



SURREY RADIO CONTACT CLUB

86th Anniversary Year - Founded 1935

APRIL 2021 – No 944

SRCC supports the RSGB Child Protection Policy

General Club Business: secretary@srcc.uk

Membership/Treasurer: membership@srcc.uk

Newsletter articles/distribution: newsletter@srcc.uk

Club Equipment Loan: equipment@srcc.uk

Club Website: <https://www.srcc.uk>

Honorary Secretary & Editor

Quin Collier G3WRR
19 Grangecliffe Gardens,
LONDON,
SE25 6SY

Tel: 020 8653 6948

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

Chairman	Vacant	
Acting Chairman for April	G3ZPB Peter Burton	01737 551413
Vice Chairman & BE Coordinator	G3ZPB Peter Burton	01737 551413
Hon. Secretary & Newsletter Editor	G3WRR Quin Collier	020 8653 6948
Treasurer & Membership Records	G4FFY Ray Howells	01732 357474
Resources & Liaison	G4DDY Maurice Fagg	020 8669 1480
Events	G6JXA Kim Brown	07812 735507
Committee Member	G4LZE Colin Lugard	07533 174388
Publicity	G3MCX John Kennedy	020 8688 3322
Webmaster	G4FYF Steve Jones	01424 584143
Fund Raising & Resources (Co-opted)	G8IYS John Simkins	020 8657 0454

EDITOR'S OPENER

Dear Members & Friends,

Welcome to the April SRCC Newsletter. I hope you and your families are coping with lockdown and are looking forward to easement in the not too distant future – provided the Government timeline holds. This means that we will hopefully be able to meet again face to face once Trinity School give us the go-ahead. And the improving weather (not that it looks that way as I am writing this...) somehow seems to make life more cheerful – so let's hope the next few months are better than the last...

I had my first vaccination a few weeks ago (very well organised – good job, NHS) and despite a sore arm and a slight headache for a couple of days am now fine. And by the time you read this I will have had Jab 2 and be ready for the Great Outdoors! An interesting story regarding vaccination comes from Andrew Holland G4VFL with whom I used to work but has now returned to his native Cumbria. He told me that he had been offered an appointment the following day – in Brighton, at least 300 miles away! Unsurprisingly he declined this and was promptly offered an alternative appointment in his local vicinity – which he accepted. Strange, but I guess that given the massive programme complexity this sort of thing is to be expected!

And so on to the contents....

PREVIOUS MEETINGS

The March A meeting on the first of the month was a continuation of the Construction Roundup at the December A meeting and was attended (electronically of course) by fourteen members. The following were displayed:

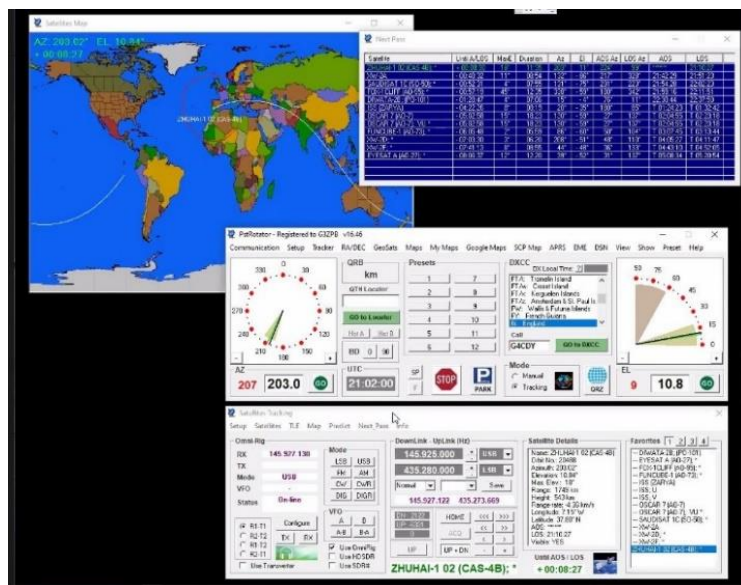
Ray G4FFY has now assembled his two band 2m & 70cm beam (five elements on 2m and eight on 70cm) manufactured by Dual (that's the brand name, presumably derived from the two-band nature of its products) and displayed this. He also has a two band 6m/4m beam (three elements on 6m and four on 4m) from the same firm yet to be assembled. I also have the 6m/4m one and am very pleased with it – not that cheap, but very sturdy, and it works SO much better than my old 2 element Moxon, for which one had to drop the mast to change elements anyway! I would advise Ray to perform the assembly outdoors or he will not be able to get it out of the house!

