



Ionawr / January 2021

Rhif / Issue 126

Cylchgrawn Clwb Radio Amatur Y Ddraig

The Journal Of Dragon Amateur Radio Club

Club Programme

February

Monday 1st *'Understanding HF Propagation'*
A recorded talk by Steve Nicholls G0KYA from the RSGB.

Monday 8th Club NETs

Monday 15th *'Soldering, including the dreaded PL259!'*
Danny GW7BZR demonstrates how it is done.

Monday 22nd Club NETs

March

Monday 1st *'The Magnetic Loop Antenna'*
Talk by guest speaker Andrew G0RVM.

Monday 8th Club NETs

Monday 15th *'How To Get The Most From Your VHF / UHF Handheld'*
Club member Mark MW0RZS reveals all!

Monday 22nd Club NETs

Monday 29th Club NETs

Club NETs are held - 7pm Online via Zoom, 8pm 2 metres - 145.550 MHz and 9pm 70cm via GB3AN repeater.

Thank you to the following who have contributed to this issue of Llais Y Ddraig.

Danny Shurmer GW7BZR, Les MW0SEC, Cath Thorley 2W0PYL, Kevin Thorley MW1CFA, Charles G Ward MW0GBR and James Clarke MW0JHC.



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From the Chairman ...

A Few Words From The GRUMPY OLD Chairman... AKA Danny Shurmer GW7BZR



When a newsletter is written the Chairman usually has a few words to say. There is usually plenty of subjects to talk or write about. This time most of the club activities are on the various nets that the club has. These have to a large extent been successful and will continue for the foreseeable future and hopefully will expand to allow more participants to take part. We are unable to have club meeting at the moment and neither can we have special events. Some contests have been instigated by the Secretary and have been a success. We have had quest speakers and these have been well received. We have more of these planned in the future and any suggestions for more of these would be very welcome.

Our education program continues to progress, and people are taking exams before finishing the course. They have all passed and I congratulate all of them!!

This virus that is stopping the club functioning properly is a terrible thing and a few of the members have had it. Thankfully, all have recovered now and are now back at work or home.

As Chairman all I can really say is listen to the advice given and take heed of it. Remember it is not transmitted over the airways so you can use them freely.
I wish you all the best for the future. Keep safe and take care

73 Danny GW7BZR

From the Editor ...

Welcome to the January 2021 issue of the Dragon ARC newsletter, Llais Y Ddraig / The Dragon's Voice. This issue is being published during the third Covid-19 lockdown in 12 months, therefore I hope you are all keeping safe and well during these challenging times. I hope you will also join me in thanking all our members and those with family who have worked hard to keep us safe in various front line roles during the pandemic, from hospital staff, to the delivery drivers who ensure our Chairman Danny can have black pudding with his breakfast! Of course it also goes without saying that our thoughts are with all those who have lost family, friends or work colleagues to this awful disease!



I hope that you find this bumper issue has at least one item which will interest you, it certainly highlights the diversity of interests our members have in the hobby.



As for 2021, please do keep supporting our online and on the air club programme and keep your fingers crossed that we can all meet up either outside or indoors later this year. KEEP SMILING....

Simon MWONWM

Rotator Indicators

T

By Les MW0SEC

The advantages of using a rotatable beam aerial for radio communications are well known. The only disadvantage (excluding the necessary construction) is that the beam needs to be adjusted to point towards the required station. Some people may be in a position of being able to view the beam from the operating position, but even so, it is desirable to know the compass heading – more particularly where high-gain and very directional beams, such as those in use for VHF and above are concerned.

In this article I examine some methods of presenting a heading display to a convenient location, and illustrate some common practice from the commercial suppliers.

Looking at the problem of getting a bearing remotely from the beam, a number of possibilities come to mind:

Selsyn/Magslip solutions.

This approach was once popular with amateurs, given the accuracy which may be obtained and the fact that after World War Two a great variety of devices appeared on the surplus market from such applications as gun-laying and radar. Such devices consist of two coupled three phase motors linked so that the stators are connected together, but the rotor of the sensor is connected to the rotor of the receiver – thus as the sensor moves, the angular position of the fields change and the rotor in the indicator moves to take up the new position. The main disadvantage of using these is the requirement to provide a three phase supply at around 1Kc/s.

Digital solutions.

If the beam is coupled to a digital encoder, a fairly simple programme on a PC or a PIC can interpret the step changes in direction and as a matter of convenience, output the heading either in text or graphical format. A disadvantage might be the requirement to use screened cable for the signal runs, as RF entering digital circuitry can produce some very strange results!

Radio possibilities.

I am not aware if this has been done, but linking a beam mounted radio compass to a wi-fi type of transmitter would have the advantage of minimising cabling, provided that power for the sensor can be obtained locally.

DC and Servo solutions.

I suspect that this method is still the most popular with commercial suppliers. The rotator is fitted with a potentiometer capable of (almost) 360 degrees of rotation. It is worth noting here that no beam can be allowed to circulate continuously, since the connecting cables would wind up and break! For this reason, limit switches are always included to cut the motor drive at certain points.

