



MKARS News

Letter from the Chair

Dear all,

We had two excellent outdoor events in July - the portable station exhibition, and the MKARS Club BBQ - and they were really enjoyable outside events. Thanks to everyone who attended, and especially the BBQ food team of Stu, Dawn and Tim for preparing, cooking and serving the food, and also finding somewhere locally that had some camping gas!

The committee has reviewed our meetings going forward, and decided, as the COVID pandemic winds down but infection rates still remain high, that we will do some more outside events in August, and then gently start formal meetings at the Irish Club again, using Zoom to support us in September.

August is holiday month for many, so we will not be having formal talks, but more 'meeting up' events where we will hopefully get good weather.

The programme for August looks like this

Monday 9th August at 19.30 - Planning session for SSB NFD which is to

be held on 4th and 5th September. This will be via Zoom and our approach will be a 'Fun Day' of operating.

Note also the contesters Zoom meeting on the 26th will also be used to make the final preparations for the event.

Monday 16th August at 19.30 - Car Boot Bring and Buy - Car Park Irish Club Bletchley.

Monday 23rd August at 19.30 - Summer Social Chit Chat Car Meet - Car Park Irish Club, Bletchley.

Please note the summer bank holiday is the 30th August and there is no meeting.

We have a full programme of talks for September with the following talks arranged.

13th September - Mike Richards G4WNC, (Practical Wireless) - An Introduction to SDR without the Maths. Talk is via Zoom.

20th September - Introducing the MKARS Construction Project - To be held at the Irish Centre - our first indoor event after lockdown. We will aim to make this a Zoom assisted event.

27th September - Bob Heil, K9EID - My Adventures with Ham Radio - via Zoom from USA.

Finally, turning to committee matters, the last Committee meeting for the 2020/21 period will be held on the 4th October leading up to the Club AGM on 11th October.

This is the time to come forward and help run the Club for next year. Many of the existing committee are ready to hand over to other Club members. If you would like an informal chat about coming forward, joining the MKARS committee and helping to run the Club, please PM me or my email is on QRZ.com. Formal nomination forms will go out early September.

Best 73's

Phil G4FVZ
Chair 2020/2021

August 2021

Highlights:

- Summer & Autumn club programme announced
- Special Interest Group news
- Club talk highlights
- Preparations for club AGM

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Phil G4FVZ

Contesters Special Interest Group



**2m & 70cm
beams at
M5MK/P VHF
NFD station**

The MKARS contest group continue to take part in the monthly round of VHF/UHF/Microwave UK Activity Contests. They have improved on their 2020 record score and are currently sitting in 4th place in the RSGB Local Clubs table.

At the start of July the club entered the RSGB VHF National Field Day (VHF NFD)

contest from "The Hill" at Liddington. 10 members formed into four teams to operate in a Covid safe way and other members came along during the weekend.

Plans are underway to enter the HF SSB Field day contest on the weekend of 4-5th September possibly from the "egg farm" site near Mentmore. The Versatower and 4

element HF yagi should make it a very exciting and busy station. Fancy giving it a go? Talk to Tim G6GEI.

The Contesters also meet on Zoom on the 4th Thursday led by Tim, G6GEI. See Facebook for the meeting link or PM Tim or myself and we can get you started.

Brendan, G8IXK

Home Construction Special Interest Group



**A wi-fi linked
SWR meter with
web interface?**

The group met in May and most of the discussion concentrated on the possible SWR meter project. Steve had spent some time evaluating the PA3 design that had been considered and found that it didn't really fit our needs and quite a bit of development would be needed to improve it. The discussion led to lots of ideas being

thrown into the pot including remote sensing at the mast head (or wherever) with a Wi-Fi wireless link back to the shack providing a web page that could be accessed by a phone or computer to provide the display. Steve has taken the ideas and will have a think about the feasibility. The initial priority will be to get the single band CW/

SSB/FT8 transceiver design ready to launch as a club project in the autumn.

If you have an interest in the broad area of home construction, you can sign up to the group message board by visiting <https://groups.io/g/MKARS-Homebrew> or contact Steve, G6ALU or Las MOBOY.

Data Modes Special Interest Group



**FT-8 isn't the
only Data Mode**

The group has held a couple of meetings. The first one was in April. We had a general discussion to find out what modes members used. Interests range from the obvious FT-4 & FT-8 modes, through JT6M used in VHF

contests to CW, RTTY and SSTV.

Members are using digital modes in day to day operating as well as contests and more specialized activities such as meteor scatter.

