

## SURREY RADIO CONTACT CLUB

## 85th Anniversary Year - Founded 1935 APRIL 2020 - No 932 SRCC supports the RSGB Child Protection Policy

General Club Business: <a href="mailto:secretary@srcc.uk">secretary@srcc.uk</a>

Membership/Treasurer: membership@srcc.uk

Newsletter articles/distribution: newsletter@srcc.uk

Club Equipment Loan: equipment@srcc.uk

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

Honorary Secretary & Editor

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Meetings currently suspended for the duration of the COVID-19 pandemic – more details below...

## **SRCC COMMITTEE 2019/20**

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## **EDITOR'S OPENER**

Just at the moment, the traditional opening greeting of "I hope all members are well" or similar has a particular resonance in view of the current COVID-19 pandemic, especially given the fact that many of our members fall into the higher risk age group (you will notice that I am

taking great effort not to say "...because a lot of us are quite old"....). You will probably have seen from previous communications (eg. e-mails and the SRCC website) that the club is temporarily suspending meetings, but on the principle that the more times important information is promulgated the better, for completeness the position as agreed by the SRCC Committee is repeated below:

- "As our normal meeting place is now closed until further notice and in view of H.M. Government's advice and recommendations to reduce the spread of coronavirus (COVID-19), the SRCC Committee is taking the following actions:
- 1> Postpone the SRCC AGM until we are able to resume holding meetings.
- 2> Cancel all other SRCC Meetings and Events until further notice.
- 3> Continue to issue a monthly Newsletter (which may be smaller than we are used to).
- 4> The current committee members will continue in post until new elections can take place at the AGM.
- 5> Suspend the SRCC Club Rules until we are able to resume normal meetings.
- 6> Encourage members to take part in the weekly on-air nets.
- 7> Encourage members to enter radio contests.
- 8> Review the situation on a regular and timely manner so that SRCC activities can be resumed as soon as possible within HM Government's Guidelines.

The committee members will keep in regular contact with each other by email with possible conference telephone calls where necessary.

The committee is hoping to be able to arrange some form on "on-air" activity during the evening of the 1st and 3rd Mondays of each month - please watch the website for details.

It is with considerable regret that the committee is taking these actions, but is mindful that the health and well-being of Club Members must take precedence over other considerations."

Item 6 above refers to taking part in club nets – details of these are listed towards the end of this (and every) Newsletter.

On a more positive note, it was very good to see John G8IYS attending the Surplus Equipment Sale on March 2<sup>nd</sup>, and particular thanks are due to John G3MCX for transporting him there and back. Although he did not take the opportunity to buy any gear, he was able to chip in and offer views on the acceptability of offers made for certain high value items! He mentioned that he was not feeling too well towards the end of the meeting, but it appears this was due to a bug circulating in the Simkins household rather than anything more sinister.

A short "Editor's Opener" this month – but you haven't seen the last from me as there is another WRR article further on.

So, on to the good stuff....

73, Quin G3WRR

## **FUTURE MEETINGS**

As explained above, it is not clear when face to face meetings will resume. However this item will be maintained in the Newsletter format against the time when we are able to recommence. In the meantime, the Committee are looking at the possibility of using a live Video Streaming Service (generously provided free of charge to clubs by BATC (British

Amateur Television Club) for the duration of the COVID-19 pandemic) to allow us to hold "Virtual Meetings" to help the members keep in touch. If any members have ideas of how we could best utilise this, please let me know.

## **PREVIOUS MEETINGS**

## First (A) meeting: Monday 2<sup>nd</sup> March 2020 – Spring Surplus Equipment Sale

This took place as usual with Gareth G4XAT resuming his traditional role as auctioneer. One minor change was that some of the larger items were laid out on tables so that potential purchasers could inspect the goodies in advance of bidding. This seemed to work well and is likely to be adopted in future. Club funds benefited to the sum of £78.00.

# Second (B) meeting: Monday 16<sup>th</sup> March 2020 - Fix-it, Skills and Advice Night

This meeting was cancelled at short notice owing to the onset of the Government restrictions.

## **CHAIRMAN'S BLOG**

Well....this was scheduled to be my last "Chairman's Blog" but with much of the world being in almost total lockdown and our Club meetings cancelled until further notice, it looks like I may have to write one or two more!!!

