



Mid Sussex Amateur Radio Society

NEWSLETTER

Sept 2020

Mid Sussex Matters



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Meetings are held on Friday evenings starting 7.45pm at the rear of Cyprus Hall, Millfield Suite, Cyprus Road, Burgess Hill,

West Sussex

Visitors are always Welcome

Please note that Cyprus Hall is currently closed due to the Pandemic



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From the President's Corner

The recent Governments restrictions limiting gathering to no more than 6 people, have now made it impossible for us to consider face to face meetings at Cyprus Hall.

We are fortunate however, that our hobby enables us to maintain contact with each other over the air via our HF, VHF, and Zoom get togethers, and I am very pleased to note the growing number of MSARS members already participating, on a daily basis in one or more of these nets, to take the opportunity to talk to each other.

The nets are not confined to MSARS members, and the HF nets have several overseas friends joining in almost every day, giving newly licenced MSARS members an opportunity to work new countries even with 10 watts to simple antennas.

Bob, N4XAT is unable to get through to us direct on 20m at the moment, but listens to us every day via whatever SDR is workable and sends a sitrep via Messenger to Ron, G0WGP who relays Bob's reports to us on 20m. This is a very valuable report and much appreciated.

The nets on HY and 145.350 are also well used and the numbers on each net are growing day by day.

My thanks go to those members who run and actively promote these nets. Without you these nets would not function and your efforts have not gone unnoticed.

We are also fortunate in having an excellent Newsletter which goes from strength to strength with news of others, first class articles and lists of goodies for sale amongst members. This Newsletter is read by many other amateurs around the world and commented on to me by several regular overseas readers.

Thanks then to Tony G3XQM for producing such an excellent publication every month, although as he will tell you what it contains is what you the members give him, so keep writing articles and submitting photos if you want a newsletter to read every month.

So...Even in today's difficult times we, as members of MSARS can keep in touch with each other and it is important that we do so until, sometime in the future we can resume our face to face meetings as in the past.

Join in then to one or more of the MSARS nets, talk to your friends and stay safe.

73, Ken G3WYN



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Screen Protectors. Do they really work?

By Steve GJ6WRI

Few will deny, one of the joys, neigh pleasures of being the first owner of any radio is undoubtedly that first moment you touch the screen with your finger, in the knowledge that no harm can be done because it has the protective plastic over it. But does this plastic actually work? In part, I don't think so, and here's why.

During some recent COVID lock-down shack rearrangement, one of my handheld radios fell off the bench, and I thought nothing of it.

The radio, a Tytera 70cm Digital & Analogue device is built on a diecast chassis, and they "*generally*" are very tough, after all I had the added comfort of knowing the radio could come to no possible harm, because the protective screen cover was still in situ. What I wasn't aware of, was that something substantial also fell, and the colour display screen was damaged. A point not realised until the radio was powered up.



"Goodness me" I said to myself when I realised the screen was damaged.

Not knowing quite what to do, naturally, I phoned my Mum, but I had forgotten it was a Tuesday, and she had gone to Bingo. Not deterred, I turned to Google, and there was a wealth of choices for replacement screens, some more affordable than others.

Regular readers will know that I am very frugal when it comes to the spondulicks, and I like things to be done in a methodical order. Beer/Cider, Radio and radio accessories, with any little left over going to the station manager, so she can treat herself to an Ice Lolly from the ice-cream van on a Sunday once she has accumulated enough.



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Screen Protectors. Do they really work?

By Steve GJ6WRI Cont...

Some of the articles I read, were from distraught radio hams, and hardened CBers, who had successfully replaced the display, only to turn the radio on, and the orientation of the screen was incorrect. Well, I didn't want to expose myself to this horrific situation, so I kept reading.