Terry G4CDY - now resident in the Deep South West - had designed and breadboarded a prototype 80m single band QRP (5W) transceiver using available SDR software and running on a Raspberry Pi Pico computer. It uses a 9MHz IF with an NE602 balanced mixer. This was shown to the audience. He has also designed a PCB (using the EasyEDA program – see <https://easyeda.com/>) which he has had manufactured by JLCPCB in China (see <https://jlcpcb.com/>). Terry is considering publishing the design (in RadCom or similar) and would be amenable to this being used for a future SRCC Construction Project.

Roger G8HDP demonstrated a Raspberry Pi based Mars Rover (small scale, not full size...) which has 4 wheel steering, can be remotely driven, and includes onboard camera and ultrasonic radar. This is supplied in kit form by 4tronix (see <https://shop.4tronix.co.uk/products/marsrover>) and is user assembled. Some software tweaks have to be performed, and Roger says this will require him to learn a bit of the Python programming language. This comment led to a deplorable series of jokes about snakes which are probably best not repeated here....

Quin G3WRR revisited the antenna switchbox he had displayed on the December Zoom call. On that occasion he had expressed concerns about the wisdom of using relays designed for DC at HF and wondered about the adequacy of performance parameters such as loss and isolation. Having acquired a nanoVNA he had now been able to measure these. He stated that, with the exception of one of the relays (which seemed to need to be replaced), as expected loss on a through connection rose as frequency increased (not exceeding 0.7dB at 30MHz) and isolation on a disconnection decreased as frequency increased and was never less than 44dB at 30MHz. This has provided confidence that the switchbox is fit for purpose.

Peter G3ZPB demonstrated his recently acquired PST azimuth / elevation rotator, which is well suited for satellite tracking and can be software controlled using programs such as PstRotator. A screenshot from this program is shown to the right. The program contains a large database of satellites and allows users to identify their uplink and downlink frequencies, times when they will be visible from a given location and the relevant beam headings (both azimuth and elevation), and even their velocity so that Doppler shifts can be calculated! An attempt was made on the call to pick up a particular satellite and this was successful although only a very weak signal was received.



The March B meeting, on 15th March, had been the now familiar Round Robin session and was attended by 12 members. This had been humorous (several toy animals had again participated) and enjoyable.

FUTURE MEETINGS

The April A meeting (12th) will be the Annual General Meeting, for which the obligatory Calling Notice was distributed with last month's Newsletter. This will be held via Zoom. Further information is provided later in this issue.

The May A meeting will be held on the 10th rather than the 3rd as the first Monday is a Bank Holiday. It will be a presentation by Chris G4IFX of the UK Six Metre Group – well timed for the approach of the summer sporadic E season. Again, this will be face to face or via Zoom depending on the availability of Trinity.

Subject to confirmation, the June A meeting (7th) will be a demonstration on the nanoVNA network analyser by Quin G3WRR. As before, this will be face to face or via Zoom depending on the availability of Trinity.

Until further notice, all B meetings (3rd Monday of the month) will held via Zoom using the current Round Robin format.

ARRANGEMENTS FOR THE 2021 AGM

Due to continuing Government restrictions on meetings, this year's AGM will be held using Zoom. Joining details will be sent to all SRCC Members a few days before the meeting. This will include a link for those joining via the internet to enable video and audio participation. There will also some telephone numbers for those not able, or who do not wish to, use the internet. Arrangements will be available to hold a secret ballot (if necessary) for any of the elections. This has to be setup in advance of the meeting and therefore all nominations for Committee this year

have to be received by the Secretary no later than 2400z on Friday 9th April 2021. Owing to the difficulty of getting physical signatures on nomination documents during lockdown it is acceptable for nominees to “sign” nomination documents electronically by typing their name (and the date) in and e-mailing them to the Secretary.