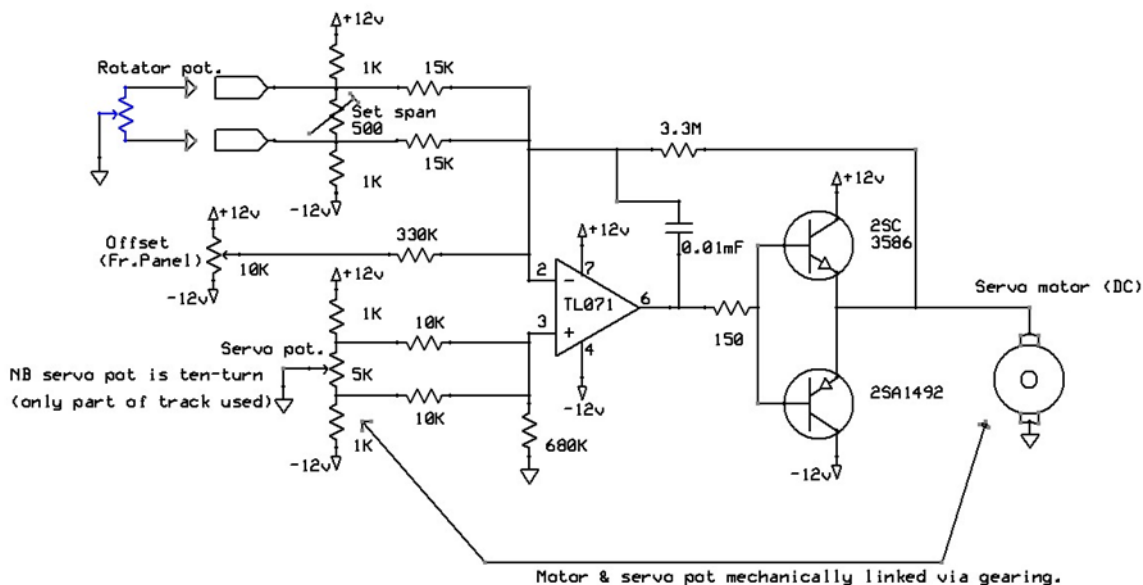
The cheapest method of obtaining the heading display is simply to use the remote potentiometer as a variable resistor, feeding a moving coil meter. At least one supplier uses this method. The disadvantage is that the scale of the meter bears little relationship to the positional information,

Rotator Indicators ctd:

which has to be read off and interpreted. Far better if a 360 degree display is provided, which gives the same information as would a compass. This can be achieved with another method, adopted by a number of suppliers i.e. a DC servo-repeater. Being more complicated it is a more expensive approach, but the display results are far more intuitive.

In the case of the latter, the potentiometer is fed with DC and the slider returns a value which is direction-dependent. This signal is then compared to that from a potentiometer in the local display unit. This latter potentiometer is mechanically linked to a small motor AND the 360 degree display. When a difference between the beam pot. and the local pot. occurs, the difference voltage is amplified and drives the display/local pot. motor until the local voltage exactly matches that from the beam. Since the mechanism is coupled to the pointer, that now indicates the heading.

The circuit below describes the one I use. I had no choice but to roll my own, as I had been given a nice rotator, which sadly lacked the controller/repeater!



Servo repeater for indication of beam heading.

Note the control labelled 'offset'. This provides a convenient method of injecting an offset voltage into the comparator which allows an easy calibration of the heading without the need for further mechanical adjustment. The servo motor was recovered from a defunct printer. Not having a local potentiometer of suitable span, I used a ten-turn device, just employing a part of the track. The preset labelled 'span' is set once to ensure that the display traverse matches the rotator traverse.

Regarding the driving motor in the rotator, this needs to be bi-directional to rotate either way. The direction change is easily obtained with a DC motor, where simply reversing the supply polarity would cause a direction change, but it would seem that most suppliers prefer to use a two-phase AC motor – the direction change being achieved by switching the connections to one winding and the second phase being achieved by a capacitor. A disadvantage of this method is the extra cable runs required.

Finally, a reminder that where long cable runs to a rotator are required, the cables which supply the motor can draw a fair current and the gauge of cable should be chosen to avoid losses and a consequently sluggish rotation.

Caption Competition

In the September issue of Llais Y Ddraig, I asked for suitable captions for the picture below...



Notable efforts were:

‘Good news everyone, black pudding is a super food!’ from Gerwyn Pritchard.

‘A guy in the street sold me this new size battery’ from Ray Ricketts.

‘You hum it and I’ll play it son’ from Phil Rea.

The winner is Karl Byast 2W0FNA, ‘Just done an amazing deal, swapped this black pudding for my elecraft’.

Well done Karl, a prize shall be with you soon!

Training Update

The Intermediate course which has been running since August on Zoom is coming to a close, with half the students having already taken the exam and passed and with the remainder taking part in a few revision sessions before they attempt the exam also. The following have already taken the Intermediate exam and passed:

Janet Byast 2W0JZB

John Byast 2W0?

Cath Thorley 2W0PYL

Simon Keeble 2W0YMP

Mark Morgan 2W0?

Jon Carter 2W0? WELL DONE!

I would like to thank my fellow tutors Danny GW7BZR and Mark MW0RZS for their hard work and commitment.

Full Licence Support

Mark MW0RZS is planning a Full Licence support group / training programme, with a view to starting late spring. If you are interested in joining then please keep your eyes open in a month or two for further details via email and our Facebook group.

Foundation Licence Training Course

Danny GW7BZR and Simon MW0NWM are hoping to run another Foundation course starting in late spring. If you or anyone you know are interested in gaining a licence, please let us know via email or in person.

Full details including a start date, will be advertised via all the usual channels.

***** STOP PRESS *****

Today, the 29th January our latest member Jack Reece passed the Foundation.

Well done Jack, we look forward to speaking to you on the air and also meeting you in person when the lock down conditions ease!

The RSGB Beyond Exams Scheme

Cath 2W0PYL

The Beyond Exams Club Scheme enables you to build experience with the help of your club it's all about having fun, exploring the hobby and developing skills. It's intended for those new to the hobby as well as those who are well-established.

You will have fun whilst discovering more about amateur radio and what it has to offer. The scheme is run through **accredited clubs** and consists of 23 activities, based around five themes. As you go through the scheme and complete activities successfully, you will receive certificates to reward your progress.

What are the activities?

The activities are grouped into five themes. You can try them in any order you like.

Having a go

This theme includes seven activities:

- Log 50 VHF/UHF contacts with

- unique amateur radio stations**

- . You may use any mode on the VHF bands (30MHz to 3GHz).

- Log contacts with unique amateur radio stations in three of the

- home countries**

- . You may use any mode on any band.