Some kind folk tried to console the inconsolable radio enthusiasts by instructing them to face the radio in an easterly direction on a prayer mat, and whilst inserting the power cable, enter the sequence "6 6 6". If unsuccessful, rotate the radio through 10 degrees clockwise, and introduce a mirror to see if that resolved the problem. Well, I'm not stupid. After all I passed my RAE in 1983, and besides, I had already tried that, and it didn't work.



Reading a little further on the web, I came across a company called Communic8 Radio Hire and Event Solutions. As an authorised Tytera dealer, their website-wonderland had all of the information I needed, and they even mentioned software to correct the display orientation if need. If only those poor chaps had scrolled past the first page of their google search, they could have saved themselves, and their station managers from the anguish they sustained.

A simple web order, and an email stating that I wanted the screen sent to my offshore tax haven which is the beautiful island of Jersey, where the weather is always good, but if it does rain, it rains pound coins, and I need do nothing more and wait for the display to arrive in the post.

It was 11:30 UTC by this time, and the postman had already been to my QTHR, so I was left helpless and at the mercy of the man my neighbours call "The Postie", who was next scheduled to deliver on the Wednesday, propagation permitting. So, what to do in the meantime? Sometimes when you are waiting for something to arrive, it can seem like an eternity, an eternity that I didn't want to endure, so I did what anyone in my position would do, I went to the pub. The screen and postage cost well under £10, so after some lightning fast mental arithmetic, I did some sums and it was apparent, I could drink to capacity, and there would still be "a little something left over" for the station manager, to "keep her sweet" in anticipation of her strop mood when I returned.

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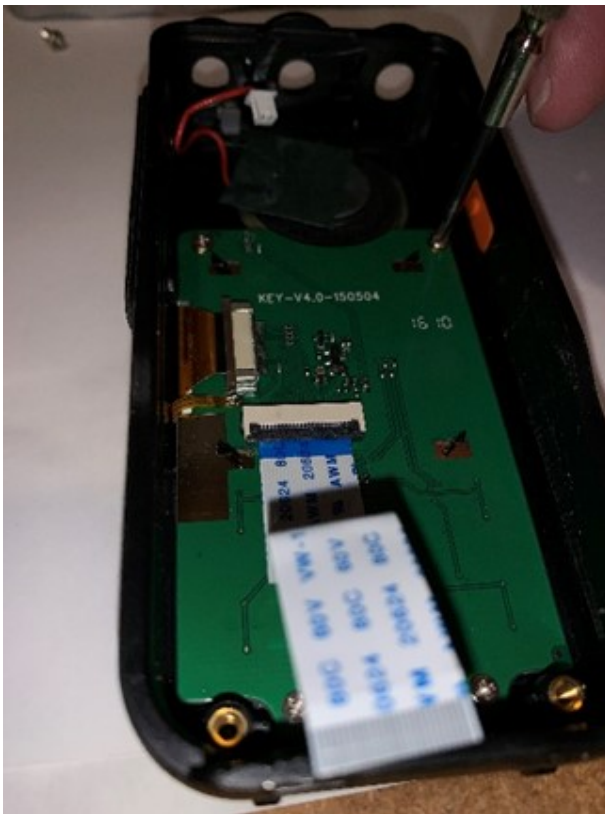
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Screen Protectors. Do they really work?

By Steve GJ6WRI Cont...

Before I knew it, Wednesday morning was upon us, and the display had indeed been delivered by the man they call "The Postie". I dismantled the radio. No hidden screws or plastic tabs to deform, and the screen was enclosed in a metal frame.



A soldering iron was needed to de-solder the backlight power connection.

Reassembly was easy, although I have mild arthritis in my fingers, as the direct result of the endless hours spent counting all of my money. I felt such a fool when I found out that you could buy "Note Counting Machines" on the internet, but that's a different story altogether.

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Screen Protectors. Do they really work? By Steve GJ6WRI Concluding part...