Hints and tips (and pet hates) on using the various software packages that support these modes have been shared.

If you want to join the group contact Phil, G4FVZ .

Club meeting recordings

Remember that we record the Zoom meeting talks. If you missed a meeting or just want to revisit something in a talk, just click the link under Library on the MKARS

website or go to youtube.com and search for **Milton Keynes Amateur Radio Society** to see a list of the recorded club meetings. A copy of Carl K9LA's

presentation (see next page) is also available on our Facebook group. Search for K9LA and open the post on 20th April

Club Meeting Report - 22nd March

Club member Las, M0BOY is an experienced electronics engineer and gave us a talk on using Arduino single board computers in the shack. The Arduino was created in 2005 by a group of Italian students as a microcontroller aimed at non-engineers. Arduino is a small PCB with the microcontroller, a serial/USB port, interface pins, power supply and software boot loader to connect to a development package (IDE)

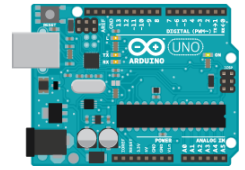
on your PC. The most common board is the Arduino Uno, but there are also smaller ones such as the Nano. One of the most useful elements of the device for amateurs is the 8 channel 10 bit ADC.

The IDE is used to write software for the Arduino but you will often be able to use ready made libraries for things like displays.

In the shack Arduino could

be used as a CAT controller, CW keyer or decoder, RF power/SWR meter, antenna rotator. There are lots of additional hardware boards called shields that can make use of the analog & digital interfaces eg a relay shield could be used in a sequencer project or an LCD shield on an SWR meter.

A good place to start is www.arduino.cc for ideas and sample code.



**HamArduino—
Bringing the
Arduino into the
shack**

Club Meeting Report - 19th April

Carl Luetzelschwab, K9LA a well known authority on ionospheric propagation gave us an instructive talk from his home in the USA “Solar Cycle 25 predictions & status”

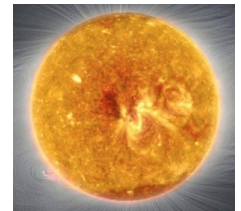
Carl started with a review of predictions for cycle 24. There were 57 of them with a range of 40-185 sunspots which demonstrates our lack of understanding of the subject. It turned out to have two peaks with a max of 81. Some predictions were close, but was it for the right

reasons?

We know cycle 24 has ended and 25 has started and the solar min between cycle 23/24 was 5 years. It looks like the min between 24/25 will also be at least 5 years and we are only 2 years into it. There is a trend that the longer the minimum, the smaller the next cycle also the faster the rise of a cycle the bigger it will be. So far there are 56 predictions in the range 40-230. 89% of these are for a below average cycle. Unfortunately

we will need to wait until cycle 26 before we know how good (or bad) cycle 25 is going to be!

So far there is 9 months of data and it looks like cycle 25 is rising faster than 24, but much slower than 19 (the last big cycle). Carl thinks it will be another 6 months before we have a decent clue as to where cycle 25 is going. His general assessment is that 10m will be open 2023-27. If this cycle is bigger than 24 then 10/12/15 will open earlier.



**Are we on the
way up the
sunspot cycle?**

Club Meeting Report - 26th April

Martyn Baker, G0GMB is a club member and also the manager of the RSGB National Radio Centre at Bletchley Park. He gave us a talk to demonstrate the approach taken at the NRC to deal with EMF Assessments. As you can imagine the NRC is rather more complex than our home stations. There are six different antennas in use, transmissions on pretty much all bands and using a large variety of transmission modes. All of these lead to a

large number of station configurations that need to be assessed and risk managed. The SteppIR beam alone has 21 combinations of bands and modes in use! Consideration had to be made not only of the general public but also maintenance staff that may need to work on the roof of the building and also staff in a 1st floor office who would be closer to the antennas than the public.

Most of us will have a much

simpler task to demonstrate compliance with the new license condition. For tools to assist with the task and further reading search for EMF on the RSGB homepage rsgb.org and check if any of the pre-assessed configurations apply to your station or download the calculator spreadsheet.

We all have until 18th Nov to assess our stations above 110MHz, 18th May 22 for frequencies 10-110MHz and 18 Nov 22 below 10MHz.