Firstly, I would like to apologise for the lack of notice in cancelling the meeting on the 16<sup>th</sup> March – the first we knew was a telephone call from the school at 5o/c that afternoon telling us the School was closed with immediate effect. Not much time to make alternative arrangements or to let people know. Initially, we tried to find an alternative venue for the AGM, but with government advice changing on a daily basis, it soon became clear that even that option wasn't going to work. We then looked at the option of holding a "virtual meeting", but decided that also was not going to be a viable option within the timescale. This left the committee with no alternative but to "suspend the constitution", or in our case "suspend the rules". We initially looked at just suspending the rule about having to hold the AGM in April, then realised we would also have to suspend the rule about committee meetings, and then possibly the one about quorums and then possibly the one about overdue subscriptions, so we decided it would be much "cleaner" to just suspend them all!

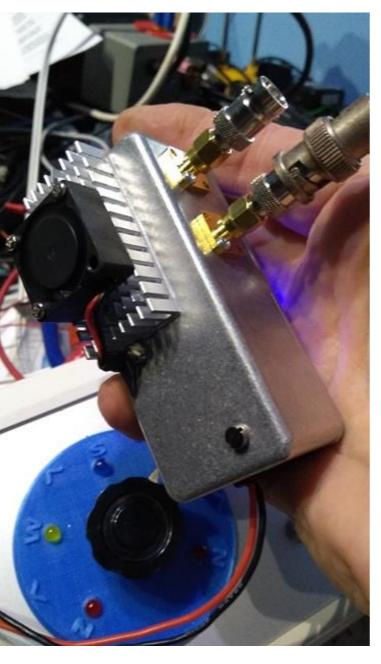
Anyway, back to what we are really all about – Amateur Radio....except there isn't much to say as I have not been able to get on the air since last month. I have big plans for the weeks ahead but nothing recently. About the only bit of radio activity is raising one end of my G5RV antenna which has significantly raised the centre which in turn means there is now much less feeder lying horizontal (it should all be vertical). Hopefully during the next couple of days I can test what improvement this makes to SWR and radiation.

Lots of things been going on at home but mainly related to looking at how we can keep SRCC running and, also Brooklands Museum.

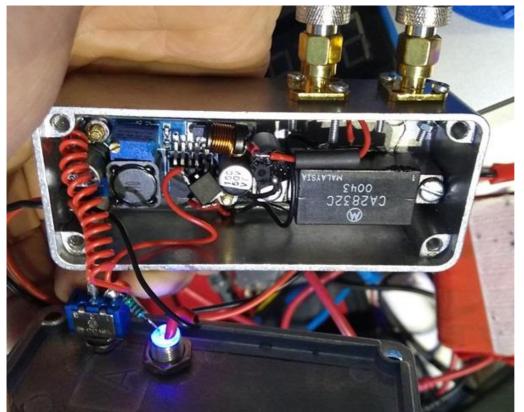
Only a short piece this month. I hope you all manage to keep healthy and get on the air more during these troubled times. Hopefully I will be able to talk to many on you during the various "nets" we have and that we find a way of holding one (or more) virtual meetings during the next few months. Obviously, the entire future calendar of meetings and events is "on hold" although we are hoping that VHF NFD can still go ahead in July.

73 and 88, Peter G3ZPB

## THERE'S ELECTRONIC GOLD IN THEM SURPLUS PILES... by Gareth G4XAT



At the CATS Bazaar In 2018 I bought a pair of "VHF pager amps" mainly for the dual Mosfet and heatsinks/fans that came with them. Closer inspection revealed that each one had a CA2832C broadband amplifier module as part of the driver chain. https://www.digchip.com/datasheets/part... 2C-pdf.php Trying to use the amp "as-was" for DATV showed something was causing instability, so I removed the significant gain block and used a bit less drive. It worked, but not as well as my cheap Chinese VHF amp using a MRF186. However, with the advent of Pluto DATV and of course Lime derived signals, operation on 50/70/144 MHz is relatively simple (no 20 for the Pluto). About time I used the handy little gain block, Unconditionally stable the data sheet says, +35dB 1-200MHz too. I was planning on putting up a tinplate divider between input and output, but it does indeed seem to be stable without one (I later added a small PCB screen anyway). The 28 volts operating voltage is derived from an eBay XL6009 step-up converter board, available at £5.40 for 4 delivered. Additional filtering at the output was added to keep the "nasties" out of the amp. The heat sink came from a defunct 5.8GHz drone transmitter along with the little fan, running off a sub-regulator at 3.3 volts. It just about keeps things cool as the amp is I suspect heavily biased for linear operation. It certainly produced a clean signal when driven from my MFJ as a test. A couple of SMA sockets, some standoffs and a grommet, along with a nice blue LED and on/off switch complete the gain block.



