV 19	DEC 19	TOTAL
G4LZE	109	134	158	176	243	335	300	236	140	90	152	88	2161
G4WGE	115	144	126	152	212		115	134	114	59	200	144	1519
G3EUE	111	106	139	99	153	80	63	18	123	123	152	110	1277
G4FYF	34	31	66	67	53	48	80	58	50	10	8	28	533
G3WRR	2	27	62	29	138	0	0	36	51	31	123	29	528
G3ZPB	32	46	4	21	4	24	0	0	0	10	4	29	174
M0LEP	34							12	20	10	16	14	106
G7RUX	42												42

A few changes to the rules have been made for the 2020 season, the major one being the separation of the League Table into two separate sections for "Heard" and "Contacted". The aim of introducing points for heard stations in 2019 was to allow non-licensed members to participate. A further decision to allow licensed members to claim points for stations heard as well as for those worked did not sit comfortably with all entrants, so the two activities have been split this year. The "Heard" section is not restricted to non-licensed members: licensed members may also enter it, and this may appeal to those not able to erect effective transmitting aerials. However, once an entrant has opted for a section this may not be changed during the course of a

year. The only exception is for "Heard" section entrants who gain a licence during the year and are permitted to transfer to the "Contacted" section, carrying their "Heard" points forward.

Copies of the new rules have been sent to all regular entrants, and although at the time of writing these have not appeared on the Club website, they are expected to have done so by the time you read this!

I don't propose to put my head on the block by making any predictions about conditions for next year as most of my predictions in the last year have been seriously adrift! I will merely conclude by saying "it's only a hobby" (as Geoff G4FKA makes a point of saying to me at least once every time we meet at the RSGB Jolly Junket in October) and that whatever the propagation – be it HF or VHF - throws at us, will be interesting, as will our efforts to make sense of it all. To those who have participated in the League, thank you for doing so: and to those who haven't – why not come on in 2020 and give it a try?

### **73, Quin G3WRR (SRCC Leaguemeister)**

## **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
10m / 28.078 MHz / JS8	Thursday	10.00 am
4m / 70.30 MHz / FM	Thursday	8.00 pm
6m / 51.55 MHz / FM	Tuesday	8.00 pm
2m / 144.6125 MHz / D-Star	Friday	7.30 pm
2m / 145.35 MHz / FM	Friday	8.00 pm

## **SRCC MEETINGS – FEBRUARY TO APRIL 2020**

03/02/20	Digital Voice Radio – Mike G6PTY
17/02/20	Fix-it, Skills and Advice Night – John G8MNY
02/03/20	Spring Surplus Equipment Sale
16/03/20	Fix-it, Skills and Advice Night – John G8MNY
06/04/20	Annual General Meeting
20/04/20	Fix-it, Skills and Advice Night – John G8MNY

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

Well, that's all for another month – please keep the inputs coming....the more you write, the less of my stuff you will have to read!

### **73, Quin G3WRR**