- Log 50 HF contacts with unique amateur radio stations using CW or Phone modes. You may use any HF (3MHz to 30MHz) band.

- Log 50 HF contacts with unique amateur radio stations using

- digital data modes**

- . You may use any HF (3MHz to 30MHz) band.

- Log 10 contacts with unique amateur radio stations using SSTV or FSTV image modes. You may use any band.

- Log 10 contacts with unique amateur radio stations using

- digital voice modes**

- . You may use any band.

- Log a contact through a satellite, or with the International Space Station. You may use any mode on any band.

Getting involved

This theme includes five activities:

- Activate a **Summits on the Air** (SOTA)

- summit**

- . You may use any mode on any band

- Log contacts with unique amateur radio stations in 20 different **Worked All Britain** (WAB)

- squares**

- . You may use any mode on any band

- Log ten successful contacts with unique stations in one

- contest**

The RSGB Beyond Exams ctd:

- . You may use any mode on any band
- Help set-up and/or tear-down a special event station
- Operate and/or log at a special event station

Taking part

This theme includes six activities that you should complete with your chosen Club Scheme accredited club:

- Attend six club meetings
- Take part in six club nets
- Undertake a role in the club on a regular basis - this can be anything from making the tea each week, to holding a position on the committee
- Make a presentation to the club on any amateur radio related subject of your choice
- Take part in a RAYNET event
- Help organise an activity for the club

Making

This theme includes two activities:

- Build a piece of amateur radio-related electronic or mechanical equipment for your shack
- Write an amateur radio-related piece of software that you can use in your shack, or design a simple website

Promoting amateur radio

This theme includes three activities:

- Introduce somebody to the hobby who then goes on to start a Foundation course
- Attend a rally, or exhibition, to promote your chosen Club Scheme accredited club
- Help run a training course at your chosen Club Scheme accredited club by teaching, supporting, running practical sessions, or invigilating

How will I be rewarded for my achievements?

At various stages throughout the scheme you will receive a certificate to reward your progress.

The table below shows the certificates as well as the number of completed activities needed to claim them.

Certificate	Activities
Bronze	3
Silver	5
Gold	10
Platinum	15
Diamond	23

Who can take part in the Club Scheme?

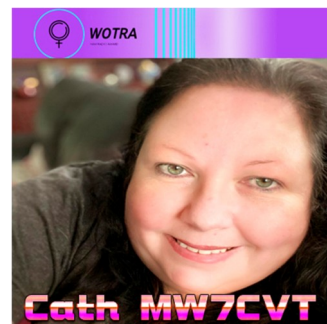
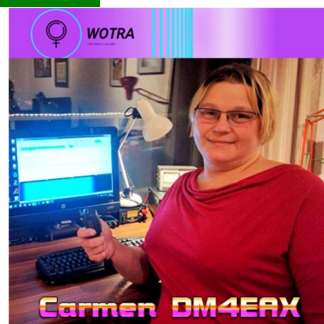
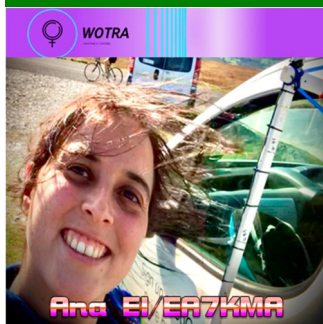
Anyone! The scheme is designed to:

- Help newcomers explore amateur radio
 - Provide a framework for getting back into the hobby if you have been away from it for a few years. It will help you to discover what has changed and what is new
- Give established amateur radio operators ideas for new challenges

If you are interested in taking part in the Beyond Exams Scheme, please email me (Cath 2W0PYL) at knitterscarlet@aol.com and I'll be happy to help.

Women On The Radio Award (WOTRA)

Cath 2W0PYL



Back in November last year I was honoured to be asked by Angeles (EC1YL) to be one of the 8 ladies on the YL team for the Women on the Radio Award (WOTRA). The Award was designed to make visible the ladies that are on the Amateur Radio bands and to highlight November 25th as the International Day for the Elimination of Violence Against Women.

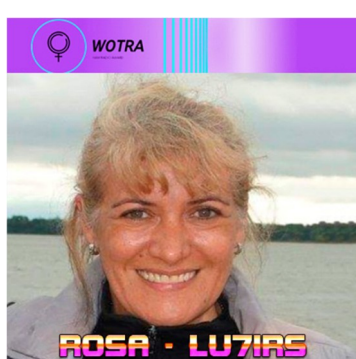
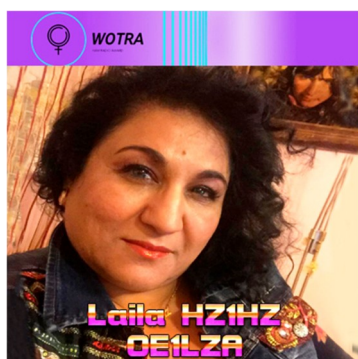
The award was open to all licensed Amateur Radio Stations and SWL. It went on for the whole month of November and most modes were allowed to be used (SSB, CW, PSK and RTTY).

You had to obtain 50 points to reach the award and the points were allocated as follows:

ONE point for every QSO you had with each member of the YL Team.

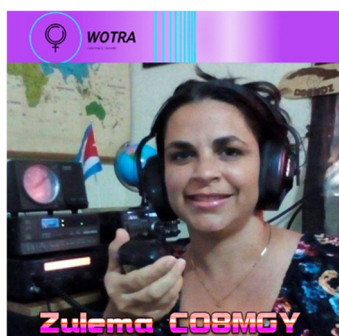
THREE points for every QSO with every DX YL in the team.

The YL stations that made a unique QSO with the YL Team would gain extra points.