**EMF
assessments for
a complex
station**



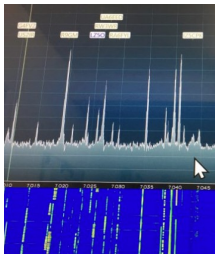
**Working more
DX on VHF &
UHF**

Tim, G6GEI gave us a talk on using a couple of software tools to stand a predicable chance of working more DX on the VHF and UHF bands using aircraft scatter (AS). We have known about AS since the 1930s and it is the principle used in radar but it was the late 80's when DL2ALF started promoting it for amateur use. AS allows us to work distances of 600-1000km on VHF/UHF in flat conditions by bouncing radio signals off aircraft that are

on the path between us and the DX. Of course you need to know when there is a plane on the path to your chosen DX station and it is even better if you can alert the other station to be listening for you. Airscout software connects to databases which provide terrain mapping and crucially aircraft movements. It can calculate for you when a plane will be in a suitable position. KST is a chat system that you can use to arrange scheds. Visit

www.on4kst.com to register. Although the website provides a chat facility, it is best to use applications that interface to KST such as the one in the Minos contesting software suite. This also has the advantage that it integrates with Airscout and will show you the likelihood of getting an AS QSO with each DX station. You can then send a message (called a Meep) to arrange the sched such as "Plane in 5 minutes, can we try a QSO?". There's a demo in the meeting recording.

Club Meeting Report—7th June



**The Flex Radio
architecture**

We had another overseas speaker who was Mike Walker, VA3MW. Mike is the customer service manager for Flex Radio Systems, and is a well-known authority on SDR Technology. His talk had the rather long title "*Dispelling the Myths about SDR technology, and why it is better than the older SuperHet technology that we all grew up with*"

and compared the capabilities of the various models in the range. They have between 2-8 independent receivers called "slices" each with it's own waterfall display so you can easily operate on one band whilst keeping an eye on activity elsewhere. Well there is a big difference to your old superhet!

Mike took us through some of the basic design elements of the Flex Radio systems

In essence the design is a radio server. An RF front end feeds directly to the software layer which uses digital processing to provide selectivity,

demodulation, filters and everything else we are used to having on a transceiver. The most obvious external difference to other radios is that there aren't any knobs! All of the controls are embedded in the SmartSDR software running on a connected PC or Mac or the Maestro provides a physical remote interface with touch controls and tuning knobs.

The Q&A session gave the clubs Flex users a chance to discuss any issues that they had using their rigs.

Club Meeting Report - 21st June

John Breen, MOXZL who is the chairman of the local Milton Keynes Raynet group gave us a talk to explain the history and role of Raynet in providing emergency or auxiliary communications.

communications support in times of emergency or disaster. Raynet was first organized in the UK after the 1953 east coast floods. There are now 110 groups in the UK with around 1800 members.

When John was first licensed he was a member of Amateur Radio Emergency Corps in New Zealand giving him an early introduction to the emergency communications concept and he became a Raynet member when he rejoined the hobby in the UK. The primary purpose of Raynet is to provide commu-

Raynet members are often involved in supporting community events such as marathons, cycling events, charity walks etc which provide opportunity for training and testing the robustness of their equipment.

Most members use their own equipment with 2m &

70cm FM being the main bands used.

The Milton Keynes Raynet group was formed in the early 1980s and primarily covers the Milton Keynes local authority area but also cover events in north Buckinghamshire.

The group has monthly meetings to provide training for members.

If you would like to join the MK group contact John directly. Contact details are on their website www.mkraynet.org.uk



**Emergency
communications**

Outdoor Club Events

The relaxation of Covid Rules means that we have been able to get together for several meetings over the past couple of months.

The first event in May was a Car Boot Bring and Buy Sale at the Irish Centre. Unfortunately the typically British weather turned to rain for this event, but those that came out enjoyed the

chance to meet up for the first time in 15 months.

In July we had an evening showing each other our portable setups at Bletchley Park. Las impressed everyone with his homemade satellite tracking antenna, Phil had a CW station, John hooked into a 12V supply from his power chair for a 2m SOTA setup and Malcolm

set up an HF vertical.

At the end of July we held a BBQ outside the Irish Centre which was attended by around 35 members. Thanks go to Stuart, Dawn & Tim for organising the event and cooking for all of us. It was great to see everyone and chat on what was a perfect summer evening.



Getting back together again

Committee News

Our committee consists of the elected chair, vice-chair, secretary and treasurer plus a number of co-opted members. They meet on the first Monday of each month to review the club's activities, finances and to plan the club programme. The office holders are elected at the AGM in October each year. This year our AGM will be held on

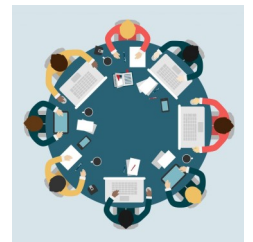
Monday 11th October and the papers for the meeting will be circulated in the next few weeks. This will include nomination forms for the office holders.