As expected, the display orientation was wrong, and I believe it's a bit hit and miss as to which orientation the replacement screen will actually display. I emailed Callum at Communic8 on hello@radio-hire.co.uk, and he sent me a link for the utility to rectify the orientation. Once installed, I ran the program once, and the display was correct. That was beginners' luck as you may have to run it two or 3 times to get the correct orientation.



Before and After. I had great help from Communic8, and can highly recommend them as a reliable and helpful supplier of many different solutions. Have a look at their website hello@radio-hire.co.uk

IT IS good to keep business local, and this is an example of a UK business supplying a product that you may have thought would have to come from BG (China).



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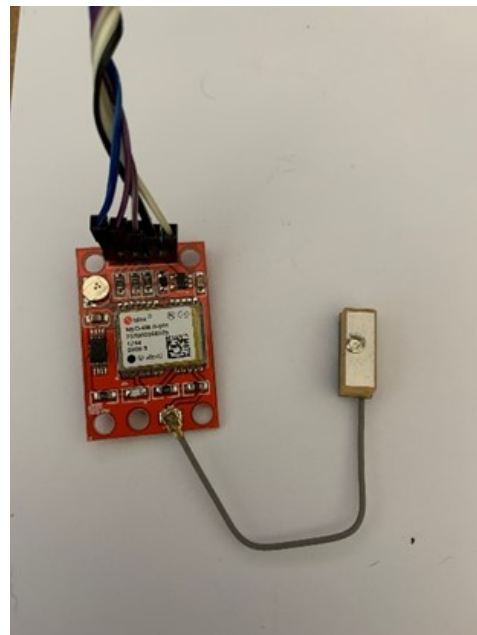
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GPS in the shack and on the cheap.

By Steve GJ6WRI

I've often looked on eBay for electronic bits and bobs to play with, and had seen many sellers offering GPS modules, for as little as five to seven GBP. I looked at the specs on some of them, and it seemed as clear as mud. I did however recognise that one or more of the protocols output from this thing was in the format that a couple of my Icom radios would understand. Being still in lockdown, and at a bit of a loose end I purchased two different modules from two different vendors. Both appeared to use the same receiver, but mounted on a different board, and they both had different aerials as shown in the first two photos below.



It's quite clear that both antennas have had something removed from their upperside, perhaps a manufacturers logo, or maybe they had been fixed to a consumer antenna module?

The blue module on the left has 4 pins, VCC, RX, TX & GND, whilst the red one has five, VCC, PPS, RXD, TXD & GND. First of all, I connected one up to an Arduino UNO R3. This setup makes things easy to understand if you are new to electronics. I connected through a bread board only because I was doing something else with the UNO, and it was convenient. This is by far the simplest way to "hook up" as there is no code to be written. Its almost unbelievable, but the voltage (3.3v or 5v), ground, TX and RX are pins that are already defined on Arduino devices.

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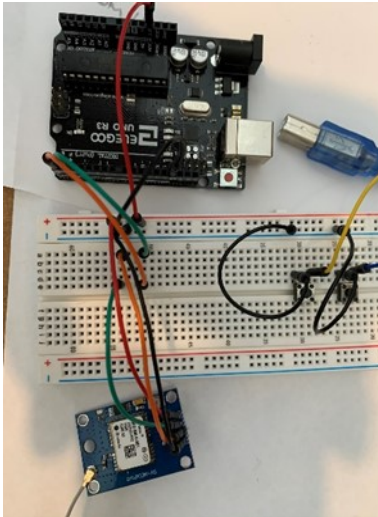
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GPS in the shack and on the cheap - Concluding part...

By Steve GJ6WRI



On the left is the Arduino UNO R3, and on the right, the second GPS connected to an Arduino Nano, and it is being powered by the USB cable connected the shack PC, which can also run the Arduino App (or it can be connected to a web app). You upload a blank script to the Arduino, and hey presto...floods of data from the ether!



