



RAGCHEW

NOVEMBER 2021

From the Editor

September was a torrid month for Leta and myself as although we have been double-jabbed, we both managed to contract Covid. Various antenna projects that I hoped to complete have been put on hold, and hopefully before not too long I will be able to summon up the energy and enthusiasm to pick up where I left off.

Sadly, since the last "Ragchew", two club members **Tim G8PZD** and **Malcolm G0TMP** have passed away. I have this abiding memory of Tim at the 2019 Christmas meal "minesweeping" a few half-finished bottles of wine and heading off to catch the bus back to Cheltenham from the Cross Hands at Brockworth. I would have given anything to have been on that bus!

The death has also recently been announced of **Sir Clive Sinclair** and I take a brief look at his life and times.

In this issue **Tony G4HBV** continues his "Brief History of Radio" series, this month focusing on the early ventures of Marconi's embryonic company.

Malcolm G6UGW listens regularly to the club **2m AM Net** and reports on his experiences.

Many thanks to **George M0HWT** for submitting a poem "The Ham" by **James C Wheeler W5OI** which is reproduced with his permission.

Jeff 2E0KGN emailed me recently to report a three-way CW QSO he recently had with David G4OGW in Hereford and Peter G0GPH in Bury. They were each using Parasets they have recently built with 4 watts into end fed antennas and Jeff was on his Yaesu FT450D with 30 watts into an end fed antenna. The conditions were poor but a successful contact was made between the three stations. As Jeff told me "time has drifted on with the pandemic but I would like to thank **Mike G0XAE**, **Bob M0NQN** and **Rita M6RYL** for helping me with CW".

Back in September we passed the Autumn Equinox, when we have equal hours of daylight and night - or so we are led to believe. But actually it isn't that simple. In this issue more is revealed.

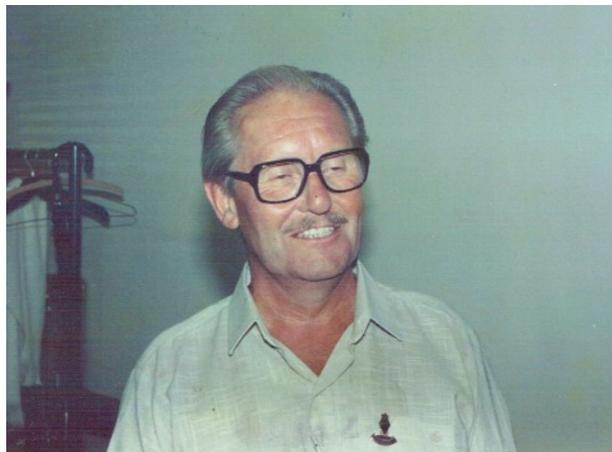
Along similar lines, a discussion on the air a while ago with another club member drifted on to the dreaded **EMF (Electro-magnetic Field)** topic. Both myself and my QSOee (?) were from an era when we were taught in school that **EMF** stood for electro-motive force, measured in volts. I also remembered that potential difference was measured in volts and had a vague memory of our physics master explaining the difference between EMF and potential difference - but for the life of me I couldn't recall the exact details - it was 60 years ago!!!! Which got me digging back in the text-books. Good sometimes to go back to basic theory!

That's all for now

73 Brian G4CIB

Fred Mills G4XXA

As I was putting the finishing touches to this issue of "Ragchew" we heard the sad news that **Fred G4XXA** had passed away. Fred and his wife **Eileen G4XXB** were members for many years and will be remembered by many older members of GARES.



Fred G4XXA in jovial mood (above) at a meeting at our old HQ at the St John Ambulance Headquarters in Heathville Road, Gloucester and below with **Eileen G4XXB** in deep conversation at a club skittles/buffet at the Greyhound Inn, Eldersfield c1987. In the foreground (right) **Mark G8SBX (SK)**



Contest News

As the year end is on the horizon GARES is in 17th position in the **UKAC Local Clubs table**, 2nd place in the **FMAC 432MHz Local Clubs table** and 3rd place in the **FMAC 144MHz Local Clubs table**.