\*\*Update\*\* - it works very well indeed but does get hot (the curse of Class A operation I assume). A small regulator (piggy-backed in the picture) was added to power the fan (5 volt) but after a few minutes the regulator was going into thermal shutdown. A conventional TO220 5 volt 78S05 was added. bolted to the side of the box and an 1N4001 diode added to the ground leg (=5.7 volts) which flows a bit more air from the fan and behaves itself.

It's the perfect device to pair with a SDR transceiver such as a Lime Mini/ADALM Pluto and deliver drive to something modern like this wonderful little amp:-

https://sites.google.com/site/rfpowertools/home/nxp-mrf-101 - I know, I've built one and seen 100W on the dial.

# DESTINATION ISLE OF WIGHT - COMMONWEALTH CONTEST 2020 by Quin G3WRR

Readers of the SRCC Newsletter may recall that I have regularly entered the RSGB Commonwealth Contest over the years. Less discriminating readers may even have read my Newsletter items describing the experience. I was keen to repeat the experience in 2020 from the previous excellent site on the Isle of Wight.

Preparations got off to rather a bad start....in mid-February I e-mailed the site (a holiday centre right on top of the cliffs about half-way along the south western face of the island near the village of Brighstone) to book. After a week or so there had been no response, so I phoned repeatedly with, again, no response. Starting to fret a bit, I decided to go over to the island with the aim of speaking directly to the folks running the site or, if no results, speaking nicely to another adjacent holiday site. Having initially decided to use public transport, which would have involved two trains, one bus, one hovercraft, two or three more buses and a half hour walk - in each direction - I gave in and took the car. Fortunately the lady who runs the site was in and said that they hadn't been checking for e-mails or phone calls as it was still out of season! She told me they had suffered dreadfully from the storms, including one 103 mph gust, and in addition to further cliff erosion they had lost the front off some of the chalets right on the cliff top (see picture below...). Luckily the chalet I had used in 2019 was still in good shape and there was no problem using that again.

Having anticipated a possibly lengthy day getting things sorted out, I had booked a late-ish ferry

back to Blighty, and with things quickly sorted out there were now four and a half hours to kill. No problem – it's lunchtime, so into the village to have a meal at the Three Bishops pub. (This is theologically interesting as the IoW, being part of the diocese of Portsmouth, doesn't have even a single bishop – but I digress). Except that on arrival said establishment was full of builders who were refurbishing it....never mind, one assured me - go to the Crown in the next village. Very pleasant - nice stream, with ducks, outside. (I noticed in passing that duck was not on the menu). But on enquiry I was advised that the kitchen was closed that week. So two packets of crisps it was for luncheon. One can only make a cup of coffee and two packets of crisps last so long, so as a member of English Heritage, I went and revisited Osborne House, the Italianate country home that Queen Victoria and Prince Albert had caused to be built there. Fascinating even if the Victorian decorations are a bit oppressive. And thence home to SE25.

Next stage – get all the gear sorted. Not a major challenge, as it was largely to be a rerun of the 2019 setup - except this time I remembered the self tapping screws that held the antenna together. I entered the Restricted Unassisted section, which limits you to one rig, 100W transmit power, a single antenna per band and no use of the DX Cluster. The setup used was an Elecraft K3, N1MM+ logging program, and Titan DX antenna (a sort of vertical dipole multibanded using a host of tuning stubs, and being quite good for DX is well suited to the Commonwealth Contest).