It was a fun team to be part of and I made some lovely new friends from around the world. We encouraged each other to keep going via a Whatsapp group that was set up and we continue to message each other daily. We would commiserate when the bands were being a nightmare (mainly 40m for me) and It was so exciting when we managed to make a QSO with each on air and definitely made November a fun month, especially as I was shielding due to my medical conditions and COVID, so found I was getting some company other than my family and close friends.

I really hope I'm invited to be part of the team again this year.



The Variable 'Trombone' Capacitor and the Magnetic Loop

Charles G Ward MW0GBR

Hello everyone, I offered to provide something for your magazine so here it is. My writing style may not be suitable for a magazine but I hope you find it slightly interesting, perhaps even a little inspirational. I am aware that Andrew GORVM will be making a presentation about magnetic loops on March 1st so I hope this piece is a useful preamble to his presentation.

The Variable 'Trombone' capacitor and the magnetic loop. Yes, it looks a bit like the musical instrument!

I had about 18ft of 10mm microbore copper pipe (plastic coated for some reason) in my garage and decided to use it to build a magnetic loop for the 40m band.

Let's cut straight to the chase...

For a basic magnetic loop we need to be concerned about, but perhaps not in this exact order...

1. The size of the loop.

Magnetic loops are NOT Hertzian aerials. By that, I mean they have no relation to dipoles, $\frac{1}{4}$ wavelength aerials, $\frac{1}{2}$ wavelength aerials, $\frac{5}{8}$ wavelength aerials or anything vaguely similar. Magnetic loops are always much smaller in circumference than $\frac{1}{4}$ wavelength but we **force** them to resonate by connecting a capacitor to form a tuned circuit.

2. The electrical/physical connection between the loop and the capacitor.

Magnetic loops rely partly upon the electrical connection between the loop itself, and the capacitor. This connection **MUST** be as close to **electrically perfect** as possible. In my opinion, a well soldered connection is best! Self-tapping screws, nuts and bolts and flimsy wire just won't do.

3. Capacitor voltage rating. (distance between the capacitor's plates)

If you intend running any more than 5 Watts then a decent capacitor is essential, and when I say 'decent' I mean a capacitor with a few millimeters between the plates. Tuning capacitors from old radios are fine for receiving or maybe even QRP transmission, but certainly **not** for 20 Watts or more.

4. The capacitor's.....errr.... capacitance.

Our variable capacitor must have enough capacitance to **force** our chosen loop to resonate (tune up) on the frequency we wish to operate. Little trimmer style capacitors simply will not work.

The combination of the very small loop and the capacitor is what we call a **tuned circuit**.

When receiving, the magnetic loop will 'respond' to the magnetic aspect of a station's signal but not electrical noise, hence why they tend not to receive so much noise from house electrical systems.

5. The loop's conductor size.

The loop should be made from a conductive material that is at least 1cm in diameter, speaker wire just won't do. Inch-and-a-half wide aluminium lightning strip is great, as is 28mm or 22mm copper pipe. However, 15mm or 10mm copper tube may not be ideal but it will give quite pleasing results.

The Variable 'Trombone' Capacitor and the Magnetic Loop etc:

Finally...

Connecting co-axial cable to the loop.

You may have noticed that I have not yet mentioned connecting the loop to our radio using co-axial cable. I'm going to leave that to Andrew GORVM on March 1st, I suspect he knows more than myself on this matter.

Moving on to the design of my capacitor.

Using this web page..... Small Transmitting Loop Antenna Calculator • 66pacific.com I concluded that to use my 18ft of copper pipe (that I had in my garage) for a 7 MHz loop I would need to fabricate a capacitor that would give me approximately 131pf of capacitance in order to make it resonate. However, it would be foolish to design a capacitor that would give me exactly 131pf if (due to the variability of it all) there was possibility that I may need 141pf, so I decided to build a bigger capacitor and make it **variable** so it could tune to different parts of the 40m band, and perhaps other bands too.

Previous experiments taught me that increasing the capacitance (of the capacitor) will lower the frequency at which the loop will resonate, or tune to. So if I was designing the capacitor for use on 7MHz perhaps I could make the loop tune on 5MHz (60m band) too. Either way I would be ensuring that the loop would certainly tune up on 7MHz.

So in short, I have 18ft of pipe which is now bent into a circle/loop on my patio.

I needed a variable capacitor to force the loop to tune up on 7MHz, perhaps even 5MHz.

Being a cheapskate (quite normal for most hams) I decided a trombone capacitor was the easiest and cheapest option for variability and power handling.

Parts list:

Small parts in plastic bags are quoted direct from the pack itself to make it easy to find.

18ft of copper pipe which I already had in the shed.

Blow torch for soldering pipe. I purchased one in Stermat, Colwyn Bay.

Plumbers solder (or lots of electronics solder) Available from Stermat.

Plumbers flux. Available from Stermat.

Roll of insulating tape. I'm a ham, I have plenty.

2m length of 15mm copper pipe from B&Q.

2m length of 22mm copper pipe from B&Q.

"Elbow 15mm – 2pack" From B&Q

"Stop end 22mm – 2 pack" From B&Q

"Stop end 15mm – 2 pack" From B&Q

"Pipe clips 22mm" in an 8-pack from B&Q

4 of, 15mm straight connectors, the type that do NOT have solder in them already. OPTIONAL.

Total cost: Around £25.

If you are unsure, just ask the person in B&Q for advice. Show them this list and they will help.

Finally, find a piece of wood to mount your magnetic loop to, I'll explain later.

The Variable 'Trombone' Capacitor and the Magnetic Loop ctd:

Technical points and construction. Although I try to keep the technical bits simple.

