



SURREY RADIO CONTACT CLUB

86th Anniversary Year - Founded 1935

JANUARY 2021 – No 941

SRCC supports the RSGB Child Protection Policy

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Face-to-face meetings are currently suspended for the duration of the COVID-19 pandemic. The current plans are detailed in this Newsletter – but the national COVID-19 situation remains volatile, so please keep an eye on the SRCC website at <https://www.srcc.uk>

SRCC COMMITTEE 2020/21

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EDITOR'S OPENER

Dear Members & Friends,

Firstly, a correction (with apologies) to a statement in last month's Editor's Opener. In welcoming Ian M0CGF to the Club, I stated that he had recently moved into the area. This was incorrect – he has been in Sanderstead for ten years but has been QRT for an extended period. Welcome back to the hobby Ian, and we still look forward to meeting you face to face when the lockdown environment allows! In fact, I had a QSO with Ian in the December 6m UKAC so at least one SRCC member is part of the way there....

On the subject of lockdown, as we all know things have got worse since the December issue of the Newsletter, and Croydon and its environs are now in tier 4, the highest level of lockdown, and we have to accept that it will still probably be quite a long while before we can meet again at Trinity School. However, many of the members are getting used to virtual meetings via Zoom – not as good as the real thing, but much better than nothing. We are continuing to put together a 2021 programme which should work equally well in either a face to face or virtual environment – of which more in the “Future Meetings” section below.

But for now I hope you and your families had as good a Christmas as was possible within the lockdown limits and that you are looking forward to a brighter 2021. So, on now to the meat of the Newsletter...

73, Quin G3WRR

FUTURE MEETINGS

The January A meeting on Monday 4th will be a virtual presentation by Alun G4WGE who is the RSGB District Representative for our area (aka.”DR101”). It is expected that he will cover the role of the RSGB, what it can do for you – and what you might be able to do for it.

For the time being, B meetings (on 18th January, 15th February, et seq.) will be the now familiar Round Robin which has proved to be a successful format in the absence of face to face Fix-It sessions. It is anticipated that this format will continue until face to face meetings can resume.

The February A meeting (1st) will be a (virtual) Video Evening showing a video by Mike Richards G4WNC on Raspberry Pi and Radio. Quite a large number of amateurs are finding that the Raspberry Pi single board computer has applications that can complement their stations. It is expected that the video will give an idea of the sort of applications that are possible, and a basic introduction to programming the device.

It is hoped that the March A meeting (1st) will be a Surplus Equipment Sale – but that is of course dependent on the availability of Trinity School: if not, alternative arrangements will have to be made as it is hard to see how such a sale could work on a virtual basis!

The April A meeting (12th) will be the Annual General Meeting. Possibly “real” or possibly “virtual” via Zoom.

PREVIOUS MEETINGS

The December A meeting was, in the absence of the traditional Construction Contest, a Construction Roundup in which members presented and discussed (via Zoom) items they had built and found interesting. Eighteen members were present and thirteen of those presented one or more items. It is hoped to give a brief summary of these in the February Newsletter.

The December B meeting is traditionally the Christmas Social – a normal Fix-It evening enhanced by Christmas cheer, mince pies and limited quantities of alcohol. This year it was held via Zoom, and to get into the appropriate mood many of the nineteen attendees (around a third of the total club membership) wore a variety of amusing hats. The prize here must go to Michael

Somers, who wore one adorned with a red ostrich feather – although it was not clear whether the colour was due to dyeing or a genetic mutation. There were on screen visits by a number of toy animals, including a crocodile, a badger, an elephant, another crocodile, a koala, a dog, a goose, a camel (probably a dromedary in fact) and a bear – plus brief appearances from one (real) dog and at least three cats. An unexpected bonus of the Zoom environment was that, unlike face to face meetings where attendees tend to cluster into a number of separate groups, the session retained an overall coherence allowing everyone to experience the whole show. Amongst other things John G3MCX and Paul G7VAK regaled the group with stories of service overseas (National Service and the like), the most amusing of which cannot be repeated in full here – suffice to say that it was based around the wildly different understandings of the word “rubber” in the UK and Australia....

IT'S AFS SEASON AGAIN!

Readers may be aware that the RSGB runs a series of contests for its Affiliated Societies (AFSs), of which the SRCC is one. These cover a range of bands - from 160m to 70cm - and modes, thus covering a range of operating tastes. As an activity focussed on clubs, entries are based on teams of individual stations of up to four members – although clubs with more than four participants can submit multiple teams. There are eight separate AFS contests each year, and a summary of those still to run in the 2020/21 season (with dates and times) is shown below.