Travelling over on the day before the start of the contest was uneventful, and I started setting up the antenna at about 1pm in sunny, but windy and cold, weather. The Titan is not an easy antenna to physically set up, particularly by one person as it's not really designed for repeated put up / take down cycles – more intended for once up and leave it. After four hours my teeth had started to chatter and the daylight was fading. So down to the Crown, now fully operational, for a meal (still no duck on the menu). And so, to paraphrase Samuel Pepys, to bed. I got up bright and early (well, early anyway) on the Saturday to finish off setting up. The tasks that were causing so much grief on Friday p.m. were completed relatively easily. So, on to the gin pole with the block and tackle. Erm, no. The block and tackle had not been folded up properly after NFD last year and the rope, all 100+ feet of it, had got hopelessly tangled and it took 75 minutes or so to untangle it. But nil desperandum, all was finally completed – see pictures below – and ready to go, although nearly two hours after the 1000 UTC start.

The Commonwealth Contest (still largely referred to as BERU from its original 1930s name of British Empire Radio Union Contest) is a bit of an oddity in that only British Commonwealth stations can work each other. Intra country contacts are not allowed (except for nominated HQ stations for which special bonuses are awarded). As there are always far more UK entrants than overseas, us native Brits tend to end up queuing for the DX – but that's part of the fun. These post-Empire days, apart from the UK the majority of entrants are VE (Canada), VK (Australia) and ZL (New Zealand) with a sprinkling from 9H (Malta), 9J (Zambia), 9V (Singapore), 6Y (Jamaica), V5 (Namibia), VU (India) and ZD7 (St. Helena). In addition there are always keen folks ("Travellers") who go to distant places to participate. This year these included 3B8 (Mauritius), 5Z (Kenya), 9G (Ghana), V3 (Belize), 8P6 (Barbados) and VP5 (Turks and Caicos Islands). One such was Mike G3VYI (whom many of you will have met at VHF NFD) who combined a visit to Australia to visit his son and family with BERU, and operated VK2/G3VYI from a beach site in New South Wales. (I gather Mrs. G3VYI went elsewhere for the weekend in the camper van...).

Conditions were characteristic of the bottom of the sunspot cycle (ie. pretty poor) – about the same as last year - and this made it important to hit the bands at the times that they were open. Alas my late start meant missing the best of the 15m opening but it was still possible to pick up 5Z, 9J, V5 and 3B8 before the band petered out around 1230 and it was time to move to 20m. Activity was

primarily on 20m (mostly East Coast VEs) with occasional forays onto 15m & 10m until 1630. From then until 2030 it was a mix of 40m & 20m (mostly VEs and Caribbean with the odd long path VK) at which time 20m pretty much died, leaving 40m as the dominant band until around 0015 when a few 80m contacts were made with East Coast VEs until packing up for the night at 0045 once I had made 100 contacts. Getting up at 0615 found 40m open short path to VK & ZL, joined by 20m at around 0815 (also to VK/ZL). My last contact (shortly before the 1000 close) was my one and only one on 10m – with G6XX, the RSGB HQ station.

Total contacts were as follows:

80m 11 40m 46 20m 48 15m 9 10m 1 TOTAL 115

I took a few breaks of half an hour to an hour when things slowed up a bit and kept myself fed throughout with cheese & marmite sandwiches and tea – hardly cordon bleu but "fit for purpose" as they say. The station was dismantled late Sunday morning and the car loaded, I slept for most of the rest of the day and returned home Monday morning. So how did it all go? On the basis of number of contacts (notoriously unreliable given the way the bonuses work in this contest) I ought to be around 3<sup>rd</sup> UK station out of around 45 in the section which ain't bad. OK, we mostly do it because we enjoy operating – but it's nice to do well too!

Mention should also be made of Alun G4WGE who also entered, but seems to have fallen foul of the old saying that bad luck comes in threes: his Severnside site of choice was underwater, the halyard on his home antenna broke, and his hand is still suffering from surgery a month or two ago making sending CW uncomfortable. Nevertheless he managed 22 contacts, which under the circumstances is good going!





**ANTENNA UPPING** 

**ANTENNA UP!** 





STATION ERECTED IN BIJOU CHALET

AFTERMATH OF THE STORMS...

73, Quin G3WRR

## A COUPLE OF SNIPPETS from MIKE M1CCF

Many thanks to Mike M1CCF for a couple of interesting bits of information. The first is a copy of an Ofcom information release:

## Ofcom engineers shine a light on interference issue

23 March 2020

Ofcom's spectrum assurance team recently solved a sky-high interference case that took more than a little detective work to crack.