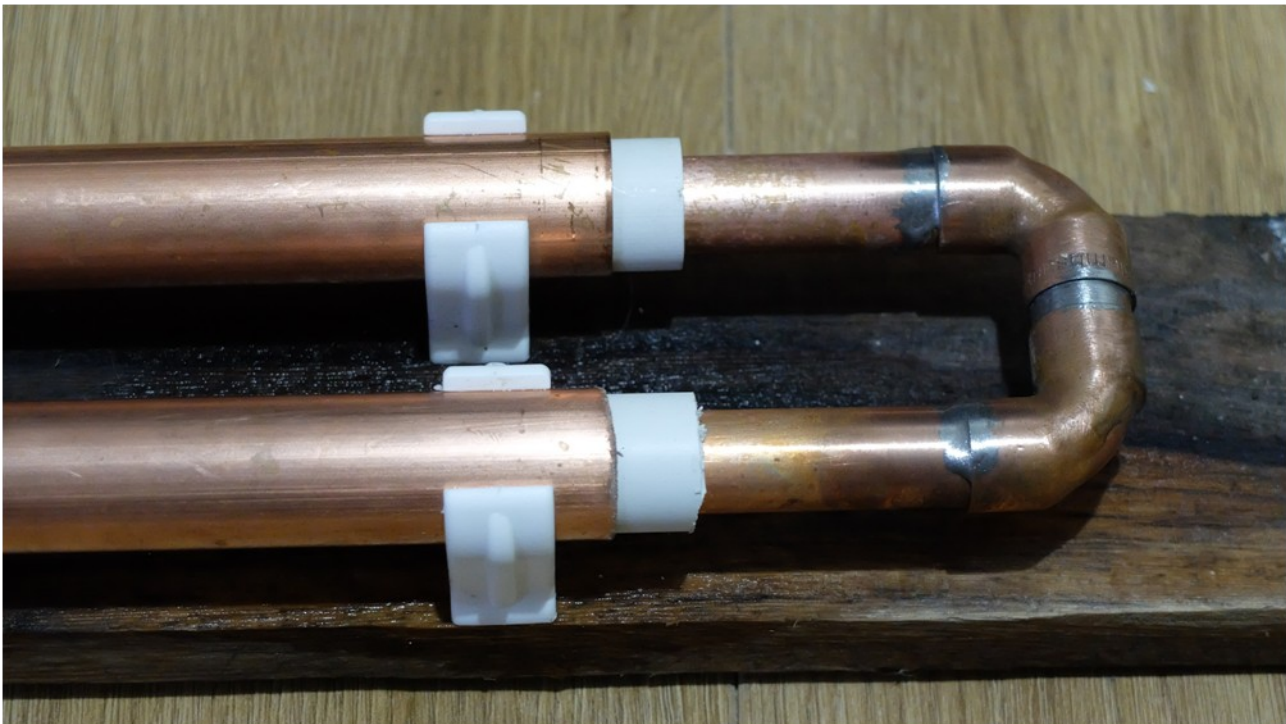
According to this website..... www.earf.co.uk/rfcap.htm a 1m long trombone variable capacitor made with 15mm copper pipe inside 22mm copper pipe **but also** using a dielectric made from plastic tube will give me 344pf of capacitance, way more than the 131pf I needed for my loop.

With that in mind I can reduce the length to 60cm, that should give me 206pf, that's plenty.

The plastic tube fits snugly inside the 22mm pipe, and the 15mm copper pipe fits loosely inside the plastic tube.

In the picture below (*PIC.1*) you will see the larger 22mm pipe being held by the white plastic clips, the 20mm white conduit tube which fits snugly into the 22mm pipe and the 15mm pipes which fits loosely inside the plastic tube. The 15mm pipes are able to slide in and out of the plastic tube making the capacitor variable. The 15mm and the 22mm pipes should **never** come into physical/electrical contact! The 15mm of white tube visible is to provide a good gap between the 'plates' of the capacitor and prevent 'flashover' (arcing) between the two plates during transmission.

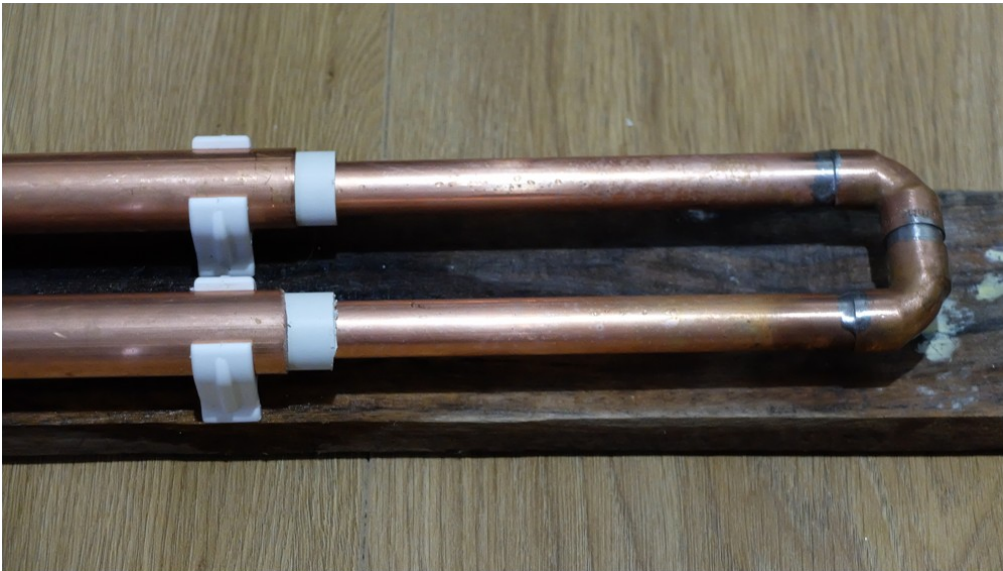
PIC.1



The Variable 'Trombone' Capacitor and the Magnetic Loop concluded:

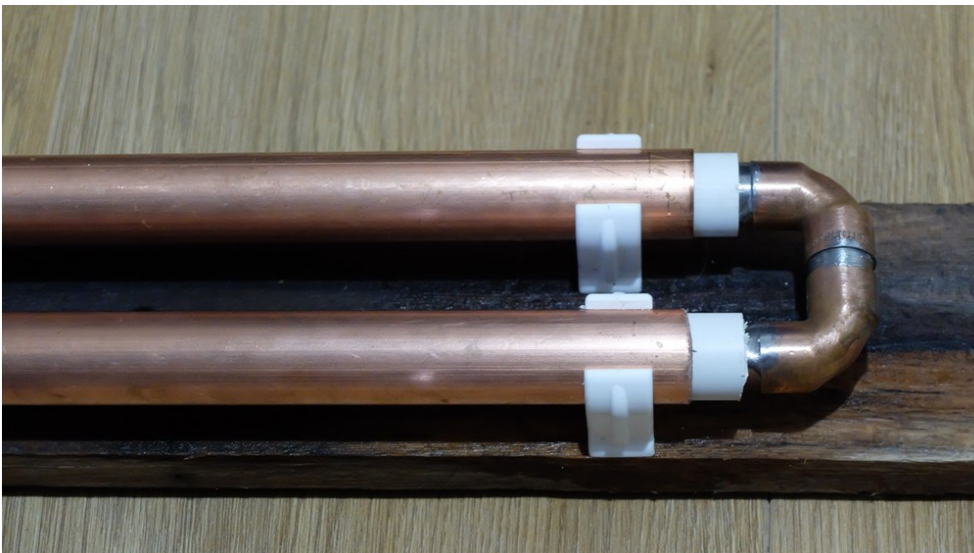
In the picture below (*PIC.2*) the capacitor is extended (trombone pulled out) reducing the capacitance, thereby raising the resonant frequency the loop is tuned to.

PIC.2



The next image (*PIC.3*) shows the capacitor at maximum capacitance (trombone slider pushed in), this lowers the frequency at which the loop will be tuned.

PIC.3



Now let's switch over to the video where I show you what I did to build the capacitor.....

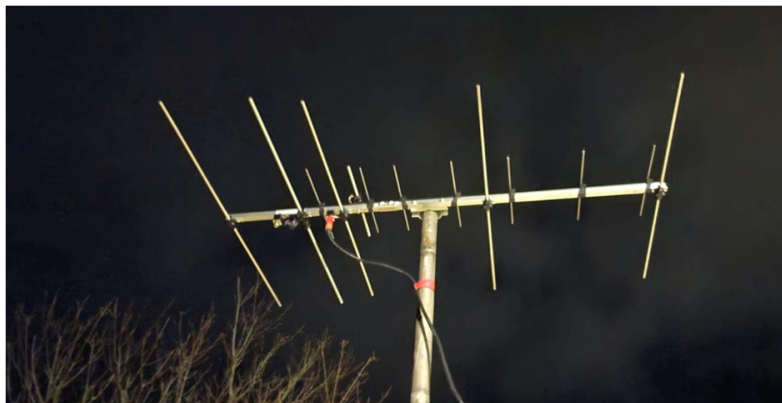
Click the link below with your computer mouse to see more about this great project with MW0GBR:

[Trombone capacitor for a small transmitting magnetic loop aerial - YouTube](#)

The Duel Dualband Yagi Antenna

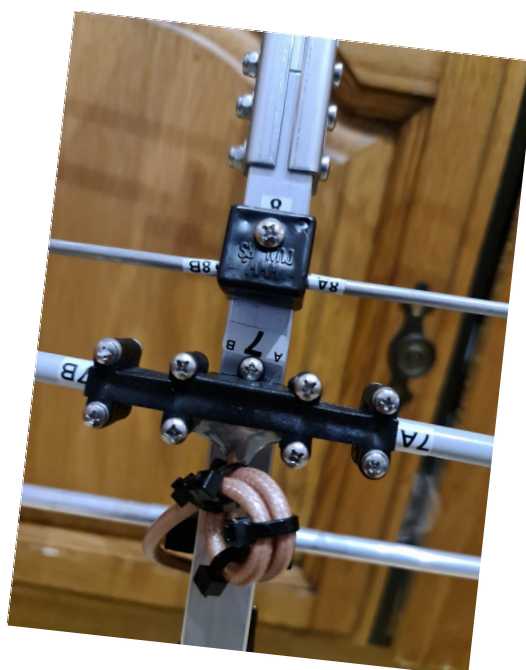
Cath 2W0YPL and Kevin MW1CFA

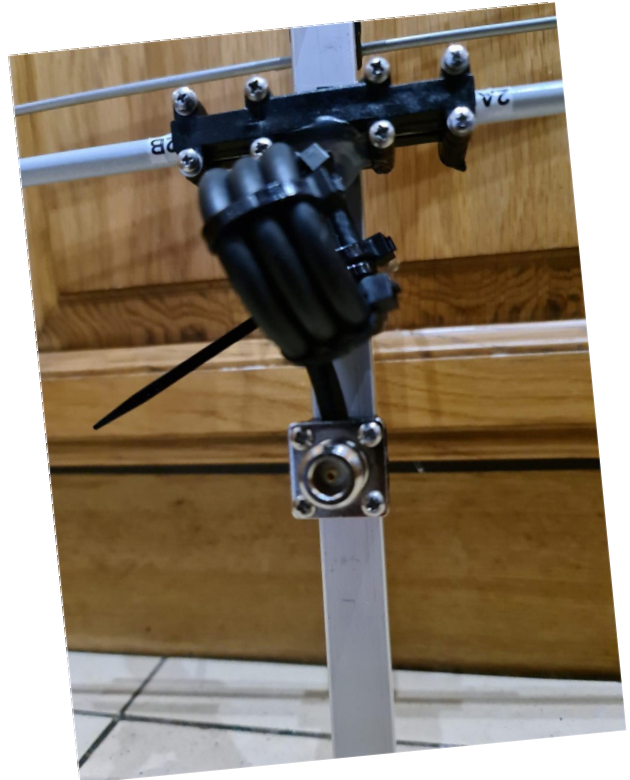
After some research on antennas and watching Youtube videos I set myself a budget and decided to go for the 2 Connectors Dualband Yagi Antenna which is made by a company called Duel (PA144-432-13-1.5-2CB). It covers the 2m band and the 70cm band.