In addition to the eight stand-alone contests, the RSGB also merges the individual contest results to form the so-called AFS Super League, which runs from the 70MHz AFS in September through to the 432MHz AFS the following February. The first four of the eight events of the 2020/21 season (1.8MHz, 50MHz, 70MHz & 144MHz AFS) have now passed with at least one SRCC member taking part in each. At present SRCC is in 16th place out of 55 entrants in the Local Club section. But there are still four to go – January being particularly busy with three of these - and it would be nice to get more stations on and allow us to maintain or improve our position in the table. Contests certainly aren't to everybody's taste and you probably didn't join the SRCC to be bounced into doing something you don't really want to do, so there's no arm twisting involved: but if you have a spare couple of hours and are favourably disposed towards contests or are not sure but think you might wish to give them a try, why not come on in one (or more) of the remaining sessions (as shown below) and have a go?

Log submission is easy via the Contest Committee robot and you don't have to worry about assignment to teams – that is done by the relevant Contest Committee. All you have to do is identify your club and the robot will prompt you for that, offering you a drop-down menu to make it easy. But like all computer-based activities, they are easy once you've worked out how to do them, so if you have any difficulties you can contact me by e-mail at q.g.collier@btinternet.com or by phone on 020 8653 6948.

Details of the remaining sessions (in date order) are as follows (note that the dates for the three HF sessions are still provisional but unlikely to change):

DATE	TIME (UTC)	CONTEST	BAND	MODE
Saturday 2/1/21	1300 – 1700	HF AFS (CW)	3.5 & 7 MHz	CW
Sunday 10/1/21	1300–1700	HF AFS (SSB)	3.5 & 7 MHz	SSB

Saturday 16/1/21	1300 – 1700	HF AFS (data)	3.5 & 7 MHz	RTTY / PSK63
Sunday 2/2/20	0900 – 1300	432 MHz AFS	432 MHz	Any (but probably 99% SSB)

For full rules see the following URLs:

<https://www.rsgbcc.org/cgi-bin/hfreadcal.pl?year=2021> (HF)

<https://www.rsgbcc.org/cgi-bin/readcal.pl?year=2021> (VHF)

Hope to see you on?

73, Quin G3WRR

RAY G4FFY'S FT8 SETUP AND HF AERIAL EXPERIMENTS

During lockdown in my back garden, I erected a G7FEK wire aerial and then setup facilities for FT8 using my FT-847 with a Prolific COM3 USB adapter to provide rig control from the desktop PC. The software I use is WSJT-X coupled with Grid Tracker and for logging it is Log4OM Next Gen. The Grid Tracker software is linked to the online services I subscribed to including QRZ.com – eQSL.cc – HRDlog.net – LOTW – and Clublog.



G7FEK IN REAR GARDEN WITH 24FT POLE

Between May and early Oct this year for HF I was using the G7FEK antenna, but this had a failing in that it didn't work too well on 20m – a popular FT8 and FT4 band – nor on 10m. On 40m and 80m it's a resonant quarter wave and, due to the harmonic relationships, also works on 30m, 17m, 15m, and 12m.

The end of the ribbon feeder is strapped together and connected to the centre of the SO239 connector and I have some 30m of RG58 from the upstairs shack at the front of the house (my study). In the shack it is connected to a Dentron 2kw ATU and I have a crib-card for the settings required for each of the HF bands.

The G7FEK proved to be a better DX aerial rather than working inter-G contacts. I was able to work Tasmania on 40m and also performed quite well on 17m and 30m getting me into South America.