OFCOM ELECTROMAGNETIC FIELD (EMF) REGULATIONS

On 1 March 2021, Ofcom published a General Notification on their website that proposes to vary all UK amateur radio licences. It requires licensees to comply with the ICNIRP general public limits of Electromagnetic Field (EMF). Licensees have until 18 April 2021 to make any representations to Ofcom. They have also informed the RSGB that they are contacting all licensees either via email or letter in the near future to make them aware of this process.

More information on the variation process and EMF conditions can be found on both the Ofcom website at ofcom.org.uk/emf, or the RSGB website at rsgb.org/emf.

Thanks to those of you who responded to the two earlier consultations on these issues. Some important changes were made as a result including:

- Compliance limits only apply when people are present in the affected locations while you are transmitting (or if you cannot be sure that no-one is present).
- RSGB is recognised as a competent organisation to give advice on pre-assessed configurations.
- ICNIRP 2020 limits can be used as an alternative to 1998 limits (as recommended by RSGB).
- Examples of types of records to be kept, to demonstrate compliance (including certifying when not using more than 10W EIRP).
- Limits for exposure are relaxed for licensee and visiting amateur licence holders.
- Only required to re-assess when changes are likely to increase EMF levels.

The licence variation will come into effect in May 2021. After that date we will have up to 6 months to complete the assessments for frequencies above 10MHz; and up to 12 months for frequencies below 10MHz. Six options for compliance assessments are named, but there is still lots of work to do for the RSGB to define some methods, and for you to conduct your assessments.

73, Peter G3ZPB

CONTEST CORNER

In view of the increased level of contest interest within SRCC in the last year or two, it seems appropriate to provide a regular Newsletter item to allow participants to let other club members know what they have been doing on the contest front. The sort of information things envisaged would be:

- Contests entered.
- Number of contacts made, points earned and position achieved (unless you do not wish this to be known...)
- Brief details of the event.

As a “starter for ten”, here is the sort of thing we had in mind, based on my own recent experiences, but this certainly isn’t prescriptive:

ARRL DX Contest (CW) 20-21/2/21 – 69 QSOs, 7344 claimed points, no results yet, 29 states / provinces – mostly Eastern, furthest West Colorado & New Mexico. Conditions poor, 80% of QSOs on 20m, few on 15m, handful on 80m/40m

80m Club Championship CW 25/2/21 – 100W Unassisted Section, 91 QSOs, 95 points, 35th out of 112 – conditions quite good, worked DL, EI, F, G, GM, GW, OE, OK, ON, PA, SM, SP

2m FMAC 2/3/21 – 10W section, 2 QSOs, 29 points, 33rd out of 36, best DX 17km. Using handheld on doorstep – too cold to stay on for any more.

6m UKAC 11/3/21 – Restricted Section, 8 QSOs, 807 points, best DX 79km. Used HF inverted V as too windy to put up 6m/4m beam.

Commonwealth Contest (aka. BERU) 13-14/3/21 – Unable to use Isle of Wight killer site due to lockdown, so on from home. 51 QSOs, claimed 1030 points, no results yet. Conditions grim, 1 QSO (5B4) on 10m, 2 (5B4 & 9J2) on 15m. Most QSOs on 20m – nearly all VE (mainly VE3), handful (nearly all UK HQ stations) on 40m / 80m. Not a vintage year.

If you fancy contributing, just drop me and e-mail with details of your choice by around 20th of the month and we will see how it goes!

73, Quin G3WRR

VIRTUAL PORT DRIVERS

I have been carrying out some research into "Virtual Serial Port Drivers" recently. (If you don't know what Virtual Port Serial Drivers are, then you probably don't need one!)

After testing several different ones I have concluded that one of the best ones is VSPE from Eterlogic.com. There is a free license for 32bit Windows systems. After a trial period, you require a license for installation on 64bit Windows systems but costs just under £24.

The most popular use will be "Port Splitting" e.g. set COM6 (the actual serial port connected to the Rig) is split to COM10 that can then be shared by several programs. Specifically, this allowed programs such as HRD Deluxe and Fldigi to share port COM10 with programs that use OmniRig or HamLib.

73, Peter G3ZPB

HERE AND THERE

Thanks to Mike M1CCF for a couple of interesting items again this month.

An interesting change in licence allocation procedures from Ofcom! Applicants who have passed the RSGB Full exam now have the option of applying for callsigns from the G and M call blocks including G3, G4, G5 and M5. Details of how to apply are at: Thanks to Mike M1CCF

<http://www.southgatearc.org/news/2020/november/g-callsigns-for-those-passing-full-exam.htm>

The database of potential callsigns (all 146 776 of them...) is at the following URL:

<https://www.ofcom.org.uk/data/assets/file/0021/210648/annex-list-of-uk-amateur-radio-callsigns.xlsx>

Raspberry Pi microcomputers Many members will be aware of the Raspberry Pi, not least from Mike G4WNC's video shown at our February A meeting and from Terry G4CDY's description of his homebrew transceiver at the March A meeting.

Readers who are interested in acquiring a free Pico version may be interested in the following URL:
https://raspberrypiress.imbmsubscriptions.com/bar2021/?mc_cid=c1d862843e&mc_eid=8de5414293. While this is clearly a loss leader (and why not?) and it is certainly not the intention to advertise the HackSpace magazine, the opportunity of a free Raspberry Pi is something that may well appeal to our membership!

SECRETS OF THE TRANSPORT MUSEUM

Next week sees the first episode of the new UKTV series Secrets of the Transport Museum. Don't forget to tune in at 8 pm on Tuesday, 30 March and every Tuesday after this. If you miss an episode, you'll be able to catch up on UKTV Play. The clocks are changing this weekend, so if you've set-up to record the episode, do check your box is set to the right time on Sunday.



Although not mentioned in the publicity, the programme was filmed at Brooklands Museum where Peter G3ZPB is a Volunteer.

SRCC LEAGUE TABLE – FEBRUARY 2021

Entries for the February 2021 League Table were, at nine, the same as for January, the participants being all the usual suspects. The top three places were the same as for January with Ian M0CGF again taking the lead, but Peter G3ZPB moved up four places to fourth and there were other minor movements up and down at the lower end of the table to compensate.

ENTRANT	WORKED DXCC / SQUARE	WORKED SRCC MEMBER	WORKED IN CONTEST	POINTS THIS MONTH
M0CGF	131	3	53	281
G4FFY	100	2	25	215
G4LZE	64	3	18	177
G3ZPB	45	5	31	136
G3WRR	21	1	22	66
G3EUE	30			60
G4FYF	17	1		36
G3SRC	6	1	7	21
M0LEP	6	1		14

Just over two thirds of Ian's scoring contacts were made using a variety of data modes, 66% being on the now predominant FT8, followed by that old stalwart RTTY (28%) and a handful on FT4, PSK and Q65 (which I must admit is a new one on me but is part of the WSJT-X program suite...). His non-digital contacts were all on SSB. All the HF bands except 160m & 10m were included with the majority of contacts on 40m & 20m. He also made a number of scoring contacts on 6m & 4m. And despite the continuing poor HF conditions, although unsurprisingly just over half the contacts were with European stations, Ian managed at least one contact with each continent – a contact with FK4 (New Caledonia) being a particularly nice one.

Ray's HF scoring contacts covered all the HF bands with the greatest number (36%) on 40m, followed by 15m (19%) and 20m (17%) with the remaining 25% on 80m, 160m, 17m, 30m, 12m & 10m in decreasing order. These included three new DX entities – OH0 (Aaland Island), ZC4 (Cyprus British Bases) and A7 (Qatar) - but he also had an impressive list of "gotaways"! Similar to Ian, just over half Ray's contacts were with Europeans but he managed to work all continents. He also worked 14 "big squares" on 6m, 2m and 70cm using a mixture of FT4, FT8 and SSB.

All but two of Colin's contacts scoring were on HF and all but one (which was on JS8) used FT4 or FT8. The majority took place on 40m (45%) and 20m (38%) with 13% on 17m and the remaining 4% evenly distributed between 80m, 15m & 10m. He picked up 2 new DXCC entities – VP8 (Falkland Islands) and JT (Mongolia). Their geographic distribution was fairly similar to those of Ian and Ray, with two thirds in Europe but all continents contacted.

Peter clearly had a busy month using a variety of modes (USB, DSTAR, FT4, FT8, JS8 & PSK31) and took advantage of the concentrated activity that goes with contests (in this case the RSGB 70cm AFS, HF FT4 and 2m MGM – Machine Generated Mode – events) to make some interesting contacts - including gaining himself six new DXCC entities, DS (South Korea), 9M2 (West Malaysia), CO (Cuba), OD (Lebanon), EA9 (Ceuta & Melilla) and KP2 (US Virgin Islands). Like Ian, Ray, and Colin he did well on continents but failed to catch Oceania.

Quin's contacts were less DXish than the previous entries with only two continents (Europe and North America) worked. All were made using CW and SSB (Mission Control Norwood remains an FT8 free zone – must do something about that...) in contests – the RSGB 4m and 70cm UKAC, 80m Club Championship and ARRL DX CW.

Steve has been busy homebrewing and has made his first 70cm simplex QSOs on a DIY vertical. He has also made a first CW QSO on 5MHz – and with a new country HB9 (Switzerland) at that. (Thought – do HB9s use FT4/8? I'm not sure that cuckoo clocks would provide the necessary timing accuracy...).

Ted mentioned that his time for amateur radio has been curtailed somewhat by domestic matters – but even so it's good to see a somewhat larger entry than of late from him. I don't have any details, but guess all his points were gained using HF CW.

The club call G3SRC made one of its periodic appearances, having been used by Quin G3WRR in the 70cm AFS contest to work seven big squares (all in England).

Rick's entry, which he describes as “not particularly stellar”, as usual consisted mainly of European SOTA stations. He notes that the COVID related lockdown means that opportunities to operate from SOTA sites have been distinctly limited, and that the arrival of spring means that the garden is beginning to need attention – as does overseeing completion of his house extension!

The 2021 cumulative table is shown below. This early in the year, cumulative position changes mirror the monthly changes quite closely: the top three stations have not changed from January, and Peter's busy February is reflected by a three place rise, with smaller changes further down the list.

ENTRANT	JAN	FEB	MAR	APR	MAY	JUN	JLY	AUG	SEP	OCT	NOV	DEC	TOT
M0CGF	310	281											591
G4FFY	211	215											426
G4LZE	179	177											356
G3ZPB	20	136											156
G3WRR	21	66											87
G4FYF	40	36											76
G3EUE	15	60											75
G3SRC	48	21											69
M0LEP	22	14											36

Once again the performance of entrants using FT4 and FT8 demonstrates the effectiveness of these modes under the very disappointing HF conditions that persist despite the fact that we are fairly well into Cycle 25 by now. That's good, as the hobby has always been about finding ways to communicate more effectively. But I read a comment somewhere (can't remember the source) recently noting that while looking at (I think) 15m, there were no CW or SSB signals at all audible. However the FT4/8 sub-band appeared to be very active. It would be a shame if we ended up abandoning traditional modes in favour of the new – but I guess people said that as we moved from AM to SSB, TRFs to superhets, and probably spark to CW too..... Hmm. Food for thought....

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...

Well, that's all for another month. Hope to see you at the AGM – please do make an effort to attend. It's your best opportunity to let the Committee know what you think and influence what we do or the way we do it!

73, Quin G3WRR
SRCC Secretary