On the HF front, the club is in 9th position in the **Local Clubs table** of the **Autumn Series** contests, with special mention for **Martin G4ENZ** who topped the table in the **September CW**, **September Data** and the **October Data** contests.

The Ham

by

James C Wheeler W5OI

There is this bunch of guys I know,
Who like to talk on the radio.

Around the clock both night and day,
They never run out of something to say.

They talk to each other about this and that,
About problems of the world and how to combat.

New Friendships are born both far and near,
While enjoying this hobby they hold so dear.

They provide the world and our nation,
With a constant flow of information.

From humor to technical the subject may run,
It's all in good taste it's all in fun.

While old timers tell of how to home brew,
Some sit and talk while sipping a few.

Newcomers join in rather timid at first,
Only to learn they could have done worse.

A wonderful hobby this ham radio game,
Compared to some it may seem rather tame.

Then comes along a need or disaster,
And no others can act any faster.

They load up their gear without hesitation,
And head for the field with emergency stations.

They ask for no pay they cannot accept,
All this is for caring no fees are set.

This is the time when there is no phone,
But because of their hobby you can call home.

Your family assured that you are okay,
Re-enforces the spirit they work this way.

And when it's all over they return to their shack,
Resume their chatter and never look back.

A Brief History of Radio – Part 4 by Tony G4HBV

Marconi sent a message from Flat Holm in the Bristol Channel to Lavernock on the Welsh coast in May 1897, a distance of 3 miles over water. A little later, in July 1897, he formed the Wireless Telegraphy and Signal Company Ltd later changed to Marconi's Wireless Telegraphy Company Ltd in 1900. By this time he had gathered a group of engineers around him who, I suspect, had more influence on later developments than Marconi himself.

Marconi's idea was that his company would have a monopoly of this new medium and thus his company would not sell their equipment but only lease it out. This practice was carried out even in the 20th century by companies who thought they held a monopoly on their products. There is a problem with this: once a patent is issued, technical details will be available to all who wish to find them out, and protection depends on sufficient finance being available to take legal action in the civil courts. Marconi offered his equipment, on a leasing basis, to both the American and British navies, both eventually concluding that a radio communication system itself could not be patented, only individual equipment items. When these attempts at leasing Marconi equipment were made, the equipment was still crude and not tuned. The transmitters were spark-gap and progress in extending range had been made by advances in aerial construction and detector sensitivity.

In 1898, Marconi equipment had been demonstrated to the U.S. navy by installing it in ships used to report on the progress of the America Cup yachting races, but U.S. navy officers were prevented from examining the equipment.

During later tests and further yacht races, it was shown that the Marconi equipment of that period, being untuned, was completely susceptible to interference. One of the other advantages of tuning the system, which seems not to have been understood by the Marconi Company of that era, was that it would have led to an increase in more sensitive receivers and thus improved the range.

2M AM Net – 144.550MHz Tuesday 20.30 Local Time by Malcolm G6UGW

Some of you might not have an AM receive function on your equipment. It is possible to receive the AM net on an Airband radio with continuous tuning up to 175MHz normally labelled "PB", but sometimes "WB" (Weather Band – 162.5MHz).

My Steepletone SAB 9 MkII has it labelled "MB" (Marine Band). Tuning carefully you can receive our 144.550MHz AM net. Tip – do not try to do this on the first Tuesday of the month as there is the regular 144MHz UKAC contest with strong local ssb signals such as G4ILI/P.

The regular participants on the net are **Tom G3XMM**, **Les G0ULH** and **Jim 2E0GKN (Guest, Keene and Nettlefold)**. Topics discussed are wide ranging – recently Fletcher's toy shop in the Oxbode was mentioned. Do you remember the window display you walked around like a giant aquarium? (Editor's note – I certainly remember the large Meccano models at Christmas time, Blackpool tower especially!) Fletchers sold toys, guns, cutlery, binoculars, sports equipment, Triang model trains, Frog model aircraft balsa wood kits etc.