HOUSE END OF G7FEK

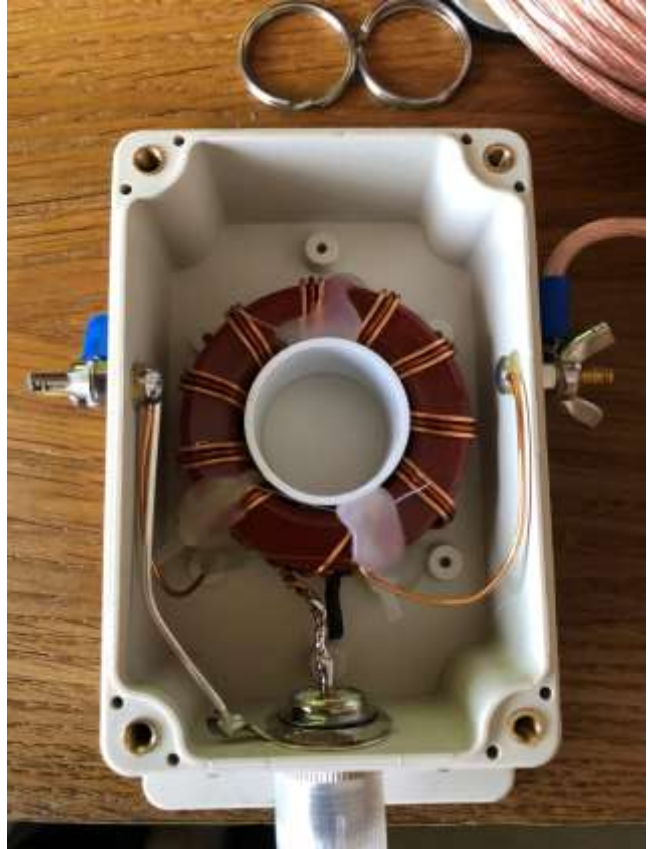


**G4FFY SHACK IN MY STUDY
WITH FT-847 AND DENTRON
MT-3000A ATU**

In October, being frustrated with the 20m band, I purchased from Moonraker a ready assembled 20m end-feed wire antenna complete with a 9:1 unun. On an early October sunny afternoon, I dropped the G7FEK and replaced it with the end-feed aerial. Having pulleys at each end made this very easy. It's a compromise setup with some 7m being vertical, then through an insulator with the remaining 13m or so horizontal.



END-FEED AERIAL AT GARDEN END



THE 9:1 UNUN



**THE 9:1 UNUN AND
CONNECTED COPPER EARTH
ROD**

I retained the use of the Dentron MT-3000A ATU, and the 40m and 80m counterpoises, but had to re-write the settings crib card. I have found that performance of this end-fed aerial on 20m is superior to that the G7FEK and gives me fairly regular contacts into the USA, eastern Europe, Japan and for the first time, Indonesia.

I have yet to see how it performs for inter-G on 80m but have worked John G8MNY on his regular afternoon sessions. I think it was an improved contact than the one I had using the G7FEK aerial earlier in the year. One surprise of this aerial is that my ATU will provide a 1:1 SWR on 160m and I have been having fun in the evenings working inter-G, Europe and even USA on FT8.

The league table will have further details of my endeavours.....

73, Ray G4FFY

HERE AND THERE

A few snippets this month – with thanks to Mike M1CCF, Kim G6JXA and Peter G3ZPB for flagging them.

Historical VLF - As a reminder (as if we needed it) that COVID is a worldwide problem, here is an instance that affected radio in Sweden. Traditionally, special dispensation has been given by the Swedish licensing authorities for a transmission to be made a few times each year (including Christmas Eve) from the Alexandersson Alternator transmitter at Grimeton in Southern Sweden on 17.2kHz using the callsign SAQ, on which occasions the station was open to visitors. Sadly, owing to COVID the decision was made that the Christmas Eve transmission would not be made this year.



For those not familiar with the Alexandersson Alternator, it was (along with the Poulsen Arc) the only practical way, prior to the introduction of thermionic valves, of generating continuous wave (CW) signals. (The well-known spark transmitter did not generate CW but rather a train of damped waves). It is also interesting to note that we as amateurs use the term CW as synonymous with Morse code – a rather slack usage of the term, as AM and FM are also continuous wave systems! Essentially the Alexandersson Alternator is little different from the club's generator, except that instead of 2kW or so at 50Hz, SAQ generates 200kW at 17.2kHz. This obviously requires the rotor to rotate at much higher speeds than the 3000 rpm of a (50Hz) mains generator, although the rotational speed could be reduced by using multipole alternators. Nevertheless, maximum frequencies used

ALEXANDERSSON ALTERNATOR AT GRIMETON, SWEDEN



were around 20kHz – but this was at a time when it was believed that long distance communications could only be achieved using VLF. Of course, at such low frequencies the wavelength is extremely long (the SAQ frequency of 17.2 kHz corresponds to a wavelength of 17km) so to have an antenna that is anything like remotely efficient requires an extremely long antenna at an improbable height!

127m MASTS AT GRIMETON

In the case of Grimeton, which has been a World heritage Site since 2004, the antenna consists of eight parallel wires 1.9km long supported by six 127m high towers. How you like one of those in your back garden?! So does it work? Well, yes! A map of reception reports shows them to be clustered within Europe (as one might expect) but also from North America (continent wide) Chile, Japan, South Africa and Australia.

RAE – for those of us who gained our licences via the old RAE (Radio Amateurs' Examination) system you may be interested in looking at this URL: <http://www.g4dmp.co.uk/rae/index.htm>and if you got yours under the newer system, you might also be interested on how it used to be!