Our secretary Will Fludgate, G1YYU will be standing down as he is moving away from the area and we will need a new secretary.

It is always good to have

fresh ideas in any group and we hope that you will consider joining the committee this year either by nomination or being co-opted.

Contact Phil, G4FVZ or Will, G1YUU to discuss how you can help to shape the club's future.



Membership News

Exam successes

Congratulations to those that have had exam successes. Peter Copeland passed his foundation exam and is now licensed as M7LDV.

Steve Nelmes has passed his intermediate exam and is now 2EOYBJ.

Mark Gadeke and Paul Kilby have passed their full license exam and are now M5GDK and MOJQP respectively.

New Members

We are delighted to welcome the following new members to MKARS:

Steve Nelmes 2EOYBJ
Derrick Dobbie M7BRC
John Walker
Stephen Adams
Stuart Hoskin 2EOEXE
David Armitage 2EOKXT
Jason Prince 2EOJJZ
Bonifacio Delos Santos M7BWU
Michael Richardson G7VYH
Ian Leyland M7IPL

RSGB Kenwood Award

Nigel Cox And Francis Hennigan are part of the remote invigilation team for the license exams. At the RSGB AGM it was announced that the whole team have been awarded the Kenwood Trophy in recognition of their volunteer effort. I am sure that everyone who has passed an exam recently really appreciate the work of this team. Well done both!

Welcome
Congratulations!



Milton Keynes Amateur Radio Society

Meeting Venue:
Milton Keynes Irish Centre
Pavilion Manor Field
Milton Keynes
MK2 2HX

(Due to COVID-19 precautions many club activities are currently online or on air)

Web: www.mkars.org.uk
Email: information@mkars.org.uk

Please send items for the club newsletter to information@mkars.org.uk

The club for Radio Amateurs in and around Milton Keynes



[WWW.FACEBOOK.COM/
GROUPS/MILTONKEYNESARS](http://WWW.FACEBOOK.COM/GROUPS/MILTONKEYNESARS)



Weekly nets and coffee chats

Sunday 20:00 —club net on GB3MK

Wednesday 20:00 —Club net on 28.4MHz

Friday 10:30—coffee chat on Zoom

Members Ads

This area is for placing advertisements for the MKARS members for items for sale, exchanged or available to be freecycled. Please included some words of description about the item with its condition and then your contact details.

Please ensure that all local and national COVID guidelines and restrictions are observed when viewing or collecting items.

For sale

Upgrading your station? —Want to sell some kit to fund a new purchase or make space? Send an email to information@mkars.org.uk and we can let the rest of the club know what you are selling.

Wanted/Exchange

Are you looking for a piece of kit for your station? - drop us an email and we will include it in a future edition.

Club Calendar

Monday 9th August HF SSB Field Day Planning Meeting (Note SSB FD, 4th and 5th September) - Zoom.

Monday 16th August Car Boot Sale Bring and Buy at Irish Centre.

Monday 23rd August Club Social Night - Outside at the Irish Centre

Thursday 26th August Contesters meeting & NFD rain check on Zoom

Saturday 4th to Sunday 5th September will be HF SSB Field Day and the club hope to enter a team in this 24 hour contest. Although steered by our contest team, all are welcome to join the event as we need as many operators as well as 'putter uppers' and 'taker downers' as possible. Contact Tim, G6GEI if you are interested.

Monday 6th September will be a club committee meeting. Let Phil or another committee member know if you have any suggestions for future club meeting topics.

Monday 13th September Mike Richards (Practical Wireless) will give us a talk- "Introduction to SDR without the Maths" on Zoom

Monday 20th September Introducing the MKARS Construction Project with Steve G6ALU. We are planning for this to be our first hybrid meeting at the Irish Centre and on Zoom

Monday 27th September we are very fortunate to have a talk by Bob Heil "My Adventures with Ham Radio". Bob will be joining us on Zoom from USA.

Monday 4th October will be a club committee meeting.

Monday 11th October We will be holding the MKARS AGM at the Irish Centre and on Zoom

We hope that you have enjoyed this edition of MKARS news. We look forward to featuring your projects in Shack Corner. To tell the rest of the club what you are doing or place a Members Ad, please email information@mkars.org.uk



Milton Keynes ARS
Amateur Radio Society

GB2BP - Bletchley Park
G8MKC - Training & Events

M5MK - Club Contest Call
M5EI - Irish Centre Call