I listen to the AM net with the receiver telescopic whip adjusted to a nominal 1/4 wave on 2m, the formula being 7000 divided by the frequency in Mhz and the answer is in centimetres (source: "Essential Guide to Scanning" by Martin Peters). The same formula can be used for dipole element lengths as well, but don't forget with a vertical dipole to connect the co-axial feeder centre conductor to the vertical upper element and the braid to the vertical lower element.

The Autumn Equinox **by Brian G4CIB**

The autumn equinox took place on September 22nd and this is the day, along with the spring equinox, when the sun rises exactly in the east and sets exactly in the west. These equinoxes are also the only days when someone standing on the equator will see the sun passing directly overhead. These are the facts. But we also are led to believe that on these days there are equal hours of daylight and night. In fact this is not so. There is actually slightly more than 12 hours of daylight and the days when the two are equal is known as the equinox and happens in our latitude about four days after the equinox. So how does this happen? The sun appears as a disc in the sky and at sunrise the top half makes its way above the horizon before the centre, but an optical illusion is at play because when the sun appears to rise above the horizon, it is still actually below the horizon, the mirage occurring because of the sunlight being refracted by the earth's atmosphere. The effect of this is to add roughly an extra ten minutes of daylight and of course at sunset the reverse takes place when the top of the sun is still visible after it has actually sunk below the western horizon and we can still see the upper tip of the sun. Variations in the atmospheric pressure and temperature will affect the amount of refraction taking place and thus the amount of extra daylight occurring because of this phenomena.

Sir Clive Sinclair 1940-2021

The recent death of Sir Clive Sinclair once again highlighted how the media delight in reminding us of the failures of well-known people, in this case, inevitably, the Sinclair C5. In the words of the recent "Times" leader, the greatest inventors remind us that failure is an essential prelude to success. In the mid-1950s he attained A and S levels in Physics, Pure Maths and Applied Maths. Holiday jobs included spells at Solartron where he bounced the idea off them of an electrically propelled personal vehicle which was rejected. At Mullard, he presented them with a circuit design idea which was rejected for precociousness!!

He set up Sinclair Micro-Kit just before he sat his A-levels, and drew out a radio circuit which he called the Model Mark 1. He costed up the components and set about advertising the kits in "Radio Constructor" and "Practical Wireless" estimating that he would sell 1000/month and ordering bulk quantities of the components. Soon after he was writing books for Bernard's Publishing and later Bernard Babani. Struggling to finance further radio projects he branched out into technical authorship. Having set up Sinclair Radionics in 1961, he finally brought a miniature radio (claimed to be the world's smallest pocket radio) to market in the mid 1960s called the Sinclair Micromatic.

I had just left college in 1968 and my college buddy bought me one for my 21st birthday - I wish I still had it!

Probably Clive Sinclair's greatest contribution to promoting technology was his involvement in the home computer market. He actually didn't "do" computers and even in later life shunned the internet, emails and hated computer games. It is alleged that he only went into computing to annoy an ex-employee Chris Curry who had left Sinclair Research to set up Acorn computers. How ironic that the highly successful ZX Spectrum's main use by users was for gaming.

And so the C5 was to be his lasting legacy of failure. But like all failures, a cult following has developed. Remember the DeLorean car? Try buying one now! Well, the Sinclair C5 now has a cult following with models snapped up, many being modified and enhanced.

I once saw Sir Clive Sinclair wandering around an Electronics Exhibition in Bristol in the early 1980s. He seemed a lonely character. Looking back, his forte was as an inventor rather than an entrepreneur. Do we undervalue our inventors? The problem is that an inventor's failures are always, in my opinion, never forgotten. A successful entrepreneur – Sir James Dyson springs to mind – is viewed as a hero. But the young James Dyson the inventor will admit that his many hundreds of experimental vacuum cleaner prototypes turned into a long hard struggle of overcoming failure.

It could well be that Sir Clive Sinclair was ahead of his time.