IARU VHF/UHF HANDBOOK – for those who are interested, the latest edition of the IARU Region 1 VHF/UHF Handbook can now be downloaded free of charge at the following URL: <https://amsat-uk.org/2020/12/01/iaru-vhf-handbook-v9-00/>

VHF CONTEST SOFTWARE - A new version the Minos VHF Contest Logging Software was released on Christmas Day. This version (v2.4) may be downloaded from <https://sourceforge.net/projects/minos/files/> and contains a long list of updates and improvements; more details to follow next month.

RADCOM – good to see last month's article by Paul G7VAK on his antenna system published in Radcom – well done Paul!

SRCC LEAGUE TABLE – NOVEMBER 2020

The number of entries in the **CONTACTED** section of the League Table for November 2020 was nine – one up on October. Once again, there were no entrants in the **HEARD** section. The monthly tabulation is shown below.

Ray G4FFY retains top position, followed by Quin G3WRR – an interloper from the bottom half of the table - in second. Quin's (temporary) elevation selfishly displaces Ian M0CGF and Colin G4LZE by one position into third and fourth respectively. Ted G3EUE moves up one position to fifth, and Rick M0LEP one to sixth. In seventh position is Peter G3ZPB followed by Steve G4FYF in eighth and bringing up the rear, the club call G3SRC in ninth.

ENTRANT	WORKED DXCC / SQUARE	WORKED SRCC MEMBER	WORKED IN CONTEST	POINTS THIS MONTH
G4FFY	106	1	10	224
G3WRR	66		66	198
M0CGF	75		21	171
G4LZE	63	1		128
G3EUE	43		35	121
M0LEP	14			28
G3ZPB	9	3		24
G4FYF	3	1		8
G3SRC	1		1	3

Ray's 106 scoring contacts (87 DXCCs on HF, plus 19 big squares on VHF) were all on data modes, 89% being FT8 and 11% FT4. These included all the HF bands plus 2m. The largest number of HF contacts (24%) were made on 20m, followed by 160m (17%), 40m (16%), 15m (15%), 12m (10%), 17m (5%), 10m (also 5%), 80m (3%), and 30m (2%). Of these, 66% were European, followed by 10% Asian, 10% North American, 8% African and 6% South American – but no Oceania contacts. He mentioned that, despite a few "gotaways", he had worked 5 new DXCCs during the month - SU (Egypt) on 40m, T7 (San Marino) on 17m, CX (Uruguay) & AP (Pakistan) on 15m and ZS (South Africa) on 12m. His VHF haul included 5 European countries, which is pretty good work for a vertical colinear!

Quin's 66 scoring contacts were again all made in contests, the majority being in the CQWW CW event, but with two minor RSGB HF events and 6m AFS also contributing. The CQWW contests are generally regarded as the busiest of the year and are a good opportunity for picking up countries (although getting to the real DX – which particularly in CQWW can imply rarity as well as distance - is often a challenge owing to the competition). He found conditions fairly reasonable: 69% of his contacts were with Europe, with the rest evenly spread between Asia, Africa, North America and South America – but nothing at all from Oceania. 28% were on 40m, followed by around 9% on 160m, 80m, 20 & 15m, with 10m trailing behind at 3%, although the band was quite lively and contacts were made with Europe, Africa, North America and South America. Interesting ones included CE (Chile) and FY (French Guiana).

Ian too used a contest as an opportunity to pick up contacts – in his case just under a third of his 75 scoring contacts (which were fairly evenly balanced between FT4/8 and SSB) being made in the UKIECC SSB event. The majority (56%) of his contacts were made on 40m, followed by 17m (16%), 80m & 20m (11% each), 15m (4%) & 10m (3%). 58% were with European stations, followed by North America (19%), Asia and South America (both 6%), Africa (5%) and three contacts in Oceania for 4%. Just a few of the interesting ones were 5T (Mauritania, which he has now worked on all the HF bands except 160m & 30m), 9G (Ghana), FS (St Martin, one of

three French dependencies in the Caribbean this month), VK3 (Victoria) and ZL (New Zealand). Ian adds that as his garage shack is getting somewhat cold at this time of year, he has now set up the station to be operated remotely from a bedroom, which has to be a major improvement....

Colin's 63 scoring contacts were as usual all on FT8 and included a contact with one SRCC member (Ray G4FFY). 48% were on 40m followed by 33% on 20m, 8% on 17m, 6% on 15m, 3% on 30m and 2% on 15m. Most of his contacts (71%) were European but included all continents except South America (Asia, North America, Africa and Oceania in descending order). Interesting ones included JA (Japan) on 40m, 5T (Mauritania), and J6 (St Lucia).