From a cold start, where the unit hasn't been running and acquiring signals before, it can take several minutes to get enough signals for a fix. I certainly didn't appreciate that, and because I plugged it in, and the red LED on the GPS didn't illuminate or occult, I assumed I had done something wrong, and unplugged it, plugged it in, unplugged it, and then unplugged it in again, and then went for a "comfort break".

On my return, I was relieved to see the LED flashing. The Arduino App has a "Serial Monitor" function, which does what it says on the box. It displays the serial data received on the serial pin! You can have the data in ASCII, HEX, Binary and goodness knows what else. When in packet mode, the Header in the data identifies the protocol, so its easy to see the content that your radio will need later on.

There is a very good utility called "u-centre". Goggle [ublox](#) for more info. As well as showing you the incredible amount of data being received in alphanumeric form, it also gives you graphical representation of your position and the received satellite positions on a map, signal strength, compass and loads of other easy to understand visualisations.

I enjoy the construction and experimental side of our wonderful hobby, and I hope my input here in the club newsletter might encourage others to share their activities in the shack.

Hopefully by the time the next issue is published by young Tony, G3XQM, I will have an article on how to add the GPS to my Icom radios.

Until then, 73 de GJ6WRI Steve.





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By Steve GJ6WRI



You want me to stick it where? This is a simple tip that may help you utilise your shack-time a little better in future, but only if you spend a bit of time on YouTube.com

The hyphen, or dash can have many a meaning, depending on its context. Ken G3WYN will see it as a dash dot, and that's the letter N in Morse-Code. I know. I'll say it before you do. There's no N in Morse! Some will see it as an indication that a word is split in to the next line, while Tony G3XQM tells me he thought it was a to indicate a missing letter in a game of Hang Man!!!

But I digress. If it is inserted in to the URL of a YouTube video, then it will show that video without the annoying adverts every 5 minutes or whatever. It will also, depending on your settings, put your computer monitor in to full screen mode, which you can exit by pressing "esc. This is great if you are watching a film.

The link below is a great example. It will take you to an article about using an RTL dongle to receive GPS satellites, but before it starts, there's an advert, which you can bypass after a few seconds.

<https://www.youtube.com/watch?v=YG2fJRTAoHA>

BUT.....If you insert a "-" (hyphen) in between the t and U of tube, making it look like <https://www.youtube.com/watch?v=YG2fJRTAoHA>

and then hit enter, the advert will be bypassed and the intended video will start straight away. Be aware that the URL will change significantly, and look something like this.

[https://www.youtube-nocookie.com/embed/YG2fJRTAoHA?](https://www.youtube-nocookie.com/embed/YG2fJRTAoHA?autoplay=1&iv_load_policy=3&loop=1&modestbranding=1&playlist=YG2fJRTAoHA)

[autoplay=1&iv_load_policy=3&loop=1&modestbranding=1&playlist=YG2fJRTAoHA](https://www.youtube-nocookie.com/embed/YG2fJRTAoHA?autoplay=1&iv_load_policy=3&loop=1&modestbranding=1&playlist=YG2fJRTAoHA)

Do you have any tips & tricks you want to share? I for one would be happy to read your ideas.

73 for now. Steve GJ6WRI



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Terry, G0SWS and Phil, G4YDU enjoying the Sun in Mablethorpe during Phil's recent visit to the Colonies.



Many thanks to Ken G3WYN for providing the photograph



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Newsletter Articles Required.

Dear Members,

I think you will agree that we have had many excellent Article's in the Newsletter this year.

However to keep the club Newsletter alive, we are now in need of more copy from you.

The article can be a short piece, or a multi page one if you wish. I do hope you will be able to help.

My Contact details are as follows:

E mail: tonyfinch5@outlook.com

Tel 01444 254511 or 07519 374 575

Many Thanks

Tony G3XQM

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Home of the Mid Sussex Amateur Radio Society

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Details of club events etc go to:-

[MSARS Web Site](#)

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