In the beginning I put an order in with one of the Emporiums in the UK only to be told that that model wasn't in stock due to Covid and lack of antennas being imported to the UK. So, I decided to research the company that makes them and supply them from Serbia. I enquired about it and was told that they could supply one and gave me a reasonable price, which happened to be less than what the emporiums in the UK are selling them for, so I went ahead with the order as they are made to order for individuals. It only took 6 days to arrive to the UK via DHL from when I paid them.

When it arrived, I opened the box and was pleasantly surprised at the quality of the materials and construction of the antenna for the price I paid. Every element was numbered and lettered for the corresponding position on the boom, every element mount had a screw in place which was taped, so overall it was quite a straight forward antenna to put together.



The Duel Dualband Yagi Antenna concluded:

Once it was put up (which was the challenging part), I put my antenna analyser to it to check it and it was showing a 1:1 swr across both bands, It also gave each band a 5* rating. The coax I used was Messi & Paolini Hyperflex 10 with a Messi & Paolini compression fit N-type and 259 plug. Overall I am very happy with the performance of it and would definitely recommend it.



The Chairman's New Car?

Annual General Meeting 2020 Report

On the 16th November 2020, Dragon Amateur Radio Club held their Annual General Meeting, held for the very first time online due to the current Covid-19 Pandemic. There was a great turnout of almost 30 members, who listened intently to our Chairman Danny GW7BZR explain how the club has managed to be active throughout the year; on the air, online, activity days and also a couple of special event stations. Danny concluded by thanking everyone for making the club a continued success throughout these troubled times.

Following the Treasurers Report by Cath MW7CVT (now 2W0PYL), the following were elected to the club committee for 2020—2021:

Chairman	Danny Shurmer	GW7BZR
Vice - Chairman	John parry	GW3VVC
Secretary	Simon Taylor	MW0NWM
Treasurer	Cath Thorley	2W0PYL
Other Members:	Kevin Thorley	MW1CFA
	Karl Byast	2W0FNA
	Mark Beasley	MW0RZS
	Simon Keeble	2W0YMP

Danny thanked all those who have volunteered for the committee for the coming year and welcomed Mark and Simon who have volunteered for the first time, Danny also thanked Stewart Rolfe GW0ETF and Cliff 2W0CBZ who stood down from the committee.

The meeting concluded with a discussion about possible future activities.

Ten Metre Challenge

Throughout the summer months, Dragon ARC members were invited to take part in a Ten Metre Challenge making as many contacts as possible on the 28—30 MHz Ten Metre band using CW and all voice modes.

Like the fool I am, I have managed to misplace the full scores, but I can tell you that the following members finished 1st and a very close 2nd.

1st Place **Stewart Rolfe GW0ETF**
2nd Place **Kevin Thorley MW1CFA**

Congratulations to both!

We had about a dozen entries who had enjoyed the challenge of Ten Metres, perhaps we shall have even more take the challenge in 2021!

My Latest Pedestrian Mobile Operations in Spain

James MW0JHC



For those who don't know me I am James H Clarke MW0JHC based in Rhosneigr, Isle of Anglesey. I also hold EI8KJ based on my home town in Ireland and while outside the UK I always operate using that Callsign with appropriate prefix eg: EA7/EI8KJ and suffix /PM or /M.



We, Sue & I have, have an Auto-Trail Imala 720 Motorhome which we have used since retirement to roam Europe under the EU's *Freedom of Movement* legislation. As a citizen of Ireland I retain those rights being also a citizen of Europe.

For the past five Winters we have adopted the lifestyle of *Snow-Geese* by migrating southwards as the cold wet windy days arrive on Anglesey and to evade in particular the increasingly frequent more violent and longer lasting Atlantic storms that seem to have become endemic in the past seven or eight years.

Unsurprisingly, our travels have taken us through England and France to tour the Iberian Peninsula spending initially three months in various parts of Spain and France – like thousands of other northern Europeans including many UK and Ireland motor-homers.

For some time I have had a small Amateur Radio station fitted in our Motorhome and working off the leisure batteries. This has provided many opportunities for DX operating away from the usual sources of QRN – and especially when we parked-up along the coast. Even during the latter part of the last 11 year propagation cycle #24 I was able to make trans-Atlantic QSOs into both North, Central & South America from the motorhome based rig using modest antennas like the Mult-Ranger 200 multi-band vertical and the Yaesu ATAS-120A (matches my Yaesu FT857D transceiver) mounted just 3 m agl on the rear of the Motorhome. Our “Wilding” style of motor-homing prevents me from erecting anything detached from the Motorhome.

Two years ago while on tour we decided to make the northern part of Spain's Almeria Province around Vera Playa, Mojacar area our winter base and that is where we now spend most of the mid-Autumn through to mid-Spring.

Given the severe restrictions on having proper Antennas at home in Rhosneigr in 2020 I commissioned my friend David Starkie G4AKC, the guru of Pedestrian & Bicycle Mobile operating, to make me a Pedestrian Mobile Trolley mounted rig. This is based on a modified shopping trolley that many ladies like to use for grocery shopping.

My Latest Pedestrian Mobile Operations in Spain ctd:

One of several criteria I asked Dave to meet was to make it suitable for carrying in our Motorhome and also our Hyundai i10 car boot in Rhosneigr. It also had to be suitable for easy lifting in and out as well as carrying/wheeling to operate beside the waterline on Rhosneigr beach and beaches here in Spain. The result powered by a 22Ah Deep Cycle Rechargeable Lead Acid Battery is the unit depicted in the attached photos. It comprises an Alinco DX70 transceiver with an MFJ Whip Tuner 1644 combined ATU/GTU and an MFJ-1979 Stainless Steel telescopic $\frac{1}{4}$ wave (on 20m) Vertical Antenna. The GTU refers to Ground Tuning a concept which David has perfected over the years. It works on all frequencies 7MHz and above (Base Coil for 40m) with the MFJ-1979.