Ted too took advantage of a contest to clock up scoring contacts, in his case CQWW CW like Quin, in which he made 35 of his 43 scoring contacts. All his contacts were, as usual, on CW and from 40m to 10m. He bemoans the high speed at which some of the leading contest stations were sending – in some cases 40+ wpm. I have heard the QRQ merchants argue that if you are going to make several thousand contacts you have to keep the speed up – but one has to ask how many contacts with slower speed operators this costs them!

Rick has been rather busier this month, making fourteen scoring for 28 points – most or all with SOTA stations, all but one on HF and European. The non-European exception was a W (USA), which for a QRP station is good going. His activities have been somewhat curtailed by the QRM from his builder using a jack hammer – see picture at right!



The twelve scoring contacts made by Peter included three with SRCC members (the highest number of points for SRCC members by any entrant this month) on FM and eight using FT8 on HF, including J6 (St. Lucia) and VK5 (South Australia).

Steve's time and attention have been off the League Table ball of late owing to a family health problem, tiling the kitchen, and unblocking drains! Nevertheless, he still managed to submit an entry of 3 DXCC entities and one SRCC member for eight points. Hopefully, things will have improved for him in the New Year.

And, last and definitely least, the club G3SRC call was used in the RSGB Club Calls Contest (one of the annual Affiliated Societies (AFS) Contests). CCC takes place on 160m, and a half decent antenna for the band (half wave dipole) is going to be 250+ feet long. Since the QTH of the operator (Quin G3WRR) can only manage an inverted L with a 50ft top at 20ft up, the G3SRC entry was hardly competitive, with nothing outside G worked. But an impressive three

points were earned... I should add thanks to Ray who also came on in CCC to boost the club score)!

The cumulative scores at the end of November are shown in the table below. The overall structure remains much the same (as might be expected as we near the end of the year, because each ensuing month's results make a progressively smaller percentage difference), but there have been a few detail changes. G4FFY moves up to top position, displacing G4LZE to second, G3WRR moves up to fourth displacing G3ZPB to fifth, and M0CGF moves up to seventh displacing M0LEP to eighth: the other entrants maintain their October positions.

ENTRANT	01/ 20	02/ 20	03/ 20	04/ 20	05/ 20	06/ 20	07/ 20	08/ 20	09/ 20	10/ 20	11/ 20	12/ 20	SUM
G4FFY				6	124	480	357	302	94	190	224		1773
G4LZE	101	125	124	182	356	176	128	166	118	132	128		1736
G3EUE	98	104	114	87	129	18	76			36	121		782
G3WRR		24	57	24	141	102	8		30	93	198		677
G3ZPB	24	42	38	84	53	78	141		28	21	24		533
G4FYF	23	32	62	48	42	50	60	42	35	42	8		444
M0CGF										168	171		339
M0LEP	16	7	10	10	56	30	22	18	36	14	28		247
G3SRC	78	12					63				3		156
G4WGE	6												6

With one month left to run, it is nip and tuck at the top of the table, so it will be interesting to see whether Ray or Colin wins the (mildly) coveted SRCC Club Cup for 2020! The fact that the two leaders are predominantly or wholly uses of FT4/8 does demonstrate the strength of these data modes for making contacts particularly under poor HF conditions. Indeed, Ray who has (as far as I am aware) only recently come to HF advises that he has already clocked up 110 DXCCs – well done! Comparing that with my relatively meagre 150 or so DXCCs on CW since I started computer logging about 14 years ago (There are probably 20 or so more from paper logging days but I haven't chased those up) suggests my need to have another bash at getting myself FT8 enabled....

In the absence of comments to the contrary, the rules for the 2021 League Table will remain the same as for 2020, with one exception....in the absence of any entries for the Heard section, this will be discontinued.

The ionosphere continues to tease us – after its leap up to a SFI of 106 at the of November, it obviously decided it had overdone things a bit, and promptly subsided to the upper 70s in the middle of the month, but now seems to be creeping up again and at the time of writing is sitting at 88. So, as we all seem to be saying about more important matters, let's hope for a better (ionospheric) 2021!

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.

BAND/FREQUENCY/MODE	DAY OF WEEK	START TIME (clock)
160m / 1905 kHz / LSB	Sunday	9.30 am
10m / 28.078 MHz / JS8	Wednesday	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

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 are a number of items that I did not have the space (or time) to include this month – so apologies to Peter G3ZPB, Steve G4FYF, John G8IYS and Mike M1CCF – but please be assured that they will be included next month! Having said that, more material is always welcome so please get busy with your keyboards...

All there is left this month is to wish you a much better 2021 than 2020, and hope to see you on the air or via Zoom!

73, Quin G3WRR