The team were contacted by National Air Traffic Services to let them know that aircrafts flying in and out of Glasgow airport were being affected by interference when they were between 6,000 and 10,000 feet in the air.

The interference was affecting voice communications between the controllers on the ground and the aircraft. Whenever the aircraft were in the vicinity of the interference the crew would not hear any air traffic control messages as the signal was swamped by the noise of the interference.

## Needle in a haystack

But what was causing the problem – and crucially, where was it? The next step was for the team to locate and identify the source of the interference.

However, due to the height of the aircraft (not to mention the speed of their flight!), the team described how identifying a potential cause would be like looking for a needle in a haystack.

Our spectrum engineering officers spoke to the National Air Traffic Services (NATS) in order to narrow down the search area.

They were able to create an 'area of probability' on a map, in which they could focus the search for the source. This was done by using flight-tracking software, which allowed them to make a note of where the aircraft were when they reported the issue – and this in turn helped to identify a corresponding location on the ground.

Following this discovery, the search turned into a ground-level investigation centred on a small town.

This monitoring involved using vehicle mounted receivers and driving the suspected area until the interference was heard. Once the team have located a location where the signal is strongest they then use hand held equipment to cover the remainder of the search area on foot. The team visited a number of properties that were adjacent to the property where they eventually located the source. After a search phase, the source of the interference was found to be a home. Specifically, the cause was four 'vintage' lightbulbs that the homeowner had recently bought online.



## What's that noise?

Due to the construction of the bulbs, they were found to be radiating a 'noise' when they were switched on that affected a wide range of spectrum, rather than just one frequency. The house was directly underneath the flightpath of the aircraft and therefore every time an aircraft passed and the bulbs were in use, the crew suffered the interference.

Unfortunately for the owner – but fortunately for the crew and passengers of flights in and out of Glasgow airport – the bulbs were removed from the sockets and checks with NATS and aircraft operators confirm that the area is now free of interference.

Ofcom spectrum enforcement team will follow up the case with the lightbulb suppliers, to make sure the bulbs aren't sold to any more unwitting customers.



It's good to see that Ofcom are "on the case" on a matter of aviation safety and have the technical ability to solve it – but it does seem rather a shame they don't seem to be in a position to help out amateurs when they experience interference problems...

Mike's adds the following related information:

The late G2CVV was, besides being an RSGB President, a GPO Radio Interference Service manager at Derby - this is back in the late 1950s. He gave a lecture to the North Notts ARS and one of his demonstrations was a filament lamp from a fish and chip shop that caused widespread interference. What happens is that the filament has a break that maintains physical, but not electrical, continuity - possibly due to some crystallisation in the wire - and an arc develops. An arc can exhibit negative resistance - see the Poulsen Arc transmitter - and so oscillations occur induced in the wiring. There were also lots of harmonics....It was the amount of harmonics and noise that led to Paul Godley decamping from London to Ardrossan in Ayrshire in 1921 to receive the first short wave signals across the Atlantic.

Mike also forwards the following: I'm not sure of the actual source, but the offer does look good:

## **CQ** Magazine offers free issues

On March 19th, **CQ Magazine** announced the following:

In view of the "stay at home and flatten the curve" recommendations from the health experts during this worldwide pandemic, CQ would like to give everyone the opportunity to escape the news alerts for a brief period and enjoy the hobby they love through the pages of CQ!

View the March and April issues of CQ magazine at no charge! It's easy, simply send an E-mail to (<u>FreeIssues@cq-amateur-radio.com</u>) and we'll send you the March issue now and the April issue on April 1st!

Thanks Mike.

#### **HUMOUR IN ADVERSITY...**

The following was published recently on the Elecraft K3 reflector. Credit is due to the authors (K4TAX, K4QF and W4TZB), and also thanks for permission to reproduce it here. I found it very amusing, but there was a complaint from one reflector subscriber that it was inappropriate in the current circumstances. This was outnumbered by several comments, with which I strongly agree, that humour is a great help in difficult times. But see what you think!

## **GUIDELINES**

Amateur Radio operators are requested to adapt to the Coronavirus mitigation guidelines as they apply to amateur radio operating.

All ham radio operators are encouraged to stay at least 6 feet from the microphone in order to maintain proper separation from others. The distance may be reduced if a mask is put on the microphone.

CW operators should wear appropriate gloves when handling keys.

There should be no more than 10 stations on the same frequency at the same time.

Disinfect your knobs, switches, etc before operating ... especially touch screens and PTT. Shoe covers should be worn when using foot switches. Use of hands-free VOX is strongly encouraged although from 6 feet away, it will be necessary to shout.

Disinfect all antenna cables coming into the station.

Only mobile stations and walkie-talkie contacts are permitted where sit-down service has been banned. The 6 ft microphone separation guideline is suspended for these types of operation, but a mask on the microphone is strongly recommended.

Mobile operators are encouraged to remain in their vehicles except to get necessities.

Operators should leave their operating positions only for necessities.

Outdoor antenna work is allowed as long as there is social distancing among all who are present.

Hoarding of batteries, spare tubes, etc. is discouraged and is unfair to others. We are in this together.

New equipment and parts should be ordered on-line for front porch delivery.

Do not test (tune) your equipment unnecessarily. Testing should be reserved for those who actually need it.

Your understanding and cooperation in this matter will be appreciated.

## 73, Quin G3WRR

## SRCC LEAGUE TABLE - FEBRUARY 2020

The number of entrants for February 2020 was seven – one down on last month. There were again no HEARD section entries for the month, but CONTACTED section results are as follows:

ENTRANT	WORKED DXCC / SQUARE	WORKED IN CONTEST	WORKED SRCC MEMBER	POINTS THIS MONTH
G4LZE	57	8	1	125
G3EUE	48	8		104
G3ZPB	15	12		42
G4FYF	15		1	32
G3WRR	8	8		24
G3SRC	4	4		12
M0LEP	3			6

The order of entrants is similar to January. The two leading entrants (Colin G4LZE and Ted G3EUE) were the same, and Peter G3ZPB and Steve G4FYF both move up one place.

Colin's contacts were, as usual, all on FT4 or FT8. Two thirds were on 40m, with the rest evenly split between 80m & 20m. The great majority were with European stations, with six Asians and two North Americans.

Ted's contacts were as usual all on CW, and although the bands were not stated they look like

20m and possibly 40m. 80% were with European stations, but with a generous handful from Asia, North America, South America, and Africa. These included a couple of rare ones in the form of 4A (Mexico), 5I (Tanzania – seriously rare - had to look that one up...) and E4 (Palestine).

Peter's contacts, like Colin's were all on FT4 or FT8, and some were made in the RSGB FT4 contest from the February B meeting. They were all European (including 2 SRCC members) apart from one confirmed QSO with OX (Greenland), which is still quite rare and counts as North America.

Steve's contacts were all European (including one SRCC member), and several were made in a 160m contest.

Quin's contacts were rather mundane, and were all made in a 2m UKAC event.

The club call G3SRC appears again, having been used at the G3WRR home QTH in the 70cm AFS contest.

Rick's contacts were made at the tail end of his jaunt to Kenya, and included some SOTA activity.

Moving on to the cumulative total for the year, the results are shown below.

ENTRANT	1/ 20	2/ 20	3/ 20	4/ 20	5/ 20	6/ 20	7/ 20	8/ 20	9/ 20	10/ 20	11/ 20	12/ 20	TOTAL
G4LZE	101	125											226
G3EUE	98	104											202
G3SRC	78	12											90
G3ZPB	24	42											66
G4FYF	23	32											55
G3WRR	0	24											24
M0LEP	16	7											23
G4WGE	6												6

The positions have noted changes greatly from last month, apart from a bit of a jiggle at the bottom end.

There's little to be said about conditions, which are still "bouncing along the bottom" although the solar flux index has been gradually creeping up – only to slide back down in time for BERU...but that's a story related to March rather than February!

## 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 <a href="mailto:q.c.ollier@btinternet.com">q.g.collier@btinternet.com</a>.

BAND/FREQUENCY/MODE	DAY OF WEEK	START TIME (clock)
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

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....

This is the first Newsletter under the current unwelcome (but entirely necessary) lockdown regime. Let's hope it isn't necessary for it to remain in force for too long. But for now at least we can keep in touch on the air....I'm hearing that some of the bands are bursting at the seams periodically which shows that folks are adjusting to the Brave New World. And if any of you find time hanging heavily on your hands, you might wish to consider writing something for the Newsletter...all contributions gratefully received!

## 73, Quin G3WRR