The /PM set-up has given me the opportunity to make QSOs all SSB that I would otherwise not be able to achieve – such as VK, ZL, YB, US and Canada without having access to good well sited HF Antennas like the SteppIR 3 element that I hijacked at Joe Dobson's (CT1JRO) orange grove home in Portugal's Algarve three times over recent years.

Over the months of November & December I rested from /PM operating as the days were short and the weather, though mild compared to home, was less conducive to outdoor operating – especially when we had a northerly or westerly wind.

I resumed /PM operating on 26th January and though my sessions are limited to approx. 2 hours (battery limit) I have enjoyed some good QSOs including a few DX: K5RQ, KE5EE, VK3OCD, YB1DNF, YB0IBM & 4Z4DX.



One interesting incident on Thursday 28th January happened as I was operating on 14.195MHz and had worked a number of UK & European stations including Paul a newbie RA M7WOB/M/Qrp who was waiting for his wife in Lidl's car park, St Austel. I had just worked Andreas in Patras SV3SPD when WWIII almost broke out. I found my signal overwhelmed by strong UK & European's who apparently heard DV1IIW calling CQ on the same frequency. I tried to raise him to request he QSY but with the clamour from UK & Europe I couldn't get him. Next thing there was a slanging match as some RAs disagreed amongst themselves and I think one was pointing out that I had been on frequency for over $\frac{1}{2}$ hour before the DV1IIW started

calling. Being one for a peaceful life I chose to QSY to 14.200 which was completely clear. Low and behold after just 10 minutes I heard a VE9 calling CQ and though I tried to ask him to QSY, as did M0NTI Tom in Oldham who said he knew his call had been heard, I again QSY'd to 14.227 where I stayed for most of the rest of the shift before finishing the session with S&P (search and pounce) and logged the Australian & Indonesian QSOs all on my first call. Back in September and October my logbook has lots of QSOs with ZS, VK, ZL, YB, 4X, KD, HZ, S79 (Seychelles), WX3B, N2QV, PY7CPC, PY5QW etc. So, I think Cycle #25 has yet to get off to a good start – perhaps we are still too near the nadir of the downward part of the last cycle?

My Latest Pedestrian Mobile Operations in Spain ctd:



For anyone interested in any form of Mobile operating I recommend you join the Real HF Mobile WhatsApp & Facebook Groups which David Starkie G4AKC has set-up. There are about 1,000 members spread across the globe from JA, VK, ZL, ZS, VE, USA and Europe including UK & Ireland. Membership is free.

Lastly, I try to give priority to Qrp, /M and Foundation Licence RAs if I hear them calling. If I have a pile-up besides requesting DX I also ask for those low power categories. I am always delighted to take calls from Wales and especially DARC members. But I will only work those with a QRZ.COM log.

Full info on my operations are on my QRZ.COM pages. De EA7/EI8KJ & MW0JHC, Vera Playa, Almeria Province, Andalucía.



Annual Construction Competition 2020



On the 19th October 2020, DARC held their Annual Construction Competition, this time via Zoom; which even though it is not the easiest medium to judge such a contest, we had several entries. We even had a new Beginners Award!

After interesting explanations of their construction, club members took their turn to vote for their winners. The following results were announced:

Beginners Award

1st Place Cath Thorley MW7CVT with a kit built oscillator and morse key.

2nd Place Janet Byast MW7JAB with a homemade 2 Metre dipole.

Main Constructor Trophy

1st Place Brian Davies GW4KAZ, made his own bug morse key, with a beautiful slate base.

2nd Place Karl Byast 2W0FNA, who had won the two previous years. This year Karl had built a solid st straight morse key using junk from his shed.

Our very own Chairman Danny GW7BZR entered with a coil of blue wire as a 'long wire', he even managed to get a vote!

Trophies shall be awarded when lockdown allows.

Thanks to all who took part and fingers crossed we can do this in person in 2021!

Special Events and Portable Operating 2021

During the summer and autumn 2020, during a lull in the pandemic, Dragon ARC managed to organise several HF and VHF operating days, plus a couple of special event stations. The special events included in September, a day at Bangor Cathedral operating GB0CBC and a day at the old Marconi site at Waunfawr operating GB2VK, celebrating the anniversary of the first radio transmission between the UK and Australia in October 1918.

So what do we have planned for 2021? Currently we have decided not to invest time organising outdoor or group portable events until we have positive news regarding the pandemic. So all we can say for now is watch this space!





We are on the web!

<https://www.dragonarc.org.uk/>

Committee for 2021

Cadeirydd / Chairman

Is-Cadeirydd / Vice-Chairman

Ysgrifennydd / Secretary

Trysorydd / Treasurer

Danny Shurmer

GW7BZR

John Parry

GW3VVC

Simon Taylor

MW0NWM

Cath Thorley

MW7CVT

Aelodau / Members

Kevin Thorley MW1CFA

Karl Byast 2W0FNA

Mark Beasley MW0RZS

Simon Keeble 2W0YMP

Non Committee-Unofficial Roles:

Door / Subs Beth Taylor

Refreshments Position vacant.

QSL Manager Martin Waller MW7AUU

Equipment Officer Position vacant.

All submissions for Dragon's Voice to the **Editor**, Simon Taylor MW0NWM at:

darc.secretary@gmx.co.uk

For further information about Dragon Amateur Radio Club and our training courses, please email the club secretary Simon Taylor MW0NWM at:

darc.secretary@gmx.co.uk

The next issue of Llais Y Ddraig / The Dragon's Voice, No. 127 will be issued in Ebrill / April 2021. Please do send